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Factor Affecting Loan Repayment Performance of Micro and Small Scale Enterprises in Western Ethiopia: The Case of Oromia Credit and Saving Share Company (Ocssco) Shambu Branch

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Abstract

Loan repayment has a vital importance to have sustainable of financial institutions and the micro finance institution are distribution loan facilities to Micro and Small Enterprises(MSEs) in order to fill the gap of borrowers financial problem and increase productivity. Oromia Credit and Saving Share Company (OCSSCO) were, therefore, established to fill the gap in the financial services by providing credit services to MSEs. However, there is a loan repayment problem of MSEs in the study area, which is an obstacle to microfinance institutions. The objective of the study was identifying factors that influence the loan repayment performance of micro and small scale enterprises in the study area, the primary data were collected from 135 respondents stratified random sampled selected through structured questionnaire and the secondary data were obtained OCSSCO recorded and from different books. For the data analysis, descriptive statistics were used to describe the socio-economic characteristics of the MSEs borrowers and an econometric model recognized as a binary logistic regression model was used to identify factors that affect loan repayment performance of MSEs. From a total of 14 explanatory variables in the regression seven explanatory variables were found to be statistically significant to influence loan repayment performance. As the result of econometric showed that educational status, training of the borrowers, Suitable repayment period, Loan supervision, Income from others Sources, Revenue from business and business experience were affect loan repayment performance positively significant. Therefore, the study suggests the identified significant factors to be considered effective measures and revise policy as to improve loan repayment performance and minimize defaults problem.

Keywords: Loan repayment performance • MSEs • OCSSCO • Loan default • Non-default

Introduction

In many countries, now days, in almost all economies of the world, Micro and Small Enterprises are becoming a crucial and key factor for sustained growth and development and becoming the lifeblood of most economies [1]. The role of Micro and Small Enterprises (MSEs) in socio-economic development as a means for generating sustainable employment and income is increasingly recognized. In developing countries, the MSE sector is the largest source of employment and income generation activity, particularly for the urban population [2].

Ethiopia has boarded its march on the achievement of development and transformation plan with a national vision of building a middle-income nation that will ensure social justice. To realize this national vision the country developed different programs in which the Micro Small Enterprise Development is one of them [3]. Now a days Micro and Small Enterprises are recognized as vehicles for economic growth and reduce poverty and unemployment. Micro and Small Enterprises play an important role in the growth and development of the economies of low income countries like Ethiopia in-terms of employment opportunity, improving output contribution to Gross Domestic Product, export promotion, stimulating the development of innovation and indigenous skills for sound entrepreneurship, decentralization of industries, industrial linkages and utilization of resources and transfer of technology [4].

More generally, the development of MSEs is seen as accelerating the achievement of wider economic and socio-economic objectives including poverty alleviation especially for less developed countries like Ethiopia. In order to realize the expected results from MSE's the government of Ethiopia extends direct policy support to MSE operators. The direct policy support includes access to markets, access to finance, access to industrial extension, access to training and technological support. So it's the Micro finances' role to provide financial service for MSE's [5].

The primary objective of Micro Finance Institutions is to provide financial services (credit and saving) to the poor in order to relieve financial constraints and help alleviate poverty [6]. For such Micro Finance Institutions to assess the problems of loan recovery to improve the financial sustainability and profitability of their respective institutions by maintaining a strong credit risk management systems [7].

To attain both financially and institutionally sustainability, MFIs must reach at the position of high repayment rate because achieving high repayment rate benefits both lenders as well as borrowers in the long run growth. Examining loan repayment performance is important because if borrowers do not repay, then there may not be sufficient funds to ensure that the liquidity position of the MFI is maintained. When there is a loss in the MFI liquidity due to high levels of non-repayment, the cyclical flow of funds between the MFI and the borrowers will be interrupted. This critical problem most public credit-lending agencies face is poor loan repayment from small and medium enterprises. As the investigated showed that loan default by Small Micro Enterprises has been a tragedy and loan repayment problem is an unsolved issue faced by the majority of financial institutions that offer credit to the micro enterprises and SMEs [8].

Regardless of the sustainability of microfinance institutions depends

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largely on their ability to collect their loans as efficiently and effectively as possible, Microfinance institutions offer loans mostly to society who cannot afford collaterals to get loans from the main commercial banks. The problem of loan default reduces the lending capacity of the financial institution. It also denies new applicants access to credit as the microfinance institution's cash flow management problems augment in direct proportion to the increasing default problem. That means it may disturb the normal inflow and outflow of the fund as a micro financial institution has to keep staying in sustainable to play their role effectively and efficiently cited by Tanaka T, et al. [9].

The microfinance institutions operate currently in Ethiopia show a number of strengths in their operation. However, Loan repayment has been a serious problem of the Ethiopian microfinance industry and Micro Finance Institutions default rate highly increased [10]. The situation in micro finance institution which means Shambu branch OCSSCO is not different from this problem. As data obtained from the OCSSCO, 2019 Shambu branch indicated that the repayment rate of three year consequences by the year 2016, 2017 and 2018/2019 were 78%, 76% and 70% respectively. In other word the amount of defaulted rate by the year 2016, 2017 and 2018/2019 were 21%, 23% and 30% respectively. Even though there was a high rate which increased from year to years, the institution is facing considerable loan default high rate. Hence, this study would be aim to investigate the factors that influence the loan repayment performance of MSE's financed by microfinance institutions: in the case of selected microfinance institutions in OCSSCO Shambu branch. One way to tackle the loan repayment problem is to investigate the factors which affect the loan repayment of performance MSEs [11] while loan repayment is determined by willingness, ability and other factors of the borrowers, loan factors, businesses factors and characteristics of the lending institutions to borrowers.

The purpose of this study is therefore, to assess the loan repayment performance of micro and small enterprises in OCSSCO of Shambu branch and Specifically to identify the major socio-economic factors, loan related factors and business related factors that determine loan repayment performance of micro and small enterprises in study area. To assess the problems and challenges that affects both institution and borrowers regarding loan repayment process.

Literature Review

The theoretical and empirical review of related literatures explains that the important concept on microfinance services on factors that have been identified as factors affecting of loan repayment performances of Micro and small scale enterprises from various theoretical and empirical points of view were offered as below.

Micro and small enterprises have different meaning from country to country, or there is no commonly accepted definition. Micro enterprises 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.

According to Mamo WB [12], cited in Micro and small enterprises are defined in a variety of ways using various factors. These factors include number of employees; volume of sales and the capital value of the business generally there are two types of definitions. The first is operational definition, which are largely used for working purposes and the other is theoretical definition, which are generally, employed to characterize the sector

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 [13].

Loan is defined as a type of debt and like all debt instruments which entails the redistribution of financial assets over time between the lender and the borrower. It is also typically, the money which is expected to be paid back in regular instalments or partial repayments periodically that each instalment being of the same amount.

The term of loan repayment refers to an arrangement in which a lender gives money or property to borrower and the borrower agrees to return the property or repay the money, usually along with interest, at some future point (s) in time. Usually, there is a predetermined time for repaying a loan and generally the lender has to bear the risk that the borrower may not repay a loan through modern capital markets have developed may ways of managing this risk.

Loan recovery is one of the key objectives of financial institutions as it enables them to refinance and to reach more people. To have a positive impact on the economy of a country, the institutions must be able to loan out funds and recover the same to remain relevant in the finance industry. Loan recovery is a strategic activity for financial institution. Financial institutions also monitor the borrowers will aid in making sure that they are using the loans for the right purposes meaning that they can pay back their loans.

A loan default occurs when a borrower fails to make a payment on time after an agreement has been reached between the lender and the borrower. It also occurs when the borrower does not comply with any other agreement made on the promissory note. Loan default is essential of two basic types. The first and the most common type occur when the debtor defaults on a payment of interest or principle. This might be because the debtor is either unable or unwilling to repay the debt. The second type of default occurs when the debtor violates any of the agreements made on the promissory note either purposely or unintentionally.

MSEs have been recognized as engines of growth and development throughout the world. The MSE operations worldwide plays a pivotal role by adding value to the economy by creating jobs, enhancing income, lowering costs and adding business convenience [14,3].

In Ethiopia, the MSE has prioritized for economic growth, employment generation and building an industrial economy. There is a great role of micro and small enterprises on improving the living standards of the entrepreneurial households enabling them increase basic needs such as food, education and health facilities, as well as production, investment and income suggesting microenterprises to use local products for more profitability and more support including awareness raising and training to be given to sustain the existing ones so that poverty can be reduced through microenterprise development. The MSE sector serves as vehicle of development and broadens employment opportunities at urban center. The elements of the sector are taken as the major productive forces in the manufacturing sector and serve as incubation hubs for developmental investors. MSEs play great role in utilizing local resources and are labor intensive.

MSE face considerable financing constraints which hampers their profit and turnover growth. Lack of finance is the most referred complaint among entrepreneurs in Africa. Shortage of finance and small size of credit are key constraints to Ethiopian MSE growth [13]. Moreover, the study conducted by Fufa FG [15], shows lack of access to credit is the major challenge to MSE growth and expansion in Ethiopia. The establishment of sustainable microfinance institutions that reach a large number of rural and urban poor, who are not served by the conventional financial institutions (such as the Commercial Banks), has been a prime component of the new development strategy of Ethiopia. Although the development of microfinance institutions in Ethiopia started very recently, the industry has shown a remarkable growth in terms of outreach, particularly in number of clients (ibid).

The capability of borrowers to repay their micro credit loans is an important issue that needs attention. Borrowers can either repay their loan

or choose to default. Borrower defaults may be voluntary or involuntary [16]. According to this study involuntary defaults of borrowed funds could be caused by unexpected circumstances occurring in the borrower's business that affect their ability to repay the loan. Unexpected circumstances include lower business revenue generated, natural disasters and borrowers' illness. In contrast, voluntary default is related to morally hazardous behavior by the borrower. In this category, the borrower has the ability to repay the borrowed funds but refuses to because of the low level of enforcement mechanisms used by the institution.

From empirical perspective, there are a number of studies which have attempted to investigate the factor affecting loan repayment performance of micro and small scale enterprises in different countries. Among them, Mamun AA [17] investigated the factors affecting loan repayment performance of microfinance borrowers in Malaysia. Results from the logistic model showed that the factors affecting the ability of the borrowers to repay their loans are borrower's level of education, income from other sources and business experience, business factors, borrower's attitude towards their loans, other debt burden, amount of loan received and household size. Werema S and Opanga K [18] carried a study on the factors affecting clients on loan repayment for PRIDE microfinance institutions in Arusha, Tanzania. According to their finding clients' characteristics (age, gender and level of education), nature of business (business type) and loan characteristics (repayment period, repayment mode and repayment amount) were among the factors that influenced borrowers in repaying their loans.

Ochillo analyzed the factors affecting loan repayment performance by small scale entrepreneurs with the aim of proposing measures that can help in improving small scale business credit repayment performance. The main findings of the study are that the ages of the entrepreneurs, loan administration, attitude of the entrepreneurs towards loan repayment and business performance have statistically significant influence on loan repayment. Nancy and Mohamed 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.

Pertaining to Ethiopia, the study conducted by Abebe D [19] with the objective of analyzing and identifying the socioeconomic factors that affect the loan repayment performance of the clients of Busa Gonofa Microfinance of Ziway branch by a binary logistic regression model. The result found that, loan diversion, family size and celebration of social ceremonies have a negative significant effect on loan repayment rate while income from other activities, livestock holding, membership duration, have a significant positive effect.

Abraham in the study to assess factors affecting loan repayment performance of borrowers also found sex, income from other sources, monitoring utilization of other members in a group, credit timeliness, repayment time suitability, repayment trend on a monthly basis and training adequacy are significant and positively influence loan repayment performance of the borrower. Tanaka T, et al. [9] conducted a study with the objective of identifying and analyzing the factors that influence group loan repayment performance of the beneficiaries of debit Credit and Saving Institution (DECSI) operating in the manufacturing sector as group owned MSEs by using binary logit regression model. Accordingly, group composition, group initiation, peer pressure, suitability of repayment period, loan size and external shocks had statistically significant effect on loan repayment of the group borrowers.

Kebede AA, et al. [6] conducted study on the factors influencing MFIs group loan repayment performance a case of MSE`s service delivering sector that are financed by Dedebit Credit and Saving Institution by applying explanatory (descriptive) research approach. In this study variables like group formation (screening), peer monitoring, loan size, loan term and supervision have significant association with loan repayment performance of borrowers. Haile F [20] conducted a study in Eastern Hararghe Zone of the Harari Regional State, Ethiopia to assess factors affecting loan repayment performance of Harari Microfinance Institution employing binary logit model. The econometric result revealed that the probability of default increases as the family size increases, when the borrower has negative perception on repayment period, less training, low business experience, poor saving habit and only single source of income.

As reviewed above, various theoretical review and empirical studies reviewed by the authors cite probable factors that influence loan repayments. These were divided into the socio- economic factors, business related factors and Loan related factors as it has been reviewed from above literature.

Methodology

Description of the study area

Shambu Town is one of the city administration of Horo Guduru Wollegga zone Oromia Regional state Ethiopia. Shambu town is located in the western part of Ethiopia at a distance of 315 km from Addis Ababa Capital city of Oromia and Ethiopia.

The study population consisted of all group members of MSEs borrowers in the study area would be in Shambu town, Oromia, Ethiopia. The target population is finite in number those includes all MSEs in the town. The total population of MSEs in the town is 278 and they are engaged on different activities of manufacturing, construction, urban agriculture, service and Trade.

Types of data and source of data collection

In this study all the necessary data required would be obtained from both primary and secondary sources were used in order to capture both qualitative and quantitative data. Quantitative and qualitative types aim to examine the factors affecting loan repayment performance of micro and small enterprises in particular study area of Shambu town.

Methods of data collection

The primary data would be collected by preparing structured questionnaire data to all sampling of Micro and Small Enterprises in Shambu Town. Face-to-face interviews were carried out with the MSEs members, OCSCCO and the Shambu town micro and small scale enterprise office. The Secondary data was obtained from the documents OCSSCO of Shambu branch and also Shambu town micro and small scale enterprise sector office. In order to obtain additional source of information's different of books, published and unpublished governmental, NGOs, Reports, websites were used to make the study fruitful.

Sampling techniques and sample size determination

The population of this study have heterogeneous characteristics among the group (strata), but homogenous within the group. In this technique, the population was stratified into five strata as manufacturing, construction, urban agriculture, service and Trade and sample items were selected from each stratum and the items select from each stratum based on simple random sampling or stratified random sampling with proportionate stratified sampling.

Sample size is a smaller set of the larger population. Determining sample size is a very important issue for collecting an accurate result within a quantitative survey design. According to Wachilonga LW [21], no survey can ever be deemed to be free from error or provide 100% surety and error limits of less than 5% and confidence levels of higher than 95% is regarded as acceptable. From the total populations of 278 MSEs members.

This study applied a simplified formula provided by Yamane T [22] to determine the required sample size at 95% of confidence level and level of precision= 6%. $n = \frac{N}{1+N(e)2} = \qquad n = \frac{278}{1+278(0.06)2} = 138$ (1)

Where n is the sample size, N is the population size (total number of enterprises equal to 278) and e is the level of precision (equal to 6%). According to above formula this study was carried out on 138 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) = 278, e (level of precision) = 6% and n = 138

After the determination of sample size, the allocation of the sample size to each sector of MSEs in the study area will be carrying out through proportional allocation method of stratified random sampling. 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 (Table 1).

Methods of data analysis

Both Descriptive statistics and Econometric analysis were employed for the study. By applying descriptive statistics such as, percentages, mean, standard deviation, maximum and minimum, one can compare and contrast different categories of samples with respect to the desired. In addition, t-test and Chi-square test statistics were employed to compare defaulter and non-defaulter groups with respect to some explanatory variables.

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. 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. 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.

Model specification

As already noted above, 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 are 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.

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 nonlinear 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 (Xi) gets smaller and smaller and approaches one at slower and slower rates as Xi gets larger and larger. Gujarati, Feder, Just, Zilberman, Aldrich Nelson and Maddala 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.

Then, the binary logistic model is appropriate for this study and cumulative logistic probability model is econometrically specified as follows:

$$Pi = F(Zi) = F(\alpha + \sum BiXi) = \frac{1}{1 + xe^{Z}} \quad (2)$$

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

Xi represents the ith explanatory variables; and α and βi are parameters to be estimated.

According to Hosmer & Lemeshew 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 (Pi) that an individual would choose an alternative to the probability (1-Pi) that he/she would not choose it.

$$(1Pi) = \frac{1}{1 + e^{Zi}} \quad (3)$$

Therefore

$$\frac{(Pi)}{(1 - Pi)} = \frac{1 + e^{-Zi}}{1 + e^{Xi}} = e^{Z} \quad (4)$$

$$\frac{(Pi)}{(1 - Pi)} = \frac{(1 + e^{Zi})}{(1 + e^{Zi})} = e^{(\alpha + \sum BiXi)} \quad (5)$$

OR

Taking the natural logarithm of the equation (5)

$$Zi = Ln\frac{(Pi)}{(1 - Pi)} = a + B1X1 + B2X2 + ... + BmXm \quad (6)$$

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.

Loan repayment Performance (LRP) = (0=yes if defaulter, 1 otherwise)

$$LR = a + B1X1 + B2X2 + B3X3.... + BZ + e \quad (7)$$

Where X1, the independent variables

Definition of Variables and Hypotheses

In this study loan Repayment which is dependent variable, is dichotomous, taking two values that are 1 if the borrowers are non- defaulter and 0 is defaulter.

The explanatory variables decided for this study based on previous empirical studies were broadly categorized under socio-economic factors, loan related factors and business related factors. The loan repayment performance would be affected by these factors either positively or negatively.

Based on existing theories and previous studies, we consider the following explanatory variables such as age (+) as a continuous variable that can influence the repayment performance of borrowers; Sex (+) dummy variable in the model, which takes a value 1 if the borrower is male and 0, if the borrower

Table 1. Sample sizes of MSEs by sectors.

S. No	Sectors	MSEs	Total Members of MSEs	Formula for ni=n (N1/N)	Sample Size
1	Manufacturing	10	49	138 (49/278)	24
2	Constructions	9	45	138 (45/278)	22
3	Trading	38	123	138 (123/278)	61
4	Services	11	46	138 (46/278)	23
5	Urban Agriculture	3	15	138 (15/278)	8
Total		71	278	138	138

Source: - Own design based on information from Shambu OCSSCO branch (2020)

is female; Marital status (+) measured as a dummy, 1 for married and 0 for single. Educational level of the borrowers (+): It is a continuous variable; Saving habit of the borrowers (+): This is dummy variable in the model, which takes a value 1 if the borrower has saving habit and 0, if the borrower does not have a saving habit.

Training on loan use for borrowers (+); - This is dummy a variable which takes a value of 1 if the borrower receives training on business related issues and 0 otherwise. Income from other sources (+):- It is a dummy variable which is represents 1 if the respondent has other sources of income and 0 otherwise. Loan supervision (+): This is available which takes a value 1 if the enterprise has continuous follow up and supervision by the lending institutions and 0 if the enterprise does not took follow up and supervision. Efficient loan sizes (+): dummy which take 0 if the loan is not enough and 1 if the loan is enough. Suitable Repayment period (SRP): It is a dummy variable which takes 1 if the loan repayment period is suitable and 0 if not. Business Experience (BEXP): It is Continuous variables, as experience in the business of the borrower increases, the more knowledgeable about the business and the more efficient and profitable. Loan utilization (-):- Refers to how the borrowers of the lending institutes utilized the loan amounts for the pre-intended business plan based on the loan agreement they are binding to; House Hold Size (-): It is a continuous variable which is measured by number of dependents in the borrowers family can have a significant impact on micro and small enterprise loan repayment; Revenue from the Business (+):- It is continuous variable which is measured in birr. The signs corresponding to each variable in the bracket show the expected effects, namely, negative (-) and positive (+) of the variables on loan repayment of MSEs.

Results and Discussion

Generally, this chapter presents the results from the descriptive and econometric analyses. From 138 questionnaires distributed for this research, 135 useable questionnaires were returned giving responses rate of 97%, which was considered acceptable for successive analysis and to address the general and specific objectives of the study

Descriptive statistics result

The descriptive result the study shows that 74% (100) of the respondents were none-defaulters and 26% (35) of the respondents were defaulters. In this section, we discuss the significant variable for based on the Chi-square and mean. Accordingly, the data shows that there were proportionate difference between defaulters and non-defaulters on the basis of educational status at 10% level, training at 1% level, the suitability of repayment period at 5% level, access income from other sources at 5% level, business experience at 1% level and follow up and supervision at 5% level were significant.

The mean age of defaulters of MSE was 28.11year while the mean age of non-defaulters of MSE was 35.58 years. This was indicated that the respondents who have high age were non-defaulter than those who have less age year. The mean annual business revenue of MSE borrowers was 24,915.15 birr. The largest annual business income was 200,000 birr and the smallest was 400 birr. The annual business revenue non-defaulters were 31.110.96 birr, while that of defaulters was 7,212.85 birr. This was indicated that the respondents who obtained high revenue from the business were non-defaulter than those who obtained less revenue from the business. This variable affect loan repayment rate positively (Table 2).

Major causes of repayment problems

General the causes of Loan repayment problems which makes MSEs default in the study area as the information collected from respondents are as summarized in Table 3

For the above table list of causes the major reason for the MSES to default, those respondents said a lack of business working area 26% and continuation of inadequacy of loan size 22%. Facilitating working area for the MSEs and inadequacy of loan size were the great problem for the borrowers to repay the loan on time. As the respondent results showed Market problem 15%and low experience 13% were as the major reason cause for the borrowers to default problem.

Econometrics model results

The logit models of the maximum likelihood results used to study factors affecting loan repayment performance of MSEs The overall significance of the model has been evaluated by considering chi-square test at the given degree of freedom. As the table shown in the below binary logit model logistic regression, the chi-square test is showing a statistically significant result at 95 percent confidence level, p-values are less than 1 percent, which indicated goodness

Table 2. Descriptive statistics of all continuous variables by loan status.

Continuous variables	Defaulter		Non-defaulter	
	Mean	St. Dev	Mean	St. Dev
Age of borrowers	28.11	8.55	35.58	10.376
N valid	33.64	10.436	33.64	10.436
House hold sizes	2.14	2.088	4.32	2.715
N valid	3.76	2.733	3.76	2.733
Business experience	1.8	0.759	4.85	3.762
N valid	4.06	3.521	4.06	3.521
Revenue from business	7212.85	6526.72	31110.96	30913.4
N valid	24915.15	28763.49	24915.15	28763.49

Table 3. Causes of loan repayment problem.

Causes of the Problem	Respondents	
	Numbers	%
Lack of business working area	35	26
Inadequacy of loan size	30	22
Market problem	20	15
Poor business experience	18	13
Lack of business supervision	16	12
Technical and legal supports	9	7
Loan use to other purpose	7	5
Total	135	100

Sources: Survey result 2020

Table 4. Maximum likelihood estimates of logistic regression model.

Logistic Regression	Number of obs =135				
	LR chi2 (14) = 117.66				
	Prob >chi2 = 0.0000				
	Pseudo R2 = 0.7614				
Log likelihood= -18.430104					
Loan Repayment Performance	**Coef.**	**Std.Err.**	**Z**	**P>z / Z/**	**Odd ratio**
Sex	-2.15662	1.644301	-1.31	0.19	0.1157159
Age	0.335786	0.207836	1.62	0.106	1.39904
Education	0.868734	0.476402	1.82	0.068***	2.38389
M/Status	1.990946	1.37376	1.45	0.147	7.322457
House Hold Size	-0.27638	0.558977	-0.49	0.621	0.7585238
Training Borrowers	10.43161	4.081589	2.56	0.011*	33914.87
Efficient Loan Size	0.493681	1.146509	0.43	0.667	1.638335
Suitable Period	7.848965	3.427799	2.29	0.022**	2563.081
Loan Supervision	5.137222	2.580122	1.99	0.046**	170.2422
Loan Utilization	2.736263	1.738641	1.57	0.116	15.42922
Saving Habit	2.14512	1.326807	1.62	0.106	8.543067
Income from Others	2.115281	1.05524	2	0.045**	8.291912
Revenue From Business	0.000171	8.15E-05	2.1	0.036**	1.000171
Business Experience	2.194863	0.838341	2.62	0.009*	8.978774
Constant	33.43759	13.09799	-2.55	0.011	3.01E-15

Represents: *** at 10%; ** at 5%; * at 1% significance level

Source: Software result, 2020

of fit statistic model. Therefore the model can explain the data (are shown in the table.) Before running the logistic regression model, both the continuous and discrete variables were checked for the existence of multicolinearity problem. Below the value of variance inflation factor (VIF`s) for all continuous variables are less than 10. So the average mean of VIF were 1.33 Therefore there is no Multicollinearity problem in the model (Table 4).

Factors affecting loan repayment performance of MSEs

A total of 14 explanatory variables were considered in the econometric model out of which seven (7) variables were found to significantly influence the loan repayment performance of MSE borrowers.

Educational status of the MSEs (EDUC): The econometric result of this study shows that educational level of the borrowers and the repayment status of MSE were positively related with 10% level of significant. The independent variable which means education level were affect the dependent variable to be significant 10% at p-value= 0.068 The higher education levels enable the borrowers acquire more knowledge about the business that his efficiency in allocation of resources increases and so does the proper utilization of the loan. More educated owner is expected to use the loan effectively as compared to a less educated one [16].

Training of the borrowers (TLU): Econometric result shows that loan repayment performance and training were positive related with statistically significantly at 1% with the (p-value =0.011). This 0.011p values shows that the dependent variable were affected by adequate training variable which was positively relationship. Holding other variables constant an increase a one-time in the training by loan officer of OCSSCO leads to increase the log odds ratio of defaulter to non-defaulter by 10.43% in the study are. This result is similar with the prior expectation and with the result of Garomsa A [23] and Al-Mamun agrees on the importance of training for the decreasing of default rate and it has positive contribution to repayment rate.

Suitable of repayment period (SRP): Econometric result shows that loan repayment performance and suitability of repayment period in terms of the suitability of repayment period between non-defaulters and defaulters were positively related with 5% significant level. This result was similar with the prior with the research hypothesis of this study. The result shows all other factors remaining constant, the borrowers who replied the repayment period was unsuitable were 7.84 times than likely to repay the loan than borrowers who replied the repayment period was suitable. This result indicated that the repayment period that is not suitable for borrowers could adversely affects the business activities and then the profitability of the business, which in turn affects the repayment performance of the borrowers.

Loan supervisions (LSU): is also among the loan related factors that was, as expected, positively and significantly affected loan repayment performance of MSEs at 5% significant level. Coefficient result states that, all other factors remaining constant, the borrowers who replied there was close supervision in the on time loan period were 5.13 times more likely to repay the loan than those borrowers who replied there was no close supervision of their business in the time loan period by the loan officers and the concerning bodies. In other case when follow up or supervision activity increases by the loan officers of OCSSCO the probability of default decreases and increase the probability to loan repay performance on time. This result affects positively loan repayment performance of MSEs as in mark with the prior expectation and with the result of [9,20].

Income from others sources (IFOS): Econometrics result indicates that loan repayment performance and availability of other sources of income were positively related with at 5% significant level. The positively relationship of shows that the dependent variable was affected by independent variable and was in agreement with the prior expectation of this study. The odd ratio result states that, all other factors remain constant, those borrowers who have other sources of income other than the loan were 2.11 times more likely to repay their loan than those borrowers who did not have other sources of income. In other words, the coefficient variable 2.11 which is interpreted as being having income sources from other to borrowers the log of odds ratio being a defaulter to non-defaulter by 2.11 significant at 5%.

Revenue from the business (BUS): The result of econometric result shows that as the researcher hypothesized that income revenue from business activities positively is associated with loan repayment performance of MSEs at 5% significance level. This shows that as the income from business activities increases, borrowers enhance their ability to repay their loan on time. On the other hand, other factors being constant, increase in income from earned from business activities the odds ratio defaulter to non-defaulter by the loan could lead loan repayment rate to be improved by 0.017%. This result agrees with findings of Nguta, MH and Guyo SH [24], the amount of income obtained from the business enterprises was important and significant factor that enhances the credit repayment performance of the borrowers.

Business Experiences (BEXP): As econometric results shows that among the business related factors that was positively and significantly affected loan repayment performance of MSEs at 1% significant level which shows the relationship dependent variable and independent variable. Being having one year business experience the log of the odds ratio of a defaulter to a non-defaulter by 2.19 which is significant at 1%. This indicated that having business experiences increased by one year the probability of repaying the loan increasing by 2.19 times of defaulter MSEs when compared to non-defaulters that the MSEs. In others words, respondent with the business enterprise those have lack of experience in the business would be the more likely fail to repay their loan timely at the repayment schedule in the study area. Berhanu A [25], has also similar conclusion that experienced borrowers have developed their credit utilization and management skills that helped them to pay loans timely. Therefore, the more the number of years in a business, the better would be the loan repayment performance.

Conclusion and Recommendation

For the viable growth of micro finance institutions and the development of micro and small scale enterprise, they should have high percentage of loan repayment recovery rates. Low loan repayment performance may adversely affect both the microfinance institutions/OCSSCO/ and MSEs borrowers who get loan from financial institutions. This in turn affects the role of micro and small enterprises on improving the living standards of the entrepreneurial households enabling them increase basic needs such as food, education and health facilities, as well as production, investment and income suggesting to use local products for more profitability and more support including awareness raising and training to be given to sustain the existing ones so that poverty can be reduced through microenterprise development. According to this research study fourteen explanatory variables were hypothesized to determine loan repayment performance of micro and small enterprises. The descriptive result the study shows that 74% (100) of the respondents were none-defaulters and 26% (35) of the respondents were defaulters. Further it indicated that from Socio-economic factors (educational status), business related factors (business experience, income from others sources and revues from business) and loan related factors (Suitable repayment period, Loan supervision and Training on loan use for borrowers) were significantly affect loan repayment performance MSEs in the study area.

Econometrics result logistic regression model was used to identify the factors related with the rate of microfinance default. According to econometrics model result explanatory variables like educational status, adequate training of the borrowers, Suitable repayment period, loan supervision by the lending institution, access of income from others Sources of business, revenue from business operating current business and business experience of the borrowers were positive associated with the dependent variable. Further, the result shown that adequate training of the borrowers and a business experience of the borrowers affects the loan repayment performance MSEs significantly at 1% level, Suitable repayment period, loan supervision, income from others Sources of business and revenue from Business significantly influence the loan repayment performance of the borrowers at 5% significant level and educational status of the borrowers affects loan repayment performance of the borrowers at 10% significant level. Generally the ideas from the respondent through structured questionnaire and interview identified what the major problem and challenges happened to MSEs low loan repayment in the study area.

Based on the finding of this study, depending up on the above descriptive analyzed data results and econometrics model results the following recommendations were forwarded. Most of the borrowers those who attained higher education level were non-defaulters whereas less educated borrowers are defaulters therefore, OCSSCO should motivate less educated people to involved MSEs foundations and also easy to provide training. Therefore the concerning bodies should be emphasis on status of borrowers education when made group formations. The loan repayment period should be revised and the institution has to give enough time to borrowers so that they will be able to work with the loans they have borrowed and arranged the time to collect loan that will be suitable for them to sell their business output. Support loan supervision of the MSEs members of the borrowers must be conducted by the loan officers of OCSSCO and MSEs government sectors. OCSSCO should provide training activities to MSE members and they aware out their financial management based capacity building activities. Expanding additional business activities of the borrowers other than the one the loan is engaged for.

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