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SOUND CAPITAL STRUCTURE AND RELATIONSHIP WITH LONG TERM SUSTAINABILITY & GROWTH OF COMPANIES: A STUDY OF CAPITAL STRUCTURE OF FOUR BIGGEST STEEL COMPANIES IN INDIA

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ABSTRACT

As Every Business run on two main Factors i.e. Risk &Return, so the purpose of this paper is to analyze the Factors determining the capital structure of every companies on the basis of analytical study of four biggest steel industries in India. This study Emphasized on the composition of the sound capital structure by using two approach of capital structure Theory i.e. Relevance Approach (Net income Theory& Traditional Theory) and Irrelevance Approach (Net operating Theory & MM Theory). The paper consider the Ratio of Debt and Equity and Various factors affecting capital structure decision of a company. The study consider all The dependent variable includes Debt, Equity & preference share capital and Independent Variable includes size, growth, risk, return, financial leverage, profitability, capacity, flexibility, control and cost of capital. In this paper I try to analyze the impact of all the factors for determining a sound capital structure for a company. Present paper has identified determinants of capital structure with the help of comparative study of debt/equity Ratio of four Indian companies listed on BSE From 2021-2022 and the whole study based on secondary data which is collected from home sites of four steel companies. The result of present study focused on importance of sound capital structure in achieving long term sustainability and growth for Indian companies. The data for a sample of four companies have considered for a period of 2021- 2022.

Keywords: *Capital Structure Theory, Debt / Equity Ratio, Optimum Capital Structure.*

Introduction

The Decision of selecting a sound capital structure is really a complex phenomenon for Every Business firm to gain long term sustainability and growth in today's competitive Environment. So, this decision can be one of the extensively researched areas in corporate finance. As we all know every business wants to choose that capital structure which provides maximum return on least risk or we can say that two principles should be kept in mind while selecting a financing mix and those are as follows as under:

- Cost principle (Best capital mix is that which minimise cost of capital & maximise EPS)
- Risk Principle. Locating a sound/ optimum capital structure has for a long time an issue of interest among academicians. The proportion of debt/equity mix used as a financing mix in every company& it has an impact on value of the firm. There are some assumptions of capital structure Decision & those are:
  - There are only two sources of financing mix i.e. Debt & Equity.
  - EBIT is not expected to grow & Total assets remain constant.

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- Firm has a perpetual life.
- Business risk is constant overtime & Independent from capital structure &financial risk.
- As the debt proportion increases, it increases the financial leverage& decease the value of the firm.

So, every business firm has to consider all these assumptions while taking a capital structure decision. A firm with lot of debt in its capital structure is said to be highly leveraged firm and a firm with no Debt is called unleveraged firm. The financial manager has to check the internal Factors (Financial leverage, Risk, Growth & Stability, Retaining control, cost of capital, cash flows, flexibility, purpose of finance & asset structure) and External Factors (size, nature of industry, investors , flotation cost, legal requirements, Period of finance, level of interest rate, level of business activity, Availability of funds, Taxation policy, level of stock prices) that affects capital structure decision and after considering all the Factors he has to choose a sound capital structure which should be compatible with firms objectives and long term growth perspective.

Review of Related Literature

This chapter consider some important studies carried out in the areas of capital structure have been viewed. Some of them are as follows as under:

Ms. Anu sahi & Dr. Anurag Gupta (Oct.2012) have analyzed "the Factors affecting capital structure decisions: empirical evidence from selected Indian firms". They focused on Dependent and independent variable of capital structure decision. However, they do not consider the theories of capital structure which plays an important role in selecting an optimum capital structure for a firm and also not focused on essential features of sound capital structure from the point of long term sustainability and growth.

MD. Faruk Hossain (Dept. Of Business administration, Bangladesh) & Prof. MD. Ayub Ali (dept. Of statistics, Bangladesh), 2012 conducted a study on "Impact of firms specific factors on capital structure decision; an empirical study of Bangladeshi companies ". They focused on positive & significant impact of growth opportunity & non tax shield on leverage.

Tong & Green (2005) in his study of " Testing static Trade off against pecking order theory " concluded that a) A significant negative correlation between leverage & profitability and significant positive correlation between current leverage& past dividends favoring pecking order hypothesis & investment model was found in conclusion.

Frank & Total (2007) conducted a survey of Trade off & pecking order theory "to understand the facts identified until then on trade off & pecking order theory.

Pandey I.M. (2001) Examined the influence of growth, investment opportunity, profitability, size, risk & tangibility on different type of Debt/Equity Ratio of 106 Malaysian companies, utilizing the data for 16 years from 1984-1999.

Titman (2007) "Explored cross-sectional as well as time series variation in debt Ratios. The author done regression Analysis & data generated by the model are roughly consistent with actual regression estimated in the empirical literature.

Purnima Rao, Satish Kumar & Vinod Madhavan (mar.2019) IIBM Management review conducted a study on "Factors driving the capital structure Decisions of small & medium Enterprises (SME's) in India. They examined the effect of firm's profitability, tangibility, size, age, growth, liquidity, non debt tax shield& return on Equity on the leverage of the firm.

Anshu Handu & Kapil Sharma (Sept. 2014) IIMB Management Review conducted "A study on determinants of capital structure in India", The paper identifies the most important determinants of capital structure of 870 listed Indian firms comprising both private sector companies and government companies for the period 2001–2010. Ten independent variables and three dependent variables have been tested using regression analysis.

N.P. Singh & Mahima Bagga (2019) conducted A study on The Effect of Capital Structure on Profitability which was An Empirical Panel Data Study. They did a study on individual effect of capital structure on profitability of a company that is ROA and ROE.

Vucasin kuc & Dorde kalicanin (2021) conducted A Study on Determinants of the capital structure of large companies: Evidence from Serbia. The subject of this study is the capital structure of the largest Serbian companies in the period after the global economic crisis in 2008. The research

sample comprises the 141 largest non-financial (mostly private) companies in Serbia over the period 2009–2017. In order to identify the key determinants of the capital structure of the sampled companies, three models of financial leverage were tested (total, short-term, and long-term) using panel data fixed effects models. The main result of the analysis indicates that these companies, mostly financed by short-term debt, predominantly belong to the 'pecking order' theory. When the total leverage is split into its short-term and long-term components, the results show that short-term leverage behaviour aligns with the 'pecking order' theory, whereas long-term leverage is fully consistent with the expectations of the trade-off theory. Also, this study shows that the country-specific determinants, such as inflation and development of the banking sector, have a significant impact on the capital structure of the largest companies in Serbia.

Lalni Zhao Jinan University, Guangzhou (2018) Did "A Literature Review of Capital Structure Theory and Influencing Factors". This paper summarized the relevant literature at home and abroad, pay attention to the study of capital structure theory and its influencing factors, and then optimize the relevant theoretical framework to provide theoretical basis for decision-making.

Mohammad Alipour, Mir Farhad, Seddich Mohammadi, Hojjatollah Derakhashan (2015), conducted a study on the "Determinants of capital structure: an empirical study of firms in Iran". This paper reviews different conditional theories of capital structure to formulate testable propositions concerning the determinants of capital structure of Iranian companies. Pooled ordinary least squares and panel econometric techniques such as fixed effects and random effects are used to investigate the most significant factors that affect the capital structure choice of manufacturing firms listed on Tehran Stock Exchange Iran during 2003-2007

Satish Kumar, Poornima Rao and Sisira Colombage conducted a Research on capital structure determinants: a review and future directions (2017), This paper highlighted the major determinants of capital structure and their relationship with leverage. It also reveals the dominance of pecking order theory in explaining capital structure of firms theoretically as well as statistically.

Sorana Vatavu (2015), conducted a study on The Impact of Capital Structure on Financial Performance in Romanian Listed Companies. The paper is dealt with the analysis of the enterprise risk and growth of a selected number of anonymous small and medium size enterprises. The investigation was based on the enterprises' simplified annual financial reports.

Rahul Kumar (2007) Conducted a critical study on Determinants of firms financial Leverage which set two challenges for future researchers: one how to integrate factors determining financial leverage into common framework and second what are the explanatory factors determining firms financial leverage in a network phenomena.

Dr. G. S. Popli & Mr. Gajendra Kumar Jaiswal (2011-13) conducted a study on Determinants of Corporate Capital Structure of Indian Industries. This paper studies the determinants of capital structure choice of selected Indian industries. Our main objective is to investigate whether and to what extend the main capital structure theories can explain the capital structure choice of Indian firms.

Need of the Study

From the above review of Related literature, we can say that there is so many research conducted in the field of corporate finance, but there is no specific study conducted in examining the Factors of selecting a sound/optimum capital structure for gaining long term sustainability and growth in today's challenging Environment. There are less studies in corporate finance conducted in India apart from other countries. Hence, A need arise to conduct fresh research on "is a sound capital structure is important for long term sustainability and growth for Indian companies: considering the internal as well as external factors affecting capital structure decision ".

Scope of the Study

The present study has a scope to relate external as well as internal Factors affecting capital structure with selecting a sound capital structure. Under this study we examine proportion of debt & Equity in relation to Increase/ Decrease in value of firms by using capital structure Theories. For this study we do comparative study of Debt/Equity ratio of Four Indian companies listed on BSE and check their sustainability on that basis.

Objectives of the Study

The specific objectives of the study are given below:

- To study the composition of sound capital structure.

- To study the internal as well as external factors affecting capital structure decision.
- To study the impact of factors affecting capital structure on overall value of the firm.
- To study the Risk & Cost principle in determining capital structure.
- To study the debt/Equity ratio of ten Indian companies.

Hypothesis of the Study

H_{01}: Profitability doesn't affect capital structure of an organization.
H_{02}: Flexibility doesn't affect capital structure of an organization.
H_{03}: Retaining control doesn't affect capital structure of an organization.
H_{04}: Risk factor doesn't affect capital structure of an organization.
H_{05}: Return Factor doesn't affect capital structure of an organization.
H_{06}: Cash Flows don't affect capital structure of an organization.
H_{07}: Growth &Stability doesn't affect capital structure of an organization.
H_{08}: Tax shield doesn't affect capital structure of an organization.

Data Base & Methodology

The sample of ten Indian companies data of debt/Equity ratio for a period of 2021-2022. The following variables have been identified for further analysis in the study. The table I showing debt /Equity proportion in relation to factors affecting capital structure

Table 1: A Relationship between Debt Equity Proportion & Factors Affecting Capital Structure Decision

Equity Capital	Low Risk (No Questions for Repayment Capital Except on Liquidation)	Most Expensive (Dividend Expectations of Shareholders are High & it is not Tax Deductible)	High Dilution of Control
Preference share capital	Slightly higher risk (Redeemable after certain period of time)	Slightly cheaper than Equity	No dilution of control (since voting rights are prohibited)
Debt (Long term Funds)	High Risk (capital should be repaid as per agreement)	Cheapest source (providing tax shield on interest paid)	No dilution of control

By using Table 1 we can say that on the basis of Risk, Return, & control a company can select its own capital mix decision.

Table 2: Showing Relationship of Capital Structure Theories with Capital Structure Decision or Debt / Equity Proportion

S. No.	Traditional Theory (Relevance Approach)	Net Income Theory (Relevance Approach)	Net Operating Income Theory (Irrelevance Approach)	MM Theory (Irrelevance Approach)
1	Debt is chapter source of finance	Debt is cheaper source of finance.	Debt is cheaper source of finance	Debt is cheaper source of finance.
2	Use of debt reduce overall cost of capital.	Use of debt reduce overall cost of capital.	Increase in financial risk leads to increase in cost of Equity.	There is a perfect capital market.
3	Degree of financial leverage increases with increase in debt & overall cost of capital declines.	With every increase in debt, financial leverage increases and overall cost of capital declines.	The advantage of using low cost debt set off by increase in cost of Equity.	Firms can be classified in Homogeneous risk class.
4	If financial leverage increases beyond a limit, then financial risk increases and increase cost of debt & Equity leads to decrease in value of firm by increase in overall cost of capital.	Firm prefer to reduce overall cost of capital to increase value of firm.	Overall cost of capital remains constant at all levels of debt /Equity mix.	Increase in financial risk leads to increase in cost of Equity.

5	Firm prefer to choose more debt content.	Debt content should not increase beyond a limit because it increase the financial leverage.	The market capitalize the value of the firm as a whole. There is no optimum capital structure.	Market capitalize the value of the firm as a whole, no effect of debt/Equity mix.
6	Value of firm directly related to debt Equity proportion.	Value of firm directly related to debt Equity proportion.	There is no relationship between value of firm and debt Equity proportion.	Debt /Equity proportion has no effect on value of the firm.

From the above table we can say that a financial manager should select that optimum capital structure which provide maximum return with least risk. The debt content should not increase beyond a limit because it increase the financial leverage and due to this overall cost of capital increase and value of firm declines.

Table 3: Data Collected from Ten Indian Companies Listed on BSE Regarding their Debt/Equity Ratio for a Period of 2021-22

Name of the Company	Debt/Equity Ratio		Change in Debt/Equity Ratio	EPS For F.Y. 2022
	F.Y. 2021	F.Y. 2022		
JSW Steel Ltd.	1.1	0.9	-0.2	69.48
Tata Steel	1.7	2.2	+0.5	270.33
Jindal steel	0.9	0.4	-0.5	81.21
SAIL	0.51	0.33	-0.18	29.09

Before, analysis of this table, I just want to focus on all four companies profile in current scenario. So, here are the information related to each company in detail.

- **JSW Steel Ltd.:** The US$ 22 billion JSW Group is ranked among India's leading business houses. JSW's innovative and sustainable presence in various sectors including Steel, Energy, Infrastructure, Cement, Paints, Venture Capital and Sports is helping the Group play an important role in driving India's economic growth. The Group strives for excellence by leveraging its strengths & capabilities including a successful track-record of executing large capital-intensive & technically complex projects, differentiated product-mix, state-of-the-art manufacturing facilities and greater focus on pursuing sustainable growth.

With a culturally diverse workforce spread across India, USA, Europe and Africa, JSW Group directly employs nearly 40,000 people.

It also has a strong social development focus aimed at empowering local communities residing around its Plant & Port locations. JSW Group is known to create value for all its stakeholders by combining its growth roadmap, superior execution capabilities and a relentless drive to be #BetterEveryday.

- **Tata Steel Ltd.: Tata Steel Limited** is an Indian multinational steel-making company, based in Jamshedpur, Jharkhand and headquartered in Mumbai, Maharashtra. It is a part of the Group, which is founded on 26 August 1907; 115 years ago at Jamshedpur, Jharkhand, India by Jamsetji Tata Dorabji Tata.

Formerly known as **Tata Iron and Steel Company Limited (TISCO)**, Tata Steel is among the top steel producing companies in the world with an annual crude steel capacity of 34 million tonnes. It is one of the world's most geographically diversified steel producers, with operations and commercial presence across the world. The group (excluding SEA operations) recorded a consolidated turnover of US$19.7 billion in the financial year ending 31 March 2020. It is the second largest steel company in India (measured by domestic production) with an annual capacity of 13 million tonnes after Steel Authority of India Ltd. (SAIL). TATA Steel, along with SAIL and Jindal Steel and Power, are the only 3 Indian steel companies that have captive iron-ore mines, which gives the three companies price advantages.

Tata Steel Long Term Sustainability Strategy

Currently Tata steel conferred with the 2022 Enterprise Risk management Global Award of Distinction at the RIMS ERM Conference 2022. And, it is only possible by its's Sustainability Approach. The award underlines the robustness of the Company's processes, strategy, decision making and Culture.

- **Jindal steel Ltd. : Jindal Steel and Power Limited** (**JSPL**) is an Indian steel company based in New Delhi. With turnover of approx. ₹68000 crores (US$8.5 billion) $1 billion net profit 25,000 employees, JSPL (total assets $10 billon) is a part of US$35 billion diversified OP Jindal Group as in October 2022. JSPL is a leading player in steel, mining, and infrastructure in India. The company produces steel through backward integration from its own captive coal and iron-ore mines. Having an investment of US$12 billion across the globe, the company is continuously scaling its capacity utilisation and efficiencies to capture opportunities to build a self-reliant India. In terms of tonnage, it is the third largest private steel producer in India and only private player in India to produce rails. The company manufactures and sells sponge iron, mild steel slabs, rails, mild steel, structural, hot rolled plates, iron ore pellets and coils.
- **SAIL: Steel Authority of India Limited** (**SAIL**) is a central public sector undertaking based in New Delhi, India founded on 19 January 1954; 68 years ago. It is under the ownership of Ministry of Steel, Government of India with an annual turnover of INR 1,03,480 Crore (US$13 billion) for fiscal year 2021–22. Incorporated on 24 January 1973, SAIL has 60,766 employees (as of 1 October 2022). With an annual production of 16.30 million metric tons, It is the largest government owned steel producer. The hot metal production capacity of the psu will further increase and is expected to reach a level of 50 million tonnes per annum by 2025. SAIL operates and owns five integrated steel plants at Bhilai, Rourkela, Durgapur, Bokaro and Burnpur (Asansol) and three special steel plants at Salem, Durgapur and Bhadravathi. It also owns a Ferro Alloy plant at Chandrapur. As a part of its global ambition, the PSU is undergoing a massive expansion and modernisation programme involving upgrading and building new facilities with emphasis on state of the art green technology. According to a recent survey, SAIL is one of India's fastest growing Public Sector Units. The psu also has an R&D Centre for Iron & Steel (RDCIS) and a Centre for Engineering in Ranchi, Jharkhand.

Data Analysis & Interpretation

- **Conclusion I:** From the above Table we can say that Tata Steel Debt/ Equity Ratio is highest among other three companies. As an Ideal Debt/ Equity Ratio is 1:1, And, 270.33 is Earning per share of Tata Steel for the year 2022.

  Thus, I can conclude that Tata steel is near to ideal Debt/Equity Ratio with 2.2 debt Equity mix in 2022. Hence Tata Steel is more compatible to long term sustainability & Growth in comparison to other companies. This proves that Tata steel prefer more Debt portion in comparison to Equity in it's capital structure mix for getting tax shield benefits. And, it proves that Tata steel is a risk taker company which focus on sustainable growth for a long-term period.
- **Conclusion II:** From the Table I, we can say that an optimum capital structure is that which has low cost, High Return with long term growth perspective. If a company wants to have higher control than it chooses more Equity as an option of capital structure and if a company wants tax shield benefits then it choose more debt content in its capital structure.
- **Conclusion III:** From Table II, we can conclude that a finance manager should consider all the assumptions of capital structure Theories before selecting a sound capital structure mix decision. As MM suggests that Market capitalize the value of the firm as a whole, there is no effect of increase/Decrease of debt/Equity content, so a firm should not increase debt Content beyond a limit because it increase the financial leverage and due to this overall cost of capital increase and value of firm declines.

  Value of firm= S+ D or EBIT÷Ko

From Table III, after comparing debt /Equity Ratio all four companies, we conclude that High Debt Equity Ratio of a company indicate more use of debt content in comparison to own funds or Equity. Whereas Low Debt Equity Ratio indicates More reliance on own funds in comparison to External borrowings or debt. Tata Motors Debt /Equity Ratio is near to Ideal Debt/Equity Ratio i.e. 1:1 with high Debt Equity Ratio and its shows that Tata Motors using more debt content in comparison to Equity. And, due to this Overall value of Tata Steel also increases. On the other hand Jindal steel has lowest Debt /Equity Ratio in comparison to other companies. It means Jindal steel is using more equity proportion in comparison to Debt. And, due this it adversely affects value of Jindal steel.

Hence, we can say that most companies prefer "Trading on Equity" that is more debt content in comparison to Equity because of gaining Tax shield benefits on Interest paid on debt.

Conclusions & Suggestions

As selecting a sound capital structure is a complex phenomenon in today's competitive Environment, So A company should consider the following points while selecting A sound Capital structure:

- Should study all the external as well as internal Factors affecting capital structure decision while selecting a financing mix.
- Should have a proper understanding of the theories of capital structure.
- The company should use that optimum capital structure which can be compatible with firms objectives and can provide maximum return at less risk.
- There should be an optimum capital structure which can provide more tax shield benefits with proper control.
- The study denied all the hypothesis used for this particular study and conclude that:
- Profitability of a company affect capital structure decision. For more profit company prefer debt instead of equity.
- Tax shield benefits affects the Capital structure decision of a company. For gaining tax shield benefits company will choose more debt proportion instead of equity.
- Retaining control affects the capital structure decision of a company. For having control in the organization, a company will choose more equity proportion instead of debt.
- Risk factor affects the capital structure decision of a company. If a company wants to utilize more debt in comparison to equity then it means company is ready to bear risk for earning more profit.
- Flexibility factor affects capital structure decision of a company.
- Finally, we can say that a sound Capital structure is that which provides more return at low risk for long term period. And, a company should consider all the factors which affects capital structure decision.

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