



A Comparative Study of Financial Performance of Selected Listed Steel Companies in the Stock Exchanges in India on the Bases on Functional Ratios

KEYWORDS

Financial Performance, Functional Ratios, AD'S Index

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ABSTRACT

In this competitive market, it is very essential for every company to know its financial position. It is also important for them to find that where they are to compare others in the same business. With these thoughts, this research study has been done with regards to selected listed steel companies in stock exchange in India. For the study purpose, secondary data have been collected from the annual report of these companies for the period of five years starting from 2009-10 to 2013-14. Data has been analyzed by applying One-way ANOVA. From the analysis, it has been concluded that there is a statistically significant difference in financial performance of these companies. It has been found from that Tata Steel Company remains at the top position.

1. Introduction

Financial analysis is an important activity of evaluating financial soundness of the companies. Ratio analysis being a primary tool of financial analysis helps in assessing and evaluating financial health of the companies using various types of ratios. Financial ratio analysis can be broadly classified into different categories like liquidity ratio, turnover ratio, profitability ratio, leverage ratio and valuation ratio. Ratio analysis is primarily conducted using figures drawn from profit and loss account and balance sheet which are publicly available. Ratio analysis thus provides an overall picture of financial position of the companies to the investors, regulators, stakeholders and analysts who are directly or indirectly interested in the performance evaluation of companies.

2. Problem Statement

Stakeholder of a company wants an adequate return on their investment. For doing so, it becomes very essential for the management to analyze their financial performance by applying various techniques. Efficient management of finance is very important for the success of an enterprise. So, the statement of the problem has been framed as follows; "Is there a significance difference in the financial performance of selected listed steel companies in the stock exchanges in India?"

3. Significance of the study

The findings of the study will provide fruitful information to these companies which will be helpful to the management to construct a new policy and ideas. The stakeholders can get an idea about the stability of financial position of the company which will be useful to take decision.

4. Literature Review

Venkatesan T. and Nagarajan S. K. (2010) have found that SAIL has got better performer in the area of earning power. S. Anthony Rahul Golden and Parthasaarathy A.K. (2013) have found that performance of Tata steel Ltd. is better than the SAIL. It is because the Net profit of Tata Steel Ltd. is greater than the SAIL similarly the inventory management of the Tata Steel Ltd. is better than the SAIL. Rooh Ollah Arab et al. (2015) have found that there is significant difference in the financial performance of identified units in the steel industry in India with regard to Liquidity, Solvency, Activity and Profitability Position.

5. Objectives of the Study

1. To compare financial performance of Selected Listed Steel companies in the stock exchanges in India.
2. To find out the better company according to the rank.
3. To find out the better company according to AD'S Ratio Score Rank Index (AD'S RSRI).

6. Hypothesis of the Study

- H₀: Financial Performance of selected listed steel companies in the stock exchange in India is not significantly different.
- H₁: Financial Performance of selected listed steel companies in the stock exchanges in India is significantly different.

7. Scope of the Study

1. The study is limited to listed steel companies in the stock exchanges in India only.
2. The study has covered the period of five years only.

8. Research Methodology

This research is based on secondary data as the main objective of the study is to compare the financial performance of selected listed steel companies in stock exchange in India. Secondary data have been collected from the annual report of these companies. For the study, five companies have been selected namely Steel Authority of India Limited, Tata Steel Limited, Jindal Steel & Power Limited, Bhushan Steel Limited and JSW Steel Limited. Five years data from 2009-10 to 2013-14 has been considered. As the study is based on the comparison of financial performance, financial ratios have been considered with regards to profitability, liquidity, solvency and management efficiency (activity). The data has been analyzed by applying One-way ANOVA. The rank has been given on the total number of rank as well as the formula of AD'S Ratio Score Rank Index (AD'S RSRI)¹ as this formula is based on the influence of the value of the ratio.

9. Data Analysis and Interpretation

Data has been analyzed on the bases of selected ratios of financial statements. For doing the comparison, the average rank has been considered. This method does not consider the value of the ratios. So, rank has been given on the bases of AD'S RSRI as this index considers the value of ratios. It may be possible that the rank to the company for

its financial position will be different in these two methods.

9.1 Five years (2009-10 to 2013-14) Average of Ratios

For the study purpose, last five years ratios have been taken from the selected companies. Following table shows the average of last five years ratios.

Table No. 1.1 Five years (2009-10 to 2013-14) Average of Ratios

Ratios	Steel Authority of India	Tata Steel	Jindal Steel & Power	Bhushan Steel	JSW Steel
Operating Profit Margin (%)	11.664	31.368	29.542	27.710	18.778
Gross Profit Margin (%)	08.150	27.172	21.056	20.360	12.996
Net Profit Margin (%)	06.900	17.422	10.914	04.416	05.296
Return On Capital Employed (%)	08.098	13.010	10.260	06.110	12.644
Return On Net Worth	07.250	11.340	12.700	05.104	08.794
Return on Long Term Funds (%)	09.376	11.894	13.242	27.710	13.100
Current Ratio	00.982	00.902	00.730	00.712	00.852
Quick Ratio	00.804	00.640	01.044	00.780	00.620
Debt Equity Ratio	00.536	00.460	01.612	03.424	00.888
Long Term Debt Equity Ratio	00.316	00.460	01.020	02.828	00.830
Total Debt to Owners Fund	00.536	00.460	01.612	03.424	00.888
Inventory Turnover Ratio	03.524	07.322	04.298	02.158	07.130
Debtors Turnover Ratio	10.236	56.778	12.574	07.504	25.600
Investments Turnover Ratio	03.524	07.322	04.298	02.158	07.130
Total Assets Turnover Ratio	00.740	00.450	00.448	00.288	00.924
Number of Days In W.C	81.980	-7.562	45.454	175.872	14.118

Interpretation

From the table no 1.1, it can be said that, there is a difference in the average ratios between all the selected companies. However, the difference in the ratios from selected steel companies is statistically significant or not is an important task for making decision about better financial position.

9.2 One-way Anova

One-way Anova test has been applied at 95% significance level. One of the important assumption of the anova test is the variance in the various ratios should be homogeneous. For checking the homogeneity of variance, Levene F-test has been used. The results of this test with null hypothesis are given as follows;

A. Test of Homogeneity of Variances

- H_0 : Group variance is significantly equal
- H_1 : Group Variance is significantly **not equal**

Table No. 1.2 Test of Homogeneity of Variances

Ratios	Levene Statistic	df1	df2	Sig.
Operating Profit Margin (%)	1.344	4	20	0.288
Gross Profit Margin (%)	2.780	4	20	0.055
Net Profit Margin (%)	2.970	4	20	0.055
Return On Capital Employed (%)	4.450	4	20	0.010
Return On Net Worth	4.157	4	20	0.013
Return on Long Term Funds (%)	2.731	4	20	0.058
Current Ratio	2.466	4	20	0.078
Quick Ratio	1.520	4	20	0.234
Debt Equity Ratio	4.815	4	20	0.007
Long Term Debt Equity Ratio	3.275	4	20	0.032
Total Debt to Owners Fund	4.815	4	20	0.007
Inventory Turnover Ratio	0.709	4	20	0.595
Debtors Turnover Ratio	11.393	4	20	0.000
Investments Turnover Ratio	0.709	4	20	0.595
Total Assets Turnover Ratio	0.956	4	20	0.453
Number of Days In W.C	2.536	4	20	0.072

Interpretation

The result in table no 1.2 indicates that the variances between the groups are equivalent for most of the ratios excluding return on capital employed, debt equity ratio , return on net worth , total debt to owners fund and debtors turnover ratio funds because the p-value of Levene Statistic is greater than the significant level (0.05). So it has not been rejected that the group variances are equal. With equality of the group variance established, the ANOVA test has been conducted with a significant level of 0.05 and the results are summarized in table no. 1.3

B. ANOVA test for F-value

- H_0 : There is no significant difference in various ratios of Listed Steel Companies in the Stock Exchanges in India
- H_1 : There is a significant difference in various ratios of Listed Steel Companies in the Stock Exchanges in India

Table No. 1.3 Anova test for F-value

Ratios		Sum of Squares	df	Mean Square	F	Sig.
Operating Profit Margin (%)	Between Groups	1390.177	04	347.544	20.919	0.000
	Within Groups	0332.271	20	016.614		
	Total	1722.448	24			
Gross Profit Margin (%)	Between Groups	1105.413	04	276.353	11.73	0.000
	Within Groups	0471.199	20	023.560		
	Total	1576.612	24			
Net Profit Margin (%)	Between Groups	0568.678	04	142.170	3.298	0.031
	Within Groups	0862.176	20	43.109		
	Total	1430.854	24			

Return on Capital Employed (%)	Between Groups	0174.326	04	43.581	5.388	0.004
	Within Groups	0161.771	20	08.089		
	Total	0336.096	24			
Return On Net Worth (%)	Between Groups	0187.211	04	46.803	0.766	0.560
	Within Groups	1222.559	20	61.128		
	Total	01409.77	24			
Return on Long Term Funds (%)	Between Groups	1047.503	04	261.876	20.073	0.000
	Within Groups	0260.923	20	013.046		
	Total	1308.425	24			
Current Ratio	Between Groups	0000.263	04	00.066	1.287	0.030
	Within Groups	00001.02	20	00.051		
	Total	0001.283	24			
Quick Ratio	Between Groups	0000.577	04	00.144	2.175	0.010
	Within Groups	0001.327	20	00.066		
	Total	0001.904	24			
Debt Equity Ratio	Between Groups	0030.162	04	07.541	37.4	0.000
	Within Groups	0004.032	20	00.202		
	Total	0034.195	24			
Long Term Debt Equity Ratio	Between Groups	0020.446	04	05.111	41.502	0.000
	Within Groups	0002.463	20	00.123		
	Total	0022.909	24			
Total Debt to Owners Fund	Between Groups	0030.162	04	07.541	37.4	0.000
	Within Groups	0004.032	20	00.202		
	Total	0034.195	24			
Inventory Turnover Ratio	Between Groups	0103.062	04	25.766	46.641	0.000
	Within Groups	0011.048	20	00.552		
	Total	00114.11	24			
Debtors Turnover Ratio	Between Groups	8291.975	04	2072.994	68.384	0.000
	Within Groups	0606.283	20	030.314		
	Total	8898.258	24			
Investments Turnover Ratio	Between Groups	0103.062	04	25.766	46.641	0.000
	Within Groups	0011.048	20	00.552		
	Total	00114.11	24			
Total Assets Turnover Ratio	Between Groups	0001.315	04	00.329	72.836	0.000
	Within Groups	0000.090	20	00.005		
	Total	0001.405	24			

Number of Days In W.C	Between Groups	103856.8	04	25964.20	10.474	0.000
	Within Groups	49576.55	20	2478.828		
	Total	153433.30	24			

Interpretation

Table no 1.2 indicates that the ratios with grey shad (like Return on Capital Employed, return on net worth, debt equity ratio, total debt to owners fund and debtors turnover ratio) have not been considered for the comparison of the financial position as either its value is greater than 0.05 or it is rejected by p value of Levene Statistic. Rest of the ratios like operating profit margin (%),gross profit margin (%),net profit margin (%),return on long term funds (%),current ratio, quick ratio, long term debt equity ratio, inventory turnover ratio, total assets turnover ratio and number of days in w.c have been considered as its significant value is less than 0.05. Hence, to find out which company is in better position, ranks are given to them on the bases of the values of the ratios which are shown in table no.1.4.

9.3. Rank to Management Efficiency Ratios

The rank is given to the ratio on the bases of its importance in descending and ascending order which is shown in the following table no.1.4.

Table No. 1.4 Rank to the company based on the Value of ratio.

Ratios	Steel Authority of India	Tata Steel	Jindal Steel & Power	Bhushan Steel	JSW Steel
Operating Profit Margin (%)	5	1	2	3	4
Gross Profit Margin (%)	5	1	2	3	4
Net Profit Margin (%)	4	1	2	5	3
Return on Long Term Funds (%)	5	4	2	1	3
Current Ratio	1	2	4	5	3
Quick Ratio	2	4	1	3	5
Long Term Debt Equity Ratio	4	3	2	5	1
Inventory Turnover Ratio	4	1	3	5	2
Investments Turnover Ratio	4	1	3	5	2
Total Assets Turnover Ratio	2	4	3	5	1
Number of Days In W.C	4	1	3	5	2
	40	23	27	45	30
	4	1	2	5	3

Interpretation

From the table no. 1.4, it can be said that each company is having different position in different ratio. From the total of average rank, it has been found That Tata Steel stands at first position (total average rank = 23) followed by Jindal Steel & Power (total average rank = 27), JSW Steel (total average rank = 30), Steel Authority of India (total average rank = 40) and Bhushan Steel (total average rank = 45).

9.4 AD'S Ratio Score Rank Index

Table no. 1.5 shows rank has been given on the bases of AD'S RSRI as this index considers the value of ratios.

Table No. 1.5 Rank to the company based AD'S RSRI

Ratios	Steel Authority of India	Tata Steel	Jindal Steel & Power	Bhushan Steel	JSW Steel
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Operating Profit Margin (%)	02.3328	31.3680	14.7710	09.2367	04.6945
Gross Profit Margin (%)	01.6300	27.1720	10.5280	06.7867	03.2490
Net Profit Margin (%)	01.7250	17.4220	05.4570	00.8832	01.7653
Return on Long Term Funds (%)	01.8752	02.9735	06.6210	27.7100	04.3667
Current Ratio	00.9820	00.4510	00.1825	00.1424	00.2840
Quick Ratio	00.4020	00.1600	01.0440	00.2600	00.1240
Long Term Debt Equity Ratio	00.0790	00.1533	00.5100	00.5656	00.8300
Inventory Turnover Ratio	00.8810	07.3220	01.4327	00.4316	03.5650
Investments Turnover Ratio	00.8810	07.3220	01.4327	00.4316	03.5650
Total Assets Turnover Ratio	00.3700	00.1125	00.1493	00.0576	00.9240
Number of Days In W.C	00.0030	00.1322	00.0073	00.0011	00.0354
RSRI	11.161	94.589	42.136	46.506	23.403
RANK	5	1	3	2	4

Interpretation

On the bases of RSRI, it can be said that Tata Steel at first position with the higher value (RSRI=94.589) followed Bhushan Steel (RSRI = 46.506), Jindal Steel & Power (RSRI = 42.136) JSW Steel (RSRI = 23.403) and Steel Authority of India (RSRI = 11.161).

10. Findings and Conclusion

On the bases of average mean of five years ratios, it has been found that there is a difference in financial position of selected steel companies. But to find out the statistical significant level, one-way ANOVA has been run and it has been found that the difference is significant. Rank has been given to the ratios on the bases of its value and importance. It has been found that Tata Steel stands at first position followed by Jindal Steel & Power, JSW Steel, Steel Authority of India and Bhushan Steel. On the bases of AD'S RSRI, it has been found that Tata Steel at first position with the higher value followed Bhushan Steel, Jindal Steel & Power JSW Steel and Steel Authority of India. So, it has been concluded that Tata Steel Company stands at first position.

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