

Determinants of capital structure: Evidence from Sidama credit and saving microfinance institution

Alemayehu Taddese

Hawassa University, Ethiopia

* Correspondence author email: taddesea89@gmail.com

DOI: 10.22437/ppd.v9i3.12221	Received: 02.03.2021	Revised: 22.08.2021	Accepted: 23.08.2021	Published: 31.08.2021
---------------------------------	-------------------------	------------------------	-------------------------	--------------------------

Abstract

Different industry-specific and macro-economic factors influence the capital structure of microfinance institutions (MFI). So, the objective of this study is to identify industry-specific determinants of capital structure with the selected branch of Sidama MFI, Sidama region, Ethiopia. To this end, the researcher employed a quantitative research approach with an explanatory research design where the effect caused by the independent variable on the dependent variable is observed through regression analysis. The secondary data were collected from Sidama MFIs consolidated and audited financial statements from 2009 to 2019 G.C. Then, both descriptive and inferential statistical analysis has been done. The researcher employed a regression analysis model to identify the effect of five explanatory variables on capital structure measured through debt to equity ratio. Thus, the result of regression analysis showed that out of five independent variables incorporated in the model, all five variables such as growth (negative), profitability (positive), firm size (positive), earning volatility (positive), and asset tangibility (positive) and statistically significant respectively. This study recommends that the microfinance institutions at all company levels improve debt capacity in proportion to asset tangibility more than the current status.

Keywords: *Capital structure, Credit, Microfinance institution*

JEL Classification: G21, G32

INTRODUCTION

Think globally, microfinance started in Bangladesh and parts of Latin America in the mid-1970s to provide credit to the poor, who were generally excluded from financial services (CGAP, 2006). The first organization to receive attention was the Green Bank, which was started in 1976 by Mohammad Yunus in Bangladesh.

The modern Microfinance revolution began in the 70s when Dr. Yunus, a Nobel Prize winner economist, created this innovative concept of lending. He studied poor individuals in a village named Jobra in Bangladesh. He discovered that the poor could not change their economic situation because they lacked access to capital due to exclusion from the financial system. In response to their need for capital, Grameen Bank was established with the vision to alleviate poverty and reach those regarded as “Nonbankable” (Desai, 2007; Jalal & Sahar., 2020; Mia, 2016).

In Africa, the Nigerian government reminded this popular thinking in 2005 when it initiated the Microfinance banking scheme. This was founded to provide finance to

the economically poor and excluded from financing by conventional banks, provide employment, stimulate rural development and reduce poverty.

In Ethiopia, Microfinance was started after issuing the proclamation of licensing and supervision of Microfinance institutions (Proclamation number 40/1996) E.C or 40/2004 G.C. After the issuance of this proclamation, 30 Microfinance institutions (MFIs) have been licensed by the National Bank of Ethiopia.

Poverty reduction strategy is set as the operational framework to translate the global MDGs targets into national action. Microfinance service intervention in Ethiopia has also been considered by government and non-government organizations (NGOs). They enable rural and urban poor people's increase output and productivity, induce technology adoption, improve input and productivity, induce technology adoption, improve input supply, increase income, reduce poverty and attain food security. The sustainability of MFIs 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 element of the new development strategy of Ethiopia (Wolday, 2000 as cited by Alemayehu, 2008).

The modern theory of capital structure started with the seminar paper of Modigliani & Miller (1958). MM theorem states that in the absence of transaction costs, corporate income taxations, or other market imperfections, the value of firms is independent of their financial structure. Real assets determine a firm's value and cannot be changed purely by financial transactions.

The capital structure of a firm is a mixture of debt and equity. In general, firms can choose among alternative capital structures. Firms can also issue dozens of distinct securities in countless combinations to maximize overall market value. (Biekpe, 2006).

The debate of optimal capital structure has been the focal point of the finance literature for previous decades. According to finance theory, the capital structure does affect the cost of capital and, consequently, financial performance. Cost of capital serves as the benchmark of the firm's capital budgeting decisions; therefore, the optimal mix of debt and equity is essential. The owner's wealth maximization concept also dictates that firms choose the optimal mix of debt and equity financing that best serves the ultimate objectives of the firm of all the aspects of capital investment decisions. Capital structure decision is vital since the performance of a firm is directly affected by such decision. Hence proper care and attention need to be given while making the capital structure decision. With an unplanned capital structure, companies may fail to economize the use of their funds.

Consequently, it is increasingly realized that a company should plan its capital structure to maximize the use of funds and to be able to adapt more easily to the changing conditions. An ultimate goal of a firm is the maximization of the wealth or value of that firm. Therefore, how a microfinance institution combines its debt and equity will define its performance, as noted by (Ross. et al.2009).

In Ethiopia, there are studies on determinants of capital structure and the effect of capital structure in the banking and Insurance sectors. The existing empirical studies have focused on the determinants of capital structure to explain how firms can finance business activities by using profitability and equity to maximize the benefits for shareholders based on their advantages. A natural extension from the Ethiopian finance sector perspective is to investigate the effects of financial structure on the financial performance of microfinance institutions. Previous studies have tended to be fairly limited.

According to the Association of Ethiopia Micro Finance Institution (AEMFI, 2018), there are currently 35 Micro Finance Institutions operating in different regional states of Ethiopia. Among them, five (5) MFIs were operating in South Nations Nationalities Peoples Regional states. They are: Sidamam Micro Finance, Omo Micro Finance, Agar Micro Finance, Vision Micro Finance, and Kendile Micro Finance.

Hence, this study focused on firm-specific determinants of capital structure regarding Sidama Micro Finance, one of 35 MFIs in Ethiopia. The researcher concentrates on five key variables and the following hypothesis.

H1: Firm growth has a statistically significant negative effect on the capital structure of Sidama MFI.

H2: Firm profitability has a statistically significant positive effect on the capital structure of Sidama MFI.

H3: Firm size has a statistically significant positive effect on the capital structure of Sidama MFI.

H4: Firm business risk (earnings volatility) has a statistically significant positive effect on the capital structure of Sidama MFI.

H5: Firm Asset tangibility has a statistically significant positive effect on the capital structure of Sidama MFI.

METHODS

Research design.

The researcher has used an explanatory type of research design. An explanatory type of research design is used for researches that study “a situation or a problem in order to explain the relationships between variables.” (Saunders et al. 2007) since this study investigated the determinants of capital structure of the microfinance institution; Evidence from Sidama microfinance institution by evaluating the relationship among different variables.

Population and sampling technique

The population of this study was Sidama micro-finance institutions. The study has been select Sidama micro-finance institution consolidated financial statement report or audited financial statement report with related balance sheet and income statement report. Sidama MFIs were selected based on the availability of financial data necessary at the company level and select the sample based on the purposive method based on the age of the MFIs.

Data source and collection method

Financial statements like balance sheets and income statements submitted by Sidama MFIs were used as secondary data sources. The researcher used financial statement reports, specifically income statements and balance sheets of 11 years for 2009 – 2019.

Model specification of the study

Data analysis indicates computation of certain measures along with searching for a pattern of relationship among data groups. In addition, data analysis implies editing, coding, classification, and tabulation of collected data.

The collected data have been summarized and presented using different ratios like growth, profitability, firm size, earnings volatility, and asset tangibility. The data have been analyzed by using Eviews 9. Time series data. An average of 11 years of data for each variable as per Sidama MFIs has been computed. The multiple linear regression

analysis has been used to determine whether the group of variables together predicts the company’s capital structure. The following model of the linear regression has been used.

$$LEV = \beta_0 + \beta_1 GRT + \beta_2 PRO + \beta_3 FS + \beta_4 ERV + \beta_5 AT + \mu_t$$

Where as

Y= Leverage of the company

X1= Growth of the company

X2=Profitability of the company

X3= Firms Size

X4= Earnings volatility

X5= Asset Tangibility of the company

μ = error term

β_0 = constant term.

In the model, β_0 = the constant term while the coefficient $\beta_i = 1 \dots 5$ was used to measure the sensitivity of the dependent variable (Y) to a unit change in the predictor variables. μ was the error term which captured the unexplained variations in the model. The leverage of the firm is measured through the ratio of debt over equity. A regression would be run to determine the coefficients of the independent variables in relation to the dependent.

Finally, the study used multiplied linear regression model to test determinants of capital structure of Sidama MFI by applying the ordinary least square (OLS) regression method. The rationale behind using OLS is that it can minimize the error between the estimated point on the line and the observed points (Mujahid & Akhtar, 2014).

The variables and their measurement and expected effects among them are summarized in Table 1.

Table 1. Variable description

Proxy Factor	Measurement	Expected relationship
Leverage (LEV)	Total liability +debt/total shareholder equity	
Growth opportunity	Current asset –previous asset/previous asset	-
Profitability(PROF)	EBIT/TA	+
Firm Size	Natural logarithm of Total Asset	+
Earnings Volatility(EAV)	The standard deviation of the first annual earning/mean of earning	+
Tangibility (TANG)	FA/TA	+

RESULT AND DISCUSSIONS

Descriptive statistics

This section presents the descriptive statistics of dependent and independent variables used in the study for the sampled MFIs Sidama MFI. The dependent variables used in this study were capital structure. In contrast, the independent variables were growth, profitability, size of the firm, earning volatility, and asset tangibility of Sidama MFIs. Table 2. demonstrates the mean, median, maximum and minimum values, and standard deviation.

Leverage is the ratio of debt financing to equity financing. The higher the ratio value, the more it suggests that the institutions are leveraged than financed through equity capital. The mean value of this variable is 3.71, which indicates, Sidama MFI is leveraged on average than financed through equity capital. On the other hand, the minimum and maximum leverage (equity debt) are 2.41 and 5.31, indicating Sidama MFI is more financed through debt financing than a proportional financing structure.

Table 2. Summary of descriptive statistics

	LEV	GR	PRO	FS	EV	AT
Mean	3.717109	0.435609	0.159364	2.319973	0.018936	0.068518
Median	3.608600	0.426600	0.089800	2.151200	0.017000	0.040400
Maximum	5.317700	0.894600	0.355000	3.320800	0.028000	0.167000
Minimum	2.410500	0.034300	0.038300	1.216200	0.012400	0.013000
Std. Dev.	0.938475	0.316142	0.133378	0.864468	0.005339	0.057604
Jarque-Bera	0.485095	0.736731	1.665953	0.981393	1.271188	1.498454
Probability	0.784627	0.691864	0.434753	0.612200	0.529621	0.472732
Observations	11	11	11	11	11	11

Another explanatory variable and size of selected Sidama MFIs played an important role in maintaining their market position. The mean value of this variable was 231.9 percent in its natural logarithms value. The maximum value of size was 332 percent, and the minimum value of 121 percent, with a standard deviation value of 86 percent.

Earnings volatility has a mean value of 1.89 percent. The mean value of earning volatility indicates that Sidama MFIs were average 0.0189 cents of one birr asset. The maximum value of earning volatility was 2.8 percent, and the minimum value of 1.2 percent, with a standard deviation of 0.05 percent.

Finally, asset tangibility has a mean value of 6.85 percent. The mean value indicates that Sidama MFIs were on average 0.0685 cents of one birr asset. Maximum values of asset tangibility were 16.7 percent and minimum values of 1.3 percent with a standard deviation of 5.76 percent.

Testing assumption of Classical Linear Regression Model (CLRM)

The linearity of the parameter is assumed since the model applies linear ordinary least squares (OLS). The model's objective is to predict the strength and direction of association among the dependent and independent variables. Thus, to maintain the validity and robustness of the regression result of the research in CLRM, it is better to satisfy the basic econometric assumption of CLRM. When these assumptions are satisfied, it is considered as all available information is used in the model. However, if these assumptions are violated, there will be data left out of the model (Brooks, 2008).

Before going further into time-series data econometric procedures, diagnostic tests were undertaken to ensure that the assumptions of the classical linear regression model were fulfilled or not, the coefficient estimators of both β_0 (constant term) and β (independent variables) that are determined by ordinary least square (OLS) have a number of desirable properties and usually known as Best Linear Unbiased Estimators (BLUE). Hence, the following sections discuss the results of the diagnostic tests that were conducted to ensure whether the data fits the basic assumptions of the classical linear regression model or not.

Test for an average value of the error term is zero ($E(u_t) = 0$) assumption

The first assumption required is that the average value of the errors is zero. In fact, if a constant term is included in the regression equation, this assumption will never be violated. Therefore, since the constant term (i.e., β_0) was included in the regression equation, the average value of the error term in this study was expected to be zero.

Test for normality

The Classical Linear Regression Model (CLRM) assumes that the error term is normally distributed with zero error mean as a positive error will offset the negative error. According to (Brooks, 2008), to conduct single or joint hypothesis tests about the model parameter, the normality assumption ($u_t \sim N(0, \sigma^2)$) (i.e., the errors are normally

distributed) must be fulfilled. In this study, the normality of the data was checked with the popular Jarque-Bera test statistic. If the residuals are normally distributed, the Jarque-Bera statistic would not be significant at a 5 percent significant level, meaning disturbance to be normally distributed around the mean. This means that the p -value given at the bottom of the normality test screens should be bigger than 0.05 to not reject the null hypothesis of normality at a 5 percent significant level.

Jarque-Bera also formalized this by testing the residuals for normality and testing whether the coefficient of skewness and kurtosis are close to zero and three, respectively. The hypotheses for the normality test were formulated as follow:

H_0 : Error term is normally distributed

H_a : Error term is not normally distributed

Decision Rule: Reject H_0 if P-value is less than significant level 0.05. Otherwise, do not reject.

Normality test for residuals of LEV model

The normality test result of the LEV model in Figure 1 shows that the histogram was bell-shaped. The Jarque -Bera statistic (0.264) and has a P-value of (0.876), implying that the p-value for the Jarque-Bera test for this model is greater than 0.05. So, the result indicates that the errors were normally distributed, and there was no problem of normality on the LEV model. The study failed to reject the null hypothesis of normality at the 5 percent significance level based on the statistical result.

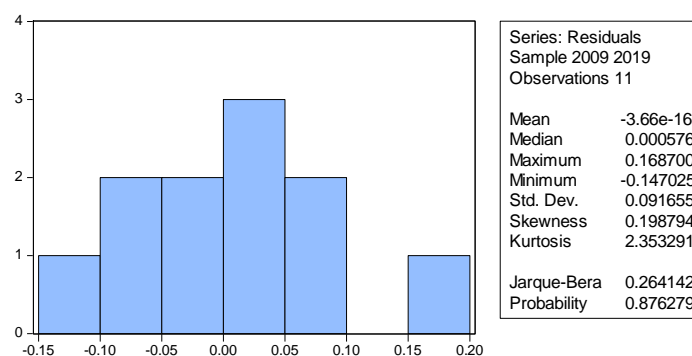


Figure 1. Normality test for residuals of LEV model

Test for heteroscedasticity; $var(ut) = \sigma^2 < \infty$

Among the OLS assumptions, one of the diagnostic tests conducted in this study is the heteroscedasticity test. This is theoretically expressed as by Brooks (2008) ‘ $var(ut) = \sigma^2$ ’; it has been assumed that the variance of the errors is constant, σ^2 . In the classical linear regression model, one of the basic assumptions is Homoscedasticity, which states that the probability distribution of the disturbance term remains the same for all observations. The variance of each disturbance term is the same for all values of the explanatory variable. However, if the disturbance terms do not have the same variance, this condition of non-constant variance or non-homogeneity of variance is known as heteroscedasticity. Accordingly, to detect the heteroscedasticity problems, the Breach-Pagan test was utilized in this study. This test states that if the p-value is significant at 95 confidence intervals, the data has a heteroscedasticity problem. If the value is insignificant (greater than 0.05), the data has no heteroscedasticity problem.

It is hypothesized that as follows;

H_0 : There is no Heteroscedasticity problem

H_a : There is a Heteroscedasticity problem

Decision Rule: Reject H_0 if P-value was less than significant level 0.05. Otherwise, do

not reject.

Table 3. Breusch –Pagan –Godfrey test Statistics

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.102715	Prob. F(5,5)	0.4586
Obs*R-squared	5.768667	Prob. Chi-Square(5)	0.3294
Scaled explained SS	0.806476	Prob. Chi-Square(5)	0.9766

Table 3. shows that both the F-statistic and Chi-square tests give the same conclusion that there was no significant evidence for the presence of heteroscedasticity in the LEV model. Since the p-values in all of the cases were above 0.05, the null hypothesis that there is no Heteroscedasticity problem is failed to reject at a 5 percent significant level.

Test for auto correlation; $cov(u_i, u_j) = 0$ for $i = j$

The third assumption made for the CLRM’s disturbance terms is that the covariance between the error terms over time is zero. In other words, it is assumed that the errors are uncorrelated with one another. If the errors are correlated with one another, it would be stated that they are ‘auto-correlated’ or that they are ‘serially correlated’. According to (Brooks 2008), when the error term for any observation is related to another observation, it indicates that autocorrelation problems exist in the model.

In the autocorrelation problem, the estimated parameters can remain unbiased and consistent, but they are inefficient. The result of the t-test, F-test, or the confidence interval will become invalid because the variances of estimators tend to be underestimated or overestimated. Due to the invalid hypothesis, testing may lead to misleading results on the significance of parameters in the model. Breach-Godfrey Serial Correlation LM Test was used in this study to detect the autocorrelation problem.

It is hypothesized that as follows;

Ho: no serial correlation

H1: the presence of serial correlation

Decision Rule: Reject H_0 , if P-value less than significant level 0.05. Otherwise, do not reject

Table 4. Test for serial correlation of LEV model

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	2.888198	Prob. F(2,3)	0.1999
Obs*R-squared	7.239914	Prob. Chi-Square(2)	0.268

As seen from Table 4. the P-value of both F-statistic and Chi-Square for the LEV model was (0.1999) and (0.268), respectively, greater than the significance level of 5 percent. Hence, the null hypothesis of no serial correlation is failed to reject at 5 percent of the significant level. The result supports the absence of serial correlation in this model. Therefore, it can be concluded that the covariance between residuals is zero, and the absence of serial correlation problem was found conclusively from the LM tests.

Test for multicollinearity

An implicit assumption that is made when using the time series least square estimation method is that the independent variables are not correlated with one another. If there is no relationship between the explanatory variables, they would be orthogonal to one another. If the explanatory variables were orthogonal to one another, adding or removing a variable from a regression equation would not cause the values of the coefficients on the other variables to change. Suppose an independent variable is an exact linear combination of the other independent variables. In that case, says the model suffers from perfect Co linearity, and OLS cannot estimate it.

Correlation analysis among variables

As noted in (Brooks, 2008), if it is stated that Y and X are correlated, it means that Y and X are being treated in a completely symmetrical way. Thus, it is not implied that changes in X cause changes in Y, or indeed that changes in Y cause changes in X rather, it is simply stated that there is evidence for a linear relationship between the two variables and that movement in the two variables are on average related to an extent given by the correlation coefficient.

Table 5. show the result of correlation analysis to determine the relationship between a dependent variable (LEV) and explanatory variables (i.e., growth, profitability, Firm size, Earning volatility, and Asset Tangibility)

Table 5. Correlation matrix of LEV and explanatory variables

	LEV	GR	PRO	FS	EV	AT
LEV	1	0.749427	0.888353	-0.685752	0.320744	0.6155640
GR	-0.7494	1	-0.57322	0.632537	0.258968	-0.099176
PRO	0.8883	-0.5732	1	-0.78088	-0.358	0.4624483
FS	0.6857	0.6325	-0.78088	1	-0.15250	-0.269788
EV	0.3207	0.2589683	-0.35840	-0.15250	1	-0.032616
AT	0.6155640	0.099176	0.4624483	-0.26978	-0.03261	1

As shown in Table 5., profitability, firm size, earnings volatility, and asset tangibility were positively correlated with capital structure with a correlation coefficient of 0.8883539, 0.68575232, 0.32074298, and 0.615564, respectively. This correlation shows that profitability, firm size, earning volatility, asset tangibility, and capital structure also move in the same direction. Growth is negatively correlated with LEV with a correlation coefficient of (-0.749427268). It implies that, as the growth increases, and leverage ratio moves in the opposite direction.

Results for OLS regression

Ordinary least squares (OLS) is a method for estimating the unknown parameters in a linear regression model to minimize the sum of the squares of the difference between the observed responses (values of the variable being predicted) in a given dataset and those predicted by a linear function of a set of explanatory variables. Visually this is seen as the sum of the squared vertical distance between each data point in the set and the corresponding point on the regression line; the smaller the distances, the better the model fits the data (Kothari, 2008). Table 6. shows the effect of capital structures of Sidama MFIs in Sidama.

Table 6. OLS regression results on LEV model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GR	-1.715597	0.201985	-8.493690	0.0004***
PRO	6.153785	0.995942	6.178859	0.0016***
FS	0.515662	0.155524	3.315641	0.021**
EV	39.41536	15.86197	2.484896	0.0555*
AT	4.712563	0.901921	5.225032	0.0034***
C	1.218149	0.712772	1.709029	0.1481
R-squared	0.990462	Mean dependent var		3.717109
Adjusted R-squared	0.980923	S.D. dependent var		0.938475
S.E. of regression	0.129620	Akaike info criterion		-0.945966
Sum squared resid	0.084007	Schwarz criterion		-0.728932
Log-likelihood	11.20281	Hannan-Quinn criterion.		-1.082775
F-statistic	103.8408	Durbin-Watson stat		2.806838
Prob(F-statistic)	0.000048			

*The analysis was made based on 1(***), 5(**) & 10(*) percent significant levels.*

Table 6 shows that the model's R-squared and adjusted-R squared statistics were 99 percent and 98 percent, respectively. This result indicates that the explanatory variables explain 98 percent of the variation in the dependent variable. That means the explanatory variables (growth, profitability, firm size, earnings volatility, and asset tangibility) jointly explain about 98 percent of the variation in the debt ratio.

Hypotheses testing

F- statistics (103.841) which is used to test the overall significance of the model, was presented. The null hypothesis can be rejected at a 1 percent level of significance, since the p-value was (0.00048), which was sufficiently low, indicates the reliability and validity of the model at a 1 percent level of significance.

The result of this study shows that support from growth with a coefficient of regression [$\beta = -1.715597$] has a negative and statistically significant at 1% level of significance since (p-value of $0.0004 < 0.01$). Hence, hypothesis H1 is accepted. This finding is consistent with the idea that trade-off and agency theories predict a negative relation between leverage and growth. And the empirical finding of studies by (Buferna. et al. 2005; Eriotis. et al. 2007; Shah & Khan, 2007; Kila and Mahmood, 2008; Salawu and Agboola, 2008; Morri & Cristanziani, 2009; Ramlall, 2009) have reported a negative relationship between growth and capital structure of firms. This finding suggests that as growth options increase, asset substitution problems also become more severe. Growth opportunities are capital assets that add value to a firm but are not collateralized and do not generate current taxable income.

Secondly, the result of this study show profitability with a coefficient of regression [$\beta = 6.153785$ and p-value (0.0016)] has a positive and statistically significant at 1% level of significance since (p-value of $0.0016 < 0.01$). Hence, hypothesis H2 is accepted. This finding is related to the empirical literature of Abor (2005); Jensen, Solberg & Zorn (1992). The idea of trade-off theory also supports this result. The trade-off theory suggests that more profitable firms are exposed to lower bankruptcy risks and more incentive to employ debt to exploit interest tax shields. That means there is a positive relationship between Oromiya credit and saving Share Company of OCSSC MFIs capital structure and profitability.

Thirdly, the result of this study concerning with size of the firm with a coefficient of regression [$\beta = 0.515662$] has a positive and statistically significant effect on the capital structure at a 5% level of significance since (p-value of $0.0211 < 0.05$). Hence, hypothesis H3 is accepted. This finding is consistent with the idea that the study is similar to previous research by Mary et al. (2011) and Ahmed et al. (2010). They found that an increase in firm size has a positive influence on capital structure. In addition, the trade-off theory supports the idea that the larger the firm's size, the more it employs the debt. This makes the firms faced with less risky. As a result, he concluded that an increase in the size of a firm has a positive influence on capital structure.

Fourthly the results of the study employ earning volatility with the coefficient of regression ($\beta = 39.41536$) has a positive and statistically significant effect on the capital structure at 10% level of significance since (p-values 0.0555) which less than 0.1signifince level. Therefore hypothesis H4 is accepted. The result is supported by empirical evidence literature of (Cools 1993) and agency cost theory.

Finally, the study results employ asset tangibility with the coefficient of regression ($\beta = 4.712563$) has positive and statistically significant effect on capital structure at 1 % level of significance since (p-value of 0.0034) which less than 0.01 significant level. Hence, hypothesis H5 is accepted. The finding was supported by the

ideas of empirical evidence from (Fama and Jensen, 1983; Huang and Song, 2002; and Smith, 2010) and supported by the trade-off theory and agency cost theory.

Table 7. Summary of the expected and actual influence of explanatory variables on LEV

Relation with LEV	Hypothesis	Expected	Actual result	Decision
Growth	H1:	negative & significant	negative & significant	Accepted
Profitability	H2:	Positive & significant	positive & significant	Accepted
Firm size	H3:	Positive & significant	positive & significant	Accepted
Earning volatility	H4:	Positive & significant	positive & significant	Accepted
Asset tangibility	H5:	Positive & significant	positive & significant	Accepted

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The findings revealed from this study were that Sidama MFIs were averagely generating positive capital structure (leverage ratio). The growth of a company has a negative effect on capital structure, which means an increase in the value of this variable leads to a decrease in the firm's capital structure.

Profitability has a positive effect on capital structure. The trade-off theory suggests that more profitable firms are exposed to lower bankruptcy risks and more incentive to employ debt to exploit interest tax shields.

The increase in the size of a firm has a positive effect on the capital structure. The trade-off theory supports the idea that the larger the firm's size, the more it employs the debt. It makes the firms faced with less risky.

The earning volatility has a positive effect on the capital ratio. Finally, an increase in asset tangibility has a positive effect on the capital structure of Sidama MFIs in Sidama. It means that an increase in the value of this variable leads to an increase in capital structure.

Recommendations

The company growth has a negative effect on the leverage ratio. Therefore, the researcher recommended that the Sidama MFIs increase growth opportunities that add value to the firm's assets. The Sidama MFIs increase short-term debt to increase the growth tend to place a greater demand or internally generated funds.

There is a positive relationship between profitability and capital structure. Hence, the researcher forwarded possible recommendations for Sidama MFIs in Sidama, more internal sources of finance and external source of finance. That means the Sidama MFIs are advisable to use optimal financing of inside and outside sources. It was a combination of debt and equity.

There is a positive effect of firm size on the capital structure of Sidama MFIs. So the researcher recommended Sidama MFIs better to expand their branch or increases their firm size to employ more debt and less risk and diversified in nature.

The relationship between earning volatility and capital structure regarding leverage of Sidama MFIs shows positive. So the researcher recommended that Sidama MFIs decrease under the investment problem of firm volatile and increase returns.

An increase in asset tangibility has a positive relationship with the capital structure of Sidama MFIs in Sidama. Therefore, the researcher recommended that the Sidama MFIs increase debt capacity in proportion to tangible assets on the balance sheet because the tangible asset is used as collateral and provides security to the lender in the occurrence of financial distress.

REFERENCES

- Alemayehu, T. (2008). *The performance of Micro Finance Institutions in Ethiopia: A case of six Micro Finance Institutions*. [Master's thesis]. Addis Ababa University, Ethiopia.
- Biekpe, A. J. (2006). An empirical test of the agency problems and capital structures of south quoted SMEs. *Journal of Accounting Research*, 20(1), 51-65.
- Brooks, C. (2008). *Introductory Econometrics for finance: 2nd ed.* New York: Cambridge University Press.
- Buferna, F., Bangassa, K. & Hodgkinson, L. (2005). *Determinants of Capital Structure Evidence From Libya*. Research Paper Series No. 2005/08. The University of Liverpool.
- Desai, S. (2007). *Post-conflict microfinance: assessment and policy notes for Iraq*. Jena Economic Research Papers, No. 2007,060, Friedrich Schiller University Jena and Max Planck Institute of Economics, Jena
- Eriotis., N., Vasiliou, D. & Ventoura-Neokosmid, Z. (2007). How Firms Characteristics Affects capital structure: an empirical study. *Managerial Finance*, 33(5), 321-331.
- Fama, E.F. & Jensen, M.C (1983). Agency problem and residual claims. *Journal of Law and Economics*. *Journal of Law and Economics*, 26(2), 327-349
- Jalal, R.N. & Sahar, N.U. (2020). Asian emerging market perspective of macroeconomic factors, stock return, and volatility. *International Journal of Management*, 11(8), 1456-1475
- Kila, S.M. & Mahmood, W.M.W. (2008). *Capital Structure and Firm Characteristics: Some Evidence from Malaysian Companies*. MPRA Paper 14616, University Library of Munich, Germany.
- Kothari, C.R. (2008). *Research Methodology: Method and Technique*. New Delhi: New Age International Publishers.
- Mary, A., El-Sayeda, M. & Mohamed, S. (2011). The determinants of capital structure in Egyptian. *Journal of Middle Eastern Finance and Economics*, 9, 84-99
- Mia, M.A. (2016). Microfinance institutions and legal status. *The Journal of Asian Finance, Economics, and Business*, 3(2), 21–31.
- Modigliani, F. & Miller, M.H (1958). The cost of capital, corporation finance and the theory of investment. *American Economic Review*, 48(3), 261-97.
- Morris, G. & Cristanziani, F. (2009). What determines the capital structure of real estate companies?- An analysis of the EPRA/NAREIT Europe Index. *Journal of Property Investment & Finance*, 27(4), 318-372
- Mujahid, M. & Akhtar, K.. (2014). Impact of Capital Structure on Firms Financial performance and shareholders wealth: Textile sector of Pakistan. *International Journal of learning and Development*, 4(2), 27-33.
- Ramlall, I. (2009). Bank-Specific, Industry-Specific and Macroeconomic Determinants of Profitability in Taiwanese Banking System: Under Panel Data Estimation. *International Research Journal of Finance and Economics*, 34, 160-167.
- Salawu, R.O. & Agboola, A.A. (2008). The Determinants of Capital Structure of Large Non- Financial Listed Firms In Nigeria. *The International Journal of Business and Finance Research*, 2(2), 75-84
- Shah, A. & Khan, S. (2007). Determinants of Capital Structure: Evidence from Pakistani Panel Data. *International Review of Business Research Papers*, 3(4), 265-282.
- Saundres, M.N.K., Lewid, P. & Thornhill, A. (2007). *Research Methods for business students*. United Kingdom: Pitman publishing.

- Smith, P.G. (2010). What are the Capital Structure Determinants for Tax-Exempt Organizations? *Financial Review*, 45(3), 845-872
- Huang, G. & Song, F.M. (2002). The determinants of capital structure: Evidence from China. *China Economic Review*, 17(1), 14-36.
- Ahmed, N., Ahmed, Z. & Ahmed, I. (2010). Determinants of capital structure: A case of life insurance sector of Pakistan. *European Journal of Economics, Finance and Administrative Sciences*, 24, 7-12.



© 2021 by the authors. Licensee JPPD, Indonesia. This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).