A Study on Financial Performance of Public Sector Steel Companies in India

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Abstract:
The present study was an attempt to evaluate financial performance of the public sector steel companies in India under liberalized era. To determine the financial soundness of these selected companies namely Steel Authority of India Limited and Rastriya Ispat Nigam Limited ratio analysis and descriptive statistics are applied over financial data for a period of twenty years since 1992-93 to 2010-11. The study was based on secondary data collected from CMIE database and published annual reports of the concerned companies. The available data were analyzed to test the financial health of the companies by using ratio analyses which were broadly selected from four categories such as liquidity, solvency, efficiency and profitability. Various descriptive statistical tests like average (Avg), standard deviation (S.D), maximum (Max), minimum (Min) and coefficient of variation (CV) were also applied in the present study.

Keywords: *Financial Performance of Public Sector Steel Companies, Liquidity Analysis, Profitability Analysis, Ratio Analysis of Indian Steel Companies*

1. Introduction

The steel industry is considered as basic foundation of the modern industries in all advanced nation of the world. Indian steel industry is a century old. It was the first core sector to be completely freed from the licensing regime (1990-91) and the pricing and distribution control. Indian steel industry can be divided into two main sectors public and private. Prior to liberalization public sector had a dominant share in steel production but after economic reforms the scenario became changed. More of the private companies enter into the competition. However, the performance of public sector steel companies also remarkable in the post-liberalized era. Actually, financial health of any company decides its sustainability in long run. Financial ratio is useful measure to provide a snapshot of a company‟s financial position at any certain point of time or to provide a comprehensive idea about the financial performance of the company (Muresan and Wolitzer, 2004). Use of financial ratios in finance is multi-dimensional. It is not only useful to analysis the performance of a company over the years but also facilities the comparison between the companies under the same industry. Therefore, to determine the financial performance of the public sector steel units financial ratios are taken into account. Analyzing the ratios of the companies not only show the clear picture of present performance but also a futuristic dimension of the companies. For better understanding and conceptualizing the ratios an attempt has been made in this regard with public sector steel companies namely Steel Authority of India Limited (SAIL) and Rastriya Ispat Niigam Limited (RINL).

2. Review of Literature

Out of the innumerable studies available on the subject some of the most appropriate studies have been revived.

DeVancy (1993) conducted a study to measure the changes of status in the families of United States of America by using financial ratios selected from different categories for a period of four years

ranging from 1983 to 1986. This study used the financial ratios as indicators of progress to answer the question whether the households were able to improve their financial status during the study period. The importance of ratios is increasing for the purpose of measuring the financial performance of the company. Gallizo and Salvador (2003) also carried out a study on financial ratios of U.S manufacturing firms for a period of eight years since 1993 to 2000 to understand the behavior and adjustment process of the same. A proper balance between sales and assets generally specify that the assets are managed and utilized well towards the sales generation. The main aim of the company is to maximize its profit and profitability ratios helps to measure overall performance and efficiency of the firm.

A study has been conducted by Bhunia (2010) on private sector steel companies of India to test the short term liquidity trend of the companies and its effect on the financial performance. The study shows that the inventory and receivable management require special attention and proper control over inventory. The investment in loans and advances should be minimized to the extent possible. A balanced and proper amount of working capital should be maintained in the business for smooth running of the same. The management of the companies should adopt a viable and proficient payment policy. At the same time maximization of assets and minimization of liabilities should be preserved and help Indian steel companies to grow further.

A proper working capital management system ensures the hazard free business operations and also enhances the profitability of the company. Ramaratnam and Jayaraman (2010) used financial ratios in terms of liquidity, profitability, variability and sustainability to measure the financial performance of Indian steel industry for a period of five years from 2005 to 2010. Their study reveals that the critical situation faced by the Indian steel industry is due to over capacity and demand slowdown resulting in price cuts. U.S and many European countries imposed the anti-dumping duties to this demand supply mismatch in the market. A study has been conducted by Pal (2011) on the Indian steel companies for a period of ten years range between 2000-01 and 2009-10 to measure the profitability of the selected companies which is of major importance to the internal and external stakeholders to determine the earning capacity together with the credibility of the companies to sustain in the competition for a long run.

3. Research Objectives

1. To evaluate the overall financial performance of dominant Indian steel companies under public sector in terms of liquidity, solvency, efficiency and profitability.
2. To observe the area of weakness of the selected companies and make some suggestions for improvement of the performance of the selected companies.

4. Research Methodology

Ratio analysis is used in the study to analyze the financial performance of the selected companies in terms of liquidity, solvency, efficiency and profitability. Current ratio, quick ratio and acid-test ratio are used to ascertain the liquidity of the companies. Debt equity ratio and interest coverage ratios are used to in the study to determine the long term liquidity or solvency of the companies. Efficiency ratios (inventory turnover ratio, debtor turnover ratio, creditor turnover ratio and fixed assets turnover ratio) are applied in the study to know the assets utilization capacity of the companies for sales generation. Profitability ratios (operating profit margin, net profit margin and return on investment) are used in the study to examine the profit earning capacity of the companies.

Descriptive statistics (average, standard deviation, maximum, minimum and coefficient of variation) are used to make the accurate analysis of short-term and long-term liquidity, efficiency and profitability of the selected companies. The results of the companies are compared with industry average for future prediction.

5. Data and Source of Data

The study is empirical in nature and based on secondary data. The relevant data are collected from secondary sources like CMIE database, audited balance sheets and profit and loss account, annual reports of respective companies, economic survey and annual survey of Industries. The study mainly aims at measuring the performance of steel producers under public sector in India and two companies namely Steel Authority of India Limited (SAIL) and Rastriya Ispat Nigam Limited (RINL) are selected for the study. The referred period of study is twenty years from 1991-92 to 2010-11.

6. Analysis and Interpretations

In this section financial ratios are analyzed to evaluate the financial performance of the selected companies.

6.1 Financial Performance of the Companies in Terms of Liquidity Ratios

Table 1: Descriptive Statistics of Public Sector Steel Companies Based on Liquidity Ratios

Descriptive Statistics	Current Ratio			Quick Ratio			Absolute Quick Ratio		
	SAIL	RINL	Industry. Average	SAIL	RINL	Industry. Average	SAIL	RINL	Industry. Average
AVG	1.37	1.73	1.19	0.99	1.23	0.65	0.39	0.91	0.24
S.D	0.63	1.32	0.20	0.85	1.45	0.44	0.50	1.23	0.28
MIN	0.63	0.36	0.92	0.25	0.10	0.20	0.03	0.02	0.03
MAX	3.31	5.33	1.61	2.73	4.88	1.70	1.52	3.86	1.03
CV	0.46	0.76	0.17	0.86	1.18	0.68	1.27	1.35	1.21

Source: *CMIE Database and Annual Reports*

6.1.1 Liquidity Performance in Terms of Current Ratio

Table-1 shows the descriptive statistics for current ratio of the selected companies. Current ratio is generally used to measure the short-time liquidity of the company and it is also acts as „safety margin" for the creditors. It is observed from SAIL (1.37) and RINL (1.73) have the average current ratio more than industry average (1.19) which is considered as benchmark for the present study indicating good liquidity condition of the companies. It signifies that the companies can meet the short-term obligations at maturity without fail in every year of study.

The standard deviation of current ratio for SAIL and RINL are 0.63 and 1.32 respectively and greater than the industry average of 0.20 indicating a large change during the study period. The coefficient of variation for the industry during the study period is 0.17. SAIL (0.46) and RINL (0.76) have the coefficient of variation higher than the industry average (0.17) indicating less consistency for the companies during the study period in terms of liquidity.

6.1.2 Liquidity Performance in Terms of Quick Ratio

Quick ratio is a more is more penetrating test of liquidity than the current ratio. Although a high quick ratio is desirable but a high QR may suffer from fund crunch if debtors are making delay in payment. Liquidity position of SAIL and RINL is good and capable of meeting the short-term obligation at maturity. According to table-1 SAIL and RINL have the average of 0.99 and 1.23 which are higher than the industry average of 0.65.

The standard deviation for the industry as a whole for the present study period is 0.44. SAIL (0.85) and RINL (1.43) both possess higher standard deviation compared to industry norm signifying a high change during the study period. The coefficient of variation for the industry during the study period is 0.17. SAIL (0.86) and RINL (1.18) have the coefficient of variation higher than the industry average (0.68) indicating less consistency for the companies during the study period in terms of liquidity.

6.1.3 Performance of the Companies in Terms of Absolute Quick Ratio

This ratio is most precise and traditional test of firm‟s liquidity position. Further, it is suggested that it would be useful for the management, if the liquidity measure also takes into account „reserve borrowing power‟ as the firm‟s real debt paying ability depends not only on cash resources available with it but also on its capacity to borrow from the market at short notice. It is observed from table-1 that SAIL (0.39) and RINL (0.91) both have the average more the industry average of 0.24 indicating a good and sat sfactory liquidity condition for the study period. The standard deviation for the industry as a whole is 0.28. SAIL and RINL possess higher standard deviation of 0.50 and 1.23 respectively compared to industry average indicating a huge change. The coefficient of variation of SAIL and RINL are 1.27 and 1.35 respectively which are higher than the industry average of 1.21 signifying less consistency for both of the companies in case of cash and cash equivalent during the study period. Less consistency in cash and cash equivalent may be a sign of inefficient cash management.

6.2 Financial Performance of the Companies in Terms of Solvency Ratios

Table 2: Descriptive Statistics of Public Sector Steel Companies Based on Solvency Ratios

Descriptive Statistics	DER			ICR		
	SAIL	RINL	Industry Average	SAIL	RINL	Industry Average
AVG	2.02	2.85	2.54	8.65	27.96	6.87
S.D	1.80	4.86	2.54	12.77	58.52	9.84
MIN	0.13	0.1	0.50	-0.57	-1.42	-0.24
MAX	6.5	20.28	9.84	46.39	249.66	38.64
CV	0.89	1.70	1.00	1.48	2.09	1.43

Source: *CMIE Database and Annual Reports*

6.2.1 Performance of the Companies in Terms of Debt-Equity Ratio

Debt ratios measure the degree or financial leverage of the firm. The more debt the firm uses, the higher its financial leverage, the higher its financial risk and the higher the potential returns. It measures how much of equity and how much of debt a company uses to finance its assets. Table-2 shows that the average of industry as a whole for debt equity ratio is 2.54 and it is accepted as benchmark for the present study. SAIL has the average debt-equity ratio of 2.02, lower than the industry average, indicating that the company is positively geared and has less financial risk. On the other hand, the average debt-equity ratio for RINL is 2.85 higher than the industry average signifying that the company has high financial leverage and high financial risk. SAIL has the standard deviation of 1.80 less than the industry average of 2.54 indicating high degree of uniformity of observation. But RINL has the standard deviation of 4.86 indicates huge changes during the study period. SAIL has the coefficient of variation of 0.89 compared to industry's coefficient of variation of 1.00 signifying more consistency for the study period. It also indicates that the company is using less debt content to finance its assets and projects. In contrast, RINL possess the coefficient of variation of 1.70 indicating less uniformity and indicating the use of more debt to finance its assets and projects.

6.2.2 Performance of the Companies in Terms of Interest Coverage Ratio

The ratio indicates that how many times the company can pay the interest expenses out of its current profit. The ratio is one of the financial indices of creditworthiness of the concerned company. SAIL and RINL has the average interest coverage ratio of 8.65 and 27.96 higher than the industry average of 6.87 indicating that both the companies have sound income to cover the financial charges (Table-2). The coefficient of variation for the industry as a whole is 1.43 taken as benchmark for the study.

SAIL and RINL have the coefficient of variation of 1.48 and 2.09 respectively, higher than the industry norm, signifying less consistency in case of interest payment during the study period.

6.3 Financial Performance of the Companies in Terms of Efficiency Ratios

Table 3: Descriptive Statistics of Public Sector Steel Companies Based on Activity Ratios

Descriptive Statistics	ITR			DTR			CTR			FATR		
	SAIL	RINL	Ind. Avg	SAIL	RINL	Ind. Avg	SAIL	RINL	Ind. Avg	SAIL	RINL	Ind. Avg
AVG	4.72	7.78	19.79	11.79	44.77	14.54	8.70	6.97	6.57	2.08	2.52	2.15
S.D	2.22	4.82	12.35	3.67	34.83	10.83	1.39	4.85	3.77	1.00	2.89	1.16
MIN	1.90	1.65	7.10	6.97	10.53	3.69	6.74	1.72	2.41	0.93	0.20	0.77
MAX	8.84	22.86	64.85	17.65	161.43	41.52	11.75	19.52	15.42	4.10	7.99	4.39
CV	0.47	0.62	0.62	0.31	0.78	0.74	0.16	0.70	0.57	0.48	1.15	0.54

Source: *CMIE Database and Annual Reports*

6.3.1 Performance of the Companies in Terms of Inventory Turnover Ratio

Inventory turnover ratio measures the efficiency of manufacturing and marketing regarding production scheduling and disposal of the output to the market. Generally a higher ratio is considered as positive indicator of operating efficiency and good inventory management system. High turnover ratio implies that the products of the company have the high demand in the market. But a very high ratio calls for a careful analysis. It may be indicative of underinvestment in, or very low level of inventory. Table-3 shows that SAIL (4.72) and RINL (7.78) have the average inventory turnover ratio less than industry average of 11.79 indicating poor and unsatisfactory inventory management during the study period (Table-3). The standard deviation of SAIL and RINL are 2.22 and 4.82 respectively indicates less changes because in the industry, as a whole, standard deviation is 12.35. The coefficient of variation of SAIL and RINL are 0.47 and 0.62 respectively which shows high consistency during the study period as the coefficient of variation of the industry as a whole is 0.62.

6.3.2 Performance of the Companies in Terms of Debtor Turnover Ratio

Debtor turnover ratio indicates the velocity of debt collection of a company. In simple words, this ratio indicates the efficiency of the companies in debt collection. Generally, higher the value of debtors‟ turnover, the more efficient is the receivable management. It is observed from the table-3 that SAIL has the average debtor turnover of 11.79 which is less than the industry average of 14.54 indicating a non-satisfactory collection policy during the study period. In contrast, RINL has the average of 44.77, higher than the industry average, signifying a satisfactory performance in managing the collection policy. The above table explains a good consistency in terms of debtor turnover as the coefficient of variation of the industry as a whole is 0.74 for the study period. SAIL contains the coefficient of variation of 0.31 indicating highly consistent performance in collection management. While in case of RINL the coefficient of variation is 0.78 indicating low consistency. Low consistency may be resulted into scarcity of fund, increase in bad debt risk, etc.

6.3.3 Performance of the Companies in Terms of Creditors Turnover Ratio

Creditor turnover ratio is very crucial to determine the effectiveness of the payable management of the companies. Low creditor turnover and long payment period indicates a good and efficient credit management policy. Table-3 shows average creditor turnover for the industry as a whole is 6.57. SAIL and RINL have the average of 8.70 and 6.97 respectively indicating both the company pays off its due in shorter time. The above table shows a good consistency in terms of creditor turnover as the coefficient of variation of the industry as a whole is 0.57 for the study period. SAIL contains the coefficient of variation of 0.16 indicating highly consistent and efficient performance in payable management. While in case of RINL the coefficient of variation is 0.70 indicating low consistency in management of payment policy.

6.3.4 Performance of the Companies in Terms of Fixed Assets Turnover Ratio

Fixed assets turnover ratio is an indicator of utilization of fixed assets in sales generation. In the present context, SAIL has the average of 2.08, less than industry average of 2.15, indicating non-satisfactory fixed assets management (Table-3). But RINL possess the average fixed asset turnover of 2.52, higher than the industry average signifying that the company uses its fixed assets properly in sales generation. Industry shows a perfect consistency in fixed assets turnover as it has the coefficient of variation of 0.54. SAIL has the coefficient of variation of 0.48 is lower than the industry average indicating high consistency in fixed assets management. RINL has the coefficient of variation of 1.15, higher than the industry average, indicating large variability in fixed assets turnover during the study period. High variability in fixed assets implies inefficient fixed assets management, large amount of fully depreciated assets in the assets base, etc.

6.4 Financial Performance of the Companies in Terms of Profitability Ratios

Table 4: Descriptive Statistics of Public Sector Steel Companies Based on Profitability Ratios

Descriptive Statistics	OPM			NPM			ROI		
	SAIL	RINL	Industry Average	SAIL	RINL	Industry Average	SAIL	RINL	Industry Average
AVG	10.41	1.20	13.95	2.46	-11.87	-0.78	11.90	7.62	8.70
S.D	9.05	21.52	43.91	11.20	35.66	15.54	10.99	10.73	6.88
MIN	-7.75	-65.36	-72.29	-20.31	-134.05	-43.16	-0.64	-6.64	-1.30
MAX	28.61	31.28	151.34	20.86	31.60	17.84	38.26	29.89	23.88
CV	0.87	17.91	3.15	4.55	-3.00	-19.90	0.92	1.41	0.79

Source: *CMIE Database and Annual Reports*

6.4.1 Performance of the Companies in Terms of Operating Profit Margin

Operating profit margin is test of the efficiency of the company's management in their business operation. Operating profit margin measures the proportion of revenues earned by the company after deduction of direct expenses, fixed and overhead costs.Table-4 shows the operating profit margin for the selected companies. SAIL and RINL both have the average operating profit of 10.41 and 1.20 which are less than the industry average of 13.95 indicating poor and no satisfactory performance in this regard. The coefficient of variation of the industry as a whole is 3.15 for the present study period. SAIL has the coefficient of variation of 0.87 which is less than the industry average signifying high consistency during the period of study. RINL has the coefficient of variation of 17.91 which is more than the industry average indicating less consistency. Low consistency indicates that the company is following inefficient cost control method and pricing strategy.

6.4.2 Performance of the Companies in Terms of Net Profit Margin

Net profit margin measures the ability of the company to turn each rupee sale into net profit. It contains the relationship between net profit and sales indicating management's efficiency to control the manufacturing, administration and selling expenses of the product. It is desirable that the companies possess the high margin of net profit. From table-4 it is quite clear that overall performance for net profit is not satisfactory for the industry as a whole. SAIL has the average net profit margin of 2.46 which is greater than the industry average of (-) 0.78 indicating a good performance in profit earning. RINL has the average of (-) 11.87 less than the industry verage indicating a very poor performance in terms of profit earning. The coefficient of variation of SAIL and RINL are 4.55 and (-) 3.00 respectively which is higher than the coefficient of variation of industry as a whole of (-) 19.90 shows less consistency during the period of study. Less consistency indicates inefficient pricing policies, ineffective cost structure and production management.

6.4.3 Performance of the Companies in Terms of Return on Investment

Return on investment is used to measure the overall return on entire investment. The ratio provides a standard for evaluating the competency of the management to employ the money in business assets. An increase in ROI can translate directly into a higher return on stockholders‟ equity. The ratio shows the utilization rate of assets towards sales generation. The industry average for the entire study period is 8.70. It is observed from table-4 that SAIL has the average of 11.90 which is higher than the industry average indicating a very satisfactory and good performance in earning of overall profit. In contrast, RINL has the average of 7.62 which is less than the industry average signifying a non satisfactory performance. The coefficient of variation of the industry as a whole is 0.79 which indicates a perfect consistency during the study period. The coefficient of variation for SAIL and RINL are 0.92 which is more than the industry average indicating less consistency during the study period. Greater variability in the ratio indicates less efficiency in investment management strategy.

7. Findings

- Overall liquidity performance of SAIL and RINL is good during the study period. The companies will bear low risk because they are able to meet their matured current liabilities in every year under the study.
- Debt equity performance is good for SAIL. But RINL was largely dependent on debt in the initial years of study indicating high operating and financial risk.
- Receivable management of SAIL is not satisfactory but for RINL it is satisfactory during the study period.
- Overall performance in payable management is good for both of the companies for the present study period.
- Inventory management of the companies is not satisfactory during the study period due to sluggish demand in the domestic as well as global market, fluctuating steel prices and inflation.
- Overall performance in terms of fixed assets management is satisfactory for RINL but not satisfactory for SAIL. But RINL has huge amount of fully depreciated assets in its assets base.
- Overall performance for operating profit margin is not satisfactory for SAIL and RINL for the study period.
- Overall performance for net profit margin is poor for RINL for the present study period.
- The performance of return on investment is good for SAIL and satisfactory for RINL.

8. Suggestions

- RINL should try to reduce the debt content in its capital structure through payment of debt at right time and strike a proper balance between borrowed and owners‟ capital. Otherwise, financial risk of the company will increase.
- Overall inventory management is not good for both of the companies so they must try to incorporate a proper inventory management system by implementing proper inventory controls like ABC analysis, EOQ, etc. Above all they should try to put into practice a proper and improved professional sales promotion policy and avoid stock piling of semi finished and finished goods. The companies must try to improve the market coordination to assess the right demand and pricing of the market.
- RINL needs to formulate proper receivable management so that collection can be made at a proper time. A proper professional co-ordination must build up between sales, production and finance departments. On time billing, timely reminders to defaulting customers and immediate action should be ensured.
- RINL must prepare an effective fixed assets management policy to use the assets efficiently for sales generation and should try to make a proper valuation of the fixed assets by implementing a suitable depreciation policy.

- RINL should control the operating costs, create economies of scale and trim the waste from production and business.
- Overall performance for net profit is not satisfactory for the industry as a whole for the study period. To improve the net profit margin the RINL must try to minimize the costs and financial charges, prepare efficient pricing policies and develop effective product and customer mix.
- For RINL return on investment can be improved by increasing the sales volume, retaining the potential customer base and controlling the marketing costs.

References

1. Bhunia, A. (2010). "A Study of Liquidity Trends on Private Sector Steel Companies in India", Asian Journal of Management Research, Vol-1, Issue1: pp 618-628
2. DeVancy, S.(1993)., " Change in Household Financial Ratios Between 1983 and 1986: Were American Household Improving Their Financial Status", Financial Counselling and Planning, 43(1993), http://www.6aa7f5e4a9901a1682793cd11f5a6b732d29.gripelements.com/pdf/vol-43.pdf Access on April 22, 2012
3. Gallizo, Salvador (2003), "Understanding the behavior of financial ratios: The adjustment process", Journal of Economics and Business, 55(2003), pp- 267-283.
4. Muresan,E.R,. and Wolitzer,P. (2004). "Organize Your Financial Ratio Analysis with P A L M S", Working Paper No. 02-01, September 20, 2004, http://papers.ssrn.com/ retrieve on 11/07/2010.
5. Pal, S. (2011). "A Comparative Financial Analysis between Public and Private Sector Steel Companies in India- A Case Study Approach", Indian Journal of Commerce and Management Studies, Vol-II (Special Issue): pp 46-52.
6. Ramaratnam, M.S., Jayaraman, R., (2010), "A Study on Measuring the Financial Soundness of Selected Firms with Special Reference to Indian Steel Industry-An Empirical View wit Z-Score", Asian Journal of Management Research, Vol-1, Issue-1: pp 724-735.