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# Factors Affecting Loan Repayment Performance of Small Scale Enterprises Financed by Micro Finance Institutions: Study on Private Borrowers around Wolaita and Dawuro Zone

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Keywords: loan repayment, performance, small scale enterprise, micro finance institution, private borrowers.

# I. Introduction and Justification

n developing countries like Ethiopia where the farming system is at its traditional level and the industrial and service sectors are at their infant stage, the role of small scale enterprises (SSEs) is significant in terms of their employment generation capacity, quick production response, adaptation to weak infrastructure, use of local resources and as a means of developing indigenous entrepreneurial and managerial skills for a sustained growth need (Aryeetey, 2004 in BFasika and Daniel, 2007). For small-scale enterprises to grow up to medium and large-scale level, the need for formal credit source is indispensable because formal financial sector have the financial capacity to meet their growing credit

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demand, which the informal sector is incapable to supply.

Despite their importance, many of them do not have sufficient access to credit from formal financial institutes. Their major source of finance, especially at the start up stage, is the informal sector (i.e. from friends, relatives and local money lenders). This poor credit access from formal financial source, based on the experience of some developing countries, arises partly from biased government policy, due to the operational practices and procedures of the formal financial institutions and the internal problems of small scale enterprises themselves. (Asrat, 2009). Solving the major financial constraint of this important sub-sector of the economy is an important step towards achieving the national development objective of a country. For this to succeed, the problem of high default risk associated with them, which made the financial institutes reluctant to extend loan, has to be solved. However, the majority of potentially viable SSEs still couldn't get credit access from the formal financial market. High transaction cost, complex bureaucratic lending procedures, elaborate paper work, high collateral requirements and delays are some of the factors which militate against effective utilization of the existing banking facilities (Dejene, 2003). Because of this only limited number of SSEs could be eligible for credit from the banking sector.

Similarly, MFI was one of government owned financial institute that passed through the lending policies mentioned earlier. Its major task has been extending medium and long term credit small and medium-scale development projects.

After 1991 like other financial institutes, MFI diverted its attention towards the private sector whose share never exceeded 11% during the socialist period increased to more than 77% in 2011/12 (MFI, 1970/71-2011/12). Credit access to small scale private enterprises was also improved although it didn't match with the need of customers. With the removal of restrictions imposed by the government, the bank has been given autonomy to pass its own lending decision on the basis of purely commercial criteria. Together with this there is no government guarantee unlike before in case of default. That is, the bank is required to meet its development objective keeping at the same time its financial position safe. Its success/failure development financing as well as its financial position therefore relies on its loan recovery performance.

The problem of loan default reduces the lending capacity of a financial institution. It also denies new applicants access to credit as the bank's cash flow management problems augment in direct proportion to the increasing default problem. In other words, it may disturb the normal inflow and outflow of fund a financial institution has to keep staying in sustainable credit market.

The effect of default problem experienced in MFI as mentioned earlier has been reflected on its financial position. For instance, as of June 30, 2012 the MFI's debt equity ratio was 6:1 as opposed to the internationally recognized ratio of 4:1. During the same period its current ratio (i.e. the ratio of current assets to current liabilities) stood at 0.59:1 implying that the MFI is in severe liquidity constraint, that is its current asset is not in a position to cover its current liability. The repayment problem could arise either from the demand side, supply side, and both or other external factors.

The supply side problems include change in the structure of the bank, change in the lending policy, failure in properly appraising the project document (i.e. in assessing the background of the promoter, technical capability, marketability, financial and economic viability of the project) and lack of responsibility and accountability of the staff members of the MFI.

Concerning MFI there has been no significant change introduced on the general lending policy of the MFI except shifting its attention towards loan collection than loan disbursement, which in fact arisen from severe liquidity problem it has faced. Therefore the problem on the supply side relies more on implementation of the rules and regulations of the MFI and on the MFI's efficiency of making proper credit assessment.

Studies conducted so far were on Micro enterprises (Mengistu, 2007; Birhanu, 2009; Teferri, 2000) and on manufacturing firms' case (relatively medium and large scale ones) located in Addis Ababa (Mengistu, 2009). However, these studies don't specifically touch the case of small-scale private enterprises. This study therefore tried to narrow the research gap paying attention to this sector of the economy. Studies done on micro enterprises are meant to evaluate the institutional sustainability of the credit scheme. However, this study will focuses on identifying factors behind the poor loan repayment performance that SSEs are associated with.

## II. OBJECTIVES OF THE STUDY

The general objective of the study is to analyze and identify the major factors that determine loan repayment performance of the small scale enterprises and to identify the major challenges of the MFI's in the wolaita and Dawuro area.

- Specific objectives
- To identify the major socio-economic factors that influence loan repayment rate of the borrowers of micro finance institution.
- To examine the businesses and loan related factors influence the repayment performance of the Private borrowers.
- To investigate the major problems faced by the borrowers and lenders in the repayment process in micro finance institution.

#### III. METHODOLOGY

#### Research Design

The study employed explanatory research design with quantitative and qualitative methods. The quantitative aspect of the data focused on description of socioeconomic variables, loan and related variables, and business related variables and analysis of relationship among the dependent and explanatory variables of WZMFI for the study.

#### b) Data Sources

The study employed both primary and secondary sources. Primary data sources are the sample loan borrowers of both defaulters and non defaulters from each branch. In support of primary sources, secondary data sources were obtained from both head office, and branches' managers concerned other officers and unpublished works also.

#### c) Sampling Techniques

For this study multi-stage probability sampling techniques were used. At the first stage, the WOLAITA ZONE micro finance institution was selected purposively due to so far there is no scientific studies has been taken regarding to loan repayment performance in this study area. So, researchers motivated to identify and analyze the determinants of loan repayment performances of borrowers in WZMFI. A stratified sampling technique would used to select the respondents. At the outset, the respondents were stratified into two categories, i.e. defaulters and nondefaulters. All borrowers of the MFI's credit that would have repaid their loans when the due date are classified as non-defaulters while those who did not repay their loan three months after the due date are classified as defaulters.

Stratified sampling would be used where borrowers can be divided in to two different strata's: defaulters and non-defaulters. In each stratum, simple random sampling will be used to get the required number of respondents. According to 2006 E.C record of both Wolaita and Dawuro zone finance and economy development office, there are a total of 108,672 private borrowers were listed on the both Wolaita and Dawuro area chart of loan account out of which the repayment date for 300 borrowers was not mature, and hence are excluded from the list.

About 300 Sample respondents were selected through using simple random sampling technique. The sampling respondents were taken from all active clients that have been participated in the program during 2013.

#### IV. RESULT AND DISCUSSION

Table 1: Borrowers characteristics (continuous variables)

Variables	oles Non -Defaulters					Defaulters				Total sample (N= 261)			
	Mean	St.deviation	minimum	maximum	Mean	St.deviation	minimum	maximum	Mean	St.deviation	minimum	maximum	
Age	34.650	8.880	19	60	29.172	8.126	16	56	31.91	8.503	35	116	
Farming Expr	1.384	5.0266	0	30	.948	5.576	0	40	1.166	5.301	0	70	
hhsize	6.1970	1.985	1	13	5.655	1.606	2	10	5.256	1.756	3	23	
depratio	1.850	1.414	0	8	1.582	1.079	0	5	3.432	1.247	0	13	

Sources: survey results, 2014

The average age of the whole respondents was 32  $\pm$  years, ranging between 19 and 60 years old. There was statistically significant (at 5% level) difference between the mean age of defaulter and non-defaulter (Table 1). As we see from the table below, more than half of the respondents were in the first and second age category, showing that most of the borrowers were young age groups. The proportion of youngsters in the defaulter group was a little bit higher than that in the non-defaulter group.

Thus, this indicates that the borrowers at vounger stages become more defaulter than at older age. This is because as age of borrowers' increases they became settled and accumulate wealth; acquire experience in business management and credit use than youngsters. Then these and related positive variables enables elder borrowers to be better payers than youngsters.

Therefore, based on the survey result the average family size of non-defaulters is greater than the average family size of defaulters. This indicates that as family size in the household of borrowers' increases then they allocate their business incomes, which was financed by credit loan, to cover different household's expenses. As a result, this impacts the borrowers' loan repayment performance negatively. The significance value is .000, which is less than .05; therefore based on this researchers can say that there is a significant difference between defaulters at 5% significance level (table 1).

Table 2: Borrowers characteristics (continuous variables)

Variables	N	lon -Defau	Iters (N=)			Defaulte	Total sample (N= 261)			
	Mean	Standard deviation	minimum	maximum	Mean	Standard deviation	minimum	maximum	Mean	Standard deviation
Total live stock ownership	4.10699	38.19087	0	544.44	.8186207	2.3631	0	9.4	2.4628	20.276985
Value of equipment	12247.41	54085.63	0	759,550	2818.1	5460.217	0	22,800	7532.755	29772.9235
Land size	4.623498	2.557656	0.99	16	4.396897	3.158024	1	20	4.5101975	2.85784
Off farm income	1289.468	4389.592	0	48,900	267.7586	983.0369	0	5000	778.6133	2686.31445

Sources: Survey results, 2014, Significant at 5% level of confidence

Next to land, livestock is the most important asset for rural households in Ethiopia. It is used as a source of food, draft power, income and energy. Moreover, livestock is an index of wealth and prestige in rural community. All the sample households reared livestock, which consisted of cattle, small ruminants, back animals and poultries.

Total livestock ownership (LIVSTKNO) is, as expected, positively related to the dependent Variable (significant at 5% level). Each additional TLO increases the probability being non defaulter by the mean value of

4.10695. The minimum number of livestock maintained was 0 whereas the maximum was 544.44 Credit users possessed relatively more livestock unit than non-users. The mean difference between the two groups in owning of livestock was significant at 1% level.

The implication is that, Livestock are sources of cash in rural Ethiopia and serve as security against crop failure. Farmers who owned more livestock are able to repay their loans even when their crops fail due to natural disaster. In addition, as a proxy to oxen ownership the result suggests that farmers who have larger number of livestock have sufficient number of oxen to plough their field timely and as a result obtain high yield and income to repay loans.

Getting income from off-farm activities (OFF-FARM) is another economic factor that was positively and significantly affected loan repayment performance of smallholder farmers. This might be due to the fact that; off-farm activities were additional sources of income for smallholders and the cash generated from these activities could back up the farmers' income to settle their debt even during bad harvesting seasons and when repayment period coincides with low agricultural prices. Each additional unit of Off-farm income increases probability of being non-defaulter by

the mean value of 1289.468 and on average increases the rate of loan repayment by 0.1061 for the entire respondents and by 0.131 among non defaulters. However, this result is contrary to Bekele's (2001), findings that, off-farm income was negatively related with loan repayment performance of farmers.

With respect to land size, the average land holding of the sample borrowers was 5.57 hectare. The minimum and maximum holding sizes were 0.99 and 20 hectares, respectively. All respondents owned more than 15 hectares of land. This shows that farming in the area is of subsistent type (Table 2). The average farm sizes of the non-defaulters and defaulters were 4.6 and 4.3 hectares, respectively.

Table 3: Borrowers characteristics (continuous variables)

Variables	Non -Defaulters (N=)				Defaulters(N=)				Total sample (N= 261)			
	Mean Mean	St.deviation	minimum	maximum	Mean	Standard deviation	minimum	maximum	Mean	Standard deviation	minimum	maximum
Loan amount	22545.32	29583.82	0	544.44	7412.069	14017.07	1500	100,000	26251.3545	30,291.855	1500	100544.44
Loan frequency	2.221675	1.474242	1	8	1.12069	.65098	1	5	1.6711825	1.062611	2	13
Days pro	84.2957	75.1213	10	365	8.275862	34.08647	0	180	46.285781	54.603885	10	545
Portion of loan repaid	.6157656	.3028648	.0312891	1	0	0	0	0.3078828	.3078828	.1514324	.0312891	1.3078828

Source: Survey results, 2014

Despite the fact that majority of respondents have responded the loan amount approved as insufficient to their planned or current engagement, the mean amount of approval deviation is birr 29583.064 and 14,017 for good non defaulter borrowers and defaulters respectively. This implies that majority of those who have defaulted were granted a loan much lower than their request in relation to those of non defaulter borrowers.

Most borrowers request below sufficient amount and are granted even below their request. This condition leads to lower amount of investment on business, unable to hold all the necessary stocks demanded by the market and minimal return from business activity. As noted on table 3 this was the main reason cited by borrowers for lower return.

However, due to the factors indicated in the beginning, the amount applied in the first place is influenced by the credit officers' advice of what amount would possibly be approved with the given status of the borrower, irrespective of his/her demand.

With respect to loan frequency, on an average, respondents obtained the loan credits for 1.671 rounds with the standard deviation of 1.062. It was found that non-defaulters had credit 2.22 rounds while defaulters had 1.120 rounds with a standard deviation of 1.474 and 0.6509 respectively. Moreover, the mean difference between defaulters and non defaulters was statistically significant at 5 % level (table 3). This implies that if client borrow loan for the number of rounds, then they aware obligation and responsibility on loan usage as well as repayment more than those who are the first time borrowers.

With respect to portion of loan repaid, according to loan repayment status of respondents, on an average it was found that 0.6157 of non-defaulters had fully repaid on maturity time, and only .3028 of them paid it fully but too late. The fully repayment of loan enables non-defaulters to gate the advantages of next higher loan like, having good relationship with the lending institution, keeping their socially status in the society, realizing their freedom from any penalty. Whereas, according to defaulters group, on an average, none of respondents had paid loan partially on maturity period and none of the same group had paid too late.

Marital status Defaulters Non defaulters Toal sample X<sup>2</sup>-Value (N=261)Ρ Р  $X^2 = 11.3907$ Ν Ν Ν Single 40 15.33 89 34.10 129 49.43 P=0.001\*\* Married 18 6.9 114 43.68 132 50.7 Sex Male 32 12.26 143 54.79 175 67.05 =4.7617P=0.029\*\* Female 26 9.96 60 22.99 86 32.95

13

52

4.98

19.92

19

242

7.28

92.72

Table 4: Socio-Economic Characteristics of Respondents Based on Discrete Variables

Source: Survey results, 2014 \* significant association \*\* Not significantly associated

6

190

2.3

72.80

N= number of respondents, P = number of respondents' percentage

As regard to marital status, from the total sample respondents 50.7%, 49.43%, were married and single, respectively. The marital statuses of defaulters were also married and single, with the percentage of 6.9, 15.33, respectively. Whereas the marital statuses of non-defaulters were also married and single, with the percentage of 43.68, 34.10, at the same order. Statistically, it was found that the percentage differences between the two groups were insignificant (Table 4). This indicates that being single, married, divorced, and widowed have the same status either to repay or not to repay.

Illiterate

Literate

educational status

As regards to sex composition, 86(32.95%) were female respondents, whereas, 175(67.05%) were male respondents. The proportion of non-defaulters was 60(22.99%) for females, whereas, 143(54.79%) for male counter parts. This reveals that from their respective sex composition, males' respondents were found having more repayment performance than female respondents. However, the chi-square result shows that the association between sex and loan repayment is significant ( $\chi^2 = 4.7617 \text{ P} = 0.029$ ) table 4. This indicates that being either sex does determine loan repayment rate.

 $X^2 = 1.0380$ 

P = 0.308\*

As regards to the educational status of the respondents, the survey results also revealed that 7.28 percent of the sample household heads were illiterate, whereas 92.72 percent of the household's heads were literate (Table 4). Of the total sample respondents, 4.9 percent of the non-defaulters and 2.3 percent of defaulters were illiterate respectively. There was no significant difference between defaulters and non defaulters in terms of their literacy level (Table 4).

Table 5: Characteristics of Lending Scheme, Purpose, Usage, and Size of Loan

Variables		Non- defaulters	Defaulters		sample =261)	x <sup>2</sup> & p values
				N	P	
Loan issued	No	62(23.75 %)	55(21.07%)	117	44.83	$X^2 = 75.3781$
timely	Yes	141(54.02)	3(1.15%)	144	55.17	P= 0.000
	Purchase of industrial products	18(6.9%)	2(.77%)	20	7.66	
	Construction of diary	12(4.6%)	0(.0%)	12	4.6	$X^2 = 27.9488$
Loan purpose	Purchase of cross bre	15(5.75%)	0(.0%)	15	5.75	P= 0.000
	Fill family requirements	21(8.05)	0(.0%)	21	8.05	
	Settle debts	3(1.15)	0(.0%)	3	1.15	
	Growing crops	11(4.21)	0(.0%)	11	4.21	
	Other	123(47.13)	56(22.22%)	179	47.13	
	Unqualified loan officers	51(19.54%)	2(.77%)	53	20.31	$X^2 = 221.9382$ P= 0.000
	Less speedy procedure	41(15.71%)	1(.38%)	42	16.09	F — 0.000
Why long loan	Long procedure	66(25.29%)	3(1.15%)	69	26.44	
application	High no of	26(9.96)	0	26	9.96	

	applicants					
	Non willing officers	18(6.9%)	0	18	6.90	
	Others	1(0.38%)	52(19.92%)	53	20.31	
Repayment	No	32(12.26%)	54(20.69%)	86	32.95	$X^2 = 122.1336$
suitable	Yes	171(65.52%)	4(1.53%)	175	67.05	P= 0.000
Repaying loan	No	0	54(20.69%)	54	20.69	$X^2 = 238.3043$
	Yes	203(77.78%)	4(1.53%)	207	79.31	P= 0.000
Repayment	Fully repaid on time	29(11.11)	0	29	11.11	$X^2 = 238.9397$
status	Fuly repaid too late	33(12.64)	0	33	12.64	P= 0.000
	Partially repaid on time	93(35.63)	1(.38%)	94	36.02	
	Partially repaid too late	48(18.39)	3(1.15)	51	19.54	
	Not repaid	0(0.00%)	54(20.69%)	54	20.69	
Receive	No	67(25.67%)	45(17.24%)	112	42.91	$x^2 = 36.5987$
training	Yes	136(52.11%)	13(4.98%)	149	57.09	P= 0.000
Lent in group	No	82(31.42%)	20(7.66%)	102	39.08	$X^2 = 0.6621$
	Yes	121(46.36%)	38(14.56%)	159	60.92	P= 0.416

Source: Survey result, 2014. N = number of respondents P = percentage of respondents

With respect to loan disbursement, 55.7% of respondents have been answered that they took loan timely. On the other hand, 44.83% of respondents portrays that loan disbursement was delayed for number of weeks. The table 6 below shows that the higher proportion of non-defaulters 54.02% were found from those respondents who received timely disbursed loan, while only 23.75% of non-defaulter respondents were a group from who have received the loan delayed on disbursement.

According to respondents, this delay of disbursement was due to the absence of qualified loan officers and managers on the work time, 20.31%, Less speedy procedure 16.09%, and taking long procedure to finish precondition to deliver loan service 26.44%, High no of applicants 9.96%, Non willing officers 6.90% and others 20.31%. The chi-square result also shows the presence of strong and significant association between disbursement and dependant variable at 5% significance level ( $X^2=75.3781$  at P=0.000).

With respect to the purpose for which loan was taken, we observe that the majority of the borrowers, i.e., 179 (47.13%) took the loan for other purposes like Animal husbandry ,Horticulture ,Weaving and tailoring ,Food processing ,Metal work ,Wood work, Construction ,"Baltina" and petty trading ,Kiosk and shop ,Service provider both in urban rural areas. The next activity for which most of the borrowers took loan is to fill family requirements, 21 (8.05%).

To see if at all purpose of borrowing has some association with loan repayment performance, table 6 is constructed from the survey data. Accordingly only 47.13% of those who borrowed for the other purposes were non-defaulters. The same trend is observed in the rest of the cases. This indicates that purpose of borrowing may not have a notable implication on the loan repayment performance of borrowers. In fact this could be an issue for future research.

According to loan repayment status of respondents, it was found that 11.11% of non-defaulters had fully repaid on maturity time, and only 12.64% of them paid it fully but too late. The fully repayment of loan enables non-defaulters to gate the advantages of next higher loan, having good relationship with the lending institution, keeping their socially status in the society, realizing their freedom from any penalty.

Whereas, according to defaulters group, 0.38% of respondents had paid loan partially on maturity period and 1.15% of the same group had paid too late.

With respect to lending methodology about 60.92% of respondents were engaged in group lending scheme, while 39.08% of respondents were borrowed loan under individual lending scheme. The finding indicates that 14.56% of defaulter's proportions were involved in group lending methodology, whereas the remaining 7.66% of defaulters were categorized under individual lending methodology. In group lending methodology respondents had the chance to gate loan easily without formal collateral and personal guarantee, joint liability of group members used as collateral.

With regard to suitability of repayment period, 67.05% of respondents indicated that the loan repayment period was suitable; on the other hand 32.95% of other respondents revealed it was not. Based on findings, more defaulters' number (20.69%) of respondents was found in the group that replied period was not suitable, while large numbers of non-defaulters (65.52%) were those who reported period was suitable. For the 20.69%% respondents who disagreed on suitability of period; the main reason was the shortness of grace and repayment period. The chi-square result also shows the presence of strong and significant association between repayment period and dependant variable at 5% significant level ( $x^2=122.1336$  at P= 0.000).

In regarding to training, majority of respondents 57.9% indicated that they had received some kind of training on business and about institutional services before receiving loans, while 42.91% responded that they had not received any training before receiving loans. As table 6 shows almost all respondents of nondefaulters were those who took training on business. Hence, the training variable has direct impact on loan repayment performance either to increase or decrease defaulting rate. Statistically, chi-square also confirms the presence of strong and a significant association between training and dependant variable at 5% level of significance (=36.5987 at P= 0.000).

Table 6: Results of two limit Tobit model

Independent Variable	В	SE	Sig	Exp(B)
Sex of household	0.1305399	0.0763707	0.089	-0.0198839
Educational status of HH	0.223957	0.1352203	0.099	-0.0423806
Marital status of HH	0.075803	0.0837720	0.366	-0.0892004
Age of HH	0.00206	0.0051369	0.689	-0.0080577
Farming experience	0.01549	0.0101005	0.126	-0.004405
HH size	0.015245	0.016997	0.371	-0.0182328
Dependency Ratio	0.043917	0.02588	0.091	-0.0070577
Tropical livestock unit	0.000936	0.0003093	0.003	0.0003262
Off Farm income	-0.002894	0.0107956	0.789	-0.0241573
Value of equipment	0.027837	0.0093389	0.003	0.0094424
Receiving training	0.025597	0.0775924	0.742	-0.1272328
Lend in group	-0.072074	0.0804411	0.371	-0.2305149
Repayment suitability	0.58213	0.0984152	0.0001	0.388286
Loan amount	-0.019143	358382	0.594	-0.0897318
Loan frequency	0.034654	0.0251999	0.17	-0.0149813

Source: Survey result, 2014. B=regression coefficient, Exp (B) = odds ratio Overall, correct prediction = 89.9% Sig. = significance S.E = standard error Log pseudo likelihood = -201.05208 Pseudo R2 = 0.2020

A total of 15 explanatory variables were considered in the econometric model. Out of which six variables were found to be significant. These were sex of house hold, Education level, Number of dependants within and out house hold, Tropical live stock unit, Value of equipment, Repayment suitability. The coefficients of these all significant variables were negative and positive.

Sex of house hold: As regards to sex composition, 86(32.95%) were female respondents, whereas, 175(67.05%) were male respondents. The proportion of non-defaulters was 60(22.99%) for females, whereas, 143(54.79%) for male counter parts. This reveals that from their respective sex composition, males' respondents were found having more repayment performance than female respondents. However, the chi-square result shows that the association between sex and loan repayment is significant ( $x^2 = 4.7617 P =$ 0.029) table 4. This indicates that being either sex does determine loan repayment rate.

Education level: The education level was positively and significantly influencing loan repayment at 1% significance level. An increase in one year schooling increases the probability of the loan repayment rate by 4.23806, ceteris paribus. This figure revels that the borrowers whose educational level increased have the probability of increasing the loan repayment performance four times more than the borrowers who have lesser education level/ illiterates. This suggests that more educated borrower may have access to business information.

Number of dependants within and out household: This variable was found to determine negatively and significantly borrowers' loan repayment performance at 1% significance level. If other variables held constant, having non-dependants or lower number of dependants' decreases the probability of defaulting by the 15.8%.

Livestock Ownership: Next to land, livestock is the most important asset for rural households in Ethiopia. It is

used as a source of food, draft power, income and energy. Moreover, livestock is an index of wealth and prestige in rural community. All the sample households reared livestock, which consisted of cattle, small ruminants, back animals and poultries. Total livestock ownership (LIVSTKNO) is, as expected, positively related to the dependent Variable (significant at 5% level). Each additional livestock ownership unit increases the probability being non defaulter by the mean value of 4.10695. The minimum number of livestock maintained was 0 whereas the maximum was 544.44 Credit users possessed relatively more livestock unit than non-users. The mean difference between the two groups in owning of livestock was significant at 1% level.

Repayment suitability: In regard to suitability of repayment period, 67.05% of respondents indicated that the loan repayment period was suitable; on the other hand 32.95% of other respondents revealed it was not. Based on findings, more defaulters' number (20.69%) of respondents was found in the group that replied period was not suitable, while large numbers of non-defaulters (65.52%) were those who reported period was suitable. For the 20.69%% respondents who disagreed on suitability of period; the main reason was the shortness of grace and repayment period. The chi-square result also shows the presence of strong and significant association between repayment period and dependant variable at 5% significant level(X<sup>2</sup> =122.1336 at P= 0.000).

#### V. Conclusion and Recommendation

The finding of this study revealed that the age of respondents negatively and significantly determines the loan repayment performance of borrowers. This indicates that the elder respondents have better repayment performance than youngsters. And the elders were more responsible to repay loan than youngsters.

The researcher not recommends excluding youngsters. However, the care must be taken when starting from applicants' screening to through repayment periods, the special attention for follow up and supervision is necessary.

The education level determines loan repayment positively and significantly. The borrowers who attained higher education level able to pay better than the borrowers who were in lower level schooling and/or Therefore, institution should illiterates. motivate educated people and also easy to provide training.

Time lag between loan application and disbursement should be reduced to increase repayment rate. The complicated loan processing procedures, which might lead to delay in disbursement, further, it will increase default rate.

The supervision made by the loan officers and borrowers ratio should be reduced and it leads to increase follow-up services. However, recommended that institution should compute thoroughly the borrowers' business proposal loan size before approving and sanctioning.

Borrowers who have small number of or no dependants in the household perform better in loan repayment. The borrowers who support large number of dependants also perform well with proper supervision.

Loan diversion was also found as essential and significant determinant of loan repayment rate negatively. This means, diverting loan into non-income generating activities increases default rate. Therefore, it is recommended that the institution should give attention to continuous follow-up on proper loan utilization.

Repayment period is also found to be a significant determinant of loan repayment performance of borrowers. Suitability of loan repayment period for borrowers was found to significantly increase the probability of repaying loan. Therefore, the institution has to give enough time to clients so that they will be able to work with the loans they have borrowed and arrange the time to collect loan that will be suitable for them to sell their business output.

#### References Références Referencias

- 1. Adeyemo, Remi (2004), Loan Delinquency in Multi-Purpose Cooperative Union in Kawara State, Nigeria, savings and development, Vol. VII, No. 3, pp. 267-274.
- 2. Agu Cletus C. (2002), Analysis of the Determinants of the Nigerian Banking System's Profits and Profitability Performance 2. Savinas Development, Vol. XVI, No. 4, 2002, pp. 353-371.
- Ajayi C.A. (2002) An Analysis of Default Factors in Residential Mortgages of the Federal Mortgage Bank of Nigeria<sup>2</sup>, African Review of Money, Finance and Banking, No. 2, pp.203-215.
- Alemavehu Geda (2009) The Structure and Performance of Ethiopia's Financial Sector in the Pre and Post Reform Period: With Special Focus on Banking, in Alemayehu Geda and Birhanu Nega (ed.). The Ethiopian Economy: Performance and Evaluation: Proceedings of the Eighth Annual Conference on the Ethiopian Economy, pp.133-162.
- Andualem Tegegne (2007) Small Scale Enterprise and Entrepreneurship Development in Ethiopia Concepts, definitions and Major Issues, In Wolday Amha, G.H.R Chipande and Andualem Tegegne (ed.) Proceedings of the Sixth Annual Conference on the Ethiopian Economy.
- Arene C.J (2002) Loan Repayment and Technical Assistance among Small Holder Maize Farmers in Nigeria, African Review of Money, Finance and Banking, No.1, pp.63-73.
- Assefa Admassie (2007) Study of the Factors that 7. Affect the Use of Agricultural Credit among Peasant

- farmers in Ethiopia: the Case of Two Districts, Master's Thesis.
- 8. Asrat Tefera (2009) Development Finance for Small and Medium Industries, International Workshop on transfer of Technology for Small Scale and Medium Industries.
- 9. Baker Chester B. and Dia Bernadette (2007) Default Management in Agricultural Lending Program in Ivory Coast, Savings and Development, Vol. XI, No.2, pp.161-177
- 10. Birhanu Lakew 2009) Micro Enterprise Credit and Poverty Alleviation in Ethiopia: The Case of the Project Office for the Creation of Small Scale Business Opportunities (POCSSBO) in Addis Ababa, Master's Thesis, 2009.
- 11. Bosa George R. (2009) The Financing of Small and Medium Enterprises in Uganda, Oxford University
- 12. Abafita, J. (2003) 'Microfinance and loan repayment performance: A Case Study of the Oromia credit and Savings Share Company (OCSSCO) in Kuyu', MSc thesis, Addis Ababa University, Addis Ababa.
- 13. Abreham Gebeyehu (2002), 'Loan repayment and Determinants in Small-Scale Enterprises Financing in Ethiopia: Case of private borrowers Around Zeway Area', M. Sc. Thesis, AAU.
- 14. Addisu, M. (2006) 'Micro-finance Repayment Problems in the Informal Sector in Addis Ababa', Ethiopian Journal of Business & Development Volume 1 Number 2 August 2006.
- 15. Admassie A., Ageba G. & Demeke M. (2005) 'Rural Finance in Ethiopia; Assessement of the financial products of microfinance institution', association of Ethiopian Microfinance Institutions, occasional paper No. 12.
- 16. Amha, W. (2000) 'Review of Microfinance Industry in Ethiopia: Regulatory framework and performance, Association of Ethiopian Microfinance Institution (AEMI), Addis Ababa, Ethiopia.
- 17. Armendariz, A. and Morduch, J. (2010) 'The Economics of Microfinance', 2nd ed. The MIT Press Cambridge, Massachusetts London, England.
- 18. Asian Development Bank (ADB), 2000, 'Finance for the poor: Microfinance development Strategy', Rural Asia study: beyond the Green revolution. Manila.
- 19. Assefa B. A. (2002) 'Factors influencing loan repayment of rural women in Eastern Ethiopia: the case of Dire Dawa Area', A Thesis presented to the school of graduate studies, Alemaya Univeristy, Ethiopia.
- 20. Auwal, M.A. (1996) 'Promoting micro capitalism in service of the poor: the Grameen model and its cross-cultural adaptation', Journal of Business Communication 33.1, 27–49.
- 21. Basu S. (2005) 'Securitization and the Challenges Faced in Micro Finance', Centre for Micro Finance

- Research Working Paper Series, Institute for Financial Mangement and Research (IFMR).
- 22. Basu, A., Blavv, R. and Yulek, M. (2004) 'The Roles of Donors and NGOs: Microfinance in Africa Experience and Lessons from Selected African Countries', IMF Working Paper.