### Profitability Influencers Of Indian Steel Companies: An Analytical Study

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## (IIPM), Bangalore, India. Abstract

The steel sector ranks high on the list of the world's largest businesses. This sector of the economy is essential to the growth of every modern economy. When it comes to steel production, India is right up there with the best of them. It's a cornerstone of human culture. It's vitally important in time-honored industries including transportation, building, auto manufacturing, and heavy industry. The Indian iron and steel industry are a vital sector that has helped propel the country's economy forward in recent years. The industry, as a major force in nation formation, affects the everyday lives of citizens in countless ways. This industry's stakeholders, especially its policymakers, view its growth and development as crucial. This research aims to examine the

factors that affect the financial performance of SAIL and TSL, the two largest steel producers in India.

Keywords: Steel industry, economy, stakeholders, policy makers, profitability, Steel Authority of India Limited (SAIL), Tata Steels Limited (TSL).

#### **Introduction and Problem**

Due to its rich manufacturing history and well-developed technical education system, India is quickly becoming a major manufacturing centre on a worldwide scale. India's considerable design skills and low labour costs have made it a popular destination for the outsourcing of technology projects across a wide range of industries. The manufacturing sector of an economy is crucial because it creates the bulk of an economy's income, employs a large proportion of the labour force, and supplies crucial industries like national defence and infrastructure with the raw materials they need to function. Manufacturing process management refers to the employment of various tools and techniques in these fields. The manufacturing sector can be broken down into the following broad categories: engineering, construction, electronics, chemicals, energy, food and beverage, textiles, metalworking, plastics, transportation, and telecommunications. The manufacturing sector includes the steel industry.

Steel is the backbone of civilization and essential to the growth of any modern economy. Indicators of a country's level of economic development and standard of living include its per capita steel consumption. It's the end result of a massive, technologically advanced industry with robust supply chain and consumer demand feedback loops. The presence of a robust steel industry is a defining feature of all major industrial economies, and the early development of many of these countries was heavily influenced by the vitality of their steel sectors. The steel industry was an early leader in the fight for more economic freedom in the manufacturing sector. The success of the Indian steel sector is crucial to the country's economy. The rate of steel consumption is often used as a barometer of the health of the economy. With the construction of new cutting-edge steel mills, the acquisition of global-scale capacities by players, the continuous modernization and up gradation of older plants, improvements in energy efficiency, and backward integration into global raw material sources, India has positioned itself at the centre of the global steel market. Infrastructure, aviation, engineering,

construction, vehicle, pipes, tubes, etc. are all major consumers of steel. India's economy is poised for its next wave of growth thanks to changes that have been unlocked over the past year, and this bodes well for the country's steel industry. The majority of iron used in India's steel industry comes from either blast furnaces or direct reduced iron (DRI) plants. The steel industry in India is extremely concentrated. Integrated steel producers (ISP) account for roughly 50% of global crude steel capacity. There are now more secondary steel makers in the ecosystem, as seen by the shifting ratio of hot metal to crude steel production.

The global steel industry is a reflection of the state of the world economy. The first decade of the 21st century has established a standard for the rest of this century. The proportion of output coming from Asia has grown. While the demand for steel is expected to rise in the majority of the world's regions during the next several years, the rate of increase in industrialised nations is expected to be significantly lower. Global steel output trends have maintained on a strong upward path, with the majority of the increase coming from developing countries and the emerging economies. China's growing appetite is mostly responsible for the uptick in demand. Since the United States and some of the top European economies are exhibiting early indications of recovery, the positive trends in the international markets likely to continue for some time. The European Union (EU) became the largest trading bloc in the world when ten more countries joined in May of 2004. Since the new member countries are estimated to add around 15% to the enlarged EU's total crude steel output, this is significant news for the global steel sector. Most of the new members have low per capita consumption levels; therefore there is a lot of space for expansion. Consequently, EU steel demand is expected to increase in the near future, which might energize a global market that has been looking to China to set the pace.

Boosted by the country's improving economy and surging demand for steel, India's steel sector has started a new growth phase as of 2007-08. India is the world's largest producer of sponge iron or DRI and the third largest producer of crude steel thanks to its rapid increase in production in 2015. According to the 12th Five Year Plan's Working Group on Steel report, there are a number of factors that have the potential to increase national per capita steel consumption. Among these are the emergence of the rural market for steel, which currently consumes around 10 kg per annum buoyed by projects like Bharat Nirman, Pradhan Mantri Gramme Sadak Yojana, and Rajiv Gandhi Awaas Yojana, and the estimated investment of nearly a trillion dollars in infrastructure. By

2030, the urban population is expected to rise to 600 million from its current level of 400 million.

### **Current Scenario in Indian Steel Industry**

- In FY22, total crude steel output was 133.596 MT, while total finished steel production was 120.01 MT. Rising consumer demand is expected to boost India's crude steel output by 18% in FY22, to 120 million tonnes. In FY22, the demand for finished steel reached 105.751 MT. In April of 2022, India consumed 9.072 MT of finished steel.
- 2. Boosted by a capacity increase of 29 MT, the steel industry is planning to resume growth projects. The amount of finished steel used up was 86.3 MT between April 2021 and January 2022.
- Rising construction activity is a major factor in the predicted 17% increase in steel demand to 110 million tonnes in FY22. By 2025, Tata Steel hopes to have at least a billion tonnes of scrap-based capacity at its sites. By 2030, Tata Steel hopes to have increased its yearly capacity in India from 34 MTPA to 55 MTPA.
- 4. The total amount of finished steel exported in FY22 was 13.49 MT, whereas the total amount imported was 4.67 MT. India saw an increase in exports of 25.1% in FY22 compared to FY21. The average Indian consumer consumed 74.10 kilogrammes of steel in FY19, up from 46 kilogrammes in FY08.
- 5. The government has introduced the National Steel Policy 2017 and opened up the steel industry to 100% FDI via the automatic method, both of which are intended to stimulate growth. The Indian government's Department for the Promotion of Industry and Internal Trade (DPIIT) has revealed that the country's metallurgical sectors received US\$17.1 billion in foreign direct investment (FDI) between April of 2000 and March of 2022.
- By 2030–31, the government hopes to have raised per capita steel consumption to 160 kgs through its National Steel Policy 2017. The government has also advocated for policy that ensures notified steel goods eligible for preferential procurement have at least 15% value added.
- 7. With the goal of cutting down on imports, the government created the Steel Scrap Recycling Policy in 2019.
- 8. Changes in related fields have a positive effect on the industry as a whole. Because it encourages the recycling of materials used in outdated vehicles, the new Vehicle Scrappage policy will contribute to lowering steel costs. As a result of the increased demand for

oxygen cylinders to treat COVID patients, major steel companies are operating at or near capacity. For the refurbishment and installation of new lines across the country, Indian Railways plans to purchase around 11 lakh tonnes of steel from Steel Authority of India Limited (SAIL) in 2021.

- 9. JSW Steel spent Rs. 150 billion (US\$ 19.9 million) in October 2021 to construct a steel facility in Jammu and Kashmir, which is expected to increase manufacturing in the area.
- 10. The Indian subsidiary of Arcelor Mittal and Nippon Steel Corp. announced in October 2021 that they will invest Rs. 1 trillion (US\$13.34 billion) over the course of ten years to develop their operations in the country.
- 11. The approved production-linked incentive (PLI) programme for specialty steel was outlined in October 2021.
- 12. Indian and Russian officials signed a memorandum of understanding in October 2021 to collaborate on steel industry R&D and coking coal production.
- 13. The Union Budget 2021-22 allocates 5.54 lakh crore (US\$74.60 billion), a 34.5% increase from the previous year. Building infrastructure and expanding manufacturing are high priorities in this year's budget. Increased government funding for vital industries like transportation, defence, and rail would further boost steel demand.

Because India is a developing nation, the steel industry there is crucial. One of the most important sectors is the steel industry. The expansion of the industrial sector is the bedrock of the Indian economy. The iron and steel industry in India are crucial to the country's economy. India is the world's largest producer of sponge iron and the third largest producer of raw steel in 2014-2015. The growth and productivity of the steel sector have long been seen as important indicators of the general and, more specifically, the industrial health of the nation and its economy, which is why it was chosen. Steel Authority of India Limited (SAIL) and Tata Steels Limited (TSL) are two of the most successful businesses in India. One of India's seven Maharatna Central Public Sector Enterprises, SAIL is the country's largest steel producer. TSL is the largest integrated steel producer in India. There must consequently be an investigation into the factors that have led certain businesses to prosper.

### **Review of literature**

The financial performance of the Indian steel industry has been analysed by Veerakumar V.K. (2016), with a particular emphasis on operating efficiency, production, and profit performance. According to research

conducted by Devi M. et al. (2017), consistent profitability may be attained by the formulation and implementation of strong financial policies and programmes, which they found by analysing the financial performance of cement manufacturers in India. Financial performance analysis of selected Indian cement firms by Kavitha Muthukumaran et al. (2018) found that those with longer investment horizons favoured undervalued companies, while those with shorter horizons favoured overvalued ones. Brindha K. et al. (2018) studied the financial performance of selected enterprises in the Iron and Steel sector, looking specifically at sales growth, profitability, and foreign exchange. They've drawn the conclusion that ROI and profits in the industry as a whole have increased significantly. They recommended that the industry take on additional low-risk investment initiatives. Udhayakumar and Shankar (2010) have stated that FPIs in Indian steel companies will intrinsically boost the economic growth. Shankar at al. (2021) emphasized that the blue chip companies have a major impact in the capital market among all the sectors.

### **Analysis and Discussion**

DEPENDENT VARIABLES	INDEPENDENT VARIABLES	
Financial standing	Factors of profitability	
Return on assets	Deposits	
Return on equity	Advances	
	Investments	

From the above table, it is conferred that the dependent variables and independent variables are confined to make analysis.

#### **Factors Influencing the Profitability of the Select Companies**

# Multivariate Analysis of Variance to test the factors of Profitability on Financial Standing of SAIL

**H<sub>0</sub>:** The various factors of profitability will have no significant difference in the financial standing of SAIL

### Table 1:Multi-variate Analysis of Variance

**General Linear Model:** return on equity, return on assets versus components of financial standing

MNOVA for components of financial standing			
S = 2 m = -0.5 n = 10			
Criterion	Test Statistic	F	P

Wilk's	0.652	15.21	0.02
Lawley-Hotelling	0.868	2.62	0.02
Pillai's	0.527	11.82	0.04
Roy's	0.714		0.01

Source: Calculated and compiled using Primary Data

The table above presents the multivariate analysis between the components of financial standing and the return on assets and return on equity. It is inferred that the p values are being significant and hence the null hypothesis is rejected and concluded that the various factors of profitability will have a significant difference in the components of financial standing.

# Impact of Components of Financial Standings on Return on Assets and Return on Equity

 $\mathbf{H_0}$ : The various factors of profitability will have no significant impact on the financial standing of state bank of India

**Table 2: Regression Analysis** 

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FOP	-2.31	6.31	-0.27	0.02
С	-4.29	2.34	-3.52	0.01
R-Squared	0.37		<b>Durbin-Watson</b>	1.49
Adjusted R-squared	0.49	stat		1.45
F-statistic	18.12		Prob (F-	0.05
			statistic)	0.03

**Source:** Calculated and compiled using Primary Data

The table above shows the regression analysis between various factors of profitability and financial standing of SAIL. The analysis shows ( $R^2 = 0.37$ ), which states that the factors of profitability contributed significantly for the financial standing. The F-statistic is significant indicating the hypothesized relationship between the variables is validated. The value of Durbin-Watson statistic is 1.49 indicating that the model is not suffering from auto correlation problem. The calculated F value is significant and hence, the null hypothesis is rejected and concluded that various factors of profitability will have a significant impact on the financial standing of SAIL.

Multivariate Analysis of Variance to test the Factors of Profitability on Financial Standing of TSL

 $H_0$ : The various factors of profitability will have no significant difference in the financial standing of TSL

**Table 3: Multi-variate Analysis of Variance** 

**General Linear Model:** return on equity, return on assets versus components of financial standing

MNOVA for components of financial standing			
S = 2 m = -0.5 n = 10			
Cuitouiou	Total Charlinkin	E	
Criterion	Test Statistic	F	P
Wilk's	0.627	5.99	0.02
Lawley-Hotelling	0.494	16.14	0.06
Pillai's	0.723	12.81	0.00
Roy's	0.680		0.03

Source: Calculated and compiled using Primary Data

The table above presents the multivariate analysis between the components of financial standing and the return on assets and return on equity. It is inferred that the p values are being significant and hence the null hypothesis is rejected and concluded that the various factors of profitability will have a significant difference in the components of financial standing.

# Impact of Components of Financial Standings on Return on Assets and Return on Equity

 $\mathbf{H_{12}}$ : The various factors of profitability will have no significant impact on the financial standing of TSL

**Table 4: Regression Analysis** 

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FOP	3.28	5.17	-3.02	0.03
С	5.08	3.47	-2.15	0.02
R-Squared	0.39		Durbin-Watson 1.04	
Adjusted R-squared	0.45		stat	1.04
F-statistic	0.34		Prob (F-	0.00
			statistic)	0.00

Source: Calculated and compiled using Primary Data

The table above shows the regression analysis between various factors of profitability and financial standing of TSL. The analysis shows ( $R^2 = 0.391$ ), which states that the factors of profitability contributed significantly for

the financial standing. The F-statistic is significant indicating the hypothesized relationship between the variables is validated. The value of Durbin-Watson statistic is 1.04 indicating that the model is not suffering from auto correlation problem. The calculated F value is significant and hence, the null hypothesis is rejected and concluded that various factors of profitability will have a significant impact on the financial standing of TSL.

#### Conclusion

Iron and steel products are experiencing meteoric growth in popularity in India. This is supported by the high demand for goods and services in the sectors of construction, real estate, transportation, and logistics. These facts attest to the significance of the iron and steel sector. The Iron and Steel business contributes greatly to economic growth because it is capital intensive and serves the needs of numerous economic sectors. However, there are several financial roadblocks in the business, and this is reflected in the numbers. One possible explanation is that those involved in the industry have been too lax with their money. Although both of the companies chosen for the study appeared to be in solid financial shape, there were problems with their future projections. Therefore, businesses in this sector need to rethink their approach to money management in order to more effectively source capital and put it to use.

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