

# EFFECT OF CAPITAL STRUCTURE ON PROFITABILITY OF STEEL COMPANIES IN INDIA

<sup>1</sup> Dr.M.Nandhini

<sup>1</sup> Associate Professor

<sup>1</sup> Department of Management

<sup>1</sup> Karpagam Academy of Higher Education

<sup>1</sup> Coimbatore – 641 021

<sup>2</sup> Dr.P.Palanivelu

<sup>2</sup> Professor

<sup>2</sup> Department of Management

<sup>2</sup> Karpagam Academy of Higher Education

<sup>2</sup> Coimbatore - 641 02

## Abstract

Capital structure is one of the most complex area of financial decision making because it has effect on the financial decision variables. Profit earning is the main objective of all forms of organisation. Maximisation of shareholders wealth is the main target of all organisation. Maximising the shareholders wealth means maximising earnings per share. Increasing the earnings for equity shareholders is not a simple task. A proper combination of debt and equity in the capital structure will have impact on the profitability of the organisation. Determination of optimal capital structure is a complex task. An attempt is made in this study to find the effect of capital structure on profitability of steel companies in India.

**KEYWORDS** K - Cost of Capital, ROE - Return on Equity, ROA - Return on Asset NP - Net profit, EBIT – Earnings Before Interest and Tax, RCE - Return on Capital Employed MP - Market Price

## INTRODUCTION

Capital structure is combination of debt and equity. Proper combination of financial structure is a main determinant of earning profit. The effect of capital structure on profitability of an organisation must reviewed regularly by the finance manager to increase the earning capacity of an organisation. In case of a high gear company, fixed interest-bearing debt and preference shares were employed to increase the return to the equity shareholders. Value of the firm, Cost of capital, Return on equity, Market capitalisation are the variables which are the main determinants of determining the capital structure. The optimal capital structure of an organisation is a main aspect of increasing the earning capacity of a concern. The main aim of the study is to provide an effect of capital structure in profitability of selected steel companies in India. Profit earning is the main aim of an organisation. Many factors are influencing the earning capacity of an organisation. Profitability of an organisation which will prove the strength and performance of a concern. Profit is the measuring device of an organisation, earnings of an firm is affected by the capital structure variables.

## STATEMENT OF THE PROBLEM

An attempt is made in this study to analyse the effect of capital structure on profitability of select companies in India. Value of the firm, market capitalisation, Overall cost of capital, Return on equity were the important factors in determining the profitability of organisation in India. Many research studies have been undertaken in capital structure but very few studies have been undertaken to analyse the relationship between capital structure and profitability. This study is conducted to analyse the relationship between the capital structure and profitability and to evaluate the impact of capital structure on profitability of select companies. The impact of capital structure on profitability cannot be ignored because the improvement in the profitability is necessary for the long-term success of the organisation Because interest payment on debt is tax deductible, the addition of loan in the capital structure will improve the profitability of the organisation. Therefore, it is essential to test the relationship between capital structure and profitability of the organisation to make better capital structure decisions.

## OBJECTIVES OF THE STUDY

1. To ascertain the relationship between the factor of capital structure and profitability of selected steel companies in India
2. To evaluate the Impact of capital structure on profitability of the selected steel companies in India

## RESEARCH QUESTIONS

1. Is there any significant relationship between the factors of capital structure and profitability?
2. What is the impact of capital structure on profitability of select company?

## Methodology

The study is completely based on secondary data which has been collected from various web sites and annual financial reports of the sample companies. The reference period of the study is of five years which is from the financial year 2012-13 to 2016-17.

In this study, ten companies of steel industry have been taken as sample. The selected companies are listed in National stock exchange in India and five companies are selected by the researchers on the basis of random sampling technique. AML Steel, ShreePrecoated Steels, East Coast Steel Ltd., SAL Steel and Tata steel

## REVIEW OF LITERATURE

**Dr. Mohammad Fawzi Shubita and Dr. Jaafer Maroofalsawalhah (2012)** their study results reveals the negative relation between debt and profitability. Increase in debt is associated with a decrease in profitability.

**Taiwo adewale murotala (2012)** this paper has investigated the impact of capital structure on firm's financial performance. The study assessed the asset turnover is an important determinant of financial performance with ROE as a measure of financial performance. Size and age are also considered as major determinants of financial performance model. The study provides evidence of a negative and significant relationship between asset tangibility and ROA as measures of performance in the model.

**Mohammed Abu Sayeed (2011)** This article investigates the determinants of capital structure are selected based on 2 prominent theories, static trade off theory and pecking order theory. Total debt to market value of the company was used in another equation. Many factors influence on capital structure decision. Some of them are positive and others are negatively correlated. OLS regression model was used to prove the concept.

**Anup chowdhery and Suman paul chowdhery (2010)** an attempt has been made in this article to test the influence of debt equity structure of MM. To find the relationship between capital structure and firm value in Bangladesh this paper considered share price as proxy for value and different ratio for capital structure decision. The interesting findings of this paper suggests that maximizing the wealth of shareholders requires a perfect combination of debt and equity, whereas cost of capital has a negative correlation in this decision and it has to be minimum as much as possible.

**Pascal Francois and Erwan Morellec (2004)** in this study, a contingent claims model that captures some of the fundamental features and investigate their impact on corporate financing decision. Here they have developed new model that shows the possibility to file debt on the both share holders' default incentives and credit spreads. Debt recognition encourages early default and increases credit spreads on corporate debt. The model shows that when debtors have most of the bargaining power, we can expect leverage to decrease or increase with the constraints put on the recognition process.

**Lalith, P.S (1999)** investigated the capital structure of Srilankan companies and found that the use of long-term debt is relatively low in Srilankan companies. The mean leverage in Sri Lanka is estimated as 13.5 , long term percent debt to equity ratio is 24% while the total debt to equity ratio is 104.1 percent. This evidence suggested that the use of debt financing in Sri Lanka is significantly low in comparison to G7 markets

## RESULTS AND DISCUSSION

TABLE 1

Descriptive Statistics

Parameters	Mean	Std. Deviation	Std. Error Mean
Value of the firm	7617.17	12805.31	1416.28
Market Capitalisation	512550.24	1066452.99	101693.30
Cost of Capital	13.75	45.22	4.32
Return on Equity	5.55	26.67	2.84
Return on Asset	4.28	7.84	0.71
Return on Capital employed	13.78	14.95	1.39
Debt	879.57	1287.24	113.55
Earnings Before Interest and Tax	587.48	976.75	94.02
Net profit	272.67	559.12	55.58
Equity	2618.16	4249.11	413.53

Descriptive statistics shows that, the average of cost of capital is 13.75, return on equity stood at an average of 5.35 and average of net profit is 272.67 for the study period.

**TABLE 2**  
**Paired Samples Correlations**

Parameters	Correlation	Sig.
Value of the firm and market Capitalisation	.513	.000
Cost of Capital and Return on Equity	.193	.064
Cost of Capital and Return on asset	-.023	.797
Cost of Capital and Return on Capital	.142	.127
Debt and EBIT	.656	.000
Debt and Net profit	.549	.000
Equity and Earnings before Interest and Tax	.930	.000
Equity and Net profit	.906	.000

It is clear from the above table that, the relationship between the factors of capital structure and profitability is measured by applying correlation. Both positive and negative relationship exists between the selected variables of capital structure. There is a significant positive active relationship exists between equity and earnings before interest and tax, equity and net profit, debt and net profit value of the firm and market capitalisation. The negative insignificant relationship exists between cost of capital and return on asset

**TABLE 3**  
**Testing of Hypotheses**

Paired Variables	Correlation	Sig @ 5%	Significant/ Not Significant
There is no significant relationship between value of the firm and market capitulation	.502	.000	Significant
There is no significant relationship between cost of capital and return of equity	.184	.054	Not Significant
There is no significant relationship between cost of capital and return of asset	-.026	.786	Not Significant
There is no significant relationship between cost of capital and return on capital employed	.151	.115	Not Significant
There is no significant relationship between Debt and EBIT	.661	.000	Significant
There is no significant relationship between Debt and Net profit	.549	.000	Significant
There is no significant relationship between Equity and EBIT	.929	.000	Significant
There is no significant relationship between Equity and Net profit	.906	.000	Significant

Table 3 depicts that, there is no significant relationship between cost of capital to return on equity, cost of capital to return on asset and cost of capital to return of capital employed. The remaining capital structure variables have significant relationship with the profitability of selected companies.

**TABLE 4**  
**Correlation Matrix for capital structure and profitability**

		Profitability	Debt to Equity	Debt to Asset	Interest Coverage
Profitability	Pearson Correlation	1	-.335*	.561**	.435**
	Sig. (2-tailed)		.015	.000	.003
	N	5	5	5	5

Debt to Equity	Pearson Correlation		1	-.647**	-.883**
	Sig. (2-tailed)			.000	.005
	N		5	5	5
Debt to Asset	Pearson Correlation			1	.324*
	Sig. (2-tailed)				.031
	N			5	5
Interest Coverage	Pearson Correlation				1
	Sig. (2-tailed)				
	N				5

\*. Correlation is significant at the 0.05 level (2 tailed)

\*\*. Correlation is significant at the 0.015 level (2 tailed)

It is observed from the above table that, profitability is negatively correlated with debt to equity and Debt to equity is negatively correlated with the debt to asset and interest coverage. On the other hand, profitability is positively correlated with debt to asset and interest coverage.

### Recommendations

Financing and Investment decision are the main decisions which increase the development of the organisation. This decision determines ways of financing the asset, investment in projects, scale of operation, growth and expansion of an organisation.

- Cost of capital is the main determinant for deciding the financing and investment decision
- The pertinent mix of capital structure should be adopted to increase the profitability High debt will tend to decline the level of profit. Therefore, the concern must rely on internal source of financing to increase the profitability
- Top management should make prudent decision to remain profitable

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