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Financial Performance of Steel Industry in India

Aritra Ranjan Das,

Faculty,
St.Xavier's College (Autonomous),
Kolkata, India.

ABSTRACT

The research paper aims to study the financial performance of selected units in the steel industry in India in terms of financial ratios such as Liquidity, Solvency, Profitability and Efficiency position. The basic rationale of doing the study is that in the recent economic scenario of the country, iron and steel industry is going through severe downturn and Government is trying to keep no stones unturned for putting the industry back on growth track to achieve the second largest producer of steel in the world. For the study following companies listed in the stock exchanges in India viz. Tata Steel Ltd., Jindal Steel & Power Ltd., J S W Steel Ltd. and Steel Authority of India Ltd. are selected. ANOVA-Test analysis is employed to evaluate the impact of selected variables on the financial performance of identified units in the steel industry. The analysis will not only help to identify whether there exists any difference in the financial performance of the selected companies in the industry.

Keywords: Financial Performance, Steel Industry, Financial Ratio, One-way ANOVA.

INTRODUCTION:

Steel industry is the backbone of the country's growth and development as the rate of consumption of steel indicates the level of socio economic development in the country and the standard of living of the people of the country. The demand for steel is mainly driven by automobile, infrastructure and construction industries, accounting for over 75 per cent of the total steel consumed in the country. It has a pivotal role in making 'Make in India' vision of the Government of India to a mission. Thus steel has a phenomenal presence in the growth agenda of the country and also in the day to day life of the people.

Indian Steel industry contributes nearly 2 percent to the country's gross domestic product (GDP) and forms 16 percent of the Indian manufacturing sector. It employs nearly 25 lakhs people in the steel/allied sector. Currently India is the world's third largest crude steel producer and is the largest producer of direct reduced iron (DRI) or sponge iron in the world. Crude steel production rose at a compounded annual growth rate(CAGR) of 5.71% annually from 78.415 million tonnes in 2012-13 to 97.936 million tonnes in 2016-17.During January-December 2017, the country's crude steel production crossed the 100 million tonnes (MT) mark for the first time in history, reaching 101.371MT (provisional; source: JPC), a growth of 6.18% over same period of 2016.India's finished steel exports 8.24 MT, while imports dipped by 36.6 per cent to 7.42 MT in 2016-17. Finished steel exports increased 52.9 per cent in April-December 2017 to 7.606 MT, while imports rose 10.9 per cent to 6.096 MT during the same period. Total consumption of finished steel increased by 5.2 per cent year-on-year at 64.867 MT during April-December 2017.

The operational performance and consumption of total finished steel (alloy + non alloy) and production of crude steel for the last five years and April-December 2017-18 (provisional) are shown in the table below:

Table1:Production of Finished Steel (alloy/stainless +non-alloy) and Crude Steel(in million tones)[1]

Item	2012-13	2013-14	2014-15	2015-16	2016-17	April- December 2017-18*
Finished Steel						
Production	**89.621**	**95.577**	**100.681**	**102.904**	**115.91**	**86.699 (1.4)**
Imports	7.925	5.45	9.32	11.712	7.227	6.097 (11.0)
Export	5.368	5.985	5.596	4.079	8.243	7.606 (52.9)
Consumption	**73.483**	**74.096**	**76.992**	**81.525**	**84.042**	**64.868(5.2)**
Crude Steel						
Production	**78.415**	**81.694**	**88.98**	**89.791**	**97.936**	**75.642(4.8)**

Source: JPC; * Provisional; Figures in bracket () indicate % change over same period of last year

The steel industry showed a stellar performance between 2003-04 and 2007-08.During this period the production and consumption grew at a compounded annual growth rate (CAGR) of 8.3 per cent and 12 per cent respectively. The phenomenal growth story of the Indian steel industry from 2003-07 is overshadowed by the recent doldrums in the steel sector which is witnessed by the spike in the amount of stressed assets in the iron and steel industry in the last couple of years. During the period of boom in the economy many steel companies went for expansion projects heavily backed by borrowed capital from banks. The highly leveraged capital structure made it difficult for the steel companies to meet their debt service obligations due to falling profits coupled with rising interest rates by RBI to combat inflation. The profit after tax (PAT) of all leading steel players have declined in nominal terms from 2014-15 onwards which is witnessed from the Table:2 given below:

Table 2: PAT of leading players (Rs crores)

Company	Profit/Loss after tax		
	2014-15	**2015-16**	**2016-17**
SAIL	2093	(4021)	(2833)
TATA STEEL	(3925.52)	(3049.32)	(4168.57)
JSW STEEL	(1719.70)	(850.76)	(3454.05)
JSPL	(1454.59)	(1998.63)	(2540.22)

Source: PAT figures are taken from Consolidated financial results from Bombay Stock Exchange (BSE)

The declining profit margin of the corporate and the rising bad assets in the book of banks also nosedived the credit growth rate of the banks to the iron and steel industry as banks are being overcautious while lending to this sector. Steel sector is the largest defaulter both in terms of corporate and amount outstanding as evident from the recent report released by Insolvency and Bankruptcy Board of India (IBBI) as on 6th January,2018.

Table 3 : Sector-wise Analysis of Admitted Cases under IBC, 2016

Sl. No	Sector	Total Underlying Default (Crores)		Number of Corporates			
			CIRP in Progress	Resolution Plan Approved	Liquidation Order Passed	Closed By Appeal/ Review	Total
1	Steel	57,001	39	2	3	1	45
2	Retail	12,719	12				12
3	Capital Goods-Non	4,785	14		2	1	17
	Electrical Equipment						
4	Textiles	4,679	29		3	1	33
5	Trading	4,560	30	3	4	2	39
6	Chemicals	4,433	18			1	19
7	Ship Building	4,292	2				2
8	Construction	4,004	35		1	4	40
9	Computer Education	2,909	1				1

Sl. No	Sector	Total Underlying Default (Crores)		Number of Corporates			
			CIRP in Progress	Resolution Plan Approved	Liquidation Order Passed	Closed By Appeal/ Review	Total
10	Mining & Mineral Products	2,700	10	1	1	1	13
11	Others	26,727	261	4	16	23	304
	Total	**1,28,810**	**451**	**10**	**30**	**34**	**525**

Source: IBBI

The details are from the orders uploaded on the NCLT website on or before 6th January,2018 for petitions dated till 31st December2017.This data is tentative ,and might change as new orders are updated.

REVIEW OF LITERATURE:

Rooh Ollah Arab, Seyed Saadat Masoumi and Azadeh Barati (2015) [4] analysed the performance of the iron and steel companies in respect of liquidity, solvency, profitability and activity over the period starting from 2003-04 to 2012-13.Five companies were selected for the study : Steel Authority of India Ltd., Tata Steel Ltd., J S W Steel Ltd, Jindal Steel & Alloy Ltd. and Bhushan Steel Ltd. To test the hypothesis One way ANOVA test was conducted on sixteen different ratios selected from different segment like liquidity, solvency, activity and profitability such as current ratio, quick ratio, absolute cash ratio, financial institutions and creditors selling goods on debt-equity ratio, total assets to debts ratio, proprietary ratio, interest coverage ratio, total asset turnover, inventory or stock turnover ratio, debtors turnover ratio, creditor turnover ratio, gross profit margin, net profit margin, operating ratio, return on investment and earning per share .The analysis revealed that there exists substantial difference in the financial performance of the identified units studied under the iron and steel industry.

Dr. C. Balakrishnan (2016) [5] evaluated the financial performance of the steel industry on the parameters like profitability, asset utilization , growth of performance, financial strength and financial health over the period from 2003-04 to 2012-13. Ten companies were selected for the study: Steel Authority of India Limited (SAIL) Tata Steel Limited (TSL) Uttam Galva Steels Limited (UGSL) JSW Steel Limited (JSW) Jindal Stainless Limited (JSL) Essar Steel Company Bhushan Steel Ltd (BSL) Rhastrya Steel Company Sunflag Iron & Steel Company Limited Surya Roshni Limited .Multiple Regression model and One –way ANOVA tests were employed for analysis and interpretation of data.The major findings were that the assets of the selected companies increased over the time period of study but the asset turnover ratio declined over the period.The current ratio, quick ratio and the inventory turnover ratio positively influenced the return on equity. Thus in order to compete globally continuous monitoring of financial performance of the steel companies and rational fiancial decision making is required.

Shipra Bhatia (2017) [5] provided a holistic view of the iron and steel industry with special emphasis on the issues and challenges faced by the steel industry of India. Areas focused were production, capacity utilization, import and export, price movements and impact of international demand and supply conditions on the Indian steel industry. The conclusion of the study was that a special turnaround plan is required to be formulated by Government of India for meeting the future targets set aside by Government of India.

OBJECTIVES OF THE STUDY:

The overall objective is to analyze the financial performance of the steel industry of India by selecting few identified units with regard to profitability, liquidity, solvency and efficiency .

RESEARCH METHODOLOGY:

Source of Data: The study is mainly based on the secondary data collected from the Annual reports of steel companies and articles from the journals and websites. The period of study is 5 years, starting from 2012-13 to 2017-18.

Sampling: For the study of financial performance of steel industry of India, following large sector steel entitites listed in BSE are selected: Steel Authority of India Ltd, Tata Steel, JSW Steel, Jindal Steel and Power Ltd are chosen.

Data Analysis: Anova-Test analysis is conducted on sixteen financial ratios (variables) selected from the aforementioned segments like liquidity, solvency, activity and profitability term indebtedness of a firm includes debenture holders, such as current ratio, quick ratio, absolute cash ratio, debt-equity ratio, total assets to debts ratio, proprietary ratio, interest coverage ratio, total asset turnover, inventory turnover ratio, debtors turnover ratio, creditor turnover ratio, gross profit margin, net profit margin, operating ratio, return on investment and earning per share.

HYPOTHESIS OF STUDY:

The following hypotheses are framed for the study:
H0.1. There is no significant difference in the financial performance of identified units in the steel industry in India with respect to liquidity position.
H0.2. There is no significant difference in the financial performance of identified units in the steel industry in India with respect to solvency position.
H0.3. There is no significant difference in the financial performance of identified units in the steel industry in India with respect to profitability position.
H0.4. There is no significant difference in the financial performance of identified units in the steel industry in India with respect to efficieny position.

LIMITATIONS OF THE STUDY:

The reliability of the study depends on the accuracy of data collected. The present study is based on the published secondary data, hence the limitations of the published financial statement limitations may be applicable to this study as well. Moreover Bhushan Steel, Electrosteel Steels Ltd is ignored in the study even though it is a listed company as it is under resolution process under Insolvency and Bankruptcy Code ,2016 (IBC 2016).

FINDINGS AND DISCUSSIONS:

Liquidity Ratios : Liquidity refers to the short term solvency position of the firm. In other words it is the ability of the firm to meet its short term obligations having a maturity period of maximum one year. Liquidity is the lifeline of the business as it is necessary for the survival of the business. Any liquidity crunch severely affects the firm as it has adverse effect on the credit worthiness of the business and ultimately puts question mark on the going concern aspect of the firm. This results in loss of creditor's confidence in the firm. However too much liquidity is not good for the firm as it indicates idle assets in the hands of the firm which are not providing any return to the firm. Hence a proper balance of liquidity is required to positively influence the profitability of the company.
The important liquid ratios are: (i) Current Ratio, (ii) Quick Ratio and (iii) Cash Retention Ratio.
H0.1. There is no significant difference in the financial performance of identified units in the steel industry in India with respect to liquidity position.
Table 4 shows the result of One-way ANOVA test of liquidity ratio analysis:
The significance level of one-way ANOVA test for Current ratio is less than 0.10, hence there exists significant difference in the performance in the financial performance of the companies as regards to current ratio.
As the significance level of one-way ANOVA test for Quick ratio is less than 0.05, hence there exists significant difference in the performance in the financial performance of the companies as regards to quick ratio.
In case of Cash Retention Earnings Ratio, there also exists difference in the financial performance of the company.
Therefore the Null Hypothesis that there exists no significant difference in the financial performance of the identified units in the steel industry in India with respect to liquidity position is rejected and accepting the Alternative Hypothesis that there exists significant difference in the financial performance of the identified units in the steel industry in India with respect to liquidity position .
Solvency Ratios: The term solvency refers to the ability of the firm to honor its long term obligations. Long term obligations refers to the ability of the company to meet the contractual obligations related to the debenture holders, financial institutions and other long term creditors. The contractual obligations arise in form of the regular interest payments and principal repayments on maturity against the funds provided by long term creditors. Hence any failure in interest payments or principal repayments dilutes the security of the loan provided by this creditors. In recent times the solvency position of several steel companies like Bhusan Steel, Essar Steel, Electrosteel Pvt Ltd and several others are experiencing a topsy-turvy situation. The important

ratios for analyzing solvency position of identified units are : (i) Debt Equity Ratio, (ii) Interest Coverage Ratio and (iii) Proprietary Ratio.

H0.2. There is no significant difference in the financial performance of identified units in the steel industry in India with respect to solvency position.

Table 5 shows the result of One-way ANOVA test of solvency ratio analysis:

The significance level of one-way ANOVA test for Debt Equity ratio and Proprietary ratio is less than 0.05, hence there exists significant difference in the performance in the financial performance of the companies as regards to debt equity ratio and proprietary ratio.

However as regards to interest coverage ratio there exists no difference in the financial performance of the companies as $F_{cal} = 0.063$ at level of significance of 0.979.

Therefore the Null Hypothesis that there is no significant difference in the financial performance of the identified units in the steel industry in India with respect to solvency position is rejected and accepting the Alternative Hypothesis that there exists significant difference in the financial performance of the identified units in the steel industry in India with respect to solvency position except Interest Coverage Ratio.

Profitability Ratios: Profitablity refers to the firm's ability to generate earnings for the growth and survival of the business. Profit is an essential yardstick for measuring financial discipline and profitability. Moreover every stakeholder of the company is interested in the profit of the company as it ensures meeting up of the expectations in the form of reasonable returns expected from the company. For management, profitability is the measure of operational efficiency of the business. Hence close monitoring of the profitability aspect of the business is required to meet both the short term and long term targets in the form of earnings and growth set by the firm. Following ratios are looked upon to measure the aspect of profitability, which are: (i) Gross Profit Ratio, (ii) Net Profit Ratio, (iii) Return on Capital Employed and (iv) Return on Assets.

H0.3. There is no significant difference in the financial performance of identified units in the steel industry in India with respect to profitability position.

Table 6 shows the result of One-way ANOVA test of profitability ratio analysis:

As the significance level of one-way ANOVA test for Gross Profit margin, Operating Profit margin and Earning per share is less than 0.05, hence there exists significant difference in the performance in the financial performance of the companies as regards to the above stated ratio.

In case of Net profit margin, there exists no difference in the financial performance of the company as $F_{cal} = 0.479$ at the level of significance is 0.701.

In case of Return on Capital Employed, there exists difference in the financial performance of the company as $F_{cal} = 1.377$ at the level of significance is 0.286.

Therefore the Null Hypothesis that there is no significant difference in the financial performance of the identified units in the steel industry in India with respect to profitability position is rejected and accepting the Alternative Hypothesis that there exists significant difference in the financial performance of the identified units in the steel industry in India with respect to profitability position except Net Profit margin.

Efficiency Ratios: The word 'Efficiency' or 'Activity' refers to how well the assets of the company are managed. Thus it is also called asset utilization ratios. Higher the turnover, higher will be the efficiency in asset utilization, so it is also called turnover ratios. Moreover turnover ratios reveal the intensity of the use of assets reflected through the volume of sales (or cost of sales). Hence it reflects the effectiveness of the management in relation to sales. The turnover ratios focused upon: (i) Inventory Turnover Ratio, (ii) Debtors Turnover Ratio and (iii) Asset Turnover Ratio.

H0.4. There is no significant difference in the financial performance of identified units in the steel industry in India with respect to efficieny position.

Table 7 shows the result of One-way ANOVA test of efficiency ratio analysis:

As the significance level of one-way ANOVA test for Inventory Turnover ratio, Debtors Turnover ratio and Asset Turnover ratio is less than 0.05, hence there exists significant difference in the performance in the financial performance of the companies as regards to such ratios.

Therefore the Null Hypothesis that there is no significant difference in the financial performance of the identified units in the steel industry in India with respect to efficiency position is rejected and accepting the Alternative Hypothesis that there exists significant difference in the financial performance of the identified units in the steel industry in India with respect to efficiency position.

CONCLUSION:

The present study of the financial performance of the identified steel companies reveal there exists significant difference in the financial performance of the companies. However a close look will show that each of the company is going through a tough time as liquidity and profitability of the companies has declined over the years. This resulted in several steel companies going bankrupt and referring to National Company Law Tribunal (NCLT) for their sale of assets or restructuring the company with the approval of Committee of Creditors. The imposition of tariff barriers on cheap Chinese imports barriers to the hot rolled and cold rolled flat product dumped in the Indian market and focus of the Government on speedy completion of the large infrastructural projects is expected to put the steel industry on the growth trajectory. Moreover the approval of the resolution plans by Committee of Creditors of the ailing steel companies under IBC 2016 is expected to provide fillip to the steel sector and also help the financial companies to get rid of the distressed assets from their balance sheet. Lastly the policies adopted by Government of India under National Steel Policy (2017) and Policy on Preference to Domestically Manufactured Iron and Steel Products is expected to provide the much necessary impetus to the iron and steel sector of the country.

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FIGURES AND TABLES:

Table 4: ANOVA Test of Liquidity ratios

Variables	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Current ratio	Between Groups Within Groups	.283 .549	3 16	.094 .034	2.749	.077
	Total	**.832**	**19**			
Quick ratio	Between Groups Within Groups	.946 .547	3 16	.315 .034	9.212	.001
	Total	**1.493**	**19**			
Cash Earnings Retention ratio	Between Groups Within Groups	2464.161 6549.197	3 16	821.387 409.325	2.007	.154
	Total	**9013.358**	**19**			

Table 5: ANOVA Test of Solvency ratios

Variables	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Debt Equity ratio	Between Groups Within Groups	5.540 2.515	3 16	1.847 .157	11.748	.000
	Total	**8.056**	**19**			
Proprietary ratio	Between Groups Within Groups	.125 .025	3 16	.042 .002	27.076	.000
	Total	**.150**	**19**			
Interest Coverage ratio	Between Groups Within Groups	.565 47.958	3 16	.188 2.997	.063	.979
	Total	**48.523**	**19**			

Table 6: ANOVA Test of Profitability ratios

Variables	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Gross Profit margin	Between Groups Within Groups	466.371 638.777	3 16	155.457 39.924	3.894	.029
	Total	**1105.147**	**19**			
Operating Profit margin	Between Groups Within Groups	1075.953 385.118	3 16	358.651 24.070	14.900	.000
	Total	**1461.072**	**19**			
Net Profit margin	Between Groups Within Groups	59.658 664.344	3 16	19.886 41.521	.479	.701
	Total	**724.002**	**19**			
Return on Capital Employed	Between Groups Within Groups	75.788 293.459	3 16	25.263 18.341	1.377	.286
	Total	**369.246**	**19**			
Earnings Per Share	Between Groups Within Groups	9413.804 10939.428	3 16	3137.935 683.714	4.590	.017
	Total	**20353.232**	**19**			

Table 7: ANOVA Test of Efficiency ratios

Variables	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Inventory Turnover ratio	Between Groups Within Groups	31.535 16.407	3 16	10.512 1.025	10.251	.001
	Total	**47.942**	**19**			
Debtors Turnover ratio	Between Groups Within Groups	299.872 101.333	3 16	99.957 6.333	15.783	.000
	Total	**401.204**	**19**			
Asset Turnover ratio	Between Groups Within Groups	2.065 .373	3 16	.688 .023	29.499	.000
	Total	**2.438**	**19**			
