PROFITABILITY ANALYSIS (A COMPARATIVE STUDY OF SAIL & TATA STEEL)

Dr. Urmila Bairathi
Principal, Children Mahila Mahavidyalaya, Jagpura, Kota (Raj.)
Email : bairathiurmila@gmail.com

Abstract :

Profit is the primary and ultimate motive of a business enterprise. It is backbone of every industry for guiding the business operations. The business without profit cannot survive for a long period. The strength & weakness of a company can be assessed from its profitability. A measure profitability is the overall measure of efficiency. Profitability differs from profit. Profit is an absolute term whereas profitability is a relative term. Profit figure is its absolute term is useful only when it is related with another one. Profitability is known to be a relative concept. Thus the profitability ratios are calculated to enlighten the end result and comparisons of the business firms which is the sole crieterion of overall efficiency of business concern.

Keywords : Profit, Profitability, SAIL, TATA Steel, Gross Profit Ratio, Operating Profit Ratio, Return on Capital Employed Ratio, Return on Equity Shareholders' Fund Ratio etc.

---

1. MEANING AND CONCEPT OF PROFITABILITY :

The word 'Profitability', is constituted of two words 'Profit' and 'Ability', indicates the ability of a business to earn profit on its investment. The meaning of profit differs according to the use and object. For accounting object, profit is the difference between the total revenue and the total cost for a specified period. The word 'ability' indicates the capacity of a business to earn profit. The ability is also referred to as 'operating performance', 'earning capacity' and 'earning power'. Thus the word 'profitability' may be defined as "the ability of a given investment to earn a return from its use".[1] "Profitability is a relation of the earning to total resources of the corporation."[2]

Thus, the firms ability to earn maximum profit by the best utilization of its resources is called profitability.

As an absolute term, profit has no relevance to compare the efficiency of a business organization. A very high profit does not always indicate sound organizational efficiency and low profitability is not always a sign of organizational sickness. Therefore, it can be said that profit is not the prime variable on the basis of which the operational efficiency and financial efficiency of an organization can be compared. To measure the productivity of capital employed and to measure operational efficiency, profitability analysis is considered as one of the best techniques.

2. OBJECTIVES OF THE STUDY :

* To analysis the growth of SAIL & Tata Steel.
* To assess the growth prospective of the industry.
* To compare the past performance of the companies with the present performance.
* Maximum utilization of industrial capacity.
* To compute profitability ratios and analyze them.
* To analyse the profitability of SAIL & Tata Steel and judge whether it is adequate or not and suggest ways to improve it.
* To compare operational and financial efficiency of SAIL & Tata Steel.

3. METHODOLOGY :

The primary purpose of present study has been to obtain a deep insight and full familiarity with

---

[1] Bion. B. Howard and Miller Upton; Introduction to Business Finance, (New York, McGraw Hill Book Company Inc., 1953) p. 147

[2] A. Salvin, et.al. Basic Accounting for Management and Financial Control (New York; Holt, Rinechart and Winston Inc.) Ed. 1968, p. 173

the profitability of the companies of steel industry in India. India is among the top producers of all forms of steel in the world. The present study is based on the secondary data i.e. money control.com, annual reports of the companies, books, journals, subject related websites, research documents etc. A five yearly period commencing from 2018-19 to 2022-23 has been taken. Steel Authority of India Ltd. (SAIL) in Public Sector and Tata Steel in private sector have been selected for the purpose of the study.

Profitability of the companies selected for the study has been analyzed with the help of ratio analysis. Various ratios have been calculated. Statistical tools such as average, standard deviation and coefficient of variation have been used to interpret the data. Hypothesis has been tested by using t test. With the help of the conclusions drawn, suitable, significant and useful suggestions have been made to improve the performance of the companies.

4. REVIEW OF LITERATURE :

Many studies on profitability have been carried out. Few studies are being summarised below :

Dr. M. Thyigarajan and Mr. J. Uday Kumar (2015) in their paper "Profitability analysis of select Aluminum companies in India" the main objective of this research paper is to analyse the profitability position of the selected aluminium companies for ten years (2005-2014). The study based on the secondary data, the tools used for analysis are mean, standard deviation, co-efficient of variation and compound annual growth. The study ascertains the National Aluminum Company Limited show satisfactory performance in concern with profitability.

Dr. Pratibha Jain and Prof. Megha Mehta (2013) In their study on financial performance of automobile companies finds that Hero Honda Company performed well because of its usage of latest technology and Tata motors weak performance due to increased manufacturing overheads and company's inability to face competition.

Dr. S.K. Khartiktitto Varghese, (2010) they found the profitability more or less depends upon the better utilization of resources and to manpower. It is worthwhile to increase production capacity and use advance technology to cut down cost of production and wages cost in order to increase profitability, not only against the investment, but also for investor's return point of view.

Asha Sharma and R.B. Sharma (2011) these attempts identify and study the movement of key financial parameters and their relationship with profitability of textile industry. It is an attempt to and the study whether the key identified parameters move in a synchronous way going up and coming down with basic profitability parameters. All three comparably profit making companies have been taken as the sample for the study for the period of 2006 to 2010.

Jha and Sarangi (2011) analyzed the performance of seven public sector and private sector banks for the year 2009-10. They used three sets of ratios, operating performance ratios, financial ratios, and efficiency ratios. In all eleven ratios were used. They found that Axis Bank took the first position, followed ICICI Bank, BOI, PNB, SBI, IDBI and HDFC in that order.

5. IMPORTANCE OF THE STUDY :

* Profitability analysis is very note worthy to increase the efficiency of the management, to decrease the expenditure and to increase the rate of profit etc.
* Compare one company's performance with competitors in the same industry.
* It is an important and powerful tool for financial planning.
* It forces a business to continually discover method to reduce overheads and other costs that affect profitability.
* It supports management in determining what modifications, if any, need to be made to the company.

6. ANALYSIS OF PROFITABILITY :

Profitability of the companies under study has been analyzed by calculating the profitability ratios. There are two types of profitability ratios. First, based on sales; second based on capital and assets.

Profitabilities Ratios based on Sales

6.1 Gross Profit Ratio

This ratio express the relationship of gross profit to net sales (Cash and Credit – Sales return) in terms of percentage. This ratio measures the trading effectiveness and basic profit earning potentiality of a firm. The higher the ratio, the greater will be the margin and that is why it is also called margin ratio.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

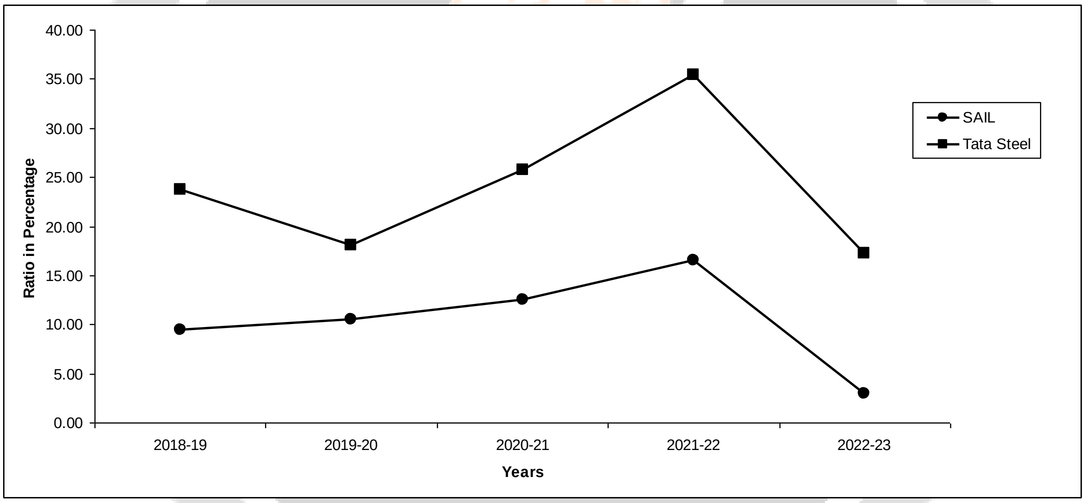
The gross profit ratio of the companies under study has been shown in the following table.

Table-1
Gross Profit Ratio of the Companies under study from 2018-19 to 2022-23

(Ratio in Percentage)

Years	SAIL	Tata Steel
2018-19	9.40	23.73
2019-20	10.45	18.10
2020-21	12.48	25.73
2021-22	16.47	35.39
2022-23	2.93	17.26
Average	10.36	24.04
SD	4.42	6.52
C.V. (%)	42.68	27.15

Source : Annual Reports of the companies under study.



Inference :

It can be noted from the above table the gross profit ratio of SAIL showed an increasing trend during the period of study except 2022-23. The gross profit ratio was 9.40 percent in 2018-19 which constantly kept an increasing and came up to 16.47 percent in 2021-22. At last it came down to 2.93 percent in 2022-23. It is mainly because of increase in the cost of goods sold. It can be suggested that the management of the company should try to control the cost of goods sold and try to increase in sales.

The above table also shows that the gross profit ratio of Tata Steel showed fluctuating trend and varied within the range of 17.26 percent in 2022-23 to 35.39 percent in 2021-22. It was 23.73 percent in 2018-19 which decreased to 18.10 percent in 2019-20. Further it increased to 25.73 percent in 2020-21, 35.39 percent in 2021-22 but finally it decreased to 17.26 percent in 2022-23. It shows inefficiency of management and it is suggested that the management of the company should try to control this situation by controlling the cost of goods sold and by increasing the sales.

On the basis of the average of the gross profit ratio it can be concluded that Tata Steel performed better. The coefficient of variation in SAIL was 42.68 percent while in Tata Steel was 27.15 percent which shows that Tata Steel is more consistent in gross profit ratio.

Test of Hypothesis : Following hypothesis has been tested by using t test.

Null Hypothesis (H_o) : There is no significant difference in the gross profit ratio of the companies under study.

Computed value of t = 3.87
Degree of Freedom (v) $N_1 + N_2 - 2 = 8$
Critical value of t at 5 percent level of significance (for v = 8) is 2.31

Decision : Since the computed value of t is more than the critical value of t at 5 percent level of significance, hence the null hypothesis is rejected and it can be concluded that there is significant difference in the gross profit ratio of the companies under the study. In other words both the companies are not same as regards the gross profit ratio.

6.2 Operating Profit Ratio :

This ratio also called 'Operating Profit Margin (OPM)'. It establishes the relationship between operating profits and net sales. Operating profit means excess of gross profit over operating expenses. The object of operating profit ratio is to determine the operational efficiency of the management. The higher the operating profit ratio, the better would be the operational efficiency of the firm. A higher operating profit ratio means that a firm has been able not only to increase its sales but also been able to cut down its operational expenses. This ratio is calculated by using the following formula :

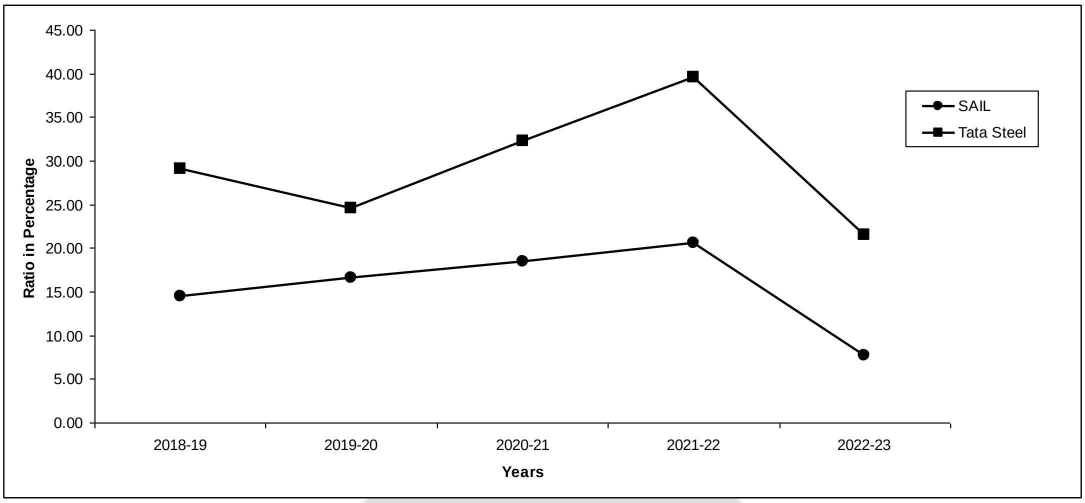
$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

Table-2
Operating Profit Ratio of the Companies under study from 2018-19 to 2022-23

(Ratio in Percentage)

Years	SAIL	Tata Steel
2018-19	14.53	29.12
2019-20	16.54	24.59
2020-21	18.41	32.23
2021-22	20.60	39.62
2022-23	7.68	21.47
Average	15.55	29.40
SD	4.41	6.30
C.V. (%)	28.41	21.43

Source : Annual Reports of the companies under study.



Inference :

It can be noted from the above table that the operating profit ratio of SAIL showed increasing trend during the period of study except 2022-23. It varied within the range of 7.68 percent in 2022-23 to 20.60 percent in 2021-22. The average of the ratio was 15.55 percent which can be regarded satisfactory but decreasing trend should be controlled by the management of the company. For this purpose efforts should be made to control and reduce the operating cost and increase the sales. More efficient use of resources and more effective marketing.

For Tata Steel, the Operating Profit Ratio showed a mixed fluctuating trend during the period of study. Initially, during 2018-19, the operating profit ratio was 29.12 percent which decreased to 24.59 percent in 2019-20. It increased to 32.23 percent in 2020-21 and further 39.62 percent in 2021-22 but decreased to 21.47 percent in 2022-23. The average of the ratio 29.40 percent which can be regarded good and denotes an efficient management. However, decreasing trend should be controlled.

An overall study of Operating Profit Ratio shows that Tata Steel has performed better than SAIL because the average Operating Profit Ratio in Tata Steel was 29.40 percent while in SAIL was 15.55 percent. Coefficient of variation in SAIL was higher than that of Tata Steel denoting variability in the ratio.

Test of Significance (t-Test)

Null Hypothesis (H_o) : There is no significant difference in the Operating Profit Ratio of the companies under study.

Calculated Value of $t = 4.02$
Degree of Freedom (v) = 5 + 5 – 2 = 8

Critical value of t at 5 percent level of significance is 2.31

Decision : Since the computed value of t is more than the critical value of t, hence the null hypothesis is rejected and it is concluded that there is a significant difference in the Operating Profit Ratio of the companies under study.

Profitabilities Ratios based on Capital

6.3 Return on Capital Employed Ratio

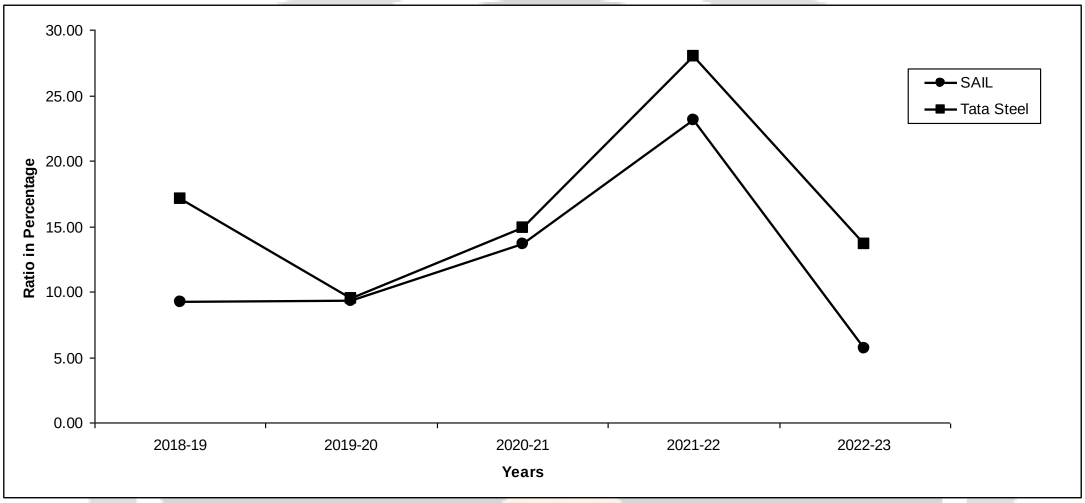
This ratio is a barometer of the overall performance of the enterprise. It measures how efficiently the capital employed in the business being used. It is also a measure of the earning power of not assets of the business. This ratio can be calculated by formula as follows :

$$\text{Return on Capital Employed Ratio} = \frac{\text{Net Profit (PBIT)}}{\text{Capital Employed}} \times 100$$

Table-3
Return on Capital Employed Ratio of Companies under study from 2018-19 to 2022-23
(Ratio in Percentage)

Years	SAIL	Tata Steel
2018-19	9.19	17.12
2019-20	9.26	9.49
2020-21	13.63	14.89
2021-22	23.06	27.99
2022-23	5.63	13.66
Average	12.15	16.63
SD	6.01	6.19
C.V. (%)	49.49	37.27

Source : Annual Reports of the companies under study.



Inference :

It can be noted from the above table that the return on capital employed ratio of SAIL showed an increasing trend through the period under study except in 2022-23. During 2018-19 the ratio was 9.19 percent which continuously kept an increasing and came upto 23.06 percent in 2021-22 but decreased to 5.63 percent in 2022-23. Such this situation cannot be regarded satisfactory.

The average of the ratio was 12.15 percent which is though not poor but decrease in ratio is a warning to the management. The fluctuation were also high as the co-efficient of variation was 49.49 percent which should also be controlled.

For Tata Steel also the ratio of return on capital employed showed a fluctuating trend during the whole period of study and varied within the range of 9.49 percent in 2019-20 to 27.99 percent in 2021-22. The average ratio was 16.63 percent which is though not poor but decrease trend implies inefficient management of the company and should try to increase ratio by increase the profit. The coefficient of variation was 37.27 percent denoting a moderate fluctuating trend but the decreasing trend should be controlled by the management.

On the whole it can be said that the return on capital employed position of Tata Steel was better than SAIL because the average of the ratio was higher in Tata Steel but decrease in ratio both the companies shows inefficient of the management and should be controlled by better utilization of resources and man power.

Test of Significance (t-test)

Null Hypothesis (H_o) : There is no significant difference in return on capital employed ratio of the companies under study

Computed value of t = 1.15

Critical value of t at 5 percent level of significance = 2.31

Decision : The null hypothesis is accepted because the computed value of t is less than the critical value, hence it can be concluded that there is no significant difference in the return on capital employed ratio and both the companies are same as regards this ratio.

6.4 Return on Equity Shareholders' Funds Ratio :

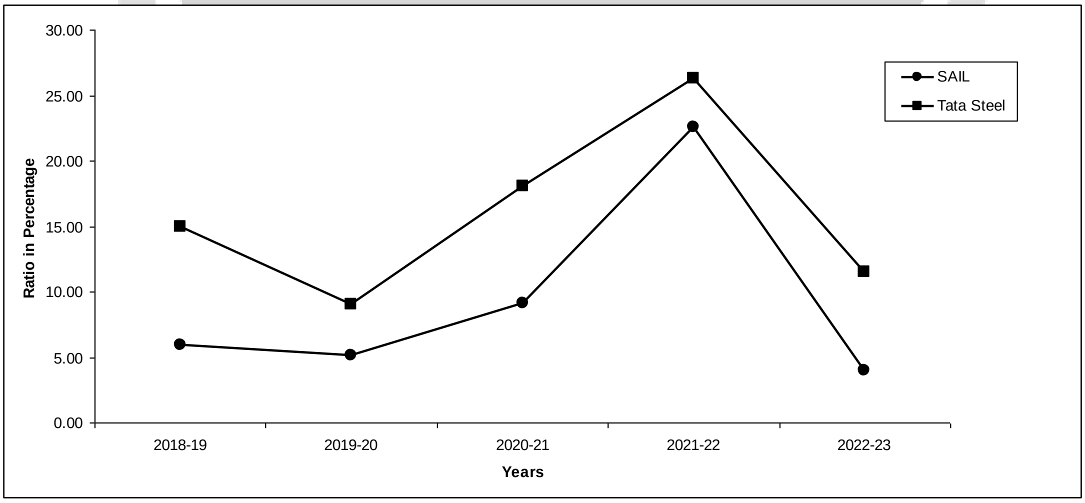
This ratio is the best measure of a company's profit earning capacity. The higher the ratio, the better the performance and prospectus of the company. It provides adequate test to evaluate whether a company has earned satisfactory return for its equity shareholders or not. The investors can decide to invest or not to invest in the equity shares of the company by comparing it with the normal rate of return in the market. This ratio is calculated by using the following formula :

$$\text{ROE} = \frac{\text{Net Income (After Interest, Tax \& Pref. Dividend)}}{\text{Equity Shareholders' Funds}} \times 100$$

Table-4
Return on Equity Shareholders' Funds Ratio of the Companies under study from 2018-19 to 2022-23
(Ratio in Percentage)

Years	SAIL	Tata Steel
2018-19	5.92	14.95
2019-20	5.10	9.04
2020-21	9.13	18.08
2021-22	22.58	26.31
2022-23	3.97	11.49
Average	9.34	15.97
SD	6.57	6.00
C.V. (%)	70.39	37.62

Source : Annual Reports of the companies under study.



Inference :

It can be noted from the above table that the return on equity shareholders' funds ratio of SAIL showed a fluctuating trend during the period of study. It varied within the range 3.97 percent in 2022-23 to 22.58 percent in 2021-22. In 2018-19 the ratio was 5.92 percent which decreased to 5.10 percent in 2019-20. It increased to 9.13 percent in 2020-21 which again increased to 22.58 percent in 2021-22 but finally it decrease to 3.97 percent in 2022-23.

The average ratio was 9.34 percent which was not good. It is suggested that management should try to increase ratio by increase the profit by usage of advance technology to cut down overheads & other costs.

For Tata Steel also the ratio of return on equity shareholders' funds showed fluctuating trend. It varied from 9.04 percent in 2019-20 to 26.31 percent in 2021-22. The average ratio was 15.97 percent which is though not poor but decreasing trend implies inefficient management.

On the whole it can be said that the ratio of return on equity shareholders' funds of Tata Steel was better than SAIL because the average of the ratio was higher in Tata Steel. Coefficient of Variation in SAIL was 70.39 percent as compare to 37.62 percent in Tata Steel which shows high variation in the ratio of SAIL.

Test of Significance (t-test)

Null Hypothesis (H_o) : There is no significant difference in return on equity shareholders' funds ratio of the companies understudy.

Computed value of t = 1.66
Critical value of t at 5 percent value of significance = 2.31

Computed value of t is less than the critical value, hence it can be concluded that there is no significant difference in the ratio and both the companies are same regarding this ratio.

7. CONCLUSIONS :

Iron and Steel sector is a life blood for an economy. It is one of the primary vehicles of economic development of a country. Profitability is the measure for the success story of iron & steel industry growth. It shows the ability to earn for their owners. The profitability measures control and efficiency of business operations. Profitability ratios are calculated to enlighten the end result and comparison of business firm.

It is evident from analyzing the profitability ratios

(i) Grows profit ratio of Tata Steel showed a fluctuating trend and so is the case with SAIL which shows inefficiency of the management, however on the basis of the average it can be concluded that Tata Steel performed better.

Therefore it is suggested that management of both the companies should increase the gross profit ratio by controlling cost of goods sold and by increasing sales and try maintaining the same position in future also.

(ii) The operating profit was lower in SAIL and it is suggested that the company should try to increase this ratio and also high fluctuation should be controlled by management.

On the other hand the operating profit was satisfactory in Tata Steel and it is suggested that the company should try maintaining this ratio.

(iii) Analyzing the return on capital employed ratio it can be concluded that return on capital employed position of Tata Steel was better than SAIL because the average of the ratio was higher but decrease in ratio in both the companies implies inefficiency of the management and inefficient utilization of the capital funds.

(iv) Analyzing the return on equity shareholders' funds ratio it can be concluded that position of Tata Steel was better than SAIL because the average of the ratio was higher in Tata Steel. Coefficient of variation was high in SAIL shows high variation in the ratio.

Overall both the companies should use advance technology to reduce overheads and other costs, better utilization of resources and manpower to increase profitability.

8. FUTURE SCOPE OF THE STUDY :

Since the current study is limited to data collected from India only, the study can be extended to international level. The further scope of the study is that a comparison between the Indian Steel companies and foreign steel companies can also be done using same conceptual model. The time period of collecting secondary data can be extended from 5 years to 10 years.

9. LIMITATION OF THE STUDY :

* The evaluation of this study is based on secondary data only so its findings are depended only upon the accuracy of such data.

* The study is carried out for limited number of steel companies, so it is difficult to draw conclusions from selected steel companies.

* The study is carried out for a period of five years to derive conclusions about the performance of the steel companies as a whole but this number of years is not enough for a thorough understanding of business movements and their reactions to the changes of the economy.

REFERENCES :

1. Bion. B. Howard and Miller Upton : Introduction to Business Finance, (New York; McGraw Hill Book Company Inc., 1953) p. 147

2. A Slavin, et. al. Basic Accounting for Management and Financial Control (New York : Holt, Rinechart and Winston, Inc.) Ed. 1968, p. 173

3. Florence, P. Sargent & Walker Glibort (2004), "Efficiency and its management" London : George Allen & Unwin.

4. Hingorani, N.L. Ramanthan A.R. and Grewai T.S. (2005), "Management Accounting" New Delhi, Prentice Hall of India.

5. Alicia Gazely & Michael Lambert, (2006). "Management Accounting" North America, Sage Publications.

6. Dr. Pratibha Jain & Profl. Megha Mehta (2013), an analytical study of Profitability position of the selected automobile companies in India, Journal of Finance Vol. No.1 (1) December 2013 pp 1-12.

7. Annual Reports of SAIL from 2018-19 to 2022-23.

8. Annual Reports of Tata Steel from 2018-19 to 2022-23.