CHAPTER VII

SUMMARY OF FINDINGS AND CONCLUSIONS
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7.1 INTRODUCTION

In the present study some aspects of Financial Management like capital structure and its impact on profitability, management of fixed assets, impact of working capital on profitability and analysis of financial performance by using Market Value Added (MVA) approach are covered and suggestions emanating from the conclusions are offered for ensuring a better financial performance in select Iron and Steel Units. The data used for the study for the period of five years from 2001-02 to 2005-06 have been collected from the annual reports of Iron and Steel Units in India. While analyzing the financial performance, both statistical and financial tools like ANOVA, Krushkal Wallies test, multiple regression analysis, financial ratios etc. are used. This chapter is divided into two parts. The first part presents the main findings of the study while the second makes an attempt to suggest suitable measures for improving the financial performance of Iron and Steel Units in India.
PART-A: FINDINGS

7.2 AN OVERVIEW OF IRON AND STEEL INDUSTRY IN INDIA

The Indian Steel Industry is today the 8th largest producer of steel in the world. Steel is a highly capital intensive industry and cyclical in nature. Its growth is intertwined with the growth of the economy at large. The steel industry contributes 1.3 per cent to India's GDP and accounts for 10 % in Excise Duty Collections. Indian steel industry is with a capital investments of over Rs. 1,00,000 crores. It provides employment to over 2 million people. The steel industry plays a critical role in transforming India into an economic superpower. Steel provides basic raw materials to a very large number of industries such as engineering, machine tools, ship-buildings, railways and other industries.

The name "iron" comes from the Scandinavian "iarn". Iron was produced for the first time when some pieces of ore, used in cook fires, reduced when fires were kept long enough. Iron is known to us for more than 7000 years. Indians knew steel making since 17\textsuperscript{th} century BC by using charcoal.

In 19\textsuperscript{th} century after the starting of mining, iron units were started at Pullampatti near Tiruvannamalai, Bhadravati and Golconda in South India. In
North India Birbhum Iron works in West Bengal, Kumaon unit in the United provinces were also started. Organised steel production was started in West Bengal with the foundation of Bengal Iron works by James Erskine in 1870. Tata Iron and Steel was floated in 1907. In 1918 Burn & Co., a British Managing agency floated Indian Iron and Steel Co. (IISCO).

In India during the second five year plan period (1956-61) three integrated steel plants namely Durgapur Steel Plant in collaboration with UK, Rourkela steel plant in collaboration with West Germany and Bhilai Steel Plant in collaboration with Soviet Union were established. In 1970's Visakhapatnam and Salem Steel Plants were started. In 1973 public sector units in Durgapur, Rourkela, Bhilai, Bokaro, Salem and Bhadravati were grouped under Steel Authority of India Ltd.(SAIL), with Indian Iron and Steel Company (IISCO) as a subsidiary unit.

After the Industrial Policy 1991, several new private sector players like Essar Steel, Lloyds Steel, Ispat Group, Jindal Vijayanagar Steel Limited etc. came into existence. At present in the primary sector, there are 9 integrated steel mills with annual capacity of 17.73 mt in the country. The secondary sector consists of 227 sponge iron producers with capacity of 18.65 mtpa, 650 mini furnace units with a capacity of 14.7 mtpa and 1,200 reroller units with a capacity of 15 mtpa.
Steel plays a vital role in the infrastructural development of the country. Infrastructural growth is a positive sign for the progress of the nation. As India has abundant iron and coal reserves, it can develop at a faster rate by utilising its resources. The importance of Steel industry can be explained in the following terms.

1. Iron is one of the basic elements for development of economy and for providing infrastructural facilities.
2. Steel industry provides employment to nearly 2 million people.
3. It is a key source for automobile, construction and transportation sectors.
4. It contributes 1.3% to India's GDP.
5. It contributes about Rs. 8,000 crores to the national exchequer in the form of excise and customs duties.
6. About 15% of the railway, revenue comes from the Iron and Steel industry.
7. India's export earnings from finished iron ore rose by 46.55% to $3,631.2 million in 2004-05 from $2,477.78 million in 2003-04. India imported finished steel with $2,597.2 m during 2004-05.

At present India is the eighth largest steel producing country in the World. It is the largest producer of sponge iron in the world.
The production of steel rose to 38.4 mt in 2004-05 from 30.63 mt in 2001-02. Whereas the apparent consumption has increased from 14.84 mt in 1991-92 to 27.43 mt in 2001-02 to 33.37 mt by 2004-05. The installed capacity of sponge iron increased from 1.52 mtpa in 1990-91 to 12.37 mt in 2004-05. Production has increased from 0.9 mt in 1990-91 to 10.3 mt in 2004-05.

The present per capita steel consumption per annum is about 30 kg in India, 150 kg in the world and 350 kg in the developed countries. The urban per capita steel consumption is 77 kg which is estimated to reach 165 kg in 2019-20. The rural per capita steel consumption is 2 kg which is estimated to reach 4 kg in 2019-20.

India's exports of steel products during 2004-05 were 4.4 mt which is 15.38% less than steel plants of 5.2 mt in 2003-04.

7.3 CAPITAL STRUCTURE AND ITS IMPACT ON PROFITABILITY

The choice of an appropriate pattern of capital structure may depend on various factors such as the nature of the company, regularity of earnings, conditions of the money market, attitude of the investors etc. However, a high proportion of debt content in the capital structure increases the risk and may lead to financial insolvency in adverse times. But raising of funds through debt is cheaper as compared with the raising funds through issue of shares.
The mix of debt and equity has money implications. The use of debt capital tends to decrease the overall cost of capital and increases the wealth of the shareholders. It is due to the deductibility of the interest paid on debt. Another implication is that debt is relatively cheaper than equity in terms of cost of issue and interest cost. It means that the use of debt financing does not result in a dilution of control over the enterprises of the existing shareholders. Therefore, use of debt in capital structure is most advantageous.

The primary objective of every capital structure planning is to minimize the cost of capital and maximize the share value. In other words the optimum capital structure is obtained when the market value per share is maximum and overall cost of capital is minimum. Determination of an optimum capital structure is a formidable task. So, it is not possible to find out the exact debt-equity mix, but a range can be determined on the basis of empirical study. The Chief Financial Officer or Board of Directors of company should develop and design an appropriate capital structure which is most advantageous to the company. The capital structure must be so designed as to safeguard the interests of the shareholders and other groups such as creditors, employees, customers, society and government. The management of a company may fix its capital structure near the top of the range in order to make maximum use of favourable leverage, subject to other requirements, such as flexibility, solvency, control and another norms set by financial institutions, the Securities Exchange Board of India(SEBI) and Stock Exchanges.
Debt as a percentage of equity of Iron and Steel industry in India decreased from 1309.06 per cent in 2001-02 to 179.59 per cent in 2005-06. The average debt, total equity and debt as a percentage of equity stood at 7823.96, 3020.18 and 486.39 per cent. The compound growth rate of debt, total equity and debt as a percentage of equity stood at 14.85, 88.51 and -39.08 per cent, which are significant at 1 % level. This indicates that the Iron and Steel Units are gradually reducing the share of debt in capital structure.

The PBT as percentage of capital employed increased from -19.56 per cent to 18.18 per cent in 2004-05 and then decreased to 8.36 per cent in 2005-06. The average PBT as a percentage of capital employed stood at 2.52 per cent for the study period. Percentage of PAT to capital employed increased from -10.03 per cent to 14.20 per cent in 2004-05 and then decreased to 6.35 per cent. The percentage of PAT to capital employed, for the whole period of study i.e., 2001-2006, stood at 2.78. Therefore, the profitability of the Iron and Steel Industry in India improved much during the study period. Interest as percentage of gross profit was very high in the first year of the study. It decreased from 293.91 in 2001-2002 per cent to 21.28 per cent in 2005-2006. But interest did not exceed the gross profit during the last four years of study period. The average interest as percentage of gross profit stood at 86.06 per cent.
Interest as a percentage of total income decreased from 25.16 per cent in 2001-02 to 5.46 per cent in 2005-06. The average percentage of interest to total income stood at 12.14 per cent. It can be observed that the percentage of interest to gross profit and total income has declined gradually. The compound growth rate of interest, gross profit and total income stood at -4.73, 75.74 and 37.11. The gross profit and total income are significant at 5% level. So the Iron and Steel Companies are gradually reducing the debt proportion in their capital structure.

7.4 MANAGEMENT OF FIXED ASSETS

The decisions concerning the investment in fixed assets are usually termed as Capital Budgeting. It exclusively deals with major investment plans covering long-term projects and is concerned with the allocation of firm’s scarce financial resources among these projects. This chapter evaluates the capital budgeting process and the structure of fixed assets.

The analysis of overall position of the fixed assets investment in sample units, revealed that the size of investments have improved considerably during the period of study. The proportion of fixed assets in total assets was less than 50 per cent in consolidated position and in two companies names Jindal Steel and Power Ltd. and Tata Sponge Iron Ltd. it was above 50 per cent. In all the other companies it was below 50 per cent. It is found that, the trend of fixed
assets that, the expansion program was taken up in all the companies except Moneet Ispat and Power Ltd, Orissa Sponge Iron Ltd., Raipur Alloys and Steel Ltd., Essar Steel Ltd., and Kanishk Steel Industries Ltd.

The sample units showed a fluctuation of fixed assets turnover ratio during the period of study. The average fixed assets turnover ratio is highest in the case of Kanishk Steels Ltd i.e. 6.55, which implies that the fixed assets are better utilized. The average fixed assets turnover ratio is least in the case of Essar Steel Limited with 0.55 times, which implies that the fixed assets are underutilized.

7.5 WORKING CAPITAL PERFORMANCE ON PROFITABILITY

The working capital is analyzed with the help of select ratios such as current ratio, quick ratio, inventory to current assets ratio, inventory turnover ratio and working capital turnover ratio. These ratios have been calculated for each of the eleven select Iron and Steel Units.

7.5.1 Comparison of the average of net working capital

The average net working capital during the study period is very high in Essar Steel Ltd., followed by Monnet Ispat and Energy Limited and Jindal Steel and Power Ltd. It is Rs.1532.5 crores, Rs.200.84 crores and Rs.194.04 crores respectively. Net working capital is very low in Kanishk Steels Ltd., which stood at Rs.11.79 crores (See Table 5.23).
7.5.2 Comparison of the average of the working capital ratios

In order to analyze the working capital utilization by the select Iron and Steel Units, the averages of ratios such as current ratio, quick ratio, inventory turnover ratio, inventory to current assets ratio and working capital turnover ratio for each of the Iron and Steel Unit was calculated.

It is seen that the average current ratios of Vikash Metal and Power Ltd., Godawari Ispat and Power Ltd., Monnet Ispat Energy Ltd. and Raipur Alloys and Steel Ltd. are 5.86, 3.57, 2.72 and 2.47 respectively which are above the standard norm of 2:1. The average current ratios in the case of Tata Sponge Iron Ltd., Orissa Sponge Iron Ltd., Jindal Steel and Power Ltd., Jai Balaji Sponge Ltd., Essar Steel Ltd., Kanishk Steel Industries Ltd. and Adhunik Metalliiks Ltd., are 0.81, 1.39, 1.40, 1.41, 1.67, 1.72 and 1.84 respectively. They are below the standard norm of 2:1.

The average of quick ratios of all the select Iron and Steel units, except that of Essar Steel Ltd., Orissa Sponge Iron Ltd., and Kanishk Steel Industries Ltd are below the standard norm of 1:1. The average quick ratios of Vikash Metal and Power Ltd (5.43), Monnet Ispat and Energy Ltd.,(2.00), Godawari Ispat and Power Ltd.,(1.93), Raipur Alloys and Steel Ltd.,(1.63), Adhunik Metalliiks Ltd.,(1.39) are above the standard norm.

176
The average of inventory to current assets ratio of all select Iron and Steel units except Essar Steel Ltd. (0.61), are below the standard norm of 0.5. The respective ratios are Adhunik Metalliks Ltd. (0.37), Godawari Ispat and Power Ltd. (0.46), Jai Balaji Sponge Ltd. (0.25), Monnet Ispat and Energy Ltd. (0.35), Vikash metal and Power Ltd. (0.24), Jindal Steel and Power Ltd. (0.28), Orissa Sponge Iron Ltd. (0.43), Raipur Alloys and Steel Ltd. (0.33), Tata Sponge Iron Ltd. (0.38) and Kanishk Steel Industries Ltd. (0.46).

The average inventory turnover ratios of Jai Balaji Sponge Ltd, Tata Sponge Iron Ltd., Kanishk Steel Industries Ltd., Raipur Alloys and Steel Ltd., and Godawari Ispat and Power Ltd., are 11.85, 9.27, 9.03, 5.95 and 5.85 respectively, which are above the standard norm of 5 times. The average inventory turnover ratios of the remaining companies are Adhunik metalliks Ltd. (4.99), Monnet Ispat and Energy Ltd. (4.06), Vikash Metal and Power Ltd. (4.07), Jindal Steel and Power Ltd. (4.6), Orissa Sponge Iron Ltd. (3.56) and Essar Steel Ltd. (1.30) are below the standard norm of 5 times.

The average working capital turnover ratio is more than 5 times in the case of Kanishk Steel Industries Ltd., Orissa Sponge Iron Ltd., Jindal Steel and Power Ltd. In all the other companies it is below the standard norm of 5 times.
7.5.3 Impact of working capital performance on profitability

An attempt has been made here to examine the working capital performance effect on profitability which is measured in terms of ratio of net profit to sales. The relationship between net profit ratio and working capital ratios, namely, current ratio, quick ratio, inventory to current assets ratio, inventory turnover ratio and working capital turnover ratio have been studied by using the multiple regression model. By observing the correlation matrix it is found that some of these five ratios are inter correlated, which leads to multicollinearity. After removing QR and ITCA which are highly correlated with others, the following model is proposed to explain the behaviour of NPR in terms of CR, ITR and WCTR.

\[ Y = \beta_0 + \beta_1 \text{ (CR)} + \beta_2 \text{ (ITR)} + \beta_3 \text{ (WCTR)} \]

The analysis was carried out with the help of SPSS package. The multiple regression model reveals that in the case of Jai Balaji Sponge Ltd. and Essar Steel Ltd have high \( R^2 \) value and significant 'F' value. Therefore, it can be concluded that the profitability of these companies is significantly influenced by the working capital ratios. On the other hand in the case of other companies there is an apparent relationship but not statistically significant. A further study using stepwise regression has been carried out to select the most influencing variables out of the three ratios. The stepwise regression model reveals that either WCTR or CR is an influencing factor in determining NPR in two Iron and Steel Units out of eleven samples.
7.6 ANALYSIS OF FINANCIAL PERFORMANCE

The most reliable measure of management’s long-run success in adding value is known as Market Value Added (MVA). MVA is the difference between company’s current market value and economic book value. Economic value of the company can be determined as the amount of capital that shareholders have committed to the firm throughout its existence, including earnings that have been retained in the business. MVA is the best external performance measure as it captures the market assessment of the effectiveness with which a company’s managers have used the scarce resources under their control. MVA is calculated to study the impact on shareholders’ wealth. In this study MVA is taken as a dependent variable and eight other variables are selected as independent variables. The independent variables chosen are (a) Return on average net worth (b) Capital Productivity (c) Labour Productivity (d) Earnings Per Share (e) Economic Value Added (f) Return on Sales (g) Return on Total Assets and (h) Cash Profit.

The MVA and eight independent variables were calculated for all the companies. MVA refers to the value added to the shareholders’ wealth by the firm. If MVA is positive, it implies that the firm added value to the shareholders’ wealth. If negative it indicates that the firm is destroying the shareholders’ wealth. The MVA is positive in the case of all the companies except
in Vikash Metal and Power Limited and Orissa Sponge Iron Limited. Therefore, the performance of all Iron and Steel Units is good except Vikash Metal and Power Limited and Orissa Sponge Iron Limited. So the performance of these two companies is not satisfactory. It implies that these companies are destroying the wealth of shareholders.

PART-B: SUGGESTIONS

I. For improving the financial performance of the Iron and Steel Units, the following suggestions are offered.

i. Need for Increasing the Internal sources

The important sources of finance for Iron and Steel Units are share capital, borrowing consisting of funds raised through secured and unsecured loans, trade dues and other current liabilities, depreciation provision and retained earnings.

The analysis of the sources of funds of the Iron and Steel Units reveals that the industry depended on external sources during the period under study (2001-2006).
The Iron and Steel Industry's dependence on external sources leads to many problems like imbalanced capital structure and inadequate liquidity resulting in high financial risk. The investors are not interested in providing finance to the industry since the rate of return on their investment is low. Owing to inadequate liquidity and low profitability the industry is unable to meet the obligation of interest and repayment of principal. In view of this, the industry should immediately take steps for increasing the retained earnings. Profitability is low in all these companies which is main source for retained earnings, still the efforts should be made to increase the retained earnings. In order to save more, the Iron and Steel Units should plough back the profits, get rid of the obsolete or worn-out machines at the earliest possible opportunity.

i. Need for maintaining balanced capital structure

Continuous fall of internal sources and excessive dependence on external sources leads to imbalanced capital structure of the industry. The present debt-equity ratio is no doubt below the norm of 2:1. But with the present profitability, the industry unable to manage the situation, the financial risk of the industry has been increasing day by day. In view of this, the industry should strive to arrive at a balanced capital structure.
The Iron and Steel industry can also make efforts to raise funds from international capital markets. The level of financing through the international capital markets has been increasing at a very fast rate. In the wake of growing economy and the expanding internalization of Indian trade and industry, the increase in requirements of foreign capital and the access of corporate sector to the international capital markets to mobilize funds, Iron and Steel industry can also make the arrangements for securing finance from international capital markets.

iii. By comparing the levels of working capital of the select eleven Iron and Steel units, it is observed that the average net working capital level during the study period is very high in Essar Steel Ltd., high in Monnet Ispat and Energy Ltd., Jindal Steel and Powr Ltd., Adhunik Metalliks Ltd., Raipur Alloys and Steel Ltd., Godawari Ispat and Power Ltd. when compared to other companies. Therefore, the companies working with low level of net working capital should improve those levels by financing them from long term sources with low financial risk.

iv. The average current ratios in some of the select Iron and Steel units like Tata Sponge Iron Ltd., Orissa Sponge Iron Ltd., Jindal Steel and Power Ltd., Jai Balaji Sponge Ltd., Essar Steel Ltd., Kanishk Steel Industries Ltd. and Adhunik Metalliks Ltd. is below the standard norm of 2:1. In order to maintain the optimum liquidity, these companies have to improve their current ratios to the standard mark by way of contribution from long term sources.
The average quick ratio of Essar Steel Ltd., Orissa Sponge Iron Ltd., and Kanishk Steel Industries Ltd are below the standard norm of 1:1 due to more current liabilities. Therefore, the company should reduce inventory levels by adopting scientific inventory management techniques. The average of inventory to current assets ratio of all select Iron and Steel units except Essar Steel Ltd.(0.61), is below the standard norm of 0.5. Therefore, these companies should maintain appropriate amounts of inventories to avoid production obstacles due to lack of raw materials and supply demand gaps.

The average inventory turnover ratios of Adhunik metalliks Ltd., Monnet Ispat and Energy Ltd., Vikash Metal and Power Ltd., Jindal Steel and Power Ltd., Orissa Sponge Iron Ltd., and Essar Steel Ltd. are below the standard norm of 5 times reflecting ineffective utilization of inventory by these companies compared to those of the remaining companies. Since the profitability is determined based on the rate of utilization of inventory, the companies having less than the standard norm should pay much attention to improving this ratio. The average working capital turnover ratio is more than 5 times in the case of Kanishk Steel Industries Ltd., Orissa Sponge Iron Ltd., Jindal Steel and Power Ltd. In all the other companies it is below the standard norm of 5 times. High working capital turnover ratio confirms
the excellent performance and influences positively on operational profitability. Therefore, the companies are having less than the standard norm should achieve more working capital turnover by strengthening timely collection and by maintaining adequate amounts of current assets and current liabilities.

II. The following are the other suggestions which touch the fringes of financial aspects of select Iron and Steel units in India.

a. **Infrastructural Support**

Supply of raw materials at reasonable rates applicable over a reasonable period of time, grant of incentive to encourage captive power generation, adequate availability of coal and easy rail transport. It has been suggested that the Iron and Steel Industry should be allowed the same incentives as thermal power stations for generating captive power.

b. **Fiscal and Financial Support**

Modernization and renovations plans should be allowed the facility of soft loans. The government could grant interest-free, sales tax loans or consider a five year tax holiday for new units. Substantial reduction of capital cost could be achieved by exemption of customs duty on imported equipments. Tax incentives in the form of various admissible deductions for the purpose of direct tax computation have also been suggested.
c. **Technological Support**

In view of the highly capital intensive nature of investment, it is essential that:

i. Technology is updated for high yield conversion and usage efficiency in terms of inputs such as raw materials and energy consumption.

ii. The company design should take care of its energy requirements.

iii. Adequate attention should be paid to environmental requirements.

To conclude, the profitability of Iron and Steel Industry cannot be increased unless the interlinked problems like modernization, cost reduction, controls, taxes etc., are solved. Since Iron and Steel units are playing important role in building the industrial base of the nation and providing infrastructure for the development of the economy, the Government of India should play a pivotal role in extending financial support to the Iron and Steel Industry at concessional rates and should take suitable policy measures for its development.