

IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY OF COMPANIES LISTED ON NIFTY 50 INDEX IN INDIA

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Abstract

Capital structure is considered to be the most influential factors for overall profitability of the firm. Combination of various asset class in capital structure may give higher return to company and shareholders. Thus the present study examines the impact of capital structure on profitability of the companies listed on Nifty 50 index in India. To achieve aforesaid objective, the study employed correlation and regression analysis on the companies under the study. The necessary secondary data have been sourced from official NSE website, books and journals. The study period considered for last ten years ranging from March 2011 to March 2020. Total 35 companies are considered for further data analysis as remaining 15 companies from Nifty 50 index is found to having less operational history. Capital structure is measured with the help of three ratios as debt-equity ratio, long term debt to total assets and short term debt to total assets. Further profitability has been measured as return on capital employed, return on assets and return on equity. The study is helpful to companies, market researchers, academicians and investors by knowing the influence of capital structure on the profitability of the firm.

Key Words: Capital Structure, Profitability, Correlation and Regression Analysis

INTRODUCTION

For any Business the most important factor is finance, every organization needs capital to carry out business properly and effectively. In a highly dynamic, vibrant and competitive investment environment, capital structure decisions are crucial for any enterprise. Capital Structure refers to 'the make-up of a firm's capitalization.' In other words, it represents the mix of different sources (long-term loans, Equity shares, Preference shares, retained earnings, etc.) in the total capitalization of the company. These decisions are important in that they enable enterprise to maximize their financial performance.

The Capital can be raised by two sources owner's funds and borrowed funds. The owners fund is raised in the form of equity shares, preference shares, retained earnings and the external fund can be raised by loan, debenture. The capital structure of a company is made up of debt and equity securities that comprise a firm's financing of its assets. It is the permanent financing of the firm represented by long-term debt, Preferred stock, equity. So Capital Structure is the combination of equities and long term liabilities and it sets the firm's leverage. Leverage in turn determines how owners and creditors share risk and rewards in proportion of their share of company funding. The main objective of firms is to maximize profit and minimize cost so they consider this objective while taking capital structure decisions.

Capital Structure is an important decision of companies for growth and expansion of the business. Each component of capital structure has a different cost to the firm. In case of companies, it is financed from various sources. In proprietary concerns, usually, the capital employed, is wholly contributed by its owners. In this context, capital refers to the total of funds supplied by both owners and long term creditors. The question arises: what should be the appropriate proportion between owned and debt capital? It depends on the financial policy of individual firms. In one company Debt capital may be nil while in another such capital may even be greater than the owned capital. The proportion between the two, usually expressed in terms of ratio, denotes the capital structure of a company. In case of a new company the capital structure may be any of the following four patterns:

- I. Capital structure with equity shares only.
- II. Capital Structure with both equity and preference shares.
- III. Capital Structure with equity shares and debentures.
- IV. Capital Structure with Equity shares, Preference shares and debentures.

The choice of an appropriate capital structure depends on a number of factors such as the nature of the company's business, regularity of earnings, conditions of the money market, attitude of the investor, etc. First of all, understand the basic difference between debt and equity, Debt is a liability on which interest has to be paid irrespective of the company's profits. While Equity consists of shareholders or owner's funds on which payment of dividend depends upon the company's profits. A high proportion of the debt content in the capital

structure increases the risk and may lead to financial insolvency of the company in adverse times. However, raising funds through debt is cheaper as compared to raising funds through shares. This is because interest on debt allowed as an expense for tax purposes. Dividend is considered to be an appropriation of profits hence payment of dividend does not result in any tax benefit to the company.

To summarize, it is essential for finance professionals to know about the capital structure. Accurate analysis of the capital structure can help a company by optimizing the cost of capital and hence improving profitability. This research desires to investigate the relationship between the capital structure and financial performance of companies by using the Debt/equity ratio, Long term debt to total assets, Short term debt to total assets, Return on Equity (ROE), Return On Assets (ROA), Return On Capital Employed (ROCE). So this research will throw a light on the relationship between capital structure and financial performance of Nifty50 companies listed on NSE.

REVIEW OF LITERATURE

(Kolluru & C, 2018) Has mentioned in his study that the impact of capital structure on the firm performance conducted on 2121 wholesale trading company and manufacturing companies listed in BSE that the leverage doesn't show significant impact on the firm's performance or is not affecting the performance of the firm. The technique used in the study for the analysis of the data is Panel Data Model. He has used the data of 5 years in study. Various variables used in study are leverage-independent variable along with size of the company, age of the company, growth, productivity, R&D intensity. In this study two modes are used EBIT and ROA.

(Mrs C & Dr. P, 2013) They have found that the capital structure and firm performance have negative relationship. As the company uses more debt it has to bear more interest expenses. In the study various statistical tools are used – ratio analysis, trend analysis, correlation, compound growth rate and path analysis. The variable used in the study is debt equity ratio, operating profit margin, net profit margin, ROI, ROA, ROE, and EPS.

(Mohammadhosseini & Dr. H, 2019) In their study trying to find out if there is any significant relationship between capital structure and firm performance of Tech Mahindra Ltd. Listed in BSE found that capital structure has negative impact on firm's performance. The result after analysis signified that the companies performed better when their focus is more on equity and not on debt. In study the data of 3 years is used. The study had used Panel Data Regression, correlation matrix for the analysis. The various variables used in study are ROE, ROA, EPS, short term debt, long term debt as dependent variables along with size of the firm and growth.

(Mrs. Mazumder) He has found that the firms have moderate debt-equity composition in their capital structure and suggest that they can improve the capital structure so that they can take the benefit of leverage. The emphasis of this study has been to find out the impact of capital structure on firm performance and to study the capital structure of Indian infrastructure companies. She has selected 9 infrastructure companies for the research purpose. The companies are selected on the basis of their market capitalization. The techniques used in the research for the analysis of the data are Ratio Analysis and correlation matrix. In this study the data of 10 years was used.

(Dr. Narang, 2018) In his study which shows the relationship between capital structure and firm performance of 20 manufacturing companies listed on NSE found that there is positive impact of capital structure on firm performance. The various indicators used for the measurement of performance are ROA, ROE, and EPS and for the capital structure are long term debt to total assets, short term debt to total assets, and total debt to total assets. Various techniques used for the analysis of the data is Descriptive statistics, correlation matrix and regression model. By this he tries to achieve its objective of how debt level affects the performance.

(Das & Swain, 2018) In their study they had tried to find out the capital structure of the firms and their impact on firms' performance. They have considered 50 manufacturing companies in their sample size.

They have selected companies on different criteria like 20 companies on the basis of market capitalization, 20 companies on the basis of total assets employed and 10 companies on the basis of revenue and growth. They have considered the data of 10 years. In this research regression model is used for the analysis purpose. The various variables used in the study are ROA, ROE, ROCE, EPS, Current ratio, long term debt to total assets, total debt to total assets, debt equity ratio. The result of the study shows that there is significant relationship and the impact of capital structure on profitability and performance of the firm.

(Basit & Irwan, 2017) They analyzed the study of identifying if there is any impact of capital structure on firm performance that the sample firms rely more on equity finance. And the debt equity has negative significant impact on EPS; total debt has insignificant impact on EPS. And concluded that the more use of debt capital over optimum capital structure can have negative impact on firm performance. In this study convenience sampling technique was used to select 50 industrial companies. He has considered the data of 5 years. The various variables used in study are debt to equity ratio, total debt ratio, total equity ratio, ROA, ROE, EPS. The technique used for the analysis in the study is descriptive statistics and multiple regression.

(Khalaf, 2013) In his study has tried to investigate the relationship between capital structure and firm performance and found that there is negative relationship between capital structure and firm performance. In

study the sample size of 45 manufacturing companies is considered. The data of 5 years is considered. Multiple regression analysis technique is used for the data analysis. ROA, profit margin, are performance indicator and short term debt to total assets, long term debt to total assets, total debt to equity is used as indicator of capital structure.

(Md. Bokhtiar, A.F.M Ahsan, Md. Rahaman, & Md. Alam, 2014) Has found from their study on 36 firms selected for the analysis that the more debt incorporates in capital structure, the less the firm's performance. Various indicators of performance and capital structure used in study are EPS, ROE, ROA, Tobin's Q, short term debt, long term debt and total debt ratio. In addition, size of the firm which is determined by logarithm of total assets is also considered as control variable. The technique used for the analysis of the data is pooling panel data regression. They also found that firm size has positive impact on EPS and negative impact on ROA and long term debt to total assets have negative impact on all performance indicators.

(Nassar, 2016) Has mentioned in his research of finding the impact of capital structure on financial performance of the firm that the firm's capital structure is negatively and significantly associated with financial performance of the firm which means that if the firm uses more debt capital then it will negatively affect a firms ROA, EPS, ROE. The study includes 136 industrial companies. The data of 8 years is used. The indicators used are debt ratio, ROA, ROE, EPS. The technique used in the study for analysis is multivariate regression analysis.

(Arulvel & Ajanthan, 2013) They found in their research that the capital structure is negatively correlated with all financial performance. There is significant impact of capital structure on the performance of the firm. The research is done on trading companies. The data of 5 years is used. The indicators used in the study are gross profit, net profit, ROE, EPS, debt equity ratio a well-known statistical package like SPSS was used in order to analyze the data. Multiple regression and correlation technique is used for the data analysis.

(Sorana , 2015) He has concluded from its research on 196 Romanian companies of manufacturing sector selected to study the relationship of capital structure and firm performance that the performance is better when they use less debt and operate based on equity. The data of 8 years is considered. Cross sectional regression is used for the analysis. The capital structure indicators used in study are long term debt, short term debt, total debt, total equity and the performance indicators used in study are ROA, ROE.

(Singh & Bagga, 2019) They have found from their study done to find out the effect of capital structure on the profitability of the firms that there is significant relationship between the capital structure and the profitability of the firm and the capital structure has positive impact on the firm's profitability. The study was conducted on nifty 50 companies listed on NSE. The data of 10 years was considered. The performance indicators used in study are ROA, ROE, ratio of total liabilities to total assets, EBIT, TANG [asset tangibility], Tax, Liquidity, business risk. The technique used in study is descriptive statistics, correlation and multiple panel data regression model. Four different regression models are used to study the relationship between the capital structure and the profitability.

RESEARCH GAP

All the literature mentioned here are about one or few specific industries. This research is targeting majority of the industries in India viz., automobile, pharma, cement and construction, consumer goods etc. This is the crucial contribution this study is doing to further research.

OBJECTIVES AND METHODOLOGY

Thus the present study examines the impact of capital structure on profitability of the companies listed on Nifty 50 index in India. To achieve aforesaid objective, the study employed correlation and regression analysis on the companies under the study. The necessary secondary data have been sourced from official NSE website, books and journals. The study period considered for last ten years ranging from March 2011 to March 2020. Total 35 companies are considered for further data analysis as remaining 15 companies from Nifty 50 index is found to having less operational history. Capital structure is measured with the help of three ratios as debt-equity ratio, long term debt to total assets and short term debt to total assets. Further profitability has been measured as return on capital employed, return on assets and return on equity. The study is helpful to companies, market researchers, academicians and investors by knowing the influence of capital structure on the profitability of the firm.

EMPIRICAL ANALYSIS

Correlation analysis:

Table 1 Correlation Result for Metal Sector from Nifty 50

Particular (Pair)	Correlation Coefficient	Prob. Value
Return on capital Employed (%) to Debt/Equity	-0.729	0.000
Return on capital Employed (%) to Long term debt to total assets	-0.740	0.000

Return on capital Employed (%) to Short term debt to total assets	-0.484	0.002
Return on Assets (%) to Debt/Equity	-0.870	0.000
Return on Assets (%) to Long term debt to total assets	-0.845	0.000
Return on Assets (%) to Short term debt to total assets	-0.675	0.000
Return on Net worth/Equity(%) to Debt/Equity	-0.841	0.000
Return on Net Worth/Equity (%) to Long term debt to total assets	-0.827	0.000
Return on Net Worth/Equity (%) to Short term debt to total assets	-0.617	0.000

Source: SPSS Output

Debt/Equity has high significant negative correlation with all the three performance variables ROCE, ROA, ROE which shows that the increase in the debt/equity value of the company decreases the ROCE, ROA and ROE of the company. Long term debt to total assets has significant high negative correlation with the three performance variables ROCE, ROA, ROE which shows that the increases in the LTD_TA will decrease the ROCE, ROA, and ROE of the company. Short term debt to total assets has low negative correlation with ROCE, ROA, and ROE, while it has Moderate high negative correlation with ROA, ROE.

AUTOMOBILE SECTOR

Table 2 Correlation Result for Automobile Sector from Nifty 50

Particular (Pair)	Correlation Coefficient	Prob. Value
Return on capital Employed (%) to Debt/Equity	-0.566	0.000
Return on capital Employed (%) to Long term debt to total assets	-0.589	0.000
Return on capital Employed (%) to Short term debt to total assets	-0.466	0.000
Return on Assets (%) to Debt/Equity	-0.681	0.000
Return on Assets (%) to Long term debt to total assets	-0.676	0.000
Return on Assets (%) to Short term debt to total assets	-0.582	0.000
Return on Net worth/Equity(%) to Debt/Equity	-0.328	0.020
Return on Net Worth/Equity (%) to Long term debt to total assets	-0.327	0.021
Return on Net Worth/Equity (%) to Short term debt to total assets	-0.167	0.246

Source: SPSS Output

Debt/equity has moderate negative significant relationship with ROCE and ROA. And has Low negative correlation with the ROE, which shows that increase in the Debt of the company has moderate effect on ROCE and ROA and low effect on ROE.

Long term debt to total assets has moderate negative relationship with ROCE, ROA and has low negative relationship with ROE. They are significantly correlated, which shows that increase in the long term debt to total assets decreases the ROCE, ROA, ROE of the company. Short term debt to total assets has low negative correlation with ROCE and Moderate negative correlation with ROA and has Very low negative correlation with ROE, which means that the Short term debt does affect the returns of the company at some level.

CEMENT AND CONSTRUCTION SECTOR

Table 3 Correlation Result for Metal Sector from Nifty 50

Particular (Pair)	Correlation Coefficient	Prob. Value
Return on capital Employed (%) to Debt/Equity	-0.470	0.002
Return on capital Employed (%) to Long term debt to total assets	-0.520	0.001
Return on capital Employed (%) to Short term debt to total assets	-0.138	0.395
Return on Assets (%) to Debt/Equity	-0.654	0.000
Return on Assets (%) to Long term debt to total assets	-0.677	0.000
Return on Assets (%) to Short term debt to total assets	-0.312	0.050
Return on Net worth/Equity(%) to Debt/Equity	-0.144	0.377
Return on Net Worth/Equity (%) to Long term debt to total assets	-0.201	0.213
Return on Net Worth/Equity (%) to Short term debt to total assets	-0.007	0.966

Source: SPSS Output

Debt/equity ratio has low negative correlation with ROCE ($r=-0.470$) which shows that increase in debt/equity will lead to decrease in the ROCE of the company. Debt/equity has Moderate negative correlation with ROA which also shows the opposite relationship and very low negative correlation with ROE. But D/E has insignificant relationship with ROE at 1 % significance level.

Long term debt to total assets has Moderate negative relationship with the ROCE and ROA. And has very low negative relationship with ROE. But the correlation is insignificant. Which shows increase in the LTD_TA will decrease the performance variables at some level. Short term debt to total assets has insignificant relationship with ROCE and ROE. LTD_TA has significant low negative relationship with ROA.

CONSUMER GOODS:

Table 4 Correlation Result for Metal Sector from Nifty 50

Particular (Pair)	Correlation Coefficient	Prob. Value
Return on capital Employed (%) to Debt/Equity	-0.286	0.044
Return on capital Employed (%) to Long term debt to total assets	-0.213	0.138
Return on capital Employed (%) to Short term debt to total assets	-0.292	0.039
Return on Assets (%) to Debt/Equity	-0.444	0.001
Return on Assets (%) to Long term debt to total assets	-0.253	0.077
Return on Assets (%) to Short term debt to total assets	-0.528	0
Return on Net worth/Equity(%) to Debt/Equity	-0.113	0.435
Return on Net Worth/Equity (%) to Long term debt to total assets	-0.035	0.811
Return on Net Worth/Equity (%) to Short term debt to total assets	-0.295	0.037

Source: SPSS Output

Debt/Equity has very low negative correlation with ROCE and it is significant at 0.05. D/E has low positive significant correlation with ROA. D/E has no significant relationship with ROE. LTD_TA has no significant relationship with ROCE, ROA, and ROE. STD_TA is having very low negative relationship with ROCE and ROE and is significant at 0.05. Short term Debt to Total Assets has Moderate negative correlation with ROA which shows that increase in the Short term debt will decrease the ROCE.

IT SECTOR:

Table 5 Correlation Result for Metal Sector from Nifty 50

Particular (Pair)	Correlation Coefficient	Prob. Value
Return on capital Employed (%) to Debt/Equity	-0.692	0.000
Return on capital Employed (%) to Long term debt to total assets	-0.549	0.000
Return on capital Employed (%) to Short term debt to total assets	-0.607	0.000
Return on Assets (%) to Debt/Equity	-0.700	0.000
Return on Assets (%) to Long term debt to total assets	-0.524	0.000
Return on Assets (%) to Short term debt to total assets	-0.651	0.000
Return on Net worth/Equity(%) to Debt/Equity	-0.524	0.000
Return on Net Worth/Equity (%) to Long term debt to total assets	-0.354	0.012
Return on Net Worth/Equity (%) to Short term debt to total assets	-0.559	0.000

Source: SPSS Output

D/E has moderate negative and significant correlation with ROCE, ROA, and ROE which shows that increase in D/E will decrease the returns of the company. Long term debt to total assets has Moderate negative significant relationship with ROCE and ROA while it has low negative relationship with ROE and is significant at 0.05. Short term debt to total assets has moderate negative correlation with ROCE, ROA, and ROE and is statistically significant which shows inverse relationship.

OIL AND GAS SECTOR:

Table 6 Correlation Result for Metal Sector from Nifty 50

Particular (Pair)	Correlation Coefficient	Prob. Value
Return on capital Employed (%) to Debt/Equity	-0.356	0.011
Return on capital Employed (%) to Long term debt to total assets	-0.22	0.126
Return on capital Employed (%) to Short term debt to total assets	-0.176	0.221
Return on Assets (%) to Debt/Equity	-0.655	0
Return on Assets (%) to Long term debt to total assets	-0.293	0.039
Return on Assets (%) to Short term debt to total assets	-0.455	0.001
Return on Net worth/Equity(%) to Debt/Equity	-0.139	0.335
Return on Net Worth/Equity (%) to Long term debt to total assets	0.112	0.439
Return on Net Worth/Equity (%) to Short term debt to total assets	-0.294	0.038

Source: SPSS Output

Debt/equity has moderate negative correlation with ROA which shows that increase in the D/E will lead to decrease in the ROA. D/E has low negative relationship with ROCE and is significant at 0.05. D/E has no significant relationship with ROE at 0.01. Long term debt to total assets has no significant relationship with ROCE and ROE at 0.01. LTD_TA has very low negative relationship with ROA and is significant 0.05. Short term debt to total assets has no significant relationship with ROCE and has very low negative correlation and moderate negative correlation with ROE and ROA respectively.

PHARMA SECTOR:

Table 7 Correlation Result for Metal Sector from Nifty 50

Particular (Pair)	Correlation Coefficient	Prob. Value
Return on capital Employed (%) to Debt/Equity	-0.443	0.001
Return on capital Employed (%) to Long term debt to total assets	-0.471	0.001
Return on capital Employed (%) to Short term debt to total assets	-0.269	0.059
Return on Assets (%) to Debt/Equity	-0.562	0
Return on Assets (%) to Long term debt to total assets	-0.594	0
Return on Assets (%) to Short term debt to total assets	-0.438	0.001
Return on Net worth/Equity(%) to Debt/Equity	-0.269	0.059
Return on Net Worth/Equity (%) to Long term debt to total assets	-0.438	0.001
Return on Net Worth/Equity (%) to Short term debt to total assets	-0.021	0.885

Source: SPSS Output

D/E has low negative correlation with ROCE and has significant moderate negative correlation with ROA. And D/E has no significant relationship with ROE. Long term debt to total assets has low negative correlation with ROCE and has Moderate negative relationship with ROA. LTD_TA has no significant relationship with ROE. Short term debt to total assets has no significant relationship with ROCE and ROE. STD_TA has Low negative relationship with ROA which shows increase in STD_TA will decrease the ROA.

Regression Analysis:

Regression analysis is a statistical method to measure the impact of independent variable on dependent variable. For identifying the impact of capital structure on firm performance Regression analysis is used. The specified model for the study is:

$$\text{Profitability} = \beta_0 + \beta_1 \text{D/E} + \beta_2 \text{LTD_TA} + \beta_3 \text{STD_TA} + e$$

Where;

β_0 = Constant

$\beta_1, \beta_2, \beta_3$ = coefficient of the independent variable

e = Error term

D/E = Debt/Equity

LTD_TA = Long term debt to total assets

STD_TA = Short term debt to total assets

Model 1:

Table 8 Regression output for ROCE

Variables	Standardized Coefficients	T	Sig.	Adjusted R Square
(Constant)	28.004	29.996	<.001	0.376
Debt/Equity	0.055	0.512	0.609	
Long term debt to total assets	-0.617	-5.998	<.001	
Short term debt to total assets	-0.21	-4.425	<.001	

Source: SPSS Output

Dependent Variable is Return on Capital Employed (ROCE)

$$\text{ROCE} = \beta_0 + \beta_1 \text{D/E} + \beta_2 \text{LTD_TA} + \beta_3 \text{STD_TA} + e$$

$$\text{ROCE} = 28.004 + 0.055 \text{D/E} - 0.617 \text{LTD_TA} - 0.21 \text{STD_TA} + 11.64$$

The above table indicates the R square is 0.376. It means 37.6% of variance of ROCE is due to capital Structure and remaining percentage of variance with ROCE is attributed to other factors. This showed that capital structure has only 38.2% significant influence on the ROCE of the firm.

The beta coefficients show that LTD_TA and STD_TA significantly predict ROCE. According to the table the findings witnessed that the intercept was 28.004 that is when all the factors are equated to zero the ROCE will be 28.004. As for ROCE the debt to equity coefficient value is 0.055 with a probability of 0.609 which is higher than 0.05. It shows that the Debt/equity has positive insignificant impact on ROCE. Long term debt to total assets ratio and short term debt to total assets ratio beta coefficient value is -0.617 with a probability of <0.001 which is less than 0.05 and -0.21 respectively. It shows that the long term debt to total assets has negative significant impact on ROCE which means that increase in LTD_TA by 1 unit will decrease profit by 0.617. The same interpretation can be made for short term debt to total assets ratio.

MODEL 2

Dependent variable is Return on Assets (ROA)

$$\text{ROA} = \beta_0 + \beta_1 \text{D/E} + \beta_2 \text{LTD_TA} + \beta_3 \text{STD_TA} + e$$

$$\text{ROA} = 16.552 - 0.135 \text{D/E} - 0.537 \text{LTD_TA} - 0.274 \text{STD_TA} + 5.17$$

Table 9 Regression output for ROA

Variables	Standardized Coefficients	T	Sig.	Adjusted R Square
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(Constant)		39.947	<0.001	0.554
Debt/Equity	-0.135	-1.487	0.138	
Long term debt to total assets	-0.537	-6.173	<0.001	
Short term debt to total assets	-0.274	-6.803	<0.001	

Source: SPSS Output

The above table indicates the R square is 0.554. It means 55.4% of variance of ROA is due to capital Structure and remaining percentage of variance with ROA is attributed to other factors. This showed that capital structure has only 55.4% significant influence on the ROA of the firm.

The beta coefficients show that the two capital structure variables LTS_TA and STD_TA significantly predict ROA. According to the table the findings witnessed that the intercept was 16.552 that is when all the factors are equated to be zero the ROA will be 16.552. As for ROA the Debt/Equity coefficient is -0.135 with a probability of 0.138 which is more than 0.05. It shows that the Debt/Equity has insignificant impact on ROA.

Long term debt to total assets ratio beta coefficient value is -0.537 with P value <0.001 which is less than 0.05. It shows that the long term debt to total assets has Negative Significant impact on ROA. Which shows that by increase of LTD_TA by 1 unit will decrease the ROA by 0.537. Short term debt to total assets ratio beta coefficient value is -0.274 with P value <0.001 which is less than 0.05. It means that short term debt to total assets ratio has negative significant impact on ROA. An increase of 1 unit of STD_TA will decrease the ROA by 0.274

MODEL 3

Dependent variable is Return on Equity (ROE)

$$ROE = \beta_0 + \beta_1 D/E + \beta_2 LTD_TA + \beta_3 STD_TA + e$$

$$ROE = 29.517 + 0.115 D/E - 0.510 LTD_TA - 0.226 STD_TA + 14.94$$

Table 10 Regression output for ROE

Variables	Standardized Coefficients	T	Sig.	Adjusted R Square
(Constant)		24.634	<0.001	0.217
Debt/Equity	0.115	0.956	0.340	
Long term debt to total assets	-0.510	-4.428	<0.001	
Short term debt to total assets	-0.226	-4.246	<0.001	

Source: SPSS Output

The above table indicates the R square 0.217. It means that the 21.7% of variance of ROE is due to the capital structure and remaining percentage of variance with ROE is attributed to other factors. This showed that capital structure has only 21.7% significant influence on the ROE of the firm.

The beta coefficient shows that LTD_TA and STD_TA significantly predict ROE. According to the table the findings witnessed that the intercept was 29.517 that is when all the factors are equated to zero the ROE will be 29.517. As for ROE the debt to equity coefficient value is 0.115 with the P value 0.340 which is higher than 0.05. It shows that the Debt/Equity has insignificant impact on ROE.

Long term debt to total assets ratio beta coefficient value is -0.510 with a P value <0.001 which is less than 0.05. It shows that the long term debt to total assets has negative significant impact on ROE which means that if LTD_TA increases by 1 unit the ROE decrease by 0.510. Short term debt to total assets ratio beta coefficient value is -0.226 with a P value <0.001 which is less than 0.05. It means that short term debt to total assets ratio has negative significant impact on ROE. An increase of 1 unit in STD_TA will decrease the ROE by 0.226.

CONCLUSION

Capital structure decision is very important for any business. What proportion of debt and what proportion of equity should be used in the structure is a very important and complex decision, as it has some effect on the performance of the companies, So the research was done to find out how capital structure affect the performance of the companies. The study is done on the nifty50 companies with a sample size of 35 companies on the data of 10 years. Return on Capital employed, Return on assets, Return on Equity is used as Firm performance variables and Debt/Equity ratio, long term debt to total assets, Short term debt to total assets is used as Capital Structure variables. The data is analyzed by using various statistical techniques i.e Descriptive Statistics, Correlation analysis, Regression analysis.

After performing the correlation of the sample companies it was found that there is significant negative relationship between all the Capital Structure variables (Debt/Equity ratio, Long term debt to total assets ratio, Short term debt to total assets ratio) and all the firm performance variables (Return on Capital Employed, Return on Assets, Return on Equity). By regression analysis it was found that the long term debt to total assets has significant negative impact on Firm Performance. Short term debt to total assets also has significant negative impact on firm performance; But Debt/Equity has insignificant impact on firm performance.

So it is concluded that the capital structure does affect the firm performance to some extent and the financial manager should take proper decision regarding the capital structure of the company. Company should take decision after thorough thinking as it will affect the performance of the company. From the research it is

suggested that the financial manager should emphasize on the efficient utilization and allocation of resources in order to increase the company's performance. Further the companies should use internal source of financing to meet their investment needs so that the debt capital of the company is in control.

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