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A study of capital structure of selected steel companies in India

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Abstract: *Capital structure refers to blend of equity and debt fund for raising long term funds. The use of financial leverage affects earning per share and consequently affects value of the firm. This is because the cost of equity is higher than debt and cost of debt is further reduced because of tax shield. The tax shield is available to only debt and not to equity. There are pros and cons of both equity and debt funds. The decision of debt affects profitability, liquidity, EPS and value of the firm. Theories of capital structure discuss the impact of financial leverage on EPS and market value of the firm. Steel manufacturing companies require large amount of long term funds and therefore they have used both types of sources of long term funds in their capital structure. Very rare study in detail is found on the analysis of capital structure of steel companies. Therefore the topic selected for research is, "A study of capital structure of selected Steel companies in India".*

Key words: *Capital structure, financial leverage, tax shield, EPS.*

A: INTRODUCTION:-

The term 'structure' means the arrangement of the various parts. So capital structure means the arrangement of capital from different sources so that the long-term funds needed for the business are raised.

Thus, capital structure refers to the proportions or combinations of equity share capital, preference share capital, debentures, long-term loans, retained earnings and other long-term sources of funds in the total amount of capital which a firm should raise to run its business.

- "Capital structure is the combination of debt and equity securities that comprise a firm's financing of its assets."—John J. Hampton.
- "Capital structure refers to the mix of long-term sources of funds, such as, debentures, long-term debts, preference share capital and equity share capital including reserves and surplus."—I. M. Pandey.

B: SIGNIFICANCE OF THE STUDY:-

Capital structure refers to blend of equity and debt fund for raising long term funds. This blend of equity and debt is called as financial leverage. The use of financial leverage affects earning per share and consequently affects value of the firm. This is because the cost of equity is higher than debt and cost of debt is further reduced because of tax shield. The tax shield is available to only debt and not to equity. There are pros and cons of both equity and debt funds. The decision of debt affects profitability, liquidity, EPS and value of the firm. Theories of capital structure discuss the impact of financial leverage on EPS and market value of the firm. Steel manufacturing companies require large amount of long term funds and therefore they have used both types of sources of long term funds in their capital structure. Very rare study in detail is found on the analysis of capital structure of steel companies. Therefore the topic selected for this study is, "A study of capital structure of selected Steel companies in India".

C: OBJECTIVES:-

The objectives of the study are as follows:-

(1) To study the financial performance of selected steel companies.

(2) To analyze capital structure of selected steel companies.

(3) To study the impact of capital structure on profitability.

D: SOURCES OF DATA:-

Secondary sources of data utilised for this proposed study. Secondary data have been collected from annual reports of steel companies. The data are collected from the annual reports of steel companies regarding Assets, Liabilities, Incomes and Expenses to evaluate the capital structure of selected steel companies of India. Other useful data have been collected from the website and books available on Google books as well as from library.

E: SAMPLE SIZE:-

Listed steel companies in India can be classified into various categories like Steel CR and HR strips, Steel GP and GC sheets, Steel Large, Steel Medium and Small, Steel Pig Iron, Steel Rolling, Steel Pig Iron, Steel Tubes and Pipes.

There are nine large steel companies on the basis of market capitalization dated 12/12/2016. Market capitalization is taken as base for the study purpose because it is very interesting to study the impact of financial leverage on market price of shares of the company which leads to increase the market capitalization and value of the firm. All nine companies are selected for the analysis of capital structure. These large sized nine Steel companies are as follows:

1. JSW Steel Ltd., 2. Tata Steel Ltd., 3. Steel Authorities of India Ltd., 4. Bhushan Steel Ltd., 5. Visa Steel Ltd., 6. Uttam Galva Steel Ltd., 7. Steel Strips and Wheel Ltd., 8. Jindal Stainless Ltd., 9. Steel Exchange of India Ltd.

F: PERIOD OF STUDY:-

The Capital structure of nine large size listed steel companies is analysed by taking period of five years period from 2012-13 to 2016-17.

G: STATISTICAL TOOLS:-

Following Statistical tools have been used in research analysis in order to justify the objectives and verify the hypotheses.

Descriptive analysis is done by using various ratios like Gross Profit Margin, Net Profit Margin, Cash Profit Margin, Return on Assets, Return on Capital Employed, Asset Turnover Ratio, Debtors Turnover Ratio, Debt–Equity Ratio, Long Term Debt-Equity Ratio, Total Debt to Owners Fund, Capital Gering Ratio, Financial leverage Ratio, Fixed Assets to Long Term Funds Ratio, Interest Coverage Ratio, Proprietary Ratio, Total Assets to Debt Ratio. etc.

Trend analysis is used to study the pattern of behavior in a time series to forecast future trend.

Regression analysis is used to study the relationship between dependent variable and independent variables. Debt-Equity ratio is taken as independent variable and Gross Profit Margin, Net Profit Margin, Operating Profit Margin, Earning Per Share, Total Asset Turnover Ratio, Asset Turnover Ratio, Fixed Asset Turnover Ratio, Return on Investment Ratio, Return on Assets, Return on Capital Employed, Return on Long Term Funds, Return on Equity, Total Debt To Owners Fund, Long Term Debt-Equity Ratio, Debtors Turnover Ratio as dependent variable.

Analysis of Variance (ANOVA) is used to test the differences among the means of the populations by examining the amount of variation within each of the samples, relative to the amount of variation between the samples. ANOVA was used to test the mean values of different variables.

Tables, diagrams and statistical results have been derived with the help of statistical computer software called SPSS and Microsoft Excel tools.

H: INTERPRETATION:-

From the Gross Profit Margin table, it can be concluded that significant ups and down can be observed in last 5 years of study period. With an average 11.44 value JSW Steel Ltd stood number one position in Gross Profit Margin ratio, whereas Visa Steel Ltd(-5.82) stood last position, which indicates that JSW Steel Ltd has less COGS to generate revenue. During year 2013-14(11.68) selected nine steel companies have generated highest revenue, while during year 2015-16(-3.46) lowest revenue against their COGS.

From the Net Profit Margin table, it can be concluded that (except Steel Strips and Wheel Ltd and JSW Steel Ltd) all companies taken under study has negative Net Profit Margin Ratio for all 5 years of study period. With an average 3.75 Steel Strips and Wheel Ltd stood number one position followed by JSW Steel Ltd. Negative Net Profit Margin Ratio can be observed for almost all year of study period which indicates that selected nine companies are not profitable.

It can be found that the much significant jump in Cash profit margin ratio can be observed throughout last 5 years of study period. With an average ratio value 10.82 in JSW Steel Ltd stood at number one position, which indicates that JSW steel Ltd. is performed most efficient way, where as Visa Steel Ltd(-14.28) stood at last position, which indicates that Visa steel Ltd. is performed negatively. Trend analysis of Cash profit margin ratio, it can be seen that Cash profit margin ratio was highest during the time period 2013-14(5.10), whereas lowest average Cash profit margin ratio observed during the period 2015-16(-4.72), which indicates in 2013-14 steel companies is performed most efficient way, whereas during year 2015-16 steel companies is performed negatively.

From the Return on Assets table it can be concluded that significant ups and down can be observed in last 5 years of study period. With an average 546.65 value JSW Steel Ltd stood number one position in Return on Assets ratio, whereas Visa Steel Ltd(-29.90) stood last position, which indicates that JSW Steel Ltd utilized its assets most efficient way to generate profit, while Visa Steel Ltd utilized its assets least efficient way to generate profit. During year 2013-14(241.78) selected nine steel companies utilized their assets most efficient way, while in latest year 2016-17(91.34) assets least utilized by the selected nine companies.

From the Return on Capital Employed table it can be concluded that no major ups and down can be observed in last 5 years of study period. With an average 15.87 value Steel Exchange of India Ltd stood number one position in Return on Capital Employed, whereas Visa Steel Ltd(-2.35) stood last position, which indicates that Steel Exchange of India Ltd utilized its capital most efficient way to generate revenue while, Visa Steel Ltd utilized its assets least efficient way to generate revenue. During year 2013-14(7.90) selected nine steel companies utilized their assets most efficient way, while in year 2015-16(2.70) capital least utilized by the selected nine companies.

From the Asset Turnover Ratio table it can be concluded that no major ups and down can be observed in last 5 years of study period. With an average 1.66 value Steel Exchange of India Ltd stood number one position in Asset turnover ratio, whereas Bhushan Steel Ltd(0.28) stood last position, which indicates that Steel Exchange of India Ltd utilized its assets most efficient way to generate revenue, while Bhushan Steel Ltd utilized its assets least efficient way to generate revenue. During year 2013-14(1.04) selected nine steel companies utilized their assets most efficient way while in latest year 2016-17(0.90) assets least utilized by the selected nine companies.

From the Debtors Turnover Ratio table it can be concluded that with 19.69 average Debtors turnover ratio in JSW Steel Ltd stands number one position which indicates that JSW Steel Ltd has highest value of total sales compare to its debtors, whereas with 5.21 average Debtors turnover ratio in Steel Exchange of India Ltd stands at last position amongst all steel companies taken under study, which indicates that Steel Exchange of India Ltd has lowest value of total sales compare to its debtors. Trend analysis table of debtors turnover ratio it can be seen that debtors turnover ratio was highest during the time period 2013-14(10.02), whereas lowest average debtors turnover ratio value observed during the period 2015-16(8.84), which indicates that steel companies are most efficient during the year 2013-14 and least efficient during the year 2015-16.

Higher the Debt Equity ratio, risky the financial position of company and lower the ratio safe the financial position of company. Visa Steel Ltd has average outstanding higher value (25.31) of Debt Equity ratio which indicates that this company has most risky financial position. Whereas Steel Authorities of India Ltd has average outstanding lower value (0.74) of Debt Equity ratio, which indicates that this company has safest financial position. Trend analysis of debt equity ratio it can be seen that debt equity ratio was highest during the time period 2016-17(11.60), whereas lowest average debt equity ratio value observed during the period 2012-13(4.15), which indicates that steel companies are in 2012-13 least risky financial position, while during the year 2016-17 steel companies are highest risky financial position.

From the Long Term Debt Equity Ratio table it can be concluded that with 24.15 average Long term debt equity ratio in Visa Steel Ltd stands number one position, which indicates that Visa Steel Ltd has highest financial risk to meet its current debt, whereas with 0.40 average Long term debt equity ratio in Steel Authorities of India Ltd stands at last position amongst all steel companies taken under study, which indicates Steel Authorities of India Ltd has good financial position. Trend analysis of long term debt equity ratio it can be seen that long term debt equity ratio was highest during the time period 2016-17(8.66), whereas lowest average long term debt equity ratio value observed during the period 2012-13(3.52), which indicates that steel companies are in least risky financial position, while during the year 2016-17 steel companies are highest risky financial position.

From the Total Debt to Owners Fund table it can be concluded that with 25.07 average Total debt to owners fund ratio in Visa Steel Ltd stands number one position, which indicates that Visa Steel Ltd has more debt compared to its equity, whereas with 0.74 average Total debt to owners fund ratio in Steel Authorities of India Ltd stands at last position amongst all companies taken under study, which indicates Steel Authorities of India Ltd has lowest debt compared to its equity. Trend analysis of total debt to owner’s fund it can be seen that total debt to owner’s fund ratio was highest during the time period 2016-17(10.91), whereas lowest average long term debt equity ratio value observed during the period 2012-13(4.27), which indicates that steel companies are in least risky financial position, while during the year 2016-17 steel companies are highest risky financial position.

From the Capital gearing ratio it can be concluded that with 0.03 average Capital gearing ratio in Uttam Galva Steel Ltd is highly geared company amongst all steel companies taken under study, whereas Steel Authorities of India Ltd with 1.09 average Capital gearing ratio is less geared company. Trend analysis of Capital Gearing ratio it can be seen that ratio was highest during the time period 2016-17(0.90), whereas lowest average ratio value observed during the period 2014-15(0.69), which indicates that steel companies are in 2016-17 least risky financial position while during the year 2014-15 steel companies are highest risky financial position.

Bhushan Steel Ltd(6.84) has highest leverage ratio, whereas Uttam Galva Steel Ltd(0.66) has lowest average leverage ratio amongst nine selected steel companies. Trend analysis of Financial Leverage ratio it can be seen that ratio was highest during the time period 2016-17(3.15), whereas lowest average ratio value observed during the period 2013-14(1.75).

Steel Exchange of India Ltd(1.44) has highest fixed assets to long term funds ratio, whereas Visa Steel Ltd(0.47) has lowest average Fixed assets to long term funds ratio amongst nine selected steel companies. Trend analysis of fixed assets to long term funds ratio it can be seen that ratio was highest during the time period 2016-17(2.04), whereas lowest average ratio value observed during the period 2015-16(1.69). During year 2016-17 steel companies can cover their debt with their more fixed assets.

It can be seen that JSW Steel Ltd(2.62) has highest Interest Coverage Ratio which indicates that company can manage its interest expenses easily, while Uttam Galva Steel Ltd(0.49) stood at last position in terms of cover interest expense amongst all nine steel companies taken under study. Trend analysis of interest coverage ratio it can be seen that ratio was highest during the time period 2016-17(4.18), whereas lowest average ratio value observed during the period 2013-14(0.90).

During year 2016-17(0.51) steel companies have highest average Proprietary ratio, which indicates that steel companies have sufficient amount of equity to support the functions of the business, while during year 2014-15(0.42) steel companies have lowest average Proprietary ratio, which indicates that steel companies don't have sufficient amount of equity to support the functions of the business. With 0.52 average proprietary ratio value in Steel Authorities of India Ltd stood number one position and has sufficient amount of equity to support the functions of the business, while with 0.03 average proprietary ratio in Uttam Galva Steel Ltd stood at last position.

From the Total Assets to Debt ratio, it can be concluded that during year 2012-13(2.84) steel companies have highest average Total Assets to Debt ratio, whereas during year 2015-16(2.51) steel companies have lowest average Total Assets to Debt ratio. With 2.09 average Total Assets to Debt ratio value in Steel Authorities of India Ltd has highest financial strength amongst all steel companies taken under study, whereas Visa Steel Ltd(0.73) has lowest financial strength amongst all steel companies taken under study.

I: SUGGESTIONS:-

- The financial managers should look into the future prospects of the companies while designing the capital structure policies, because it affects the return on equity market price of its shares for longer periods. Steel companies should design optimum capital structure and focus to increase the profitability for satisfies the share holders' adequate return.
- It is theoretically mentioned that the debt-equity ratio of 2:1 is the ideal one. It can be recommended to Visa Steel Ltd that in order to maximize the earnings there are factors other than debt-equity ratio which should be considered.
- Financial managers of Visa Steel Ltd, Bhushan Steel Ltd need to focus on issues like changes in tangible assets, growth prospects and tax advantage while taking decision on financial leverage.
- From the study, it was seen that the interest coverage ratio in Uttam Gulva Steel Ltd had gone negative despite, Thus, it can be suggested that Uttam Gulva Steel Ltd should concentrate on their operational efficiency to improve its interest coverage ratio.
- To get the benefit of flexible capital structure, the companies should redesign proper mix of debt equity proportion to get the benefit of tax and to reduce the overall cost of capital. Proper mix of debt equity also helps to increase the earnings of shareholders.
- Visa Steel Ltd should concern much on internal sources of financing in order to increase their profitability.
- It is recommend to Steel Exchange of India Ltd, if there are credit purchases and credit sales with the same company; advising a net off payment at a defined interval can help reduce the debtors' amount. Designing discount structure for debtors who pay earlier than the credit period sanctioned will motivate some debtor's payments to clear faster.

- In case of Visa Steel Ltd, the structure of the working capital (gross) be evenly constructed taking into consideration the operational requirements, so as to reduce the cost and take optimum utilisation of the different sources.
- The reduction in operating expenses would go a long way to help the Visa Steel Ltd to increase profitability.
- The Visa Steel Ltd should lay emphasis on cost cutting measures through enhanced production.
- Visa Steel Ltd, Bhushan Steel Ltd should maintain a sound inventory management system. In this regard, further, availing of various state incentives like sales tax exemption, power tariff exemption and steps to control operating expenses are the measures suggested for the improvement of profitability trend.
- Proprietary ratio establishes the relationship between the proprietors fund or shareholders funds and total assets. The firm has to undertake many risks and balance them out. There are market risks which are external to the firm and there are capital structure risks that are internal to the firm. If the external risks are high, the firm must not undertake aggressive financing because this could lead to a complete washout of the firm. On the other hand, if the external environment is stable, the firm can afford to take more risks. Uttam Gulva Steel Ltd should maintain the risks.

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