European Business & Management
2025, Vol. 11, No. 6, pp. 213–225
https://doi.org/10.11648/j.ebm.20251106.13

Research Article

Determinants of Loan Repayment of Small and Microfinance Institution, in Case of Gambella City, Gambella Regional State

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Abstract

The primary objective of this study was to find out the factors affecting micro and small enterprises loan repayment in Gambella regional city, Ethiopia. This study examined factors determining loan repayment, loan features that affect MSEs' ability to repay loans, and firm characteristics that affect loan repayment for micro and small enterprises in gambella regional city only. The study used both descriptive statistical analysis and econometric analysis. Therefore, the primary data was collected through both ended and closed-ended interview schedules from random samples of 141 micro and small enterprises by stratifying into five groups. When the appropriate data was collected, the collected data was analyzed through a descriptive and econometric model known as the logistic regression model, which was employed to analyze determinants and factors that affect micro and small enterprises loan repayment by distinguishing the characteristics of MSEs. Therefore, Logistic regression result eight variables that were found to be significant in relationship to loan repayment. The dependent size, experience, marital status, education, training, income, loan size, and business sector. Based on the finding obtained from econometrics analysis of the study the following recommendations are derived. Microfinance and other institutions concerned need to determine an appropriate loan size that is sufficient for the purpose of business. Therefore, microfinance institutions have to find a way in which uneducated members of the community can better benefit from the services rendered by the institution. Experience should be considered by microfinance before loan disbursement, and they should also include experience in their loan criteria. A financial institution should provide orientation and training to enhance the financial management, saving, and bookkeeping skills to the borrowers. Microfinance should be given special support to those enterprise that are engaged in the Service, petty-trade, followed by the construction sector, Agriculture, in order to achieve the objective of micro- and small-scale enterprise development.

Keyword

Loan Repayment, Micro and Small Enterprise, Logistic Regression, Gambella Town

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Received: 19 August 2025; **Accepted:** 21 October 2025; **Published:** 19 December 2025

1. Introduction

1.1. Background of the Study

Globally, Microfinance has emerged to encourage small businesses to develop saving habits and provides loans, insurance, and money transfer services to low income clients which already bring positive impacts on raising poor households' income [14].

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 cooperation have played a crucial role in empowering MSEs in developing countries [2].

In African countries it was widely recognized that Microfinance institutions strongly support economic participation which is critical in promoting economy equity [3].

It focuses on poor people who were excluded by conventional commercial banks due to lack of collateral requirements [15]. Many microfinance institutions have been introduced to and are now operating in Ethiopia in an effort to address the difficulties that the poor who participate in small business face in obtaining credit.

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.[5]. In this case, governments have been supporting their MSEs extensively through many different programs, with subsidized credit schemes as the most important component.

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 and established the Federal Micro and Small Enterprises Development Agency. 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 [11]. In Ethiopia microfinance institutions are currently performing critical roles in enhancing the lives of underprivileged societies and the overall economic development of the nation. The micro financial institutions were launched by the National Bank of Ethiopia (NBE). Micro Credit and Saving Institution Share Company in Changkouth, Gambella Micro Credit and Saving Institution Share Company, received a business license and publicly was founded in 2007 to provide complete support to small and medium-sized business owners in the Gambella Regional state.

Despite the significant role of the MSEs there are also underlying causes of this increased default saturation Loan Repayment of Small and Microfinance institution, in case of Gambella City, Gambella Regional State. The extremely difficult economic climate that certain micro and small-scale companies (MSES) and people are experiencing are among the factor.

1.2. Statement of the Problem

According to the "Millennium Development Goals," which aim to reduce poverty by 50% by the year 2015, this initiative [12]. Smallholder struggle greatly to find the money to buy useful agricultural inputs because the price of agricultural products is occasionally rising steadily. As a result, farmers' readiness to accept credit from financial institutions in recent years has significantly increased in order to embrace modern agricultural technologies and make use of credit facilities [8]. The availability of quality financial services is typically regarded as one of the forces driving economic growth and the means of escaping the cycle of poverty [3]. There is no denying that credit plays a significant role in economic growth. But one of the biggest issues facing lending institutions is the rising default rate [9]. It has been a significant issue for both credit institutions and their clientele when borrowers fail to repay their loans on time or at all [8].

In developing nations like Ethiopia, low loan payback has become a significant issue in credit management, especially for micro and small businesses that have limited collateral capabilities [10]. According to Abreham [1], borrowers participating in sectors including agriculture, industry, and services have a wider range of defaulters than those in other sectors. In accordance with the foregoing, [7] found that there are various urban and rural borrowers. As a result, the repayment rates for urban borrowers are higher than those for rural borrowers. Because rural borrowers perform poorly in terms of payback, lenders are reluctant to support and provide loans to numerous, dispersed agricultural households.

Several studies have been conducted in literature reviews on the different economic sectors like the agricultural sector, micro credit and microfinance sectors, cooperative societies and loan repayment programs. According to literature reviews, yet, no one in the Gambella region is able to participate in this study with the determinants of Loan repayment of small and Microfinance institution, in case of gambella city, Gambella Regional State. The studies was also concentrate on filling up this research gap and analyze a factor that influences how well micro and small businesses repay their loans.

General Objective of the Study

The general objective of the study was determinants of Loan repayment of small and Microfinance institution, in Case of Gambella City, Gambella Regional State

Specific objectives

1) To determine the borrower factors on MSEs' ability to collect repaid loans in Gambella city, Ethiopia.
2) To investigate how loan features affect MSEs' ability to repay loans in Gambella, Ethiopia.
3) To investigate how firm characteristics affect MSE loan repayment in Gambella city, Ethiopia.

2. Research Methodology

2.1. Descriptions of the Study Area

The study was conduct in Gambella region, which is found at 766 km distance from Addis Ababa in the Western part of Ethiopia. It extends between 7‘N to 8.17‘N latitude and 33‘E to 35.02‘E longitude (GNRS, 2012). The area comprises of diversified topography features with altitude ranges between 300-2300 meters above sea level. The average annual rainfall and temperature range from 800-1200 mm and 30.7-37 ℃, respectively. The Region has wet season (May-October) and dry season (November-April). The region has an area of 34,063 km2 and divided into three zones Anuak Zone, Nuer Zone and Mezhenger Zone and one special district called Itang and eleven Woredas [16].

2.2. Data Types, Source and Methods of Data Collection

In this research cross-section survey had been employed. As result, both qualitative (focus group discussion, key informant interview using checklists, and field observation) and quantitative using semi-structure interview schedule was being used to collect the required data for the research. In additions to the types of the source of the data was collected from both primary data from responded and secondary data was collected from the reputable journal, document reviews in the respective sectors offices.

2.3. Methods of Data Collection

Primary data was collected using semi-structure; focus group discussion and key informant guided by checklists and field observation were used.

2.4. Sampling Procedure and Sample Size Determination

Sampling Techniques

Three stage sampling techniques were selected for this research. First purposively sampling from Gambella Regional town or city was being selected based on their potential loan beneficiary numbers. In the second stage, with the consultation of Micro finances and credit institutions experts list of the loan taker from the institutions was listed, based on the list of the loan beneficiary three kebeles having potential for loan, was purposively selected based on their frequent loan benefit from the institute. The last stage, approximately 141 respondents was determined simple randomly sampling by using Yamane formula [13]. research was choose the population in the microfinance program at the Gambella MFI in Gambella Town because the sample size determiner is necessary for the study that was been respondents that is total number of both loan client 219 and male loans clients 95 and female loans client 124. Because for purposively was selected the total both loan clients 219.

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

Where, n= is sample size
N= is the population size
e= is desired level of precision

$$n = \frac{219}{1+219(0.05)2}$$

$$n = \frac{219}{1+219(0.0025)}$$

n= 141

Therefore, a simple random sampling technique was adopted to select the Sample size is 141 respondents and a proportional allocation of the sample size to each sector in accordance with the methodology above. The study's applicable confidence level is 95%, its population size is 219 its degree of accuracy is 5%, and its sample size is 141.

2.5. Method of Data Analysis

The data collected was analyzed using descriptive statistical analysis, inferential and binary logistic Econometric model analysis was used to address the objectives set in the research.

2.5.1. Descriptive Statistics

A descriptive analysis such as percentages, mean values, frequencies and standard deviation and tables was used to meet the stated objectives which help to compare and contrast different categories of the samples to infer important conclusions.

Also, in this research independent sample T-test for continuous and Chi square tests for discrete variables was used to compare defaulter and non-defaulter groups with some independent variables.

2.5.2. Econometric Model

Econometric analysis using logistic regression model were used for this study. For the analysis of quantitative data, coding of data was done by converting raw data collected from respondents into numerical symbols using Stata software version 14.

Specification Logit Model

Logistic regression model could be used as the loan repayment was dependent variable takes a discrete (categorical) measure [4]. Accordingly, this study was used binary logistic regression (logit) model since loan repayment is considered as a discrete (categorical) variable. The logistic distribution (logit) is more preferable than others in the analysis of dichotomous outcome variable, it is extremely flexible and easily use model from mathematical point of view and the

results will be meaningful interpretation and also solve heteroscedastic. Logit model is preferred than probit model in this study primarily because of its mathematical convenience, simplicity and resolve the problem of heteroscedastic. the logit model for extension participation determinant specified as follows [6].

$$Pi = \alpha + \beta iX1 \quad (1)$$

$$Pi = E\left(Yi = \frac{1}{Xi}\right) = \frac{1}{1+e^{-}}(a + \beta iXi) \quad (2)$$

Where, $Pi =$ probability that MSEs repay loan on time, $Yi =$ Dependent variable, $Xi =$ith explanatory variable, $\alpha +$ ble, $\alpha + \beta i =$ regression parameter to be estimated, $e =$ base of the natural of the logarithm

For ease of the exposition, we write

$$P = \frac{1}{1+e^{-zi}} \quad (3)$$

$$\frac{1}{1+\frac{1}{e^{zi}}} = \frac{\frac{1}{e^{zi}+1}}{e^{zi}} = Pi = \frac{e^{zi}}{e^{zi}+1} \quad Pi = \frac{e^{-zi}}{1+e^{zi}}$$

Where $Zi = \alpha + \sum \beta Xi$ Zi=loan repayment for the ith borrower

Equation (3) represents what is the known as the (cumulative) logistic distribution function. it is easy to verify that as Zi range from -∞ to +∞, Pi range between 0 and 1 and that Pi is non linearly related to Zi (i.e---, xi), thus satisfying the two requirement considered early. But it seems that in satisfying these requirements. We have created an estimation problem because Pi is nonlinear not only in X but also in the β as can be seen clearly from Eq (2). This means that we cannot use the familiar OLS procedure to estimate the parameter. But this problem is more apparent than real because Eq (2) can be linearized which can be shown as follow.

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

Therefore, we can write

$$\frac{pi}{1-pi} = \frac{1+e^{zi}}{1+e^{zi}} = e^{zi} \quad (5)$$

Now $\left(\frac{Pi}{1-Pi}\right)$ is simple the odds ratio of the probability that the borrower repays the loan with in the given maturity period.

Now it we take the natural logarithm of the equation (4)

$$\ln\left(\frac{pi}{1-pi}\right) = zi = \alpha + \beta 1X1 + \beta 2X2 \ldots\ldots\ldots\ldots + \beta nXn \quad (6)$$

It the disturbance term Ui is taken in account, logit model become

$$Zi = \sum_{i=1}^{n} BiXi + Ui \quad (7)$$

For estimation purpose, we can write Eq (7) as follow

$$\ln\left(\frac{pi}{1-pi}\right) = zi = \alpha + \beta 1X1 + \beta 2X2 \ldots\ldots\ldots\ldots + U \quad (8)$$

The logit model in the study can be specified as

$$Yi = \alpha + \beta 1X1 + \beta 2X2 \ldots\ldots\ldots\ldots \beta nXn + Ui \quad (9)$$

Where: Yi is dependent variable (represent loan repayment); $X1 \ldots n$ are explanatory variable; $\beta 1 \ldots \beta 2$ are slop confidents; α constant (intercept) and Ui is error term.

$$LR = \alpha + \beta 1\text{sx} + \beta 2\text{dpsz} + \beta 3\text{ag} + \beta 4\text{exprb} + \beta 5\text{mrtstt} + \beta 6\ \text{educl} + \beta 7\text{fllwp} + \beta 8\text{train} + \beta 9\text{incm} + \beta 10\text{lnsze} + \beta 11\text{bssct} + \beta 11\text{scintwrk} \quad (10)$$

Where LR: - refer to loan repayment while other variable are independent variable.

Description of the Variable, Measurement and Expected Hypothesis

Table 1. *Independent variable.*

Notation	Variables	Measurement	Expect sigh
Acctrain	Access of training	Dummy variable	+ve
Sx	Sex	Dummy variable	-ve
Ag	Age	Continues variable	-ve
Edcl	Educational level	Category variable	+ve
Scintwrk	Social network	Category variable	+ve
Hse	House	Dummy variable	-ve
Lnsze	Loan size	Continuous variable	+ve

Notation	Variables	Measurement	Expect sigh
Depsz	Dependent size	Continuous variable	+ve
Exprb	Experience	Continuous variable	- ve
Mrtstt	Marital status	Category variable	+ve
Bssct	Business sector	Category variable	+ve
Incm	Income	Continuous variable	-ve
Fllwp	Follow up and supervision	Category variable	+ve

Source: own survey, [2023]

3. Result and Discussions

3.1. Demographic Factor

3.1.1. Age

Table 2. *Age of the Respondent.*

Age of the household	N	Minimum	Maximum	Mean	Std. Deviation	T- test value
	141	21	60	35.94	7.914	Sig. (2-tailed) =0.571

Source: survey data, 2023

The median age of the respondents is 35.94 with a standard deviation of 7.914 years, and the range of the respondents' ages is respectively 21 and 60 years. The t-test showed that there was no statistically significant difference in the mean respondent age. Based on the FGD with GMFIs staff they state that ages of client of MSEs should have to be greater than 18 year up to 60 beneficiaries are independent client.

3.1.2. Sex

Table 3. *Sex of the Respondent.*

Sex of the Respondent	Frequency	Percent	Chi- square
Female	76	53.9	X^2=0.126
Male	65	46.1	Asymp. Sign (2-side)= 0.723
Total	141	100.0	

Source: survey data, [2023]

The table shows that, of the 141 responses, women accounted for 76 (53.9%) of the total, while men made up 65 (46.1%). This demonstrates that women make up the majority of the microfinance institution's clients.

3.1.3. Marital Status

Table 4. Marital Status.

Marital Status	Frequency	Percent	Chi- square
Single	8	5.7	
Married	118	83.7	
Divorced	8	5.7	X2=1.788
Widowed	7	5.0	Asymp. Sign (2-side)= 0.618
Total	141	100.0	

Source: survey data, [2023]

The data indicates that married respondents made up the majority of respondents, with 118 (83.7%). Single respondents came in second with 8 (5.7%), divorced respondents with 8 (5.7%), and widowed respondents with 7 (5.0%). This indicates that respondents who were married engaged in MSE at a somewhat high rate, with respondents who were single, divorced, and bereaved following closely after. In terms of prevalence, married respondents in this study outnumbered single, widowed, and divorced respondents.

3.1.4. Dependent Size

Table 5. Dependent size.

Dependent size	N	Minimum	Maximum	Mean	Std. Deviation	T–test value
	141	1	10	5.57	2.397	Sig. (2-tailed) =0.80

Source: survey data, [2023]

A dependent size is the number of individuals living in one house. The dependent sizes of the respondent fall between sizes 1 and 10, with an average mean of 5.57 and a standard deviation of 2.397. There was no statistically significant difference in the dependent size between defaulters and non-defaulters, according to the t-test results.

3.1.5. Experience

Table 6. Experience of the Respondent.

experience in business	N	Min	Max	Mean	Std. Deviation	T–test value
	141	1	13	4.31	3.005	Sig. (2-tailed)=0.001

Source: survey data, [2023]

The respondent's experience varied by a standard deviation of 3.015 per year, from a minimum of 1 year to a high of 13 years. The t-test showed that the mean experience difference between defaulters and non-defaulters was significant at a 1% level.

3.1.6. Education Level

Table 7. Education level of the Respondent.

Education level of the Respondent	Frequency	Percent	Chi- square
Illiterate	4	2.8	
Literate	6	4.3	
Primary	17	12.1	X^2=12.308
Secondary	39	27.7	Asymp. Sign (2-side)= 0.015
Tertiary	75	53.2	
Total	141	100.0	

Source: survey data, [2023]

3.2. Institutional and Loan Factor

3.2.1. Follow up and Supervision

Table 8. Follow up and supervision.

Follow up and supervision	Frequency	Percent	Chi- square
No	48	34.0	X^2=1.613
Yes	93	66.0	Asymp. Sign (2-side)= 0.204
Total	141	100.0	

Source: survey data, [2023]

Concerning monitoring and follow-up on loan payback Out of the total responses, 93 (66%) claimed that MFI staff had been keeping an eye on them, whereas 48 (34%) disagreed.

3.2.2. Access of the Training

Table 9. Training.

Training	Frequency	Percent	Chi- square
No	63	44.7	X^2=7.156
Yes	78	55.3	Asymp. Sign (2-side)= 0.007
Total	141	100.0	

Source: survey data, [2023]

There is training offered to MSE operators regarding the business. In accordance with the findings, 78 (55.3%) of the respondents went through the training, and they also did well in their profit specialization.

3.2.3. Loan Size

Table 10. Loan size.

loan size	N	Minimum	Maximum	Mean	Std. Deviation	T-test value
	141	10000	500000	108290.78	82779.616	Sig. (2-tailed) =0.235

Source: survey data, [2023]

The respondents' loans ranged in size from 10,000 birr at the lowest end to 500,000 birr at the maximum, with an 82779.616 standard deviation. 108290.78 birr was the mean. There was no statistically significant difference in the mean loan size between non-defaulters and defaulters, according to the t-test results.

3.2.4. Loan Size Efficient

Table 11. Loan size efficient.

Loan size efficient	Frequency	Percent
Not efficient	87	61.7
Efficient	54	38.3
Total	141	100.0

Source: survey data, [2023]

According to the survey table, 54 (38.3%) of the respondents' customers who obtained loans did so in a way that was effective for the intended purpose.

3.3. Socio-economic Factor

According to the table below, among the sample respondents, those who work in the service sector had the largest percentage at 57 (or 40.4%), followed by petty trade at 35 (or 24.8%), agriculture at 24 (or 17%), construction at 17 (or 12.1%), and manufacturing at 1 (or 0.7%), and other sectors at 7 (or 5%), in that order. The results show that respondents who work in the service and small-scale commerce sectors are more prevalent than those who work in the manufacturing, construction, and other business sectors.

3.3.1. Business Sector

Table 12. Business sector.

Business sector	Frequency	Percent	Chi- square
Agriculture	24	17.0	
Constructions	17	12.1	
Service	57	40.4	X^2=25.059
Manufacture	1	.7	Asymp. Sign (2-side)= 0.000
petty trade	35	24.8	
Other	7	5.0	

Business sector	Frequency	Percent	Chi- square
Total	141	100.0	

Source: survey data, [2023]

3.3.2. House

Table 13. House.

House of the respondent	Frequency	Percent	Chi- square
Owned	80	56.7	
Rent	53	37.6	X^2=3.465
Government	8	5.7	Asymp. Sign (2-side)= 0.177
Total	141	100.0	

Source: survey data, [2023]

The survey table indicates that 80 (56.7%) respondents own their homes, followed by 53 (37.6%) who rent their homes out, and 8 (5.9%) who work for the government. As a result, the chi-square statistics showed that there was no significant relationship between home ownership and loan payback.

3.3.3. Loan Repayment Period

Table 14. Loan repayment period.

Loan repayment period	Frequency	Percent	Chi- square
not enough	107	75.9	X^2=1.237
Enough	34	24.1	Asymp. Sign (2-side) = 0.266
Total	141	100.0	

Source: survey data, [2023]

As shown in the table, 107 respondents (or 75.9%) did not have enough time to return the loan, whereas 34 respondents (or 24.1%) did.

3.3.4. Income of Household

Table 15. Income of the household.

household income	N	Minimum	Maximum	Mean	Std. Deviation	T-test value
141		1 00	5800	1156.10	1092.086	Sig. (2tailed)=0.110

Source: survey data, [2023]

The total amount of money a member makes each month was taken into consideration for estimating income in this study. The monthly income of the household has been found to be 100 birr on average, with a range of 5800 birr at the minimum and maximum and a standard deviation of 1092.086. It suggests that the average household income is 1156.10 birr. The results of the t-test indicated that there was no statistically significant difference between defaulters and non-defaulters in terms of mean household income.

3.4. Challenge and Opportunity

Challenges

Table 16. *Challenges.*

Challenges	Frequency	Percent
license and registration challenges and attitudinal challenges and institutional coordination challenges	34	24.1
dalayment for long period of time for giving a loan	35	24.8
lack of the technical capacity	17	12.1
lack of the awareness of creation	10	7.1
Corruption, inequality, and lack of the training	6	4.3
lack of proper financial support	11	7.8
lack of good management	14	9.9
lack of the technology capacity	14	9.9
Total	141	100.0

Source: survey data, [2023]

Opportunity

Table 17. *Opportunity.*

Opportunity	Frequency	Percent
create job opportunity and sustainable growth	60	42.6
Reduction our extreme poverty	33	23.4
increase our income	25	17.7
improvement of ours living standards	23	16.3
Total	141	100.0

Source: survey data, [2023]

The survey data (42%), which is displayed in the table, indicates that they raised income by 17.7%, improved living standards by 16.3%, decreased extreme poverty by 23.4%, and increased employment possibilities and sustainable growth. Based finding from discussion through FGD this opportunity known as Creation the job for youths, strong Relationship with stakeholder, Institutions have plan to change everything to technology.

3.5. Logistic Regression Model Results

In the logit regression variable model it is implicitly assumed that the dependent variable Y is quantitative whereas the explanatory variables can either be quantitative or quali-

tative. There are specific types of regression models where the dependent variable or response has a dichotomous nature and can only take a value of 1 or 0. Noted that the logistic distribution function (logit model) has an advantage over the others in the analysis of dichotomous outcome variables in that it is a very flexible and simple to use model from a mathematical point of view and yields a meaningful interpretation. For this reason, the logistic or logit model was used for this investigation.

Table 18. *Logistic regression result.*

Loan repays	Coef.	Std. Err.	Z	P>/Z/	Odds ratio	[95% *Conf. interval*]	
Sex	-.0698065	.4675444	-0.15	0.881	.9325742	-9861767	. 8465637
Depsz	.2203953	.1122248	1.96	0.050	1.246569	. 0004388	. 4403519
Age	-.0513961	.0346236	-1.48	0.138	.9499023	-. 119257	. 0164648
Exprb	-2654924	.0899537	-2.95	0.003	.7668283	-.4417984	-.0891864
Marstat	1.287963	.5020761	2.57	0.010	3.625394	.303912	2. 272014
Educl	.6870758	.2440383	2.82	0.005	1.987894	. 2087695	1. 165382
Accfollow	.3485095	.5116152	0.68	0.496	1.416954	-6542378	1. 351257
Acctrain	.7684114	.4322485	1.78	0.075	2.156338	-0787801	1. 615603
Income	-.0004697	.0002317	-2.03	0.043	.9995304	-0009238	-.0000157
Loan size	6.42e-06	3.61e-06	1.78	0.075	1.000006	-6.62e-07	. 0000135
Business sect	.489967	.1652092	2.97	0.003	1.632262	.1661628	. 8137711
Social network	.3432867	.5186642	0.66	0.508	1.409573	-.6732764	1. 35985
House	-.1121975	.3689347	-0.30	0.761	.8938677	-.8352961	. 6109012
-cons	-3.341028	1.412102	-2.37	0.018	.0354006	-6.108687	-.5733585

Source: survey result, [2023]. *** &*** indicates significant at 1%, 5% and 10%
Iteration 0: log likelihood= -96.934368
Iteration 1: log likelihood= -70.959223
Iteration 2: log likelihood= -70.287053
Iteration 3: log likelihood= -70.282669
Iteration 4: log likelihood= -70.282669
Number of Obs = 141
LR Chi2 (13) = 53.30
Prob> Chi2 = 0.0000
Pseudo R2 = 0.2749
Logistic likelihood = -70.282669

The output indicates that 141 observations from this data set were used for the analysis, as can be seen in the table above. The likelihood ratio Chi-square (13) of 53.30 and the p-value of 0.0000 indicate that there are more acceptable significant variables in this model than insignificant variables. -70.28 is the log likelihood; pseudo R2 is 0. 27 Therefore, Eight out of the thirteen variables that explained were found to be significant in relationship to loan repayment, whereas the remaining five were not. The loan amount, business industry, income, Depsz, Exprb, Marstat, education, and acctrain are some of these variables.

3.6. Interpretation of Model Outcome

Dependent size: Dependent size and loan repayment were shown to be positively correlated, and this link was statistically significant at the 5% level. The size of the borrower's family may affect their capacity to repay debts. That implied that the borrowers' financial obligations required more money as the number of dependents increased.

Experience: The result of this study implies that there was a statistically significant, 5% level correlation between the respondent's experience and loan repayment.

Education: It was shown that there was a statistically sig-

nificant, positive correlation between a respondent's education and loan payback at the 5% level. As education levels rise, so does the borrower's ability to assess and comprehend customer service and obtain high market demand.

Training accessibility: It was shown that the respondent's training accessibility was statistically significant at 10% on loan payback and favorable. Regular participants in training programs have a higher likelihood of making loan repayments on time.

Income: The findings showed that, at the 5% level, there was a statistically significant negative association between the respondent's income and loan payback.

Business sector: The business sector of the respondent was found to have a statistically significant positive link with loan repayment at the 5% level. Research has indicated that borrowers in the manufacturing, petty trade, construction, and service sectors of small enterprises repay their loans at a faster rate than their agricultural counterparts.

3.7. Summary

This study looked at the factors that affected how small and micro businesses in Gambella Town repaid their loans. 141 respondents provided the primary data, which was gathered using focus groups, key informant interviews, field observations, and checklists. Secondary data was gathered from credible journals and document reviews at the offices of the relevant industries. Different open-ended and closed-ended questions about the borrower's characteristics, such as age, marital status, educational attainment, training, housing, loan size, dependent size, business sector, income, follow-up, and supervision, were asked of the borrowers. In order to achieve the stated goals a descriptive analysis that helps to compare and contrast different sample categories and draw crucial conclusions was employed which included the usage of percentages, mean values, frequencies, and standard deviation. Additionally the comparison of the defaulter and non-defaulter groups with various independent factors was done using the independent sample T-test for continuous variables and the Chi square test for discrete variables. For this study an economic analysis based on a logistic regression model was performed. Using Stata

3.8. Recommendation

Based on the finding obtained from descriptive and econometrics analysis of the study the following recommendations are derived.

1) Microfinance and other institutions concerned need to determine an appropriate loan size that is sufficient for the purpose of business.
2) Borrowers who attained a higher educational level would be able to pay better than those who were uneducated. Therefore, microfinance institutions have to find a way in which uneducated members of the community can better benefit from the services.
3) Experience should be considered by microfinance before loan disbursement, and they should also include experience in their loan criteria.
4) Borrowers with fewer family members in the household repay their loan more successfully than those with more family members. Therefore, microfinance should lend money to borrowers with a larger family under careful supervision.
5) A financial institution should provide orientation and training to enhance the financial management, saving, and bookkeeping skills to the borrowers.
6) The activity that generates the access revenue is investing in loans and therefore; MFIs, NGO and Bank ought to guide them through their plans.
7) Microfinance should be given special support to those enterprise that are engaged in the Service, petty-trade, construction, Agriculture, Manufacture sector, in order to achieve the objective of micro- and small-scale enterprise development.

Abbreviations

ADB	Asian Development Bank
UNIDO	United Nation Industry and Development Organization
MSE	Micro and Small Enterprise
MDG	Millennium Development Goal
MFI	Micro finance Institution
NMSES	National Micro and Small Enterprise Strategy
FMSEDA	Federal Micro and Small Enterprise Strategy
MSME	Micro Small and Medium Enterprise

Author Contributions

Medi Ochogi Lero is the sole author. The author read and approved the final manuscript.

Conflicts of Interest

The authors declare no conflicts of interest.

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