



Determinants of Loan Repayment of Micro and Small Enterprises in Jimma Town, Ethiopia

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Abstract- The main objective of this study was to examine the determinants of loan repayment of Micro and Small Enterprises (MSEs) in Jimma town, Ethiopia. This study examined the effect of Individual characteristics, loan characteristics and firm characteristics on loan repayment of micro and small enterprises in Jimma town only. The study used descriptive research design. Primary data was collected through self administered questionnaire and it was collected from random samples of 341 Micro and Small Enterprises (MSEs) by stratifying into Five group. Once the relevant data was gathered, the collected data was analyzed through descriptive and econometric model known as binary logistic regression model was used in order to examine determinants that impeding Micro and small enterprise's loan repayment by distinguishing characteristics of MSEs. The descriptive result of analyzed data revealed that individual characteristics, loan characteristics and firm characteristics influenced loan repayment of enterprises in the study area. In addition, the result of binary logistic regression model indicated that Sex of respondents and Experience positively and significantly affect loan repayment. The inconvenience of loan payback period, Lack of financial skill and planning negatively and significantly affected loan repayment of enterprises. Lack of Marketing Skills, Follow up and supervision positively and significantly influenced loan repayment of micro and small enterprises.

Keywords: *micro and small enterprises, lack of loan repayment, individual characteristics, loan characteristics, firm characteristics, jimma town.*

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1. INTRODUCTION

Micro and small scale enterprises are one of the priority areas of action among the Programs addressing African development, and it can be seen as a means of achieving smooth transition from traditional to modern industrial sector; and has a huge contribution to the growth and development of the

country in terms of employment generation with a relative low capital cost (Drbie & Kassahun, 2013). MSEs are primary sources of employment creation not only in developing countries but also in developed countries. In developing countries, MSEs have a crucial role because of their potential contributions to improvement of income distribution, employment creation, poverty reduction, industrial development, rural development, and export growth. In this case, governments have been supporting their MSEs extensively through many different programs, with subsidized credit schemes as the most important component. International institutes such as the World Bank, the Asian Development Bank (ADB) and the United Nation Industry and Development Organization (UNIDO) and many donor countries through bilateral co-operations have also played a crucial role in empowering MSEs in developing countries (Zemenu & Mohammed, 2014). Even if the role of micro and small sized Enterprises (MSEs) is pillar in poverty reduction, job creation, and sustainable economic growth of developing nation like Ethiopia, it is undeniable facts that they cannot exist without various challenges.

According to Shide(2012), the Creation, survival and growth of small and medium enterprises in most African countries is not out of challenges. Among the most significant impediments that face Micro and Small enterprises in Africa, He has taken example as: inadequate accesses to financing, weak technical capacities, poor market access, lack of favorable policy environment is the most significant impediments that face MSEs, and he has also stated that the graduation of MSEs enterprises to a more growth oriented middle and large industries are minimal.

In relation to this, inadequate supply of public goods such as legal and physical infrastructures, coupled with high transaction costs and information asymmetry would negatively influence the likelihood of those established MSEs graduating into larger enterprises. This problem is further compounded by the fact that technical and managerial knowledge that are important for efficiently managing MSEs are in limited supply, and as the result of market failures, they would be highly under-produced in these economies. This is partly because adequate resources are not available for the private sector to invest in the acquisition of this knowledge, and partly because the value of investments in knowledge cannot be fully appropriated by

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businesses that commit resources to acquire the knowledge. In addition, the study arises due to positive externalities whereby knowledge of production technologies, products design and management systems could easily spread from people who invested in the acquisition of such knowledge towards those who did not, as it is difficult to codify and lock up knowledge (MUDC, 2013).

There are multi dimensional problems like extreme poverty, unemployment, low per Capita income, and unequal income distribution facing in many developing countries. As a result, different governments are framing different strategies and policies to create job opportunities and to pull these countries out of such problems. In Ethiopia there is also suffering from severe poverty, unemployment, income inequality and lower per capita income. In response to the mentioned problem, the Ethiopian government issued the National Micro and Small Enterprises Strategy in 1997 and established the Federal Micro and Small Enterprises Development Agency in 1998. The country's industrial policy in 2003 and the poverty reduction strategy program of 2006 had single out MSEs as major instruments to create a productive and vibrant private sector and reduce poverty among urban dwellers (Siyum, 2015).

According to Yednekachew (2016), the MSEs were affected by environmental and internal factors. Environmental factor includes social, economic, cultural, political, legal and technological factors, and internal factors also affect the performance of MSEs, which are related to the person's individual attitude, training and technical know-how. He identified many problems that confronted MSEs in Ethiopia similar with other developing countries like unfavorable legal and regulatory environment, discriminatory regulatory practices; lack of access to markets, business information; lack of business premises at affordable rent; low ability to acquire skills and managerial expertise; low access to appropriate technology, poor access to quality business infrastructure, financial problems, lack of qualified employees, lack of proper financial records, inadequate management and business skill, marketing problems, lack of work premises, low level of provision and interest for trainings and workshops. The study suggests constraints confirm with other developing countries' especially experiences of Sub-Saharan countries in which the major common constraints of MSEs are lack of financial support, poor management, corruption, lack of training and experience, poor infrastructural availability, insufficient profits and low demand for product and service. The researcher also highlight that in the past decades the focus of Ethiopian government was mainly on large organizations, but the recent are towards wave of private sector development initiatives, and it is shifted the policy efforts to MSEs.

Despite the contribution of MSEs is the pillar in poverty reduction, job creation, and sustainable economic growth of both in developed and developing nation, there are numerous challenges face in their activities. As mentioned in above paragraphs by different study such problem open door for failure of the business, and which are input factor for lack of successful loan repayment since this unfavorable business environment creates instability of MSE's business activities. According to Million (2012), the loan repayment is influenced both directly and indirectly by various factors Such as Government Policy, institutional and environmental factors and demography.

As indicated in the above paragraphs, there are different factors which influence MSEs for successful loan repayment either internal or external, but this study was provided insight for among factors that confronting MSEs such as individual characteristics, loan characteristics and firm characteristics that impeding the successful loan repayment of MSEs in Jimma town, Ethiopia. Among this inconvenience loan payback period, Lack of financial skills and planning, lack of marketing skills, lack of performance monitoring (Follow up and supervision) was focuses of the study because majority of banks and financial intermediaries are providing loan based on the creditworthiness and performance of MSEs in loan repayment, however, it is necessary to know basic factor that impeding loan repayment of MSEs. This study recommends remedial actions to be taken in order to tackle the identified hindering factors.

II. STATEMENT OF THE PROBLEM

The role of Micro and Small Enterprises in Ethiopia is indispensable in poverty reduction through employment generation since national MSEs Development Strategy was formulated in 1997, and government strongly believes that MSEs are the right solution to reduce urban unemployment and poverty. However, there are many critical challenges that hamper the growth and development of MSEs in Ethiopia. According to Assefa, Zerfu, & Tekle (2014), key constraints to MSE growth in Ethiopia were access to finance, collateral challenges, marketing challenges, working and sales space, capital goods and machinery challenges, licensing and registration challenges, attitudinal challenges, institutional coordination problem.

Among listed challenges in the above paragraph, accesses to finance are the chief factor affecting MSEs. According to EEA (2015), initial capital for MSEs emanated from diverse sources, the major one being loans. Since most MSEs have Lack of the initial start-up capital, facilitating access to loan would definitely help to establish new MSEs and address working capital problems of existing ones. All those

MSEs which have accessed loans for their businesses might not repay their debts as scheduled.

Several factors have been identified as reason for lack of loan repayment such as individual characteristics, loan characteristics, and firm characteristics. As indicated by Mukono(2015), Individual characteristics include the age of borrower, gender, level of education, business experience, household size, credit use experience, household income, non-business income, type of business activity, and amount of business investment. Loan characteristics include the loan size, repayment period, collateral value, number of installments, and application costs, previous loan experience, and purpose of loan. Firm characteristics factors include the time lag between loan application and disbursement, interest rate, access to business information, access to training on loan use, cooperative membership and penalty for lateness to group meetings.

Therefore, the purpose of this study was to examine the major determinant behind the loan default problem such as individual characteristics include sex, loan characteristics such as inconvenience of loan payback period, followed up and supervision, and firm characteristics specifically Lack of financial skills and planning and lack of marketing skills. From firstly mentioned variable Individual characteristics was classified as background data of the respondents like sex affected loan repayment because personal data is indicating the characters of loan payers. Secondly, inconvenience of loan payback period or Loan delinquency which means the shortage of time to repay loan successfully on maturity date. Thirdly, Lack of financial skills and planning this also indicated the skill of financial recording, reporting and planning of loan payers. Fourthly, lack of marketing skills this is related with place, sales, promotion, price and other marketing skill that affect the successful loan repayment of borrowers. Finally, lack of followed up and supervision means after provision of loan by banks and other financial intermediaries, whether they are followed up or not because lack of followed up and supervision was affected loan repayment of borrowers (MSEs).

All five determinants personal data, inconvenience of loan payback period, Lack of financial skills and planning, lack of marketing skills and lack of followed up and supervision were included under Individual characteristics, loan characteristics and firm characteristics in general, but specifically these determinants were impeding loan repayment of MSEs in Jimma town, Ethiopia. Hence, most of the studies in Ethiopia such as (Salem, 2016), (Kebede, Tegegn, & Tafese, 2016),(Kibrom, 2010), &(Tadele, 2014)were mainly focused on performance and non-performance of borrowers of banks and micro finance institution. However, this study was focused on micro and small enterprises sector by examining determinants of loan

repayment of micro and small enterprises in Jimma town, Ethiopia.

a) *Research Question*

The research was addressing the following question;

What are the determinants of loan repayment by MSEs' in Jimma Town, Ethiopia?

b) *Objective of the Study*

The general objective of this study was to examine determinants of Loan repayment of Micro and Small enterprises in Jimma Town, Ethiopia. The specific objective of this study includes:

1. To examine the effects of borrower characteristics on loan repayment by MSEs in Jimma town, Ethiopia
2. To examine the effects of loan characteristics on loan repayment by MSEs in Jimma town, Ethiopia
3. To examine the effects of firm characteristics on loan repayment by MSEs in Jimma town, Ethiopia.

III. LITERATURE REVIEW

a) *Theoretical Literatures*

i. *Definition of Micro and Small Enterprise*

Micro and small enterprises have different meaning from country to country, or there is no commonly accepted definition. As cited in article of Shantanu, & Londhe (2014) "Microenterprises can be defined differently, depending on country's stage of development, policy objectives, and administration."

In the majority of countries, Micro and Small-sized enterprises (MSEs) are defined as firms employing between 10 and 250 people. Firms with up to 10 employees are usually referred to as micro firms. There is, however, no commonly agreed definition of what micro firms and SMEs are. They are mixed by nature, ranging from producers of non-tradable services to "born global" suppliers of digital products, high quality artisanal goods or sophisticated instruments. Also, world trade organization describes SME acronym as – "small and medium-sized enterprise" – is used in most contexts as the generic term to qualify all enterprises that are not large. In most instances, the term is not defined precisely in the sense that no upper or lower size thresholds are indicated. In addition, the acronym MSME – "micro, small and medium enterprise" – is used to emphasize the inclusion of the smallest firms. This report follows the customary approach of using the acronym "SME" as the generic term. A distinction between SMEs and MSMEs, where the former concept excludes micro firms and the latter includes them, will only be made where precise definitions are necessary, that is when statistics are used or when the distinction is explicitly made by source (WTO, 2016).

According to Tadesse (2010), the universal definition of micro and small enterprise does not exist given the multitude of different economic, social and

geographic differences with the international context of micro and small enterprise. In some countries, micro and small enterprises are categorized based on the capital that is invested and in some countries based on the employment opportunity they provide.

MSEs are businesses that are basically privately owned and operated, with a small number of personnel, and a relatively low volume of sales. Small businesses are normally privately owned corporations, partnerships, or sole proprietorships. There is no universally accepted definition of a small and medium-sized business. The legal definition of a "small sized enterprise" depends on each country (Joseph, John, & Kala, 2013). And; Small businesses are the business that employs a small number of employees as well as microenterprise will usually operate with fewer than 10 people and is started with a small amount of capital. Most microenterprises specialize in providing goods or services for their local areas (Investopedia, 2016).

MSE has no standard definition. MSEs have been identified differently by various individuals and organizations, such that an enterprise that is considered small and medium in one country is viewed differently in another country. Some common indicators employed in the various definitions include total assets, size of the labor force employed, and annual turnover and capital investments (Asma, 2015).

In context of Ethiopia, according to council of minister Regulation No. 201/2011 micro and small enterprise are defined as follow:

"Micro enterprise" means an enterprise having a total capital, excluding building, not exceeding birr 50,000 in the case of service sector or not exceeding birr 100,000 in the case of industrial sector and engages five workers including the owner, his family members and other employees

"Small enterprise" means an enterprise having a total capital, excluding building, from birr 100, 001 to birr 1,500,000 in the case of industrial sector and engages from 6 to 30 workers including the owner, his family members and other employees.

According to Assefa, Zerfu, & Tekle (2014), the definition of MSEs are in form of the following Tables:
Definition of MSEs in Ethiopia

Level of the enterprise	Sector	Human power	Total Asset
Micro enterprise	Industry	≤ 5	$\leq 100,000$ (\$6000 or E 4500)
	Service	≤ 5	$\leq 50,000$ (\$3000 or E 22000)
Small enterprise	Industry	6-30	\leq Birr 1.5 million (\$ 9000 or E 70000)
	Service	6-30	\leq Birr 500,000 (\$ 30000 or E 23000)

Source: FeMSEDA, 2011

ii. What is Credit Default?

According to Wilson (2007), the term "credit default" defined as the late payment of a debt obligation, so a bank can apply a penalty "default" interest rate between the due date and the actual payment date. It can also mean something as serious as a bankruptcy or insolvency where the lender initiates a recovery process to limit loss from a collateralized loan. The researcher also remark two concepts of delinquency and insolvency which underlie mostly the definitions of credit default; Delinquency is defined as a failure to meet a loan payment by a due date, whereas insolvency is defined as a situation where assets are less than liabilities. This study points out a delinquency is not only factor for lack of loan repayment; also there may be a situation that assets are less than liability.

Default occurs when a debtor has not met his or her legal obligations according to the debt contract. For example a debtor has not made a scheduled payment, or has violated a loan covenant (condition) of the debt contract (Alex, 2014).

According to Mukono (2015), a delayed installment is said to be delinquent and a repayment that has not been made is said to be in default. Default on borrowed funds could arise from unfavorable circumstances that may affect the ability of the borrower to repay (Mukono, 2015). Delays of repayment lead to two ominous effects for financial institutions, which include non-refinancing of a large number of safe borrowers and the collection of late installments by the loan officer driving to an increase of its loads without compensations in resources. In addition, because of the delay of a member, other members will be incited then to delay their repayment and even to negotiate with the institution the possibility to abandon the last part of the loan (Mukono, 2015).

In general, Mukono (2015) distinguish the term of insolvency and bankruptcy and explain types of default as follow:

- "Default" essentially means a debtor has not paid a debt which he or she is required to have paid.
- "Insolvency" is a legal term meaning that a debtor is unable to pay his or her debts.
- "Bankruptcy" is a legal finding that imposes court supervision over the financial affairs of those who are insolvent or in default.
- Default can be of two types: debt services default and technical default. Debt service default occurs when the borrower has not made a scheduled payment of interest or principal. Technical default occurs when an affirmative or a negative covenant is violated.

iii. Definition of Determinants of Loan Repayments

Some of the major operational definitions of basic concepts are given below.

a. *Personal data*

This is to know the demographic characteristics of the respondent's background data which include sex and experience. It affected dependent variable of loan repayment of MSEs in the study area.

b. *Inadequate loan payback period*

Inconvenience of loan payback period or Loan delinquency which means the shortage of time to repay loan successfully on maturity date because of different reasons of loan payers

c. *Marketing Skills*

According to Asma (2015), the important factor contributing to success or failure of SMEs is marketing skills. There is extensive evidence to prove that marketing plays a significant role in the success of MSEs. Marketing is also one of the biggest challenges MSEs face in their business operations. MSEs in Algeria are weak in terms of market research and have inadequate marketing skills because most Algerian MSEs are owned and managed by one person. Such entrepreneurs take care of all the managerial functions of the enterprise and lack the time and funds to invest in research to establish their target market or identify customer trends.

The constraint micro-small business face is inadequate markets access due to unstable market value chains and over reliance on saturated and localized markets. Purchasing power is low; transport infrastructure is poor, and most micro-small business has no knowledge of markets beyond their immediate locality (Anthony, 2015).

According to Kefale & Chinnan (2012), the most prevalent areas in which MSE have problems are sales or marketing, human resource management, and general management; they specifically reported promotion, marketing research and training as the most frequently encountered problems. Marketing problem has been widely acknowledged as being the most important of all activities and critical for the survival and growth of MSEs.

Many studies found owner/managers of MSEs as having a very limited understanding of the marketing concept generally to be little more than advertising and public relations and lacking adequate marketing skills. Specifically, problems in promotion and marketing research were frequently encountered by MSEs. These problems include the selection of promotional media (local newspaper or radio, direct mails, outdoors, etc), difficulty in getting customers to pay, low purchasing power of customers, advertising, content design and format of the promotional materials, market size, location and addresses of potential customers (Kefale & Chinnan, 2012).

Micro and small enterprises in Ethiopia faced various marketing problems. There is lack of product diversity and as a result similar products are

overcrowding the market. In addition to this certain micro and small enterprises lack of skill to modify their products and they have lack of sufficient range of product designs (Mezgebe, 2012).

From above different studies marketing is the big problem area for small entrepreneurs. The survival of small entrepreneurs very much depends on sound marketing techniques. One of the most important tools in the hands of small entrepreneurs for promoting their sales is low prices coupled with credit to buyers, which give rise to number of problems at a later stage. The contact with markets and the awareness of market opportunities are very important links in the craft creative system chain.

d. *Lack of financial skill and planning*

Financial capability is a broad concept, encompassing people's knowledge and skills to understand their own financial circumstances, along with the motivation to take action. Financially capable consumers plan ahead, find and use information, know when to seek advice and can understand and act on this advice, leading to greater participation in the financial services market (Sherrard, 2010).

MSEs Lack of access to capital and high interest rates charges are partially the result of incomplete (or no) accounting records, and the inefficient use of accounting information.

Poor record keeping and accounting information make it difficult for financial institutions to evaluate potential risks and returns, making them unwilling to lend to SMEs. And, SMEs pay high interest rates or fall back on the middlemen or moneylenders, whose loans are costly and often restrictive. The misuse and inaccuracy of accounting information causes SMEs to inaccurately assess their financial situation, and make poor financial decisions, as well as leads them to face with the high failure rate (Mosisa, 2011).

The idea financial skill and planning is specifically related with financial capability, financial literacy, financial education of individuals and firms. In case of this study, the capability of MSEs in keeping, recording and reporting of their financial data were low because the lack of loan repayment was a result of lack of financial skill and planning in the study area.

e. *Lack of performance monitoring (follow up or supervision)*

According to Ameyaw-Amankwah (2011), Loan repayments should be monitored and whenever a customer defaults action should be taken. Thus, banks should avoid loans to risky customers, monitor loan repayments and renegotiate loans when customers get into difficulties. Inversely, in this study researcher overlooks good governance is vital for the development of a healthy and competitive environment of MSEs with established rules and procedures to manage and run the enterprise. In addition to this, the delay of decision-

making process, poor organization, poor staffing, weak controlling, and directing. This may also have roles resulting in credibility problems.

iv. *Importance of Micro and Small Enterprises*

Micro enterprise has major role in economic growth of both developed and developing countries critically by helping poor people with creation of job, and changing their worst standard of living in their day to day economic activities. Moreover, the cumulative of these economic activities in different sector such as industry, service and agriculture has high contribution for GNP and GDP of the country. Similarly, in Ethiopia micro enterprises play a key role in poverty alleviation, economic growth, and job creation.

They are vital in dispersing new industries to the countryside and stimulating gainful employment. SMEs are more likely to be labor-intensive. Thus, they generate jobs in the locality where they are situated. In this sense, they bring about a more balanced economic growth and equity in income distribution. In addition, SME play an important part in the provision of services in the community. They can make an important contribution to regional development programs (Million, 2014).

Socio-economic development of any country designates both qualitative and quantitative changes which contribute grossly to the improvement of people's life. This requires industrialization where micro and small enterprise comes into the centerpiece as one of the packages and instruments to help accelerate economic growth and then the overall socio economic development of the nation. The socio-economic progress of a neo independent developing country rests on the pillars of income from a large number of people. In this respect, the small-scale sectors, especially the MSEs have a vital role to play (Shiferaw, 2013). The study conducted by Kefale, & Chinnan (2012) confirm that the Micro and Small enterprises (MSEs) have a tremendous potential to generate employment for the majority of the urban labor force. They are also important sources of income not only for those people who could not find employment in other sectors but also provide cushion to falling incomes of low wage earners.

According to Gashu & Borji (2015), all economies of the world especially in developing countries of Africa like Ethiopia, micro and small enterprises are key factors for sustained growth and development. Also, they are concluded that the healthy MSE sector contributes prominently to the economy through creating more employment opportunities, generating higher production volumes, increasing exports and introducing innovation and entrepreneurship skills.

v. *Challenges of Micro and Small Enterprises*

The major constraints of MSEs are finance for initial capital and working capital, Line of credit from the suppliers, new technology to produce quality products/

give service, ability to hire qualified and professional staff for production, service and marketing (Ramakrishnan, 2013).

In Kenya three out of five micro and small businesses failed within the first few months of operation due to competition, managerial inefficiency, insecurity, debt collection, lack of working capital and power interruptions, political uncertainty, cost of materials, sellers, low demand and restrictive by-laws (Deribie, 2014). Similarly, in Ethiopia there are many internal and external challenges such as lack of finance, lack of working premise, lack of access to land affect MSE's in their operations and hinder their growth (MUDC, 2013).

According to research report conducted by Assefa, Zerfu, & Tekle (2014), the key constraints to MSE growth are access to finance, collateral challenges, Marketing Challenges, Working and Sales Space Constraints, Capital goods and Machinery challenges, Licensing and registration challenges, Attitudinal Challenges, and Institutional Coordination Problem in Ethiopia. Moreover, Drbie, & Kassahun (2013) studied revealed that Lack of Adequate Finance, Lack of Working Premises, Lack of Managerial and Technical Skills, Lack of Adequate Market, Inadequacy of Infrastructure Facilities, Erratic Supply of Raw Materials; Regulatory Constraints are Deterrents to the Success of Micro and Small Enterprises.

b) *Empirical Studies on Loan Repayment*

Nancy & Mohamed (2014) in their study on Determinants of Loan Repayment in Small Scale Enterprises in Developing Countries analyzed and identified the determinants that influence the loan repayment in developing country. They found out that personal characteristics such as education level, family size, amount of loan applied and business experience of the respondents have a positive relationship to loan repayment. Age, interest rate and change in gender had an inverse relationship to loan repayment.

The research conducted by Salem (2016) was estimated econometric model known as two limit tobit regression model of the maximum likelihood and the marginal effects was used for Determinants of Loan Repayment Performance of the Case of Micro and Small Enterprises in Dire Dawa Administration. She selected explanatory variables by broadly categorizing under Individual entrepreneur characteristics, loan specific characteristics and business related factors. A total of 12 explanatory variables were considered in the econometric model out of which five variables were found to significantly influence the loan repayment performance of MSE borrowers. These were repayment period (RP), efficient loan size (ELS), follow up and supervision (FS), business sector (SEC), and business experience (EXP). Of which, repayment period (RP) and efficient loan size (ELS) influence loan repayment performance at 10% significant level while follow up and

supervision (FS), business sector (SEC), and business experience (EXP) influence repayment performance at 1% significant level. The remaining variables such as sex of borrowers (SEX), age (AGE), education level (EDUC), saving habit (SAV), training (TRA), other source of income (OI) and Revenue from the Business (RB) were found to have no significant effect on the loan repayment performance of Dire Dawa MSE borrowers. In this case, she employed information related to individual, loan and business characteristics, but she did not incorporate determinants confronting MSEs such as lack of marketing skill, lack of financial skill and planning and lack of performance monitoring in MSEs sector. Moreover, variables like lack of marketing skill, lack of financial skill and planning and lack of performance monitoring were included in this study area and analysis.

Kebede, Tegegn, & Tafese (2016) studied on the Factors Affecting Loan Repayment Performance of Small Scale Enterprises Financed by Micro Finance Institutions: Study on Private Borrowers around Wolaita and Dawuro Zone included a total of 15 explanatory variables were considered in their econometric model of two limit Tobit model. The independent variable includes Sex of household, Educational status of Household, Marital status of Household, Age of household, farming experience, household Size, dependency ratio, Tropical livestock unit, Off Farm income, Value of equipment, receiving training, Lend in group, Repayment suitability, Loan amount and Loan frequency. In the analysis of their study, six explanatory variables were found to be significant. These were sex of household revealed that from their respective sex composition, males' respondents were found having more repayment performance than female respondents, Education level was found to be positively and significantly influencing loan repayment, Number of dependents within and out house hold this variable was found to be determine negatively and significantly, Tropical livestock unit total livestock ownership is positively related to the dependent Variable, Value of equipment, repayment suitability strong and significant association between repayment period and dependent variable. In their study the remaining independent variable were insignificantly related to dependent variable of loan repayment. They were mainly depending on individual and loan characteristics, but they did not include firm characteristics. Among individual and loan characteristics Sex of household, Educational status of Household, Marital status of Household, Age of household, farming experience, household Size, dependency ratio, Tropical livestock unit, Off Farm income, Value of equipment, receiving training, lend in group, Repayment suitability, Loan amount and Loan frequency were their main focus of study.

A study conducted by Kibrom(2010) estimated Econometric Analysis Probit Model on the Determinants

of Successful Loan Repayment Performance of Private Borrowers in Development Bank of Ethiopia, North Region. The independent Variable he was used were education, repayment period, other source of income, sector, purpose of the loan, type of labour, gender, household size, age, experience and loan diversion. In his result of study the Variable education has a positive sign as he was expected and statistically highly significant at 1%.The result of his study indicates that as the borrower reaches in tertiary level of education, his/her capacity to repay his/her loan successfully will increase, repayment period has a positive sign as he was expected and statistically highly significant at 1%.In his study, the result of repayment period indicates that as the borrower takes a loan that will be repaid within the medium term of repayment, his/her capacity to repay his/her loan successfully will increase, other source of income has a positive sign as he was expected and statistically highly significant at 1%.The result of his study shows that as the borrower have other source of income his/her capacity to repay his loan successfully will increase, sector has a positive sign as he was expected and statistically significant at 1%. The result of his study indicates that borrowers who engage in the service-giving sector have high probability of repaying their loan successfully relative to borrowers who engage in industry, agriculture and agro processing sectors, purpose of the loan has a positive sign as he expected and statistically significant at 1%. The result of his study shows that the probability of repaying loans successfully is higher for borrowers who use the loan for fixed investment rather than for borrowers who use the loan for working capital and for both fixed investment and working capital; type of labour has a positive sign as expected and significant at 1%. The result of his study indicates that as the borrower hires a labour his/her probability to repay his/her loan successfully is high, relative to borrowers who use family labour and the combination of family labour and hired labour. Other variables such as gender and household size have positive sign, but are not statistically significant. Moreover, variables such as age, loan diversion, other source of credit show negative sign but not statistically significant. The variable experience also statistically significant but show negative sign. In general, the study he was conducted was focused on performance and non-performance of private borrowers in Development Bank of Ethiopia in North Region of Ethiopia, but there is no indication for factors or variables that were included in this study and MSE sector.

Tadele(2014) estimated an econometric model known as binary logistic model analysis on Determinants of Microfinance Loan Repayment Performance: Case of Omo Microfinance (OMFI) in Kaffa Zone. In his model analysis, he emphasized considering the combined effect of variables between defaulters and non-defaulters' borrowers from Omo

microfinance in Kaffa Zone, Ethiopia. A p-value of less than 5% was declared as significant statistical relationship between dependent (loan repayment) and independent variables. He includes a total of 12 explanatory variables considered in the economic model. Out of these eight of the variables were found to be significant at 5% significant level, while the remaining four were not significant in explaining the variations in the dependent variable. Age, sex, educational level, method of lending, other source of income before loan, suitability of installments period, loan size and timeliness of loan release included in the model were found to be have positive and statistically significant. However, the remaining four explanatory variables namely, family size, residence of borrower, distance from institution and frequency of collection had no significant effect on the probability of being defaulter. Hence, the study conducted by Tadele (2014) indicated either performance or non-performance of borrowers from Omo microfinance in Kaffa zone, and he was not included the variable that related with this study and MSE's sector as determinants of loan repayment.

In the above paragraph of the empirical study conducted in Ethiopia, there was a little study conducted in the sector of micro and small enterprise's loan repayment.

c) Knowledge Gap

As mentioned above, various researches has done on Individual/borrower's characteristics ,lender/ Institutional characteristics and firm characteristics of loan repayment such as(Salem, 2016), (Kebede, Tegegn, & Tafese, 2016),(Kibrom, 2010), and(Tadele, 2014).However, the Studies done were focused more on nonperforming loans in relation to various aspects such

as credit risk, causes of non-performing loans and performance of the banking and micro finance institution, but in the literature review there is little coverage of determinants of loan repayment in the micro and small enterprises Sector in Ethiopia in relation to operational definition of this study. This study was also focused on addressing this research gap and analyzes the significant relationship between challenges confronting MSEs or firm characteristics such as Sex, Experience of respondents, lack of marketing skill, lack of performance monitoring, financial skill and planning and borrower characteristics and lack of loan repayment with ongoing practice in the study area. Therefore, having identified the research gap, this study addresses two upheaval issues to fill the gap that has not been incorporated in the past studies in Ethiopia and assess the Present Scenario of MSEs in Jimma town, Ethiopia.

d) Conceptual Frame Work

According to Jonker & Pennink (2010), conceptual model can be helpful in structuring the problem, identifying relevant factors and then providing the connections that make it easier to map and frame the problem.

The conceptual model of this study was to examine the determinants of loan repayments of MSEs in Jimma town, Ethiopia. From literature review, various empirical studies reviewed by the authors cite probable factors that influence loan repayments. This study was focused on Individual characteristics, Firm characteristics and Loan characteristics which were causes for lack of loan repayment. The following model was estimated to depict the relationship between dependent and independent variable to solve the problem of lack of loan repayment

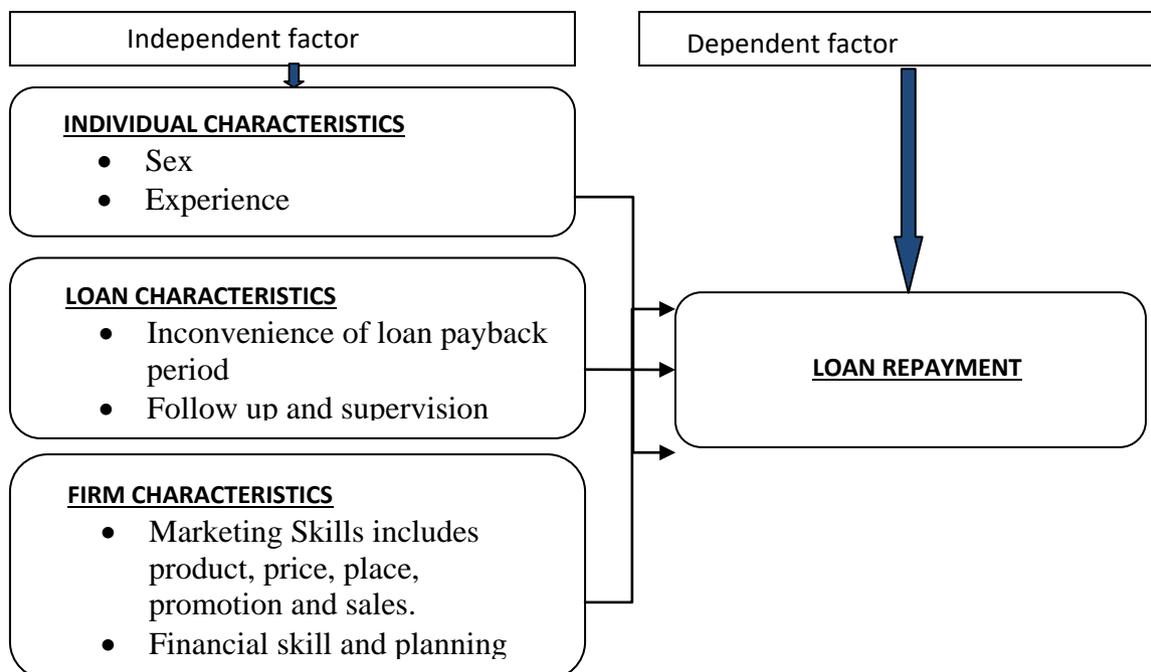


Fig.1: Conceptual Frame Work

IV. METHODOLOGY

a) Research Design

Based on the purpose, environment and the time required accomplishing research; this study employed descriptive study design aimed to examine determinants of loan repayment of micro and small enterprises in particular study area of Jimma town, Ethiopia. According to Kothari (2004), descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual, or of a group.

b) Target Population and Study Area

The study was carried out in Jimma town, Ethiopia. The target population is finite in number those includes all MSEs in the town. The total population of MSEs in the town is 2275 and they are engaged on activities of manufacturing, construction, urban agriculture, service and Trade. All enterprises in the town are active during beginning of 2017. This population are classified into the sectors in which they are involved and the total numbers of each sectors are: manufacturing (347), construction (631), urban agriculture (187), service (578), and Trade are 532 (Jimma town MSEs Bureau, 2017).

c) Description of Sample and Sampling Procedures

i. Sample Size Determination

There are several approaches to determine the sample size. These include using a census for small populations, imitating a sample size of similar studies, using published tables, and applying formulas to calculate a sample size (Salem, 2016).

To determine the appropriate sample size, the basic factors to be considered are the level of precision required by users, the confidence level desired and degree of variability. The 'degree of precision' is the margin of permissible error between the estimated value and the population value. In other words, it is the measure of how close an estimate is to the actual characteristic in the population. The level of precision may be termed as sampling error. The confidence or risk level is ascertained through the well-established probability model called the normal distribution and an associated theorem called the Central Limit theorem. Normal curve results whenever there are a large number of independent small factors influencing the final outcome. The degree of variability in the attributes being measured refers to the distribution of attributes in the population. The more heterogeneous a population, the larger the sample size required to be, to obtain a given level of precision (GUMA, 2012).

In this study, Yamane (1967) formula was used so as to determine representative sample size of target population as follow:

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

Where,

n = is sample size

N = is the population size

e = is desired level of precision

$$n = \frac{2275}{1 + 2275(0.05)^2}$$

$$n = \frac{2275}{1 + 2275(0.0025)} = 340.18691589 \approx \underline{341}$$

According to above formula this study was carried out on 341 respondents with proportional allocation of sample size to each sector, which includes manufacturing, construction, urban agriculture, service and Trade. The confidence level applied to the study is 95%, N (population size) = 2275, e (level of precision) = 5% and $n = 341$.

After the determination of sample size, the allocation of these sample size to each sectors of MSEs in the study area was carried out through proportional allocation method of stratified random sampling.

The proportional allocation method was originally proposed by (Bowley, 1926). In this method, the sampling fraction, n/N is same in all strata. This allocation was used to obtain a sample that can estimate size of the sample with greater speed and a higher degree of precision. The allocation of a given sample size n to different stratum was done in proportion to their sizes. i.e. in the i th stratum (GUMA, 2012).

$$n_i = n \frac{N_i}{N} \quad i = 1, 2, 3$$

Where, n = represents sample size, N_i represents population size of the i th strata, N represents the population size. Hence, $N = 2275$, $N_i =$ manufacturing (347), construction (631), urban agriculture (187), service (578), and Trade (532) and $n = 341$. Sample sizes of n_i as under for each strata:

Table 1

Strata	Ni	Formula for (ni)	Sample size for each strata
Manufacturing	199	=341(347/2275)	52
Construction	631	=341(631/2275)	94
Urban Agriculture	187	=341(187/2275)	29
Service	578	=341(578/2275)	87
Trade	532	=341(532/2275)	79
Total	2275	341	341

ii. Sampling Frame

Sampling frame is the list from which a sample is drawn (Kumar, 2011). According to Kothari (2004), the elementary units or the group or cluster of such units may form the basis of sampling process in which case

they are called as sampling units. In this study sampling frame was organized into homogeneous characteristics of strata before selecting elements for the sample depend on sample size as follow:

Table 2

Sectors	Population(N)	Sample(n)
Manufacturing	347	52
Construction	631	94
Urban Agriculture	187	29
Service	578	87
Trade	532	79
Total	2275	341

iii. Sampling Technique

The population of this study have heterogeneous characteristics among the group (strata), but homogenous within the group. In this case, from probability sampling the stratified sampling technique was applied so as to obtain a representative of the entire population. In this technique, the population was stratified into five strata and sample items were selected from each stratum, and the items selected from each stratum was based on simple random sampling or stratified random sampling with proportionate stratified sampling.

iv. Description of the Research Instruments

To get a well-defined and required data self-administered questionnaire was used so as to collect primary data such as Individual characteristics, loan characteristics, and Firm characteristics. The self-administered questionnaire has both open-ended and close-ended questions. The questionnaire was expected to help researcher in order to achieve the set objectives with necessary data. The designed self-administered questionnaire has three parts. The first part is close ended format and consists of the demographic profile of the respondents. The second part consists of loan characteristics of the enterprises which contain open ended and close ended. In addition, the third part contains firm characteristics with both close ended and open ended questions which help respondents to provide additional information about hindering factors of loan repayment in the study area. In general, the self-administered questionnaire was prepared in English and Afaan Oromoo to elicit the desired response and 341 questionnaires were administered and distributed to the selected respondents.

d) Description of Data Collection Procedures

This study used both quantitative and qualitative methods of data collection from primary data. The primary data was collected from owners/managers of MSEs who were included in the sample of the study. Before the questionnaires were filled by owners/managers, the enumerators were trained on technique of filling the questionnaire under close supervision of the researcher.

e) Data Analysis Techniques

i. Descriptive Analysis

Both qualitative and quantitative approach of data analyses were employed to examine determinants of loan repayment of MSEs by distinguish characteristics of MSEs in the study area. The study used qualitative and quantitative methods to report the findings. The quantitative analysis helped the researcher to generate descriptive statistics necessary to make deductions on characteristics of respondents, loan characteristics and firm characteristics. After a careful review of the collected data, the close ended questions was coded and entered into a computer using statistical Package for Social Science (SPSS) and analysis was carried out by SPSS software. Functions used for analysis in this study were frequency tables which incorporate the percentages used for descriptive statistics.

ii. Econometric Model

To examine determinants of loan repayment of MSEs, the binary logistic regression model was used to examine the relation of each factor such as Individual characteristics, loan characteristics and firm characteristics with loan repayment in the study area. This model is selected due to the nature of dependent variable of loan repayment which is dichotomous taking on two values, zero if the borrower is a defaulter and one otherwise, the dependent variable is categorical variable with only two categories 0 and 1 respectively. According to (Solomon, 2013), the estimation dichotomous values require the use of qualitative response models and the non-linear probability models, logit and probit models are the possible alternatives. However, several estimation problems arise particularly when Ordinary Least Squares (OLS) regression and linear probability models are employed (Aldrich & Nelson, 1984). The OLS regression technique, when the dependent variable is binary, produces parameter estimates that are inefficient and a heteroscedastic error results in the structure. Consequently, hypothesis testing and construction of confidence interval become inaccurate and misleading. Likewise, a linear probability model may generate predicted values outside the 0-1 interval, which violates one of the basic tenets of probability. To alleviate these problems and produce relevant empirical outcomes, the most widely used qualitative response models are the logit and probit models (Amemiya, 1981).

Regression models in which the regress and evoke a yes or no or present or absent response are known as dichotomous, or dummy, dependent variable regression models. They are applicable in a wide variety of fields and are used extensively in survey or census-type data (Gujurati, 1995). The dependent variable in this study was also a dummy variable, which takes a value of zero or one depending

on whether or not the MSEs Default, but the independent variables were also categorical.

iii. Model Specification

As already noted, the dependent variable is a dummy variable, which took a value of zero or one depending on whether or not a borrower defaulted. However, the independent variables were also categorical in this study.

Probit and logit models are similar and yield essentially identical results. Aldrich & Nelson(1984) indicated that in practice these models yield estimated choice probabilities that differ by less than 0.02 and which can be distinguished, in the sense of statistical significance, only with very large samples. The choice between them therefore, revolves around practical concerns such as the availability and flexibility of computer programs, personal preference, experience and other facilities (Solomon, 2013).

The probit and the logit models are commonly used in studies involving qualitative choices. The probit probability model is associated with the cumulative normal probability function, whereas, the logit model assumes cumulative logistic probability distribution. The advantage of these models over the Linear Probability Model is that the probabilities are bound between 0 and 1. Moreover, they fit best the non-linear relationship between the probabilities of the dependent variable and the explanatory variables, that is one which approaches zero at slower and slower rates as an explanatory variable (X_i) gets smaller and smaller and approaches one at slower and slower rates as X_i gets larger and larger. (Gujarati, 1988);(Feder, Just, & Zilberman, 1985), (Aldrich & Nelson, (1984)and (Maddala, 1983) have recommended probit model for functional forms with limited dependent variables that are continuous between 0 and 1, and logit models for discrete dependent variables (Solomon, 2013).Then, the binary logistic model is appropriate for

LR= loan repayment (LR) = (0=yes if defaulter, 1 otherwise)

$$LR = f(\text{Sex}, \text{Experien}, \text{ILPP}, \text{LMS}, \text{LFSP}, \text{FS}) \quad (1)$$

$$LR = \alpha + \beta_1 \text{Sex} + \beta_2 \text{Experien} + \beta_3 \text{ILPP} + \beta_4 \text{LMS} + \beta_5 \text{LFSP} + \beta_6 \text{FS} + e$$

Where,

Sex= Sex of respondents

0 if sex of respondents are Male 1 = otherwise

Experien = Experience

0 = if respondents are experienced 1 = otherwise

ILPP = Inconvenience of loan payback period

0=yes if suitable repayment period 1 = otherwise

LMS=Lack of Marketing Skills

0=yes if manager/owner have Marketing Skills 1 = otherwise

LFSP=Lack of financial skill and planning

0= yes if borrower keeps financial records 1 = otherwise

FS=Follow up and supervision

0= yes if adequate supervision visits made to a borrower 1 = otherwise

this study and cumulative logistic probability model is econometrically specified as follows:

$$P_i = F(Z_i) = \frac{1}{1 + e^{-Z_i}} \quad (1)$$

Where, P_i is the probability that an individual will make a certain choice (default or does not default) given X_i e denotes the base of natural logarithms, which is approximately equal to 2.0718;

X_i represents the i^{th} explanatory variables; and α and β_i are parameters to be estimated

According to Hosmer & Lemeshew (1989), the binary logistic model could be written in terms of the odds and log of odds, which enables one to understand the interpretation of the coefficients. The odds ratio implies the ratio of the probability (P_i) that an individual would choose an alternative to the probability ($1-P_i$) that he/she would not choose it.

$$\frac{P_i}{1-P_i} = \frac{1}{1 + e^{-Z_i}} \quad (2)$$

Therefore,

$$\frac{P_i}{(1-P_i)} = \frac{1 + e^{-Z_i}}{1 + e^{-Z_i}} = e^{Z_i} \quad (3)$$

Or,

$$\frac{P_i}{(1-P_i)} = \frac{1 + e^{-Z_i}}{1 + e^{-Z_i}} = e^{(\alpha + \sum \beta_i X_i)} \quad (4)$$

Taking the natural logarithm of the equation(4)

$$Z_i = \ln\left(\frac{P_i}{1-P_i}\right) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_m X_m \quad (5)$$

Description of the Dependent variables together with their expected models was given below:
Dependent variable (LR): is defined as the loan repayment of MSEs, which is a dummy variable taking a value Zero if the MSEs is defaulter and one otherwise.

V. RESULT AND DISCUSSION

The study examined the effect of the Individual characteristics, Loan characteristics and Firm characteristics on Loan repayment of Micro and Small Enterprises in Jimma town, Ethiopia. To processing and analyzing the data which were collected in previous chapter, both descriptive and logistic regression analysis was used. This study also discusses and analyzes effect of dependent variable on independent variable to examine whether one or more independent variables influence the dependent variable by using the

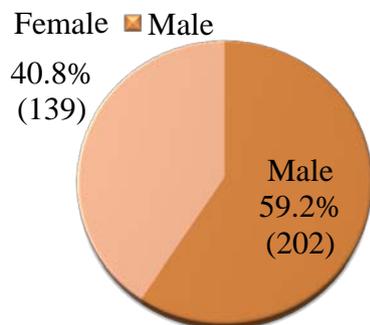
statistical package for social sciences (SPSS) version 20 in order to obtain valid and reliable data.

a) Descriptive Results

i. Individual Characteristics

a. Sex of Respondents

The following Figure shows gender categories of the respondents from total 341 samples taken. This is important to know sex category of the respondents along with their involvement, management and participation of owners/managers of Micro and Small Enterprises.



Source: survey data, 2017

Figure 2: Sex of Respondents

As shown in Figure 4-1 above, from total of 341 sample participants 59.2 % (202) are males, and 40.8 % (139) are females. This indicated that there are more males than females' participants in involvement and management of enterprises.

b. Age of Respondents

The Age of respondents determines ability of respondents that they have towards subject of the study, or to understand in detail about their business activity.

Table 3: Age of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 30	114	33.4	33.4	33.4
	31-40	129	37.8	37.8	71.3
	41-50	88	25.8	25.8	97.1
	51-60	10	2.9	2.9	100.0
	Total	341	100.0	100.0	

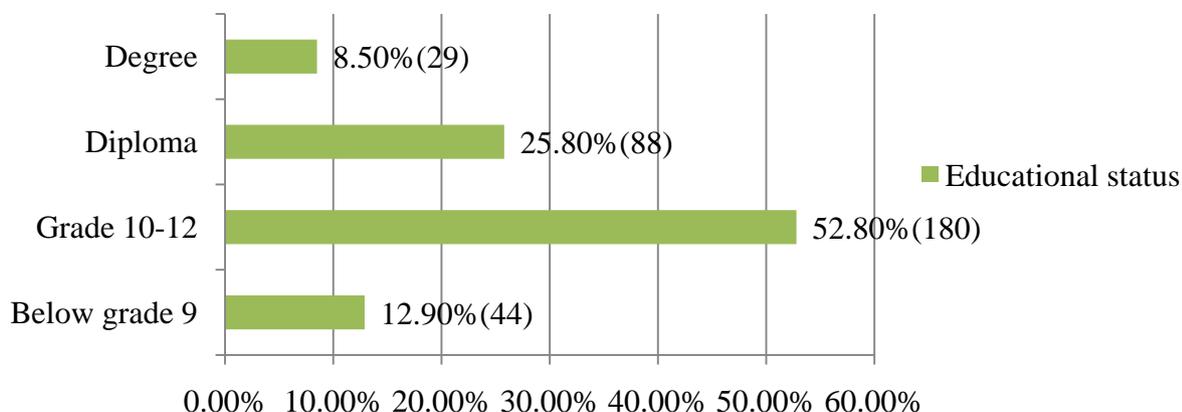
Source: survey result, 2017

According to Table 4-1 above, the age of respondents are divided into four parts, the participants below age of 30 are 114 in number (33.4%), within 31-40 are 129 in number (37.8%), within 41-50 are 88 in number (25.8%), and within 51-60 are 10 in number (2.9%). This shows that the large number of owners or managers of micro enterprises are within age of 31-40 years, the second largest group of age are below 30 years, the third are within 41-50, and the small number of age group are within 51-60 years.

Therefore the following Figure shows the educational level of respondents.

c. Educational Status of Respondents

Educational status of respondents needed to know the educational qualifications of the respondents because education level is a predictor of the ability to understand well the questions rose in the study.



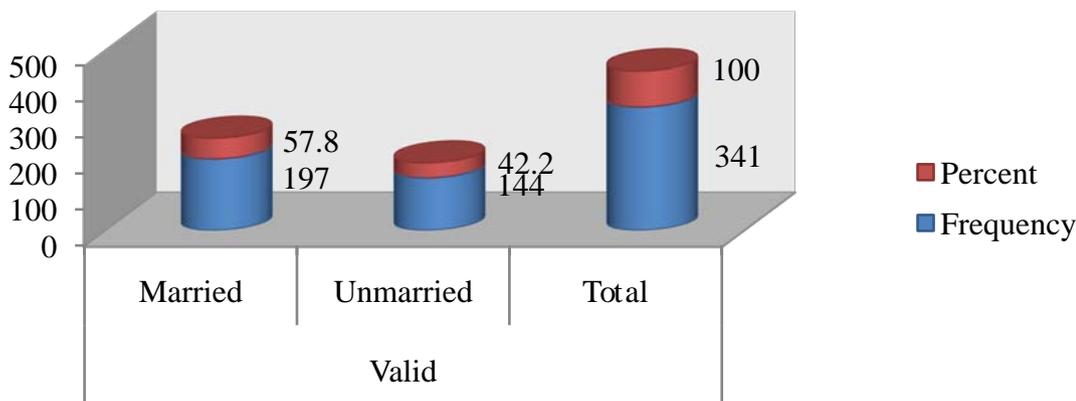
Source: Survey result, 2017

Figure 3: Educational status of respondents

Figure 4-2 above shows that the educational status of micro and Small enterprise’s owners and managers. From 341 owners and managers 44 of them were below grade 9(12.9%), 180(52.8%) were Grade 10-12, 88(25.8%) were Diploma holders, and 29(8.5%) of them were Degree holders respectively. This reveals that most of owners or managers of enterprises have completed Grade 10 and12, and also the Figure indicated that all participants of the study were literate respondents.

d. Marital Status of Respondents

The following Figure 4-3 helps to identify married respondents from unmarried respondents because the time of planning and controlling business activities by married was not suitable than unmarried. As indicated in the following figure out of 341(100%) respondents 197(57.8%) are married and 144(42.2%) are unmarried.



Source: own survey, 2017

Figure 4: Marital status of respondents

The result of analysis from Figure 4-3 shows that out of 341(100%) of respondents 197(57.8%) are married and 144(42.2%) are unmarried. This indicated that the MSEs Managers or owners were shared their full ideas or thought’s to home. In other words, the time of planning and controlling business activities by married respondents are not suitable than unmarried.

e. Experience of Respondents

The respondents who have more experience before join micro and Small enterprise in their business

activities are more effective and profitable than inexperienced respondents as shown in the following table. This indicated that the experienced respondents had more capability for loan repayment than inexperienced respondents.

Table 4: Experience of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	239	70.1	70.1	70.1
	No	102	29.9	29.9	100.0
	Total	341	100.0	100.0	

Source: Survey result, 2017

Table 4-3 result shows the business experience of respondents. Out of 341 samples taken 239 in number (70.1%) have experience while 102 in number (29.9%) have not experience before joining current business enterprises. This shows that most of the owners or managers of enterprises were experienced, and it indicated that the enterprises in the town were running by well experienced owners or managers. It had value for effectiveness of business activities.

b) Results of Econometric Model

In this section of study the econometric model known as binary Logistic regression was employed in

order to analyzing determinants which impeding loan repayment of micro and small enterprises in Jimma town, Ethiopia. Binary logistic regression model was used to analysis the effect of the explanatory variable on dependent variable, variation, relationships and strengths between the dependent and independent variables. Among the variables sex, experience, Inconvenience of loan payback period (ILPP), Lack of Marketing Skills (LMS), Lack of financial skill and planning(LFSP)and also Follow up and supervision (FS)were independent variable whereas loan repayment was dependent variable.

Table 5: Classification Table Classification Table^{a,b}

Observed		Predicted		Percentage Correct
		Have you ever failed to repay according to the schedule?		
		Yes	No	
Step 0	Have you ever failed to repay according to the schedule?	296	0	100.0
		45	0	.0
Overall Percentage				86.8

a. Constantis included in the model. b. The cut value is .500

Table 4-23 above shows that the percentage accuracy in classification (PAC) is 86.8%, which reflects the percentage of cases that can be correctly classified as "Yes" credit default with the independent variables added, and the remaining 13.2% were non-default classification. The estimated probability of the event occurring is greater than cut value of 0.5 or 50%. The result from above table indicated that credit default was occurring by greater than 50% out of 100%.

Table 6: Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
Step 1	Step	152.041	6	.000
	Block	152.041	6	.000
	Model	152.041	6	.000

The Omnibus Tests of Model Coefficients is used to check that the new model (with explanatory variables included) is an improvement over the baseline model. It uses chi-square tests to see if there is a significant difference between the Log-likelihoods (specifically the -2LLs) of the baseline model and the new model. If the new model has a significantly reduced -2LL compared to the baseline then it suggests that the new model is explaining more of the variance in the outcome (Laerd, 2017). The logistic regression model was statistically significant, χ^2 (6, N=341) =

152.041, $p < 0.001$, indicating that the model was able to identify determinants for credit default.

Table 4 1: Model summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	114.011 ^a	.360	.664

c) Estimation terminated at iteration number 9 because parameter estimates changed by less than .001.

The Model Summary of Table 4-25 provides the -2LL and pseudo-R² values for the full model. The -2LL value for this model (114.011) is what was compared to the -2LL for the previous null model in the 'omnibus test of model coefficients' which told us there was a significant decrease in the -2LL, i.e. that our new model (with explanatory variables) is significantly better fit than the null model. The R² values tell us approximately how much variation in the outcome is explained by the model. The model explains between 36% and 66.4% of the variance in dependent variable is explained by independent variable.

Table 7: Hosmer and Lemeshow Test

Step	Chi-square	Df	Sig.
1	2.075	8	.979

As shown on the *Hosmer & Lemeshow test*, the goodness of fit suggests the model is a good fit to the data as $p=0.979 (>.05)$.

Table 4 2: Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1 ^a	Sex1	3.669	1.080	11.548	1	.001	39.201
	Experien6	3.662	.685	28.535	1	.000	38.926
	ILRP1o11	-4.399	1.097	16.074	1	.000	.012
	LMSK1o32	2.595	.800	10.531	1	.001	13.397
	LFSP1o36	-3.132	.756	17.153	1	.000	.044
	FS2o20	2.165	.666	10.583	1	.001	8.715
	Constant	-5.687	1.143	24.754	1	.000	.003

- i. Variable(s) entered on step 1: Sex1, Experien6, ILRP1o11, LMSK1o32, LFSP1o36, and FS2o20.

A variable in the following Equation shows the regression function of logistic regression model and the 'B' values are the logistic coefficients that can be used to create a predictive equation.

$$\text{Logit (Pi)} = -5.687 + 3.669*x_1 + 3.662*x_2 - 4.399*x_3 + 2.595*x_4 - 3.132*x_5 + 2.165*x_6$$

$$(1-\text{Pi})$$

As shown in Table 4-27, all independent variable Sex, Experience, inconvenience of loan payback period (ILPP), Lack of Marketing Skills (LMS), Lack of financial skill and planning (LFSP) and Follow up and supervision (FS) made a statistically significant category since p value (Sig.) is less than 0.05, for each of the coefficients in the logistic regression model.

The Exp (B) column in the table presents the extent to which raising the corresponding measure by one unit influences the odds ratio and can be interpreted in terms of the change in odds. If the value exceeds 1 then the odds of an outcome occurring increase; if the figure is less than 1, any increase in the predictor leads to a drop in the odds of the outcome occurring (Robert & Richard, 2017).

In the above table, Exp (B) value associated with Sex is 39.201, indicating when Sex of respondents is raised by one unit (percent) the odds ratio is 39.201 more times likely to be "Male" category. The study revealed that the coefficient of sex of respondents is positive hence an indication that sex of Male respondents negatively affects loan repayment by Micro and small enterprises and which indicates that the log odds that a ratio of male to female is more times higher for loan repayment as compared to females owners or managers .

The odds ratio of 38.926 was greater than 1 for Experience of respondents, indicating when experience of respondents is raised by one unit, the odds ratio is 38.926 more times likely to be "Yes" category. Coefficient with loan repayment which is an indication

that Experience positively influences loan repayment by micro and small enterprises.

Inconvenience of loan payback period (ILPP) is .012. The odds ratio of .012 was less than 1, indicating when inconvenience of loan payback period is raised by one unit (one person) the odds ratio is .012 times less likely found to be "No" category. The result indicated that inconvenience of loan payback period (ILPP) inversely influence loan repayment of borrower hence as major determinants of loan repayment by Micro and small enterprises.

The odds ratio of 13.397 was greater than 1 for lack of marketing skills (LMS), indicating when lack of marketing skills is raised by one unit (percent) the odds ratio is 13.397 more times likely to be "Yes" category. Lack of Marketing Skills (LMS) has a positive coefficient with loan repayment which is an indication that Lack of Marketing Skills (LMS) positively influences loan repayment by micro and small enterprises.

The odds ratio .044 was less than 1 for Lack of financial skill and planning (LFSP), indicating that for every additional 1 unit the odd ratio is .044 times less likely found to be "No" category. Coefficient of Lack of financial skill and planning (LFSP) is negative hence an indication that Lack of financial skill and planning (LFSP) negatively effects loan repayment by Micro and small enterprises in Jimma town, Ethiopia. Thus, the study concludes that Lack of financial skill and planning (LFSP) inversely affect loan repayment by Micro and small enterprises.

The odds ratio of 8.715 for Follow up and supervision (FS) is greater than 1, which indicated for one unit raise person odds ratio, is 8.715 more times likely to be "Yes" category. Follow up and supervision (FS) is also among the factors that was, as expected, positively and significantly affected loan repayment of MSEs. As the result indicated follow up and supervision given by MSE borrowers increases the probability of loan default by 8.715.

VI. SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter reports the summary, conclusions and recommendations that resulted from preceding chapter of study section.

a) Summary of Finding

The overall purpose of this study was to examine the determinants of loan repayment of micro and small enterprises in Jimma town, Ethiopia. Based on purpose of study the dependent variable was loan repayment whereas independent variable such as Individual characteristic, loan characteristics and Firm characteristics were included in the study. Descriptive statistics and binary logistics model were used to analyze the data collected from 341 sample respondents, and analyzed data has identified the following finding.

- Majority 202(59.2%) of MSE's owners/Managers and the business activities in Jimma town are run by men; and 129 in number (37.8%) of the study samples fall within the age's category of 31-40 years
- Around 180(52.8%) of the participants have completed Grade 10-12; and large numbers 147(43.1%) of owners/managers live in Jimma town within range between 4-6 years and 197(57.8%) were married whereas 144 (42.2%) were unmarried.
- Majority of 239 (70.1%) owners/managers have experience before joining current business enterprises, and 225(77.6%) of respondents were borrowed Money from Micro finance institution, however, 65 respondents (22.4%) were borrowed from bank as well as 160 (46.9%) used the loan provided by bank or microfinance institution for intended purpose while 181 respondents (53.1%) did not used for intended purpose.
- Majority 229(67.2%) of loan borrowed from micro finance institution repaid within the specified time period, however, the rest 112(32.8%) did not repaid within time period, and (38.2%) respondents preferred semiannually were suitable time period for repayment of loan.
- Majority 296(86.8%) of them were failed to repay the borrowed amount of money from either banks or microfinance institutions, and the rest 45(13.2%) did not failed according to the scheduled time period, and 91 respondents (30.7%) failed once to repay loans borrowed from start up of their business activities, and the rest 205 (69.3%) were failed two and more than twice. Around 66 (22.3%) respondents taken market problem for lack of loan repayment, 126 respondents (42.6%) taken a technical problem for reason of failure, 99 respondents (33.4%) taken working capital shortage, and others 5 respondents (1.7%) were not interested to explain reason of failure.
- Majority 143 (41.9%) were repay their loan by diversion of short term loan into long term loan balance, 86 respondents (25.2%) repay their overdue loan balance by sell of property and the remain 7 respondents (2.1%) were not interested to responded the mechanism to repay overdue balance. Out of 341(100%) participants, most of 158 (46.3%) respondents were visited by credit officers while the rest 183 respondents (53.7%) were not visited by credit officer for their business activities, and most of 292(85.6%) respondents were supervised, followed and evaluated by responsible body who lends money for borrowers, however, the rest of 49 respondents (14.4%) were not supervised, followed and evaluated by responsible body(either banks or micro finance institution),and also 195 respondents (57.2%) were satisfied by service provided from banks and micro finance institution. Hence, the remaining 146 respondents (42.8%) were not satisfied by service provided from banks and micro finance institution.
- Majority 201 (58.9%) respondents answered that their enterprises were employed less or equal to 5 employees, and the rest 140 respondents (41.1%) were stated that their enterprises employed greater than 5 employees, and most of 164 (48.1%) managers have from 2-5 years experience. In addition, those managers 135 (39.6%) were largely employed hired labour.
- According to output of SPSS from 341(100%) selected sample enterprises, majority of 94 respondents (27.6%) were engaged in the construction sector and 87 respondents (25.5%) were engaged in the service sector, 79 respondents (23.2%) were engaged in the trade sector, 52 respondents (15.2%) were engaged in the manufacturing sector and 29 respondents (8.5%) were engaged in the urban agriculture respectively. Moreover, 276 respondents (80.9%) have marketing skills while the rest of 65 respondents (19.1%) have not marketing skill in promoting and other marketing variable such as place, sales, prices and product.
- Majority 177 (51.9%) of respondents were attended in different financial literacy training whereas 164(48.1%) were not attended in financial literacy among members enterprises.
- The binary logistic coefficient is expressed in the exponentiation of the B coefficient (Exp (B)), which is an odds ratio. This value is given by default because odds ratios can be easier to interpret than the coefficient, which is in log-odds units. In this case, Exp (B) value associated with Sex is 39.201, indicating when Sex is raised by one unit (percent) the odds ratio is 39.201 more times likely to be "Yes" category. The odds ratio of 38.926 was greater than 1 for Experience of respondents, indicating when

experience of respondents is raised by one unit, the odds ratio is 38.926 more times likely to be "Yes" category. Inconvenience of loan payback period (ILPP) is .012. The odds ratio of .012 was less than 1, indicating when inconvenience of loan payback period is raised by one unit (one person) the odds ratio is .012 times less likely found to be "No" category. The odds ratio of 13.397 was greater than 1 for lack of marketing skills (LMS), indicating when lack of marketing skills is raised by one unit (percent) the odds ratio is 13.397 more times likely to be "Yes" category. The odds ratio .044 was less than 1 for Lack of financial skill and planning (LFSP), indicating that for every additional 1 unit the odds ratio is .044 times less likely found to be "No" category. The odds ratio of 8.715 for Follow up and supervision (FS) is greater than 1, which indicated for one unit raise person odds ratio is 8.715 more times likely to be "Yes" category.

VII. CONCLUSION

This study was trying to cover the Demographics characteristics, loan characteristics and Firm characteristics which affecting loan repayment of Micro and small enterprises in Jimma town, Ethiopia. Specifically, the variable such as Sex, Experience, inconvenience of loan payback period (ILPP), Lack of Marketing Skills (LMS), Lack of financial skill and planning (LFSP), and Follow up and supervision (FS).

A result from sample taken revealed that the involvement of women in ownership and management of MSE'S is less than men in the study area. Hence, by reduce such gap the empowerment of their participation in business activities has great role for productivity and stronger economic growth of the country. Majority of respondents were youths who have considerable contribution for growth of each sector and to reduce urban unemployment. Most of owners/managers of enterprises completed grade ten and twelve which helps and allowing them to running their business in well planned and organized manner such as look competitors, Customer wants and needs, cash flow management and preparation of business plan. The majorities of owners/managers selected for this study were married which indicated the probability of devoting full work time for married respondents were less than unmarried because they share their time to home and other food stuff.

The main sources of initial capital for MSE's happened to be microfinance institution followed by bank and own capital. This study reveal that majority of MSE's repay loan within the specified time period because of obligation, however, the time period given was not enough to repay loan within time period, and most of them preferred semiannual time period for loan repayment rather than weekly, monthly and quarterly.

Thus, majority of respondents were failed to repay loan because of market problem, technical problem and working capital shortage. In contrast, to repay such loan majority used mechanism of loan diversion from short term loan into long term loan balance, change of the site of enterprise and sell of property respectively. Most of enterprises visited by credit officer, and also supervised, followed and evaluated by responsible body that lends money for borrowers. Moreover, they were satisfied by service provided from banks and micro finance institution. Inversely, some remaining enterprises were not visited by credit officer, and supervised, followed and evaluated by responsible body and also unsatisfied by service provided from banks and micro finance institution.

The study revealed that the coefficient of sex of respondents is positive hence an indication that sex of respondents negatively affects loan repayment by Micro and small enterprises in Jimma town, Ethiopia. Thus, the study concludes that sex of respondents positively influence loan repayment hence a major determinants of loan repayment by Micro and small enterprises in Jimma town, Ethiopia.

The study result established that Experience of respondents have a positive coefficient with loan repayment which is an indication that Experience positively influence loan repayment by micro and small enterprises in Jimma town, Ethiopia. Therefore, this study concludes that Experience of respondents affect loan repayment hence determinant that impeding loan repayment by Micro and small enterprises in Jimma town, Ethiopia.

The study revealed that the coefficient of inconvenience of loan payback period (ILPP) is negative hence an indication that inconvenience of loan payback period (ILPP) negatively affects loan repayment by Micro and small enterprises in Jimma town, Ethiopia. Thus, the study concludes that inconvenience of loan payback period (ILPP) inversely influence loan repayment hence a major determinants of loan repayment by Micro and small enterprises in Jimma town, Ethiopia.

The study findings established that Lack of Marketing Skills (LMS) have a positive coefficient with loan repayment which is an indication that Lack of Marketing Skills (LMS) positively influence loan repayment by micro and small enterprises in Jimma town, Ethiopia. Therefore, this study concludes that Lack of Marketing Skills (LMS) affect loan repayment hence determinants that impeding loan repayment by Micro and small enterprises in Jimma town, Ethiopia.

The study established that the coefficient of Lack of financial skill and planning (LFSP) is negative hence an indication that Lack of financial skill and planning (LFSP) negatively effects loan repayment by Micro and small enterprises in Jimma town, Ethiopia. Thus, the study concludes that Lack of financial skill and

planning (LFSP) inversely affect loan repayment by Micro and small enterprises in Jimma town, Ethiopia.

The study findings established that Follow up and supervision (FS) have a positive coefficient with loan repayment which is an indication that Follow up and supervision (FS) positively influence loan repayment by micro and small enterprises in Jimma town, Ethiopia. Therefore, this study concludes that Follow up and supervision (FS) affect loan repayment hence determinant that impeding loan repayment by Micro and small enterprises in Jimma town, Ethiopia.

VIII. RECOMMENDATION

Based on summary and conclusion elicited from samples selected, the following recommendations are forwarded.

- The involvement of women in ownership and management of MSE's is less than men in the town. In this case, the equality between women and men should be improved because employment of women in leading positions have great role to create strong base industrial development ,reducing poverty, promoting sustainable development and have better performance for business activities with higher profitability. The government and other concerned body should encourages the women participation in different socio-economic activities by providing access to modern technology, gender equality policy in the work place, supply chain and the community guidance for society are cure for sustainable development of Economy.
 - Most of participants in this study were adult and youth. Both adult and youth are leaders of tomorrow, social actors of change and progress. However, the widespread of unemployment influences those adults and youth to achieve the indicated mission. Hence, to alleviate unemployment problem Micro and small enterprises have identified by the government as main source of employment and job creation. Even if Micro and small enterprises taken as alternatives by government for employment and job creation, there are many bottlenecks which challenge the growth of enterprises such as Lack of the necessary support institutions, Lack of access to finance, Lack of access to market, Lack of the necessary managerial knowledge and skills, Poor infrastructural facilities, Shortage of raw materials, Regulatory problems and lack of loan repayment. Among determinants impeding loan repayment such as Sex, Experience, Inconvenience of loan payback period, Lack of Marketing Skills, Lack of financial skill and planning and Follow up and supervision were identified in the study. As a result, in order to solve such problem the following measure should be taken by government and other concerned body.
- i. The Town of MSEs bureau should be communicate and integrate with the federal government to create linkages between the banks (micro finance institution) and MSE's because for setting suitable payback periods.
 - ii. Experience sharing activities on Marketing Skills should be set by bureau of MSEs to support institutions with the integration of MSE's operators; and this helps how to acquire better knowledge and experiences from each other.
 - iii. Financial skill and planning should be improved. The MSEs owners/managers and members of enterprises should be trained, traditional work routine should be eliminated, and hire qualified personnel. Develop transparency, responsibility among official and workers.
 - iv. The Town of MSEs bureau, banks and micro finance institutions should develop means of support and take close control, continuous follow up and supervision. To solve the problem of loan repayment by MSEs. Otherwise, their growth and loan repayment prolonged for longer time.
 - v. Finally to promote the MSEs activities and their loan repayment in the town, the town administration should provide incentive like tax free for some limited time, excess land for working area, promote market system and investment opportunity within the city by developing website, by using international channel.

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