An Analysis of Liquidity Position of Indian Steel Industry

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Abstract

India has emerged as the fourth largest steel producing nation in the world, as per the recent figures release by World Steel Association. Rapid rise in production has resulted in India becoming the 4th largest producer of crude steel and the largest producer of sponge iron or DRI in the world. For a successful working of a business organization, current assets play a vital role. Management of working capital is essential as it has direct impact on efficiency and liquidity. An attempt has been made in this paper to study the financial efficiency and liquidity positions and its impact of Steel industry in India. The study is based on steel Industry represented by Jindal Steel, SAIL and TISCO. In the study Ratio analysis and statistical tools like standard deviation and coefficient of variation have been used to analyze the data.

1. INTRODUCTION

The overall objective of a business is to earn satisfactory returns on the funds invested in it. Consistent with maintaining a sound financial position, an evaluation of such performance is done in order to measure the efficiency of operations or the profitability of the organization and to appraise the financial strength as compared with a similarly situated concern. Thus, Financial Appraisal is generally directed towards evaluating the liquidity, stability and profitability of a concern which put together symbolizes the financial efficiency of a concern.

India has emerged as the fourth largest steel producing nation in the world, as per the recent figures release by World Steel Association in April 2011. Total crude steel production in India for 2010-11 was around 69 million tonnes and it's expected that the crude steel production in capacity in the country will increase to nearly 110 million tonne by 2012-13. Further, if the proposed expansion plans are implemented as per schedule, India may become the second largest crude steel producer in the world by 2015-16.

The demand for steel in the country is currently growing at the rate of over 8% and it is expected that the demand would grow over by 10% in the next five years. However, the steel intensity in the country remains well below the world levels. Our per capita consumption of steel is around 110 pounds as compared to 330 Pounds for the global average. This indicates that there is a lot of potential for increasing the steel consumption in India.

2. OBJECTIVE OF THE STUDY

The objective of the study is to analysis and interprets the Financial Performance of steel Industry in India." The objectives are as under:

- To examine liquidity position
- To measure the financial efficiency

3. HYPOTHESIS

- There is no any significance difference between the Current ratio of steel companies
- There is no any significance difference between the quick ratio ratios of steel companies
- There is no any difference between the inventories to working capital turnover ratio of steel companies.
- There is no any difference between the inventory turnover ratios of steel companies.
- There is no any significance difference between the working capital turnover ratios of steel companies.

4. COLLECTION OF DATA

Data have been selected from annual reports of 3 (Three) companies chosen for study i.e. Jindal Steel Power Limited, Steel Authority of India Limited and Tata Iron Steel Company Limited, which will represent the overall Indian Steel Industry. The data have been taken for the period of study i.e. from 2002-03 to 2011-12. Financial Performance of steel Industry in India of the above companies covered in the present study fully examined.

5. ANALYSIS OF LIQUIDITY POSITION

With a view to appraising the performance in utilization of working capital by the steel industry and the individual companies under study, the analysis of working capital has been made from the point of view of Short term creditors and Efficiency in the use of working capital. Short term creditors are primarily concerned with the analysis of short term financial position or test of liquidity, Which is valuable to management in checking the efficiency with which working capital is being employed in the business. The problems posed in connection With the ratio analysis of the short-term financial position are

(1)   will the company be also to its current depts. promptly?

(2)   Is the current financial position improving?

The following ratios have been calculated to evaluate the performance of working capital:

(a) Current Ratio : Current ratio is used to measure the liquidity position of the concerned and thus it reflects the short-term solvency of the concerned. It explains the relationship between the current assets and current liabilities. It gives a general picture of the adequacy of the working capital of the concern and the concern's ability to meet its day-to-day payment obligations. The current ratio is calculated by dividing current liabilities from current assets.

Table No.1 indicates current ratio of steel companies in India. In Jindal, the ratio was fluctuated and shown down ward trend with an average of 1.37 times. The ratio was 1.18 times in 2002-03 and then it went increase to 1.38 times in 2003-04. The ratio was 1.32 times in 2004-05 which very lower than norm. The ratio was 1.22 times, 1.05 times, 0.82 times, 0.71 times, and 0.83 times during the years of 2005-06, 2006-07, 2007-2008, 2010-2011 and 2011-12 respectively.

The ratio then went increase to 2.70 times in 2008-09. Thus ratio ranged between 0.71 to 2.70 times with the standard deviation of 0.68 percent and C.V of 49.77. The ratio was not according to the norms during the study period.

Table No.1 has shown current ratio of SAIL with fluctuated trend during the study period. The ratio was 1.53 times which then slipped to 1.34 times in

the year of 2003-04. The ratio rose to 2.15 times in the year of 2004-05 and then went down to 1.47 times year of 2005-06. The ratio was showing decreased trend during the last year of study period. The ratio ranged between 1.34 times in 2003-04 and 2.28 times in 2009-10. The average ratio was 1.38 times with standard deviation of 0.34 and CV of 18.69 percent.

It is also indicated that the current ratio of TISCO with an average of 2.63 times. The ratio showed highly fluctuated trend with the range of 0.87 times in 2011-12 and 9.59 times in 2007-08. The ratio was 1.90 times in 2002-03 and then sharply rose to 9.59 times in 2007-08 and then went down to 0.87 times in 2011-12. The ratio manifested standard deviation of 2.56 and co-efficient of variance of 97.50. The ratio is not found according to the norms of 2:1. The liquidity position was not at all good for the health of the company.

(b) Acid Test Ratio or Quick Ratio : The quick ratio also named as liquid ratio for the acid test ratio and is found out by dividing quick assets i.e. Current assets minus the inventories by quick liabilities. It is in a way a refined form of the current ratio and a favourable acid test ratio will mean very sound cash position of the business to which it relates.

Table 1 : Current ratio of Steel Companies in India (in times)

Year	Jindal	SAIL	TISCO	Average	SD	CV
2003	1.18	1.53	1.90	1.54	0.36	23.50
2004	1.38	1.34	1.84	1.52	0.28	18.29
2005	1.32	2.15	1.52	1.66	0.43	25.98
2006	1.22	1.47	1.49	1.39	0.15	10.83
2007	1.05	1.85	3.89	2.26	1.46	64.69
2008	0.82	1.99	9.59	4.13	4.76	115.13
2009	2.70	2.02	1.70	2.14	0.51	23.90
2010	2.47	2.28	1.84	2.20	0.32	14.70
2011	0.71	2.19	1.67	1.52	0.75	49.39
2012	0.83	1.52	0.87	1.07	0.39	36.24
Average	1.37	1.83	2.63			
SD	0.68	0.34	2.56			
CV	49.77	18.69	97.50			

Sources: *Annual Reports and Accounts from 2002-03 to 2011-12*

Comparison between current ratio and quick ratio indicates current ratio is the measurement of short-term financial solvency last it does not measure the quality of current assets while quick ratio does it. The formula for that is following.

In inventories and prepaid expenses are excluded forms this computation because they might not readily convertible in to cash. The creditors are interested particularly in this ratio since it relates to the 'pool' of cash and immediately cash inflow to immediate cash outflows. Generally an acid test ratio 1:1 is considered satisfactory as a firm can easily meet all current claims.

The quick ratio of Jindal Steel manifested in the above table No.2. The ratio showed fluctuated during the research period. The ratio was 0.85 times in 2002-03 and then it rose to 1.05 times in 2003-04. The ratio was 0.86 times in 2004-05 and it slipped down to 0.45 times in 2007-08. The ratio was 1.58 times in 2008-09 and 0.53 times in 2011-12. The ratio ranged between 0.38 times in 2010-11 and 1.58 times in 2008-09 with an average of 0.85 times. The standard deviation of this ratio is 0.40 times and C.V. 46.40 percent. The ratio showed that during the last two years of study period company could not maintain the quick ratio according the norms.

Table 2 : The Acid-Test Ratio of Steel Companies in India (in times)

Year	Jindal	SAIL	TISCO	Average	SD	CV
2003	0.85	0.75	1.30	0.97	0.30	30.56
2004	1.05	0.83	1.28	1.05	0.22	21.10
2005	0.86	1.51	0.82	1.06	0.39	36.26
2006	0.82	0.88	0.73	0.81	0.08	9.69
2007	0.61	1.25	3.23	1.70	1.36	80.46
2008	0.45	1.47	8.91	3.61	4.62	127.85
2009	1.58	1.42	1.12	1.38	0.23	16.85
2010	1.39	1.76	1.38	1.51	0.22	14.27
2011	0.38	1.54	1.03	0.98	0.58	59.29
2012	0.53	0.79	0.46	0.59	0.17	29.11
Average	0.85	1.22	2.03			
SD	0.40	0.37	2.53			
CV	46.40	30.65	125.09			

Sources : *Annual Reports and Accounts from 2002-03 to 2011-12*

Table No.2.indicated quick ratio of SAIL for the year of 2002-03 to 2011-12. The ratio was fluctuated and shown down ward trend with an average of 1.22 times. The ratio was 0.75 times in 2002-03 and then it rose to 1.51 times in 2004-05. The ratio was 1.76 times in 2009-10 which higher than norm. The ratio was 0.79 times and 0.75 times during the years of 2002-03 and 2011-12 respectively. Thus ratio ranged between 0.75 to 1.76 times with the standard deviation of 0.37 times and C.V of 30.65. The ratio was not according to the norms during the study period.

The quick ratio of TISCO was manifested in the above table No. 2. The ratio showed fluctuated trend during the research period. The ratio was 1.30 times in 2002-03 and then it declined to 0.73 times in 2005-06. The ratio was 3.23 times in 2006-07 and it rose to 8.91 times in 2007-08 and then slept down to 0.46 times in 2011-12. The ratio ranged between 0.46 times in 2011-12 and 8.91 times in 2007-08 with an average of 2.03 times. The standard deviation of this ratio is 2.53 times and C.V. 125.09 percent. The ratio showed that during the last year of study period company could not maintain the quick ratio according the norms.

(c) Inventory to Working Capital Ratio :
Inventory to working capital ratio was showed the amount of working capital invested in inventory, where the term inventory includes raw materials. Semi finished goods and finished goods. This ratio is dividing inventory by working capital or net current assets.

The general accepted rules of this ratio are that inventory should not over the working capital. Around three quarters (i.e.0.75 times) of working capital generally preferred.

Table No.3 outlined the inventory to working capital ratio of selected companies of steel industry under study.

The Table No. 3 Showed Inventory to Working Capital Ratio Jindal Steel with fluctuated trend during the study period. The ratio was 0.28 times which then slipped to 0.23 times in the year of 2003-04. The ratio again went up to 0.35 times in the year of 2004-05 and then rise to 0.46 times year of 2007-08. The ratio was showing decreased trend during the last years of study period. The ratio ranged between 0.23 times in 2003-04 and 0.46 times in 2007-08. The average ratio was 0.37 times with standard deviation of 0.08 and the C.V was 20.66 percent.

The ratio inventory to working capital in all company is not so good because more than 50 percent working capital tied up in inventory. So company needs to increase inventory turnover during the year. The Inventory to Working Capital Ratio of SAIL was manifested in the above table No. 3 the ratio show fluctuated trend during the research period. The ratio was 0.51 times in 2002-03 and then it went down to 0.30 times in 2004- 05. The ratio was 0.40 times in 2005-06 and it slept down to 0.23 times in 2009- 10. The ratio ranged between 0.23 times in 2009-10 and 0.51times in 2002-03 with an average of 0.35 times. The standard deviation of this ratio is 0.09 times and C.V. 26.95 percent. The ratio is not good because working capital tied up in inventory.

The Inventory to Working Capital Ratio of TISCO was manifested in the above table No. 3. The ratio showed fluctuated trend during the research period. The ratio was 0.32 times in 2002-03 and then it declined and reached to 0.31 times in 2003-04. The ratio was 0.51 times in 2005-06 and it slipped down to 0.07 times in 2007-08. The ratio ranged between 0.07 times in 2007-08 and 0.51 times in 2005- 06 with an average of 0.33 times. The standard deviation of this ratio is 0.14 times and C.V. 42.25 percent. The company is facing liquidity problem because liabilities are more than current assets.

Table 3 : Inventory to working capital ratio of steel companies in India (in times)

Year	Jindal	SAIL	TISCO	Average	SD	CV
2003	0.28	0.51	0.32	0.37	0.13	34.19
2004	0.23	0.38	0.31	0.31	0.07	23.75
2005	0.35	0.30	0.46	0.37	0.08	22.27
2006	0.33	0.40	0.51	0.41	0.09	22.85
2007	0.38	0.32	0.17	0.29	0.11	37.73
2008	0.46	0.26	0.07	0.26	0.19	73.75
2009	0.42	0.29	0.34	0.35	0.06	17.75
2010	0.44	0.23	0.25	0.31	0.11	37.23
2011	0.46	0.30	0.38	0.38	0.08	21.51
2012	0.36	0.48	0.47	0.44	0.07	15.91
Average	0.37	0.35	0.33			
SD	0.08	0.09	0.14			
CV	20.66	26.95	42.25			

Sources : *Annual Reports and Accounts from 2002-03 to 2011-12*

(d) Inventory Turnover Ratio : Inventory turnover Ratio Indicates the Efficiency of firm's Inventory management. It shows rapidity of turning inventories into sales. Generally, a high turnover is indicative of good inventory management. Simultaneously, a low inventory turnover implies excessive inventory level that warranted by production and sales activities, or a slow moving or obsolete inventory. A high level of sluggish inventory amounts to unnecessary tie-up of funds, impairment of profit and increased cost.

On the other hand, a very high inventory turnover may be the result of a very low level of inventory turnover may be the result of a very low level of inventory which results in frequent stockiest. The inventory will also be high if the firm replenishes its inventory in too many small lot sizes. The situation of frequent stick outs and too many small inventory replacements are costly for the firm. Thus, too high and too low inventory turnover rates are not preferred.

Inventory turnover ratio of Jindal Steel was manifested in the above table No. 4. The ratio showed Fluctuated trend during the research period. The ratio was 10.46 times in 2002-03 and then it rose to 12.49 times in 2003-04. The ratio was 9.46 times in 2004-05 and it slept down to 7.40 times in 2008-09. The ratio ranged between 6.07 times in 2010-11 and 12.49 times in 2003-04 with an average of 8.48 times. The standard deviation of this ratio is 1.94 times and C.V. 22.49 percent.

Table 4 : Inventory Turnover Ratio of Steel Companies in India. (In Times)

Year	Jindal	SAIL	TISCO	Average	SD	CV
2003	10.46	5.13	8.49	8.03	2.70	33.57
2004	12.49	7.91	9.54	9.98	2.32	23.26
2005	9.46	7.53	8.48	8.49	0.96	11.34
2006	7.32	5.11	7.88	6.77	1.47	21.69
2007	9.19	5.80	8.47	7.82	1.79	22.84
2008	8.15	6.64	8.52	7.77	0.99	12.79
2009	7.40	4.81	7.71	6.64	1.59	23.99
2010	7.52	4.87	8.69	7.03	1.96	27.90
2011	6.07	4.16	4.59	4.94	1.00	20.28
2012	6.69	3.66	6.10	5.49	1.60	29.26
Average	8.48	5.56	7.85			
SD	1.94	1.40	1.45			
CV	22.94	25.16	18.48			

Sources : *Annual Reports and Accounts from 2002-03 to 2011-12*

Table 5 : Working capital turnover ratio of Steel Companies in India (In Times)

Year	Jindal	SAIL	TISCO	Average	SD	CV
2003	19.47	7.59	5.66	10.91	7.48	68.60
2004	10.67	11.79	6.39	9.62	2.85	29.63
2005	13.65	4.20	11.39	9.75	4.94	50.67
2006	13.26	6.38	12.23	10.62	3.71	34.91
2007	75.72	4.10	1.94	27.25	41.99	154.07
2008	-17.40	3.47	0.67	-4.42	11.33	-256.37
2009	4.89	2.80	6.35	4.68	1.78	38.13
2010	5.53	2.00	4.78	4.10	1.86	45.39
2011	-6.82	2.27	4.41	-0.05	5.96	-12435.33
2012	-11.78	5.17	-18.76	-8.46	12.31	-145.50
Average	10.72	4.98	3.51			
SD	25.78	2.98	8.61			
CV	240.53	59.88	245.64			

Sources : *Annual Reports and Accounts from 2002-03 to 2011-12*

Table No. 4 expressed Inventory turnover ratio SAIL with fluctuated trend during the study period. The ratio was 5.31 times in 2002-03 and then it rose to 7.53 times in the year of 2004-05. The ratio went down to 3.66 times in the year of 2011-12 the ratio was showing fluctuated trend during the study period. The ratio ranged between 3.66 times in 2011-12 and 7.91times in 2003-04. The average ratio was 5.56 times with standard deviation of 1.40 times and the C.V was 25.16 percent. The ratio Inventory turnover ratio was also good in all years of study period.

The table No.4 indicated Inventory turnover ratio TISCO with an average of 7.85. The ratio showed fluctuated trend during the study period. The highest ratio of 9.54 times in 2003-04 and the lowest ratio of 4.59 times were found. The ratio was 8.49 times in 2002-03 and then it rose to 9.54 times in 2003-04. The ratio was 9.45 times in 2004-05 and 9.38 times in 2005-06. The ratio manifested very good Inventory turnover of TISCO.

(e) Working Capital Turnover Ratio : In order to test the efficiency with which working capital is used the working capital turnover ratio is calculated. The ratio is computed by dividing the amount of sales by net working capital.

A close relationship exists between sales and net working capital. With any increase in sales volume there is a corresponding increase in the working capital. Table No. 5 expressed working capital turnover ratio of Jindal Steel with fluctuated trend. The ratio was 19.47 times in 2002-03 and it slept down to 10.67 times in 2003-04 which then stepped up to 13.65 times in the year of 2004-05. The ratio again slept down to minus -17.40 times in the year of 2007-08 and then rise to 5.53 times I the year of 2009-10. The ratio was showing decreased trend during the

last years of study period. The ratio ranged between minus -17.40 times in 2007-08 and 75.72 times in 2006-07. The average ratio was 10.72 times with standard deviation of 25.78 and the C.V was 240.53 percent.

Table No. 5 explained Working capital turnover ratio of SAIL with fluctuated trend during the study period. The ratio was 7.59 times in the year of 2002-03 and rose to 11.79 times in the year of 2003-04. The ratio rose to 4.63 times in the year of 2005-06 and then slept down to 2.00 times in the year of 2009-10. The ratio ranged between 2.00 times in 2009-10 and 11.79 times in 2003-04. The average ratio was 4.98 times with standard deviation of 2.98 and the C.V was 59.88 percent.

The table No. 5 indicated working capital turnover ratio TISCO with an average of 3.51. The ratio showed highly fluctuated trend and negative trend during the study period. The highest ratio of 12.23 times in 2005-06 and the lowest ratio of minus 18.76 times were found in 2011-12. The ratio was 5.66 times in 2002-03 and then it rose to 12.23 times in 2005-06. The ratio manifested good working capital turnover of TISCO.

6. CONCLUSION

In the present study, five types of financial ratios have been calculated i.e. current ratio, quick ratio, and inventory turnover ratio working capital turnover ratio, inventory to working capital turnover ratio. The results revealed that Current Ratio of steel industry in India is quite satisfactory, which means Indian steel companies maintain sound liquidity position in the business. In the same manner liquid ratio showed good position of liquidity position. But separately, in every company the result is not same, as it is of the whole. Proportion of inventory in working capital kept by each company is near about same and Inventory turnover ratio is also depicts the same result.

But in case of Working Capital Turnover ratio shows adverse picture as it is quite different in every company, which shows that Indian Steel Industry uses working capital in improper manner.

Thus above analysis describe that the need for liquidity to rub day-to-day business activities can't be over emphasized. The conclusion drown and suggestions attempted will provide practical guidance to the management of the companies to promote for improvement of Financial Performance of their companies, as well as consumers, investors, Financial manager and workers for talking decision related to their own regards of interest.

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