

Financial Statement Analysis of SAIL With Regard to Indian Economy

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Abstract The growth of the Indian Economy is depended on the development of the Indian steel industry. The growth rate of Gross Domestic Product in India in the year 2018 is 6.81%. Among all the various sectors, the contribution by the steel sectors to the national GDP is 2%. The production and earning levels of the steel industry are the key elements to analyze the economic development after the service sector which contributes more than 50% to the GDP of our country. In the global level, according to the world steel association, India stands in third position (106.5 MT) after China (928.3 MT) and United States (168.2 MT). By the Compounded Annual Growth Rate (CAGR) from the period 2014 – 15 to 2018-19, the consumption level of Steel and its production has been in increasing trend. However, the financial growth of this sector is not at a remarkable level due to the uncontingencies in its operations. Hence this study is made as an endeavor to have a brief view on the financial performance of SAIL one of the Seven Maharatna's of the country's central public sector enterprises and the largest steel-making company in India. Through the secondary data, various financial ratios are analyzed, tabulated and interpreted to measure liquidity, solvency, profitability and management efficiency of the industry and also to analyze the level of contribution of SAIL to the Indian economy. Multivariate Discriminate Analysis (MDA) is also used to measure the relationships between response variables.

Keywords: Indian Economy, Steel Industry, SAIL, Financial Statement Analysis, Multivariate Discriminate Analysis.

Introduction

The Indian economy has been characterized as the developing market economy and also the fastest growing economy in the world. India is the fifth-largest the economy in nominal GDP and stands as the third-largest by purchasing power parity. According to the statement of Indian Monetary Fund (IMF), on per capita basis it is the 142 (nominal) country in the world in the year 2018 and 119th place in purchasing power parity. The growth rate of GDP in the financial year 2019-20 in the first quarter is 5%. The annual average GDP from the starting of the 21st century has been 6% to 7%. Some of the major sectors contributing to the GDP are service (54.40 %), Industry (29.73%) and agriculture (15.87%). In India, the agriculture sector is the largest one because more than 70% of India's population depends on it.

By the way of contributing nearly 16% of total Asia's GDP (nominal), India is bagged as the 3rd country after China and Japan among the Asian countries. 11,468 billion international dollars are estimated on the basis of PPP in the Indian economy. 7.98% is the share of contribution by India to the total GDP of the world. As the steel industry is the main determinant industry in estimating the growth of the country, this study focuses on the progression of steel industries particularly Steel Authority of India Limited. In Indian economy, 2% of GDP is derived from the steel sector and India is the second-largest steel producer in the world in 2018. According to the Indian Steel Association (ISA), the demand for steel would be grown by 7 % in the year 2020-21. 5.43% is the CAGR of crude steel production in FY 2012-2018. In the year 2019, India produced 131.57 million tonnes and 106.56 million tonnes of finished steel and crude steel respectively. The steel production is expected to increase from 106.56 MT to 128,6 MT by 2021. In the steel sector, the achievements of Steel of Authority of India Limited are a remarkable one to consider the growth of steel industries in India.

Briefing about Steel Authority of India Limited

Steel Authority of India Limited shortly known as SAIL is the central government organization. It was established on 19th January 1954. The headquarters of SAIL is located in New Delhi, India. Anil Kumar Chaudhary is the Chairman of SAIL. It deals with steel, flat steel products, long steel products. There are five integrated steel plants at Bhili, Rourkela, Durgapur, Bokhara, and Burnpur.

The government of India holds 74.9% of the shares and voting power of the company. It was recognized as Maharatna Company by the Government of India in 2010.

The total income of the SAIL in 2019 is 67500.13 crores. The profit and loss in the year 2019 is a trend set one because it increased by 605% than in 2018. The operating profit of the SAIL is 9734.11 crores and it is increased from 4617.85 crores in 2018. All the developments and remarks of SAIL are the outcome of the proper management of finance and taking efficient decisions regarding the utilisation of funds among the most suitable sources and execution of policies to attain the goal. Any slight deviation from the specified route of regular operations of finance affects the profit margin of the company that may reduce the contribution of the steel sector to the Indian economy.

Importance of Financial Statement Analysis

In all the types of business, finance is the major one deciding its survival in the field and determines the achievement and growth of the industry for a long period of time. The financial performance of the company can be exposed in its financial statements. The financial statements are profit and loss account, balance sheet, funds flow, and cash flow statement. Hence this study focuses on the analysis of the financial statement to identify the efficient utilization of finance to attain the objectives of the firm and also to encourage the contributions to the Indian economy.

Objectives of the Study

- To identify the role of the steel industry in the Indian Economy.
- To evaluate the financial performance of SAIL.
- To forecast the financial development of SAIL to expand its contribution to the growth of the Indian Economy.

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Review of Literature

T.Venkatesan and Dr.S.K.Nagarajan (2012) conducted a study for analyzing the profitability of selected steel companies in India. This study was empirical in nature. It was revealed that those companies maintain the retained earnings at a satisfactory level can manage the financial crises. Dr. D.Guruswamy (2012), studied the profitability of State Bank of India and Its Associates Bank and concluded that the profit earning capacity of associate banks was higher than the SBI. Statistical tools like mean, standard deviation, variance, CAGR, and ANOVA were applied to examine the profitability of the bank.

Elankumaran and Karthika (2013) analyzed the liquidity, profitability, and risk of selected listed food, beverage and tobacco companies on Colombo. It was identified from the study that between liquidity and profitability, there was a positive correlation and the liquidity position can make an impact on its profitability. Dr.Pratibha Jain and Prof.Megha (2013), the automobile companies' financial performance was analyzed. The study was found that the technology adoption for the manufacturing and higher-level manufacturing overheads may affect the financial performance of the company.

Usman Dawood (2014) analyzed the profitability of commercial banks. It was concluded that no relationship between the cost efficiency and profitability and the adequacy of capital and deposits boost up the profitability position of the bank. It was also revealed that the size of the bank was irrelevant to profitability.

Sumita Sinku and Dr.Prashant Kumar(2014) analyzed the financial health of the Steel Authority of India Limited. Though the steel industries compounded annual growth rate was 8 %, the financial progression was not at a satisfactory level. The Z-score model was used to test the soundness of the industry. It was concluded that the profitability, liquidity and long-term solvency position of SAIL were good and the level of bankruptcy was very low.

D.E. Idoge and C.O.Chukwuji (2014) investigated the financial position of small scale poultry business in delta state, Nigeria. The solvency and survivability of 125 small scale poultry enterprises in the state were analyzed. It was suggested that to improve survivability the enterprises should undergo the entrepreneurial training program for the management of working capital and assets of the firm effectively.

Ms. Hetalgaglani and Dr.Smita Rao (2015) suggested from the study on the liquidity, profitability and financial health of the sun pharmaceutical industry ltd. that if the industry should manage the risks by proper budgeting and forecasting and it was also found that there was a reasonable correlation between liquidity and risk and profitability. Mohan Kumar M.S, Vasu.V and Dr.T.Aswatha Narayana (2016), studied the liquidity position and profitability of the steel authority of India limited. The liquidity position was in unsatisfactory level and moved down. Though there was a positive correlation between liquidity and profitability ratios there was a negative correlation between ROA and liquidity ration. It was suggested that the company should take steps to utilize the sources available.

Aritra Ranjan Das (2018) conducted a study on the financial performance of the steel industry in India. From the study, the policy of the government should support the iron and steel industry by providing the facilities to remove the barriers in importing the material from other countries and help the industry in completing the infrastructural projects. Due to the lower trend of liquidity and profitability conditions, the company may sell their assets or restructuring the current position with the consent of the committee and creditors.

Research Methodology

•**Sources of Data:** The study on financial statement analysis of SAIL with regard to the Indian Economy is based fully on secondary data. From the annual reports and statistical reports published by the concerned industry and associations, relevant literature issued before and reports of the government are considered for collecting the secondary data.

•**Study Period:** This study covers the period of five years starting from 2014-15 to 2018-19. The major findings, suggestions, and conclusions of the study are listed on the basis of the performance of SAIL from these years.

•**Method of the Study:** The secondary data collected from the reports have been tabulated and analyzed to interpret for designing the result of the study. Prof. Altman's Z-score model is also used to examine the financial soundness of the company.

•**Limitations of the study:** This study is fully based on secondary data. The period of the study is limited to 5 years. The result of the study is only applicable to the SAIL only not for any other company.

Z- Score Model: The Z-Score model was introduced by professor Edward I. Altman. He was the professor of the School of Business of New York University aiming to predict the likelihood of bankruptcy in a company. Five variables have to be chosen for measuring the financial soundness of the company. The income statement and balance sheet can be considered to this model. These five variables are multiplied by a set of co-efficient framed by Altman to determine the Z-score. The formula of this model is

$$Z = 1.2 X1 + 1.4 X2 + 3.3 X3 + 0.6 X4 + 1.0 X5$$

Where; Working capital / Total Assets is considered as X1 to find the liquidity position, Retained Earnings / Total Assets is considered as X2 for knowing the profitability, Earnings Before Interest and Tax (EBIT) / Total Assets is considered as X3 to test the operating performance of the company, Book Value of Equity / Book Value of Debt is considered as X4 to test the solvency of the firm, Sales / Total Assets is considered as X5 to analyse the generation of the assets for sales.

Analysis of the Financial Statement:

TABLE: 1. Profitability Position of SAIL

Year	Gross Profit Ratio	Net Profit Ratio	Operating Profit Ratio
2014-15	6.3	4.57	10.18
2015-16	-13.57	-10.29	-7.42
2016-17	-5.94	-6.37	0.08
2017-18	2.69	-0.83	8.02
2018-19	9.48	3.25	14.53

Source: Annual Report of SAIL.

Table 1 shows the profitability position of SAIL from the study period 2014-15 to 2018-19. It is revealed that in the year 2018-19 the gross profit ratio was higher(9.48) while comparing to other periods taken into the study. In 2014-15, it was in 6.3. Due to the heavy operating expenses from 2015-16 to 2016-17, the gross profit ratio was in negative sign. Afterward, the gross profit ratio was increased to 2.69. The gross profit ratio shows the margin between the cost of goods and sales. Higher the ratio, the margin will be greater. But the trend of the net profit ratio fluctuates. The operating profit ratio is also in the same trend as per the gross profit ratio. In the year 2018-19, the operating profit ratio is higher that means the operating expenses are under the control of the management.

TABLE : 2 : Overall Profitability Position of SAIL

(Rs. in Crores)

Year	ROI	ROE	ROCE	EPS	CTR
2014-15	2.28	4.81	5.43	5.07	9.04
2015-16	-3.11	-10.25	-6.51	-9.74	10.58
2016-17	-2.03	-7.86	-2.81	-6.86	9.29
2017-18	-0.32	-1.34	2.62	-1.17	7.18
2018-19	1.37	5.71	8.64	5.27	6.17

Source: Annual Report of SAIL.

Table 2 depicts the overall profitability position of SAIL. The Return on Investment, Return on Equity, Return on Capital Employed, Earning Per Share and Capital Turnover Ratio are analysed to test the overall profitability position of SAIL. ROI, ROE, ROCE and EPS are in increasing trend except CTR. It explains that the SAIL generated adequate capital for the returns. If the returns are higher, the value of EPS will be higher.

TABLE : 3: Liquidity Position of SAIL

Year	Current Ratio	Liquid Ratio	Cash Ratio
2014-15	0.68	0.55	2.32
2015-16	0.61	0.42	0.3
2016-17	0.60	0.38	0.27
2017-18	0.70	0.40	0.22
2018-19	0.64	0.41	0.19

Source: Annual Report of SAIL.

Table 3 describes the liquidity position of SAIL. The ideal current ratio is 2:1. But in all the study period, the current ratio is not at the ideal ratio. It indicates that the company may have current liabilities more than the current assets. The current ratio is in fluctuating trend. The liquid ratio is steeply reduced from the year 2014-15. Totally the liquid ratios are below the ideal ratio of 1:1. The cash ratio too is in diminishing trend. In overall the liquidity position of the SAIL is not upto the standard level.

TABLE : 4: Activity / Efficiency Position of SAIL

Year	Inventory Turnover Ratio	Debtors Turnover Ratio	Working Capital Turnover Ratio
2014-15	2.88	16.01	-7.65
2015-16	2.99	16.95	-2.7
2016-17	3.17	14.66	-2.14
2017-18	3.47	12.33	-4.18
2018-19	3.77	10.54	-7.16

Source: Annual Report of SAIL.

Table 4, depicts the activity position of the SAIL during the study period. The inventory turnover ratio increases slightly from one to another year. The debtors' turnover ratio is decreased every year except 2015-16. The working capital turnover ratio shows in diminishing trend. Hence from these ratios, it is understood that the company is not competent in handling debts and in maintaining the working capital.

TABLE : 5: Solvency Position of SAIL

Year	Debt Equity Ratio	Proprietary Ratio	Fixed Assets to Net Worth	Interest Coverage Ratio
2014-15	0.65	0.44	0.67	2.68
2015-16	0.84	0.39	0.55	-2.05
2016-17	1.08	0.34	0.49	-0.83
2017-18	1.18	0.31	0.46	0.72
2018-19	1.09	0.33	0.49	2.18

Source: Annual Report of SAIL.

Table 5 shows the solvency position of SAIL. To test the solvency position of the company, debt-equity ratio, proprietary ratio, fixed assets to net worth and interest coverage ratio are chosen. The debt-equity ratio measures the claims of outsiders and owners against the assets of the firm. If the ratio is lower, the claims will be higher. The proprietary ratio describes the shareholders' worth of the total liabilities. Lower the ratio explains that the company's shareholders portion is lesser after paying liabilities. The rate of interest in the operation of the company shows higher. Therefore the solvency position of the company is at an average level. It should be developed in the coming years to clear the debts and to face the claims of the shareholders.

TABLE : 6: Elements of Z- Score

(Rs. in Crores)

Year	NetWorth	Total Assets	Retained Earnings	EBIT	Net Sales	Book Value of Equity	Book Value of Debt
2014-15	17621	99327	39374	5675	45711	43505	28221
2015-16	13849	100340	35065	-2400	39052	39196	33071
2016-17	13439	106539	31879	0.29	44452	36009	38901
2017-18	13354	114190	31583	5306	57558	35714	42021
2018-19	16747	116438	34021	10092	66967	38152	41434

Source: Annual Report of SAIL.

Table 6 shows the elements of Z-Score. In this study to work out the Z-Score the net worth, total assets, retained earnings, EBIT, net sales, the book value of equity and book value of debt have been taken as variables. With these elements, the score will be given to find out the overall value of the score. On the basis of the overall score, the bankruptcy of the company can be determined.

TABLE: 7: Ratios Used for Z-Score Analysis

Variables	Ratios	2014-15	2015-16	2016-17	2017-18	2018-19
X1	Net Worth to Total Assets	0.18	0.14	0.13	0.12	0.14
X2	Retained Earnings to Total Assets	0.4	0.35	0.3	0.28	0.29
X3	EBIT to Total Assets	0.06	-0.02	0	0.05	0.09
X4	Book Value of Equity to Book Value of Debt	1.54	1.19	0.93	0.85	0.92
X5	Net Sales to Total Assets	0.46	0.39	0.42	0.5	0.58

Source: Annual Report of SAIL.

Table 7 describes the list of selected variables and their value for analyzing the Z-score. For all the variables or elements the values are calculated and marked as X1 for net worth to total assets, X2 for retained earnings to total assets, X3 for EBIT to total assets, X4 for Book value of equity to Book value of debt and X5 for the net sales to total assets..

TABLE: 8: Z-Score Value

Year	1.2 X1	1.4 X2	3.3 X3	0.6 X4	1.0 X5	Z- Score
2014-15	0.213	0.555	0.189	0.925	0.460	2.802
2015-16	0.166	0.489	-0.079	0.711	0.389	2.065
2016-17	0.515	0.419	0	0.555	0.417	2.323
2017-18	0.141	0.387	0.153	0.51	0.504	2.199
2018-19	0.173	0.409	0.286	0.552	0.575	2.570

Source: Annual Report of SAIL.

Table 8 shows the value of the variables relating to other variables chosen to determine the Z-score. The score is varying from 2.065 to 2.802. It is fluctuated in all the study periods taken. In the year 2014-15, the z-score is higher (2.802) while lower in 2015-16 (2.065). Therefore it is revealed that from the study period 2014-15 to 2018-19, the SAIL is in safety position as the Z-score does not fall below 1.80.

Findings : From the tabulation and interpretation of the data relating to profitability, liquidity, efficiency, and solvency, the position of the company can find out and can identify the loop-holes in the operation or performance of the company. It is observed from the profitability ratio that the gross profit and operating profit ratio are good but due to the indirect operating expenses, the net profit is in decreasing trend. From the overall profitability ratio, it is clear that the return on capital employed, earning to equity shareholders and capital turnover ratio is at a satisfactory level than the return on equity and on investment. To avoid this situation in future, the company should invest a reasonable amount of fund to a venture which has more possible to earn returns that can hike the earnings to equity shareholders.

It is found from the liquidity ratio of the SAIL the current assets are maintained just lower than the current liabilities. If current liabilities are over, it affects the liquidity of the company. According to the efficiency ratios, the company can efficiently meet the debtors, funds for working capital and for investment. While considering the proprietary ratio, it is at the satisfactory level to meet the claims of the shareholder and outsiders. From the variables selected for testing the overall position of the company according to Z-Score, the company's overall financial position is safe as the Z-Score for all the study periods is above 1.8.

Conclusion : From the analysis of financial statement in terms of profitability, liquidity, activity, and solvency, the financial position of the company is fluctuated due to risk in importing the raw materials from another country, in arranging the infrastructure to their climate to set all things right and in the fluctuation of price and government policies. On the other hand, the effective utilization of available and best sources of finance is in the hands of the company with the existing financial policies and trends. It should be very aware of the current liabilities, claims to the investors, shareholders and so on .If the proprietary funds are not adequate to meet these claims it affects the efficiency of the company. If the company earns higher it can satisfy the creditors, investors, shareholders and so on. Then the contribution of the company will be more towards the higher GDP. Though the current position of the SAIL according to the Z-Score, is safe, it has to modify its financial policies according to the ups and downs of the Indian economy.

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ABBREVIATIONS

SAIL	: Steel Authority of India Limited
CR	: Current Ration
QR	: Quick Ratio
DER	: Debt – Equity Ratio
LTDER	: Long-Term Debt-Equity Ratio
GPR	: Gross Profit Ratio
NPR	: Net Profit Ratio
OPR	: Operating Profit Ratio
EBIT	: Earnings Before Interest and Tax
ROCE	: Return On Capital Employed
RONW	: Return On Net Worth
ROA	: Return On Assets
ROLTF	: Return On Long-Term Fund
EPS	: Earning Per Share
BVE	: Book Value of Equity
BVD	: Book Value of Debt
NS	: Net Sales
GDP	: Gross Domestic Product
PPP	: Purchasing Power Parity

