

FINANCIAL PERFORMANCE OF SELECTED COMPANIES OF IRON AND STEEL INDUSTRY IN INDIA

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ABSTRACT

Steel production in India has expanded rapidly in recent decades and, as a result, India has become the world's fourth-largest producer of crude steel. The Iron and Steel Industry is century old. The steel industry is covering the entire world with an exceptional growth. Due to the technology improvement and free licensing policy, imports of foreign technology are freely permitted. The socio-economic development and living standard of the people have also widened its opportunity for growth. Indian steel industry has played a significant role in the strong development of Indian economy. It achieved an excellent growth in steel production, consumption and foreign trade. In this background, this paper attempted to study the growth of sales, profitability and foreign earnings of selected steel and iron companies. For this purpose, data have been collected from various secondary sources. The data have been analysed by using multiple regression. The results revealed that ROCE is the major independent factor which influences the profitability. The study concludes that Total Assets to Turnover is the negative indicator to the profitability.

Keywords: Return on Capital Employed, Debt-equity, Inventory turnover, Total Assets to Turnover, Debtors Turnover Ratio

1. INTRODUCTION

Indian steel industry has played a significant role in the development of Indian economy. It disclosed a remarkable growth in steel production, consumption and foreign trade. The Steel Industry is one of the important industries in the Indian economy as it sustains the requirements of different important industries such as automobiles and automobile

components, engineering, infrastructure, electrical and electronics, packaging etc. The current scenario of the Indian steel industry specifies that there is a vast growth potential in this industry. India was the third largest producer of the steel. It has showed a growth of 6.18% in 2017 over the last year 2016. India is also the largest producer of direct reduced iron (DRI) or sponge iron in the world. India is the 3rd largest consumer of finished steel in the world as well headed by China and the USA. The production of crude steel crossed the 100 million tonnes quantity for the first time by reaching at 101.371 million tonnes during January-December 2017 and is expected to increase up to 255mt by 2030-31 and the capacity of total steel is also expected to reach at 300mt by 2030-31(Nripinder Kaur and Harpreet Kaur, 2018).

Steel is considered to be the backbone for the development of modern economy and human civilization. The level of consumption of steel is considered as a vital index to measure the socio-economic development and standard of life of people of the country. Industrial sector has made rapid steps with the help of steel industry using it as a vanguard. The latest technology used by the green field plant has increased the output and the industry has improved the global economy. The new plants have also brought a great regional dispersion in the western region and earned the domestic supply position. The domestic steel industry has faced new challenges and due to the high cost of commissioning of new projects, the developed markets face many problems. The domestic demand too has not improved to significant level. The litmus test of the steel industry will be to surmount these difficulties and remain globally competitive (C.Balakrishnan, 2016).

Steel is crucial to the development of any modern economy and is considered to be the backbone of human civilization. The level of per capita consumption of steel is treated as an important index of the level of socioeconomic development and living standards of the people in any country. It is a product of a large and technologically complex industry having strong forward and backward linkages in terms of material flows and income generation. All major industrial characterized by the existence of a strong steel industry and the growth of many of these economies has been largely shaped by the strength of their steel industries their initial stages of development (Rooh Ollah Arab et al, 2015).

1.1 Statement of the Problem

Every organisation is making their effort to get success in the business by earning good profits. Iron and Steel industry is the very old industry. The development of the industry is based on its working capital management and profitability. As the global economic condition

is melting down and huge fluctuation in the prices of iron and steel, the companies engage in production of iron and steel are struggling to sustain their financial position. In this background, the study is carried to find out the answers for the following questions:

1. What are the working capital components of selected Iron and Steel companies in India?
2. What is the profitability position of selected Iron and Steel companies in India?

1.2 Objectives of the Study

1. To study the working capital components of selected Iron and Steel companies in India
2. To analyze profitability position of selected Iron and Steel companies in India

1.3 Period of the Study

The required secondary data have been collected for the period of ten years from 2006-07 to 2015-16.

2. LITERATURE REVIEW

1. Moses Joshuva Daniel (2013) studied the financial performance of TATA motors limited. The result revealed that Tata Motors has stable growth. It is suggested to reduce the expenditure as it increases every year and decrease in expenses will increase the profitability. By over viewing the working capital efficiently that is the excess current assets should be adjusted according to current scenario. Though the net profit shows it is increased but we found that the net profit ratio has been decreased. The suggestions provided through the study would help the company to improve the financial performance status.

2. Tiwari (2013) examined working capital management efficiency in Indian cement industry. They found that though some of the sample firms had successfully improved efficiency during these years, the existence of a very high degree of inconsistency in this matter clearly pointed out the need for adopting sound working capital management policies by these firms. It was suggested that the firms under study should have taken necessary steps in order to improve their efficiency.

3. Prakash and Natarajan (2014) conducted a study on financial performance of Salem Steel Authority of India Ltd. The analysis revealed that there is a fluxion in the gross profit and net profit during the study period. The study helps to identify the financial position of the company. Optimum utilization of working capital can be planned so as to result in sound financial position of the company.

4. Rahaman and Sur (2014) examined the profitability of 22 selected companies of Indian textile industry from 2002-03 to 2011-12 with the help of ratio analysis. The pooled correlation analysis indicates that profitability and fixed assets management was positive and significant. Similarly, multiple regression analysis indicates that ROCE on FATR and WCTR showed a significant positive influence of fixed assets management and working capital management of the selected companies on their profitability.

5. Takeh & Navaprabha (2015) examined the impact of capital structure on financial performance of selected Indian steel companies for a period from 2007 to 2012. Multiple regression model, correlation matrix, ANOVA and descriptive statistics were used for data analysis. OPM, ROA, ROE and ROCE were used as indicators of financial performance (dependent variables) while TDER, TADR, ICR and FDR were used as indicators of capital structure (independent variables). The result indicated that capital structure had significantly impacted financial performance of Indian steel Industry. Correlation results confirmed negative relationship between capital structure and financial performance measures.

6. Sasikala (2016) studied the relationship between capital structure (Debt/equity) and profitability of ITC Ltd., one of the leading FMCG companies in India. Capital structure of the company is found to be a significant negative relationship with all profit measuring ratios viz. ROTA, ROCE and ROE. So, the null hypothesis in all cases is rejected. It is concluded from the study that debt capital is negatively associated with the profitability. It means an increase in debt capital results a decrease in the profitability (ROTA, ROCE and ROE) of ITC and vice versa.

3. RESEARCH METHODOLOGY

3.1 Data sources and sample companies

Data is collected from selected iron and steel manufacturing company websites, annual reports and capitaline database websites. Other sources of data have been collected from steel authority of India websites, text books, magazines, journals and other library sources. Ten

companies have been collected purposively based on the capital size and those have been traded in BSE of India.

3.2 Selected Sample companies

The following are the selected sample companies for the purpose of analysis

1. Surya Roshni Ltd.
2. Uni Abex Alloy Products Ltd.
3. Taparia Tools Ltd.
4. Usha Martin Ltd.
5. Nile Ltd.
6. MSP Steel and Power Ltd.
7. Rathi Bars Ltd.
8. APL Apollo Tubes Ltd.
9. Sri Kalahasthi Pipes Limited.
10. Lakhmi Precision Screws Ltd.

3.3 Statistical Techniques

The data has been analysed essentially using ratio analysis. Multiple Regression is used to identify the relationship between the dependent and independent variables. The independent variables used in this study are Debt-equity Ratio, Inventory Ratio, Debtors Turnover Ratio, Total Assets Turnover Ratio (TOAT), and Return on Capital Employed (ROCE). The dependent variable is Profit Before Interest and Tax Margin (PBITM).

3.4. Limitations of the study

- The study is based on the secondary data collected from the internet.
- The study is applicable to the data for the period of ten years only.
- The results may not be appropriated with all the iron and steel companies because it considers only ten companies.
- The statistical tool applied has its own limitation.

4. ANALYSIS AND DISCUSSION

4.1 Overall Analysis of Industry

Table No.1: Regression analysis of the Industry

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.442	1.184		5.442	.000
ROCE	.584	.036	1.029	16.201	.000
Debt-equity	-.167	.383	-.025	-.436	.664
Inventory	.166	.059	.171	2.821	.006
Debtors	.086	.078	.061	1.106	.272
TOAT	-4.124	.315	-1.011	-13.108	.000

Source: Calculated value

Table 1 illustrates that as per the regression result that there is a negative relationship between Debt-equity, Inventory Turnover Ratio, Total Assets to Turnover and Profit Before Interest and Tax Margin. There is a decrease in every ratios increase the profitability. Return on Capital Employed and Debtors Turnover Ratio are in positive relationship with PBITM. The p-value suggests that ROCE, Inventory Turnover Ratio and TOAT are significant at 1% level.

The adjusted R^2 value (0.779) and 'F'-value (70.709 significant at 1%) also confirm the influence of the independent variables over dependent variable is high.

4.2 Company Wise Analysis

Surya Roshni Ltd.:

Table No.2: Regression analysis of Surya Roshni Ltd.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.483	1.209		3.708	.021
ROCE	.376	.045	.669	8.411	.001
Debt-equity	-.099	.235	-.070	-.422	.694
Inventory	-.025	.236	-.014	-.105	.922
Debtors	.021	.053	.075	.392	.715
TOAT	-1.612	.575	-.849	-2.805	.049

Source: Calculated value

Table 2 explains that as per the regression result that there is a negative relationship between Debt-equity, Inventory Turnover Ratio, Total Assets to Turnover and Profit Before Interest and Tax Margin. Return on Capital Employed and Debtors Turnover Ratio are in positive relationship with PBITM. The p-value suggests that ROCE is significant at 1% and TOAT is significant at 5%.

The adjusted R² value (0.965) and 'F'-value (50.520 significant at 1%) also confirm the influence of the independent variables over dependent variable is high.

Uni Abex Alloy Products Ltd.:

Table No.3: Regression analysis of Uni Abex Alloy Products Ltd.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.417	13.585		-.031	.977
ROCE	0.719	0.186	1.397	3.872	.018
Debt-equity	4.559	8.577	.134	.532	.623
Inventory	3.493	1.738	.337	2.010	.115
Debtors	-2.272	2.464	-.293	-.922	.409
TOAT	-6.949	2.308	-.934	-3.011	.040

Source: Calculated value

It is observed from the table 3 that there is a negative relationship between ROCE, Debt-equity, Inventory Turnover Ratio and Profit Before Interest and Tax Margin. Debtors Turnover Ratio and Total Assets to Turnover are in negative values. The p-value suggests that ROCE and TOAT are significant at 5%.

The adjusted R² value (0.867) and 'F'-value (12.761 significant at 5%) also confirm the influence of the independent variables over dependent variable is high.

Taparia Tools Ltd.:

Table No.4: Regression analysis of Taparia Tools Ltd.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.599	1.428		4.622	.010
ROCE	.268	.019	1.781	13.855	.000
Debt-equity	-.454	.347	-.103	-1.306	.262
Inventory	-.081	.087	-.053	-.927	.406
Debtors	-.007	.054	-.018	-.138	.897
TOAT	-1.589	.128	-2.415	-12.450	.000

Source: Calculated value

Table 4 illustrates that as per the regression result that there is a negative relationship between Debt-equity Ratio, Inventory Turnover Ratio, Debtors Turnover Ratio, Total Assets to Turnover and Profit Before Interest and Tax Margin. Return on Capital Employed is in positive relationship with PBITM. The p-value suggests that ROCE and TOAT are significant at 1%.

The adjusted R^2 value (0.979) and 'F'-value (86.717 significant at 1%) also confirm the influence of the independent variables over dependent variable is high.

Usha Martin Ltd.:

Table No.5: Regression analysis of Usha Martin Ltd.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	17.630	7.565		2.330	.080
ROCE	.080	.457	.124	.176	.869
Debt-equity	-2.759	1.964	-.551	-1.405	.233
Inventory	1.472	2.837	.286	.519	.631
Debtors	-.611	.678	-.275	-.901	.418
TOAT	-3.150	19.780	-.117	-.159	.881

Source: Calculated value

Table 5 shows that as per the regression result that there is a negative relationship between Debt-equity Ratio, Debtors Turnover Ratio, Total Assets to Turnover and Profit Before Interest and Tax Margin. Return on Capital Employed and Inventory Turnover Ratio are in positive relationship with PBITM. The p-value suggests that no variable is significant at 5% level.

The adjusted R^2 value (0.680) and 'F'-value (4.283 insignificant at 5%) also confirm the influence of the independent variables over dependent variable is moderate.

Nile Ltd.:

Table No.6: Regression analysis of Nile Ltd.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.107	1.059		2.934	.043
ROCE	.399	.032	1.107	12.484	.000
Debt-equity	.508	.578	.094	.880	.429
Inventory	.193	.134	.318	1.439	.224
Debtors	.029	.035	.066	.832	.452

TOAT	-2.197	.581	-.768	-3.781	.019
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Source: Calculated value

Table 6 displays that as per the regression result that there is a positive relationship between all the independent variables (except Total Assets to Turnover) and the dependent variable Profit Before Interest and Tax Margin. The p-value suggests that ROCE is significant at 1% and TOAT is significant at 5% level.

The adjusted R² value (0.970) and 'F'-value (59.577 significant at 1%) also confirm the influence of the independent variables over dependent variable is high.

MSP Steel and Power Ltd.:

Table No.7: Regression analysis of MSP Steel and Power Ltd.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	39.679	16.638		2.385	.076
ROCE	1.707	.311	1.772	5.490	.005
Debt-equity	-12.676	7.301	-.404	-1.736	.158
Inventory	1.168	.961	.387	1.215	.291
Debtors	.552	.380	.221	1.451	.220
TOAT	-44.282	11.911	-1.718	-3.718	.021

Source: Calculated value

Table 7 indicates that as per the regression result that there is a negative relationship between Debt-equity Ratio, Total Assets to Turnover and Profit Before Interest and Tax Margin. This shows that decrease in any of the variables would increase the value of PBITM. Return on Capital Employed, Debtors Turnover Ratio and Inventory Turnover Ratio are in positive relationship with PBITM. The p-value suggests that ROCE significant at 1% level and TOAT is significant at 5% level.

The adjusted R² value (0.858) and 'F'-value (11.865 significant at 5%) also confirm the influence of the independent variables over dependent variable is high.

Rathi Bars Ltd.:**Table No.8: Regression analysis of Rathi Bars Ltd.**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.519	.618		4.079	.015
ROCE	.255	.030	1.594	8.546	.001
Debt-equity	.065	1.331	.005	.049	.963
Inventory	.048	.021	.230	2.294	.083
Debtors	.102	.069	.331	1.483	.212
TOAT	-1.286	.290	-1.174	-4.437	.011

Source: Calculated value

Table 8 advocates that as per the regression result that there is a positive relationship between all the independent variables (except Total Assets to Turnover) and the dependent variable Profit Before Interest and Tax Margin. The p-value suggests that ROCE is significant at 1% and TOAT is significant at 5% level.

The adjusted R² value (0.971) and 'F'-value (61.708 significant at 1%) also confirm the influence of the independent variables over dependent variable is high.

APL Apollo Tubes Ltd.:**Table No.9: Regression analysis of APL Apollo Tubes Ltd.**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.405	5.113		.861	.438
ROCE	.379	.149	1.193	2.551	.063
Debt-equity	.406	1.308	.127	.310	.772
Inventory	.026	.460	.029	.058	.957
Debtors	.286	.252	.300	1.137	.319
TOAT	-3.049	1.547	-1.499	-1.971	.120

Source: Calculated value

Table 9 advocates that as per the regression result that there is a positive relationship between all the independent variables (except Total Assets to Turnover) and the dependent variable Profit Before Interest and Tax Margin. The p-value suggests that no variable is significant at 5% level.

The adjusted R² value (0.863) and 'F'-value (12.300 significant at 5%) also confirm the influence of the independent variables over dependent variable is moderate.

Sri Kalahasthi Pipes Ltd.:**Table No.10: Regression analysis of Sri Kalahasthi Pipes Ltd.**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.405	5.113		.861	.438
ROCE	.379	.149	1.193	2.551	.063
Debt-equity	.406	1.308	.127	.310	.772
Inventory	.026	.460	.029	.058	.957
Debtors	.286	.252	.300	1.137	.319
TOAT	-3.049	1.547	-1.499	-1.971	.120

Source: Calculated value

Table 10 clears that as per the regression result that there is a positive relationship between all the independent variables (except Total Assets to Turnover) and the dependent variable Profit Before Interest and Tax Margin. The p-value suggests that no variable is significant at 5% level. The adjusted R² value (0.972) and 'F'-value (62.565 significant at 1%) also confirm the influence of the independent variables over dependent variable is high.

Lakhmi Precision Screws Ltd.:**Table No.11: Regression analysis of Lakhmi Precision Screws Ltd.**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	7.673	1.824		4.207	.014
ROCE	.940	.037	1.379	25.093	.000
Debt-equity	-.244	.208	-.076	-1.176	.305
Inventory	.981	1.666	.092	.589	.588
Debtors	.694	.357	.109	1.943	.124
TOAT	-11.401	2.822	-.734	-4.041	.016

Source: Calculated value

It is apparent from the Table 11 that as per the regression result that there is a negative relationship between Debt-equity Ratio, Total Assets to Turnover and Profit Before Interest and Tax Margin. Return on Capital Employed, Debtors Turnover Ratio and Inventory Turnover Ratio are in positive relationship with PBITM. The p-value suggests that ROCE significant at 1% level and TOAT is significant at 5% level.

The adjusted R² value (0.993) and 'F'-value (244.772 significant at 1%) also confirm the influence of the independent variables over dependent variable is high.

Suggestion

All the companies should give importance on Return on Capital Employed. This is the best tool which clearly shows the performance of companies on profitability basis. The industry should concentrate on making less risk investment to improve their profitability. This would reduce the risk as well as the market value of equity among the share holders.

5. CONCLUSION

The study found that in all companies Total Assets to Turnover is the negative indicator to the profitability. As the iron and steel industry is making huge investment in fixed assets would result in the negativity of the profit. Therefore, the companies could make effective decision on reducing the assets turnover for increasing the profitability. All debt-equity ratios are almost negative. So, companies may plan on trading on equity and improve the working capital position to achieve its objectives.

5.1 Scope of further study:

Sample size may be improved from small size to large size firm from the steel industry. Some other ratios may also be compared with PBITM. A comparison could be made between steel industry and other industries to know the comparative position of two industries. The period of the study may also be increase to more than 2 decades to get more effective results.

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