Chapter – 3
Literature Review

3.1 Survey of Existing Literature:

In order to have proper insight into the various aspects of the problem under study, it will be useful and imperative to review the studies conducted in the past. Till now, many studies have been conducted on the different aspects to measuring the financial efficiency of public and private sectors but it has been rarely tried to work on the problems of these undertakings and suggested for taking out the one or two or some other aspects of finance or focus on other industry. There is wide range of literature available on financial performance analysis of different companies in conforming to its dynamic value and significance of intuitive nature. A good dealing in analytical part of literature exists at broad levels like size and technology, problem associated with productivity, financial performance, and capacity utilization. Relevant existing literature and studies have been clipped below. A researcher has studied this literature for gaining insight into the problem.

3.2 “The white book of steel” © World Steel Association published in 2012 ISBN 978-2-930069-67-8 Design by double-id.com, Copywriting by Pyramidion.be This publication is printed on PrintSpeed paper. PrintSpeed is certified by the Forestry Stewardship Council as environmentally-responsible paper, world-steel represents approximately 170 steel producers (including 17 of the world’s 20 largest steel companies), national and regional steel industry associations and steel research institutes. World-steel members represent around 85% of world steel production. World-steel acts as the focal point for the steel industry, providing global leadership on all major strategic issues affecting the industry, particularly focusing on economic, environmental and social sustainability. World-steel has taken all possible steps to check and confirm the facts contained in this book – however, some elements will inevitably be open to interpretation. World-steel does not accept any liability for the accuracy of data, information, opinions or for any printing errors.
3.3 OECD Steel Committee$^2$ published in 2005 Iron and Steel Industry 2005, with “Organization for Economic Co-operation and Development” publication. In this annual publication provides statistical tables showing steel production, consumption and trade data, as well as other indicators of activity such as employment levels, annual investment expenditures by sector and by country, export prices, domestic prices and indices for certain iron and steel products for OECD countries and other countries participating in the OECD Steel Committee as observers.

3.4 Sarbapriya Ray and Mihir Kumar Pal$^3$, in November 2010 published article “Trend in Total Factor Productivity Growth in Indian Iron and Steel Industries Under a Liberalized Trade Regime: An Empirical Analysis with Adjustment for Capacity Utilization” in Journal of Applied Business and Economics vol.11(3), where the authors describes study attempts to measure productivity performance in terms of partial factor productivity and total factor productivity growth and tries to relate and adjust economic capacity utilization with total factor productivity growth for the entire period, 1979-‘80 to 2003-‘04. The results on partial factor productivity of factors show improvement in productivity of material, labor and capital. The result on the overall productivity shows declining total factor productivity growth during post-reform period as compared to pre-reform period. Total output growth in Indian iron and steel industry is found to be mainly input driven rather than productivity-driven. With adjustment for variations in capacity utilization, trend in total factor productivity growth remains declining but variations among sub-periods turn-out to be larger and sharper. Furthermore, our result reveals that total factor productivity growth is more sensitive to the extent of capital-deepening of the steel sector showing negative and statistically significant association between total factor productivity growth and capital-output ratio. The liberalization process is found to have its adverse impact on total factor productivity growth.

3.5 Sharma, Vinod Kumar$^4$ in 1990, has observed in his doctoral research work, “The performance of state trading in mineral and metals in India with reference to an appraisal of working of the Minerals and Metals Trading Corporation of India Ltd. and its subsidiaries”, here the author is describe the overall performance of State Trading Corporation. The mineral and Metals sector has crucial importance for any economy as
the availability of mineral resources in the world finite. The economic development of a nation depends on the availability and utilization of mineral resources. India has a rich variety of minerals and the Government has sole ownership of these resources. There are a number of Government trading companies engaged in the business of minerals, metals, agro based products and other allied goods at international as well as national level. State Trading Corporation (STC) of India Ltd. and Minerals and Metals Trading Corporation (MMTC) of India Ltd. involved in the business of minerals, metals, agro products and other allied products.

3.6 Joyashree Roy, Mounita Roy and Kaustav Banerjee, writes in 2008 working paper series on “Steel Sector in India: A Profile of the small producers”, in Global Change Programme Jadavpur University Kolkata – 700032, West Bengal, which indicates the present scenario and future growth of the Indian steel industry, also indicated domestic production, consumption and export-import till 2008 and gives the factor affecting on the production and consumption in India.

3.7 Keshwara, R. V., 2009, he has submitted his doctoral research work, “A Study of Financial Performance of Aluminum Industry in India, in Saurashtra University, Rajkot. The study indicates the analysis of financial performance of aluminum industry in India, which are mainly engaged in production of Aluminum Products. This study is aimed at exploring the financial performance of aluminum industry in India.

3.8 Chavan, S.B., in 1983 found that during the sixth plan large and basic industries created employment to only half a million unemployed whereas Small Scale Industries provided nine million jobs both part time and full time. It was suggested that to bring industrialization in no-industry districts and backward area, Government should announce incentives so that regional imbalances could be overcome.

3.9 Joseph Hincks and Pavlova, in 2012 writes an article on “India rising: Can India’s steel industry deliver on years of promise?” a report by global business reports for steel times international. Indicates, India has seen crude steel production increase by 47Mt or 174% since the start of the 21st century an average annual increase in output of 14.5%. It now ranks as the fourth largest producer in the world. Much of this growth has come from the
private sector which now accounts for three-quarters of total production. This Special Report compiled in India by Global Business Reports reveals through interviews with key industrial players how this remarkable growth has been achieved. Additional articles review India’s passion for small and large scale DRI plants, its vast ore reserves but troubled development of these and how a 105 year old steel site has moved into modern times.

3.10 Sanjay Sengupta, in 2010, writes an article on “Higher Construction activity boost Steel Consumption”, published in steel world on January, which indicates how Construction Sector builds the basic framework of the economy and how construction industry has one of the strongest linkages with other sectors of the economy and has a strong multiplier effect on steel industry of India. By sector, global steel recovery rates for recycling are estimated at 85% for construction, 85% for automotive, 90% for machinery and 50% for electrical and domestic appliances. This leads to a global weighted average of more than 83% and other consumption and use of steel.

3.11 Katja Schumacher and Jayant Sathaye, 1998, writes report on “India’s Iron and Steel Industry: Productivity, Energy Efficiency and Carbon Emissions” to Environmental Energy Technologies Division. This work was supported by the Environmental Science Division, Office of Biological and Environmental Research (OBER), Office of Energy Research, U.S. Department of Energy, under Contract No. DE-AC03-76SF00098. Historical estimates of productivity growth in India’s iron and steel sector vary from indicating an improvement to a decline in the sector’s productivity. The variance may be traced to the time period of study, source of data for analysis, and type of indices and econometric specifications used for reporting productivity growth.

3.12 Markus Hyvonen and Sean Langcake, march, 2012, write an article on “Indian Steel Industry”, in Steel Industry Bulletin, Quarter, indicates Indian steel production has grown strongly in recent decades and India is now the world’s fourth largest steel producer. Nevertheless, India’s consumption of steel relative to the size of its economy is very low by international standards. As the economy develops further, steel consumption is likely to increase. Indeed, Indian steelmakers have plans to expand capacity substantially in
order to meet the anticipated increase in demand. While India has relatively large reserves of iron ore, its steelmakers import most of the coking coal they require.

3.13 Jayanta Bagchi\textsuperscript{12}, in 2005, wrote “Development of Steel Industry in India” published under I. K. International Pvt. Ltd. Steel occupies a prominent place in the manufacturing industry in India. Development of Steel Industry in India covers the Refractory Industry, Cold Rolling Industry, Sponge Iron Industry and reserves, with special attention to the export prospects, global competitiveness and Research & Development. Given the importance of infrastructure a special analysis of it has been made. The book also discusses every major steel plant and elaborates and analyzes different end uses of steel production, current and potential. Tables and charts have been suitably provided to explain various issues. A brief analysis of e-commerce too is included. In the technology appraisal core performance areas and key issues have been discussed at length. The conclusion details the future scenario of the industry. The book includes detailed discussions on complex matters, which would be of interest and use to both technologists and administrators.

3.14 Amalendu Bhunia\textsuperscript{13}, in March, 2007, writes an article on “Liquidity Management of Public Sector Iron and Steel Enterprises in India”, Vidyasagar University Journal of Commerce Vol. 12, March 2007. The paper makes an assessment of management of working capital, examines the adequacy or otherwise of the working capital, observes the liquidity position and areas of weakness and gives suggestions for removal of the weaknesses of the public sector Iron and Steel enterprises in India. In this study the researcher focused on only public sector companies who are engaged in steel production and study also focused only on its liquidity management where other factors which affect the efficiency of the company is not considered by the author and find the gap for the further study in the steel industry and the financial efficiency study.

3.15 Zala Virambhai S.\textsuperscript{14}, 2010, write in his doctoral research on “A Study of Productivity and Financial Efficiency of Textile Industry of India” thesis PhD, Saurashtra University, indicated the productivity and financial efficiency of selected textile industry of India period from studying the productivity and financial efficiency of textile industries in
India, seven (7) leading companies of textile industry having a large plant have been selected. The period covered under the study extends over six years from 2002-03 to 2007-08. Adopting various techniques such as ratio analysis trend analysis has made analysis of selected units.

3.16 Dr. Sugan C. Jain\textsuperscript{15}, in the year 2002, has written a book on “Performance Appraisal Automobile Industry” In his study, he has analyzed the performance of the Automobile Industry and presented comparative study of some national and international units. The operational efficiency and profitability had been analyzed using the composite index approach. He made several suggestions for the strengthening the financial soundness improving profitability, working capital the performance of fixed assets.

3.17 Ahindra Chakrabati\textsuperscript{16}, in 1988-89, published an article on “Performance of Public Sector Enterprises - a Case study on Fertilizers” in “The Indian Journal of Public Enterprise”. He made analysis of consumption and production of fertilizer by public sector; he also made analysis of profit and loss statement. He gave suggestions to improve the overall performance of public enterprise.

3.18 Miss Nandini Jaimini\textsuperscript{17}, 1988-89 published an article “Evaluation of Cash Management Performance of the Selected Textiles Mills in Rajasthan” in “Indian Journal of Public Enterprise”. She made analysis of selected textiles units by using various liquidity ratios and concluded that the inadequate cash balance to meet their currently maturing obligations. She suggested various measures to overcome this deficit of working capital.

3.19 Prof. Manish M. Chudasama\textsuperscript{18}, in the year 2002 December, a study was on “ Analysis of Cost Structure of Indian Textiles Industry” He had made an attempt to analyze cost structure, direct expenses and profit, indirect expenses and profit, and how these factors affect the cost structure of textile industry by using various ratios analysis, common size analysis. He made several suggestions for the improvement of profitability of industry to lower the cost used in cost structure.

in production of cement. The study covers the various aspects of working capital period from 1965 to 1985. He had analyzed working capital position of selected units as a whole and as well as individual analysis. Finally He had made suggestions for the better utilization of various components of working capital.

3.21 Dr. S.J. Parmar\textsuperscript{20} conducted a study on “Profitability Analysis of Cement Industry in Gujarat state” in the year 1998 for the period from 1998-89 to 1994-95. He had made an attempt to analyze financial strength, liquidity, profitability, cost and sales trend and social welfare trend by using various ratios analysis, common size analysis and value added analysis. He made several suggestions for the improvement of profitability of industry. In his analysis, he indicates various reasons for higher cost, low profitability, and inefficient use of internal resources.

3.22 Dr. Pramod Kumar\textsuperscript{21} published a book in 1991, “Analysis of Financial Statements of Indian Industries.” The study covered the 17 private, 5 state owned and 1 central public sector companies. He studied analysis of activities, assessment of profitability, return on capital investment, Analysis of financial structure, analysis of fixed assets and working capital. In this research he revealed various problems of cement industries and suggested remedies for the problems. He also suggested for the improvement of profitability and techniques of cost control.

3.23 Dr Sanjay Bhayani\textsuperscript{22} published a book in 2003; “Practical Financial Statement Analysis”. The study covered 16 public limited cement companies in private sector. He made study of analysis of profitability, working capital, capital structure and activity of Indian cement industry. In his research he revealed various problems of cement industries and suggested remedies for the problems. He also suggested for the improvement of profitability and techniques of cost control.

3.24 Dr. Kumar Bar Das\textsuperscript{23} published a comprehensive book in 1987 which covered period from 1970 to 1980. He concluded various aspects like factor productivity, location degree of competition capacity utilization, size efficiency financial performance, distribution pattern and government policies with respect to pricing and distribution. He indicated that
all profitability ratios decrease gradually and became negative for 1973-74 and 1974-75 but improved gradually thereafter.

3.25 Prof. Amit Mallick and Debasish Sur presented an article on Tea Industry “Working Capital and Profitability - a case study in interrelation which was published in the Management Accountant, November 1998. It explores the correlation between ROI and several ratios to working capital management. They made analysis of the impact of working capital on profitability by using simple correlation between ROI and each of some important ratios of working capital.

3.26 Chakaraborty Pradip Kumar, in June 2001 wrote an article on, “A Comparative Study of the Profitability Analysis of Public Sector and Private Sector Steel Industries in India- A Case Study of SAIL and TISCO”, IPER”, Vol.16, No.30, has analyzed that SAIL and TISCO were earning profits whether below or above their expectations and also confirms lack of consistency and uniformity in the managerial efficiency to some extent in TISCO and is full in SAIL. Chattopadhyay has observed that government at the center is in favor of unloading the government stakes especially in the sick companies.

3.27 Lal Manohar, in 1990, in his doctoral research on “A Comparative Study of Financial Health of SAIL and TISCO”, submitted to the Kurukshetra University, has undertaken a comparative study of financial health of SAIL and TISCO. In this study the researcher focus on the financial health of the mentioned company SAIL and TISCO where he studied comparative financial statement of SAIL and TISCO and made the comparative analysis.

3.28 Nageshwar Rao and R.P. Das, in the year 2001 wrote an article on “An Organizational Restructuring in Steel Authority of India Ltd.,” Indian Journal of Public Enterprise, IPER, Vol.16, No.30., where they have suggested that globalization calls for better management of multicultural environment, fast response to change and, subscription to globally accepted standards of quality, delivery and price, SAIL has to change the mindset of their employees. It should withdraw from those business activities that do not add value to their core activity of making steel.
3.29 Dutta Gautum\textsuperscript{28}, in 2000, wrote an article in \emph{Management Review}, on ““Product-Mix Optimizer for an Integrated Steel Plant,”” in this study the author is focus on the view that optimal utilization of companies’ resources is one of the most important problems in the area of operation management. The determination of optimal product axis is an extremely difficult task for an organization with multiple tasks producing multiple products in multiple stages, sharing a set of common plant resources and experiencing a fluctuating market over time.

3.30 Gupta K.N.\textsuperscript{29} in June, 1999, wrote an article on “Accountability and Transparency in Public Administration.” MIG, April/June 1999, pp. 47-61., where he has highlighted that besides accountability of public servants in the government department, it is much important in public sector undertakings and government companies to achieve governance, productivity and profitability. A well regulated control system is essential.

3.31 C. Rangarajan\textsuperscript{30}, 2001, in “Saga of Paradigm Shifts”, The Hindu Survey of Indian Industry former RBI Governor, has described that the thrust of the new economic policy has been towards creating a more competitive environment in the economy where core sectors like steel, constructions, IT, Automobiles and other will contributes in the growth of Indian GDP.

3.32 Likhi K. Dinesh and Kumar Sanja\textsuperscript{31}, in 2001 “The Hindu Survey of Indian Industry”, have studied that liberalization and globalization privatization and decentralization will see the emergence of networked corporate in the metal industry through phases of consolidation and alliances.

3.33 Muthuraman B.\textsuperscript{32}, in 2001, “Cold Rolled Steel, High-end used on the rise.” In “The Hindu Survey of Indian Industry”, has studied with the onset of steelenniam; the domestic CR product minaret has been newer entrants setting up substantial capacity with capabilities to cater to high end applications.

3.34 Mehra J.\textsuperscript{33}, 2001, “Huge Capacity Overhand”, The Hindu Survey of Indian Industry, has observed that an opportunity to export flat steel has emerged from the growing markets in
South-East Asian countries; however the industry will have to trigger domestic demand in order to exhaust the surplus capacity. He studied the performance of Essar Steel.

3.35 Prasannan, R.K.⁴, in 2001, “Steel Potential E-Commerce”, The Hindu Survey of Indian Industry”, has stated that E-commerce is not merely a mass action but it is information dissemination too. Every commerce company will have to provide information base to attract and facilitate business.

3.36 The Steel Re-rolling Mills Association of India⁵, in March, 1984 “SAIL-Strategy to Country Glut”, Business India, 12-25 (SRMA) is protesting against the Steel Authority of India Ltd. (SAIL) entering into purchase deals with traders, under which billets are being sold with after steel items to the traders who sell these billets to re-rollers at high prices.

3.37 Mazumdar Rakhi⁶, in 22 June 1999, wrote an article in Business Today on “Splintered Our Steel”, where he has studied that the multiplicity of lobbies has already led to the Union Steel and Commerce Ministries being pincer by the conflicting interests of the different lobbies. Essar Steel, Ispat, Lloyds Steel and Jindal Iron & Steel decided to set up Indofer. Indofer will speech as one voice for the steel industry. Restricting the competition to the market place would be a smooth way for steel giants such as the Steel Authority of India, TISCO, Essar Steel, Ispat, and Coal Lloyds steel to understand their steel strategies.

3.38 Khan and Jain⁷ in 2005, wrote a book on Financial Management: Text and Problems”, Publisher: TMH, ISBN: 9780070599437, New Delhi, where they expressed uses of the financial statements, profit planning and cost control, corporate decision-making whether they were strategic, analytical or simple routine decision managers.

3.39 Dutts S.K⁸, in 1992, has written an article on “Indian Tea industry – an Appraisal” which was published in Management Accountant. He analyzed the profitability, liquidity and financial efficiency by using various ratios to study Indian Tea Industry and financial trend in the industry with selected samples taken from the Indian Tea Industry.

3.40 O.Y. Shukla⁹ submitted his theses on “An Investigation to Review the Impact of Dividend on Share Prices of Indian Companies”, the study is been conducted on selected
ten companies from ten different sectors, the researcher have suggested that investors should invest some proportion of their investments in different industries as it help in the diversification of investment along with risk and helps faster economic development in the competitive globalization era through their positive participation in investing all around.

In order, to analysis the financial efficiency of Indian Steel industry, there are some of the published accounting annual reports and some other publications. Most useful information has been gathered from the various journals reports periodicals and daily newspapers. It is hoped that the thesis will be of immense help and use to practicing financial Managers, Management, Government officials, employees, Shareholders, Academicians and research scholars.
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Appraisal of Working of the Minerals and Metals Trading Corporation of India Ltd. and
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