ANALYSIS OF VALUE OF THE FIRM AND SOURCES OF FINANCE

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Abstract
The study aimed to calculate the value of the firm and identify the relation between long-term sources of finance, short-term sources of finance and value of the firm.
The Value of Firm is the key indicator of the business organization which shows the quantum of fund generated by the business organization. The Value of Firm is also known as Firm value or Enterprise Value and can be derived by using different financial formula. The main objective of every business organizations is to maximize its wealth and they tries to enhance the value of firm. The several researches have been conducted to ascertain the value of firm in a different manner. The secondary data available on the website of the companies has been collected for the analysis purpose. In this study the value of firm has been calculated using the financial formula of Modigliani and Miller Position of capital structure. Again, the value of firm has been compared with the long-term and short-term sources of finance of selected companies.
Hence, the study explains the term Value of Firm and the same has been calculated and it is observed that there is a significant relation between the long-term sources of finance, Short-term sources of finance and Value of the Firm.

Keywords: value of firm, long-term sources of finance, short-term sources of finance.

1. Introduction:

The Value of Firm is the amount which the investors will get from the business organization. "Maximizing firm value is seen as very important for firms to increase shareholder wealth" (Sucuahi and Cambarihan 2016, cited by Khanifah Khanifah, Udin Udin, Nor Hadi, Fitri Alfiana, 2019). (Hirdinis M, 2019) found that the capital structure has positive effect on value of the firm. The capital structure represents the Long-term sources of finance and Short-term sources of finance. The current study established to found the relationship between the Long-term sources of finance, Short-term sources of finance and Value of the firm. The Value of the Firm is essential for an organization. Many organizations are dissolving because of some reasons or merging with other business organizations or get taken over/ acquired by other business organization. In this kind of situations, the investors should get their money back or returns in leu of their investment. The calculation of Value of Firm is essential and crucial in case of merger, acquisition and take over.

2. Review of Literature:

The several studies had been conducted to analyze the impact of various organizational factors on value of firm. Where in researchers have mentioned how the value of firm is one of the key aspects of any business organization. Few research papers have been reviewed to understand the importance of the study of value of firm.

(Almahadin, H. A., & Oroud, Y. 2020): The study was aimed to identify the role of profitability in the relation between capital structure and firm value in Jordan. The researchers used Tobin's Q ratio to measure firm value and two functional models were formulated to capture the direct relationship as well as the interaction impact of capital structure on firm value. They found that there is adverse relationship between capital structure and firm value.

(Bandiyono, A. 2020): The study aims to determine the impact of applying good corporate governance and political connections to firm value. The panel data regression method consists of three methods, namely PLS (Pooled Least Square), FEM (Fixed Effect Model), and REM (Random Effect Model) were used by the research along with F test and the Hausman test. They found that partial corporate governance has a positive and significant effect on firm value.

(Husna, A., & Satria, I. 2019): The study aims is to determine the effect of return on assets, debt to asset ratio (DAR), current ratio (CR), firm size, and dividend payout ratio (DPR) to the firm value of listed manufacturing firms in Indonesia Stock Exchange for the period 2013-2016. The Return on Asset (ROA), Debt to Asset Ratio (DAR), Current Ratio (CR), Total Assets Dividend Payout Ratio (DPR) used to analyze the effect on firm value. Multiple regression analysis is used as analysis technique. They found that the return on asset and firm size have effects on firm value, DAR, CR, and DPR, but do not affect firm value.

(Khanifah Khanifah, Udin Udin, Nor Hadi, Fitri Alfiana 2019): Researcher calculated the value of the firm of mining industries sector firms listed on Indonesia Stock Exchange in 2015-18 using Tobin's Q formula. The market prices had been used to calculate the value of the firm. They found that the environmental performance has a positive and significant effect on firm's reputation.

(Uzliawati, L., Yuliana, A., Januarsi, Y., & Santoso, M. I. 2018): The study aims to examine the influence of capital structure towards firm value. The multiple linear regression used to test the hypothesis and they found that positive correlation between Debt to Equity Ratio (DER) and Long term Debt to Asset Ratio (LDAR) to firm value, and a negative correlation of Long term Debt to Equity Ratio (LDER) to firm value. The capital structure with Debt to Asset Ratio (DAR) did not seem to have an influence on the firm value.

3. Objective, Scope and Limitations of the study:

3.1 Objective of the study:

- To identify the relation between the Value of Firm and Long-term & Short-term Sources of Finance.

3.2 Hypothesis:

Ho: There is no significant relationship between Value of the Firm (VF) and Long-term and Short-term sources of finance (LSF & SSF)

Ha: There is significant relationship between Value of the Firm (VF) and Long-term and Short-term sources of finance (LSF & SSF)

3.3 Scope of the study:

The financial information of selected 20 companies listed on www.bseindia.com has been used for the calculation of value of firm. The annual reports of the companies for the year ended 31st March 2020 has been downloaded from the websites of each particular company. The formula of Modigliani and Miller Position of capital structure theories has been used to calculate the value of firm and the book value of Capital and Debt considered for the same. It is assumed that the other factors influencing are constant.

3.4 Limitations of the Study:

The values used in this study are taken from the annual reports of the companies as on 31st March 2020 and the book value considered for the calculation of firm value.

3.5 Assumptions:

It is assumed that the other factors affecting value of the firm apart form LSF and SSF are constant for regression analysis using unstandardized coefficients.

4. Research Methodology:

The study is descriptive and quantitative in nature. The population in this study that are listed on S&P BSE 250 Small Cap Index. As per the thumb rule, sample size of 10% of the population is considered reasonable. The purposive sampling method used and selected 25 companies listed on BSE under S&P BSE 250 Small Cap Index. The secondary data in the form of annual reports of the company published on their websites have been used for the analysis purpose. The value of the firm has been calculated using the formula of Modigliani and Miller Position of the Capital Structure theory.

FV = C + D, Where, FV = Firm Value i.e. Value of the Firm, C = Market value of Equity Share

D = Market value of Debt, For instance, in this study the book value of Equity and Debt is taken as C and D respectively to calculate the Value of the Firm (VF).

Long-term liabilities = Equity Capital + Debt Capital + Other Long-term liabilities

Short-term liabilities = Short-term/Current liabilities
The proportion of Value of the Firm (VF) as dependent variable, Long-term Sources of Finance (LSF) and Short-term Sources of Finance (SSF) independent variables used for data analysis. The proportion is calculated with the total of all liabilities (Equity Capital + Debt Capital + Other Long-term liabilities + Short-term/Current liabilities)
Descriptive Statistics used to check the normality. The Pearson Correlation test used to check the correlation and Simple linear regression used to measure the coefficient between independent variable and dependent variable.
The statistical calculation done using SPSS and Excel.

5. Analysis & Interpretation of data:

5.1 Descriptive Statistics:

From the descriptive statistics, the average proportion of FV is 0.64, LSF is 0.67 and SSF is 0.33 with standard error 0.04 for all three variables and the standard deviation is FV-0.20, LSF & SSF -0.18. The data is approximately symmetric as the skewness are VF=0.249115602, LSF=0.067176655, SSF= -0.067176655. The Kurtosis are VF= -1.223875285, LSF= -1.234034749, SSF= -1.234034749). Hence the data is normally distributed.

5.2 Graphical Analysis of data using scatterplot:

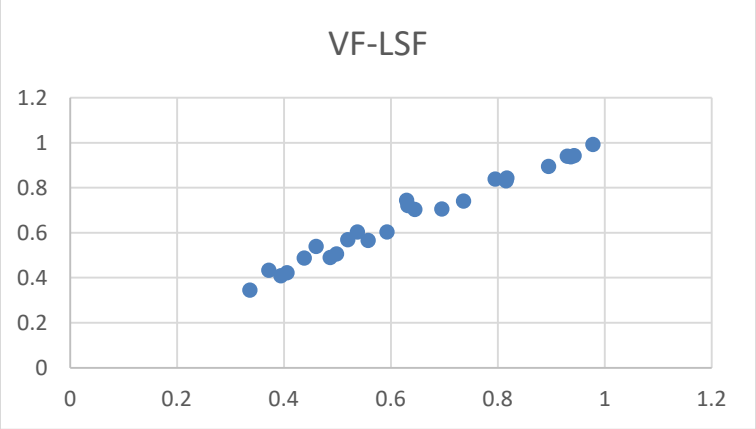

Figure 1. Scatterplot of VF and LSF
(Source: Data processed with Excel)

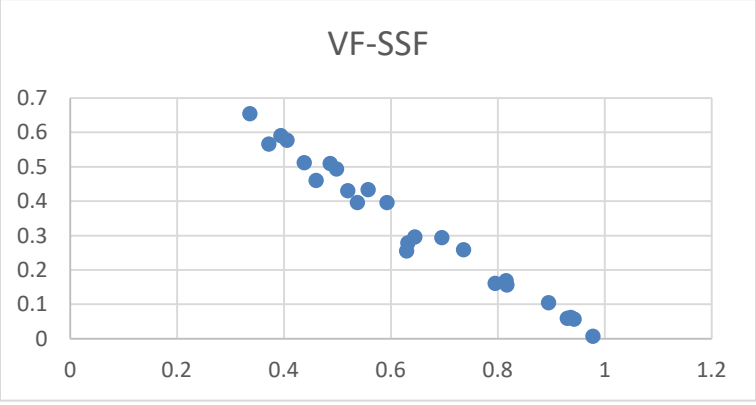

Figure 2. Scatterplot VF and SSF
(Source: Data processed with Excel)

The graphical analysis of scatterplots shows that there is a linearity between the variables. There is an upward trend between VF and LSF and there is a downward trend between VF and SSF.

5.3 Correlation Analysis:

Table 1. Correlation Analysis

	VF	LSF	SSF
VF	1		
LSF	0.987528181	1	
SSF	-0.987528181	-1	1

(Source: Data processed with Excel)

As per the correlation analysis, there is a strong positive correlation between VF and LSF (0.985), there is strong negative correlation between VF and SSF (-0.985) and there is a perfect negative correlation between LSF and SSF (-1).

5.4 Regression Analysis:

Simple linear regression analysis with two regression models used to find the direct relation between independent variables (LSF & SSF) and dependent variable (VF).

5.4.1 Regression Analysis for VF and LSF

Table 2. Regression Analysis of VF and LSF – Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.988[a]	.975	.974	.03236

a. Predictors: (Constant), LSF

b. Dependent Variable: VF

(Source: Data processed with SPSS)

As per the simple linear regression analysis, 97.5% variability in VF is explained by the regression of LSF. Since p-value is less than 0.05 there is significant relation between VF and LSF.

Table 3. Regression Analysis of VF and LSF – Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.047	.024		-1.968	.061
	LSF	1.024	.034	.988	30.081	.000

a. Dependent Variable: VF

(Source: Data processed with SPSS)

According to unstandardized coefficient, keeping all other factors constant, for every 1% increase in LSF, VF will increase by 1.044%. (VF = -0.468 + 1.024 * C)

5.4.2 Regression Analysis for VF & SSF

Table 4. Regression Analysis of VF and LSF – Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.988[a]	.975	.974	.03236

a. Predictors: (Constant), SSF

b. Dependent Variable: VF

(Source: Data processed with SPSS)

As per the simple linear regression analysis, 97.5% variability in VF is explained by the regression of SSF. Since p-value is less than 0.05 there is significant relation between VF and LSF.

Table 5. Regression Analysis of VF and LSF – Coefficients Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.977	.013		75.834	.000
	SSF	-1.024	.034	-.988	-30.081	.000

a. Dependent Variable: VF

(Source: Data processed with SPSS)

According to unstandardized coefficient, keeping all other factors constant, for every 1% increase in SSF, VF will decrease by 1.036%. (VF = 0.977 – 1.024 * C)

6. Hypothesis Testing:

As per the above data analysis, there is a strong positive correlation between VF and LSF and strong negative correlation between VF and SSF. As per the regression analysis, there is a significant coefficient of independent variables (LSF & SSF) on dependent variable (VF). Since the significant value is less than 0.05, there is a significant relationship between VF and LSF/SSF. Hence the Ho is rejected.

7. Conclusion:

The Value of the Firm is one of the performance indicator parameters for an organization. Several studies had been undertaken to understand various factors affecting the Value of the Firm. The current study indicates that, there is significant relation between the Long-term Sources of Finance, Short-term Sources of Finance with Value of the firm. There is a strong positive correlation between LSF and VF, that means to increase the Value of the Firm the company may focus to deploy maximum long-term sources of finance. Also, the study found that there is a strong negative relation between SSF and VF, that means to increase the Value of the Firm the company may focus to minimum use of short-term sources of finance.

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