

CHAPTER ONE

Introduction

1.1 Background of the Study: The fundamental need of Indian economy today is rapid industrialization. The manufacture of steel is regarded as one of the key industries that boost employment opportunities, raise income and standards of living of the people, and bring a more balanced and integrated economy. Putting more attention for improvement of Steel industry is the one of the major solution strategies for achieving all these goals. Therefore, the study is made on steel industries in India. India is the 3rd largest producer of crude steel as of 2017. Steel production in India has been growing at a faster pace. During the last five years 2012-2017, in India, total finished steel production has increased at Compound Annual Growth Rate CAGR of 8.39 percent, with country's steel production reaching 97.936 million tonnes per annum.

Manufacturing sectors, specially, iron and steel sector contributes over 2 percent of Gross Domestic Product (GDP) to the nation and provides employment opportunity to 20 lakh people in the country. Steel producing companies in India have increased exports of finished steel products by 102.1 percent year on year (8.24 MT) as compared to last few years.(Source: *Ministry of Steel Annual Report, June 2018*).

India's development depends on the steel producing companies to a great extent as we find this sector has been playing a vital role in the growth of an Indian economy. Growth of any business enterprise depends on its profitability position; to earn revenue or to maximize earnings continuously by any firm, it is necessary for the firm to manage its working capital properly. A sound system of management actually maintains the balance between liquidity and profitability. Working Capital Administration involves the relationship between a firm's short-term assets and its short-term liabilities. To achieve this goal, every business has to ensure sufficient or adequate funds to continue in its operations and at the same time to meet both the obligations to maturing

short-term debts and upcoming operational expenses. The management of working capital involves managing all its components like inventories, debtors, other receivables, and cash balances under current assets and likewise the components of current liabilities. A Finance Manager should pay special attention to the management of current assets to avoid keeping unnecessary idle funds that could not generate revenue for the firm. On the other hand, lack of working capital or improper management of the short-term funds leads to harm the reputation of the industries in the market as well as its profitability position.

The present study is based on three major manufacturing units of SAIL in the public sector, namely, Indian Iron and Steel Company (IISCO), Durgapur Steel Plant (DSP), and Alloy Steel Plant (ASP) located in West Bengal. Very little or limited research on working capital management of these public sector steel companies has been conducted so far. Specially, in the public sector iron and steel units operating under SAIL, such research is lacking. This research gap encourages the researcher to conduct a study on working capital management of public sector iron and steel companies in West Bengal.

1.2 Purpose of the Study: The main purpose of the study was to determine working capital management efficiency (maintaining bench mark for each components of working capital) for the selected public sectors i.e. iron and steel manufacturing companies in West Bengal. Specifically, the study determined standard number of days to be maintained for accounts collection period (ACP), inventory conversion period (ICP), accounts payable period (APP), and cash conversion cycle (CCC) by the selected firms for effective operation in West Bengal.

1.3 Statement of the Problem: Investment in current assets and its administration (i.e. working capital management) in steel manufacturing industry is very vital as iron and steel manufacturing companies play a crucial role in strengthening Indian economy. Inefficient management of working capital not only affects liquidity but also profitability of the concerns. Organizations could enhance or maximize profitability by maintaining an optimal level of working capital (Deloof,2003).Working capital offers a common front for profitability and liquidity management (Bhunia,2007). In order to maximize shareholders wealth, the manufacturing companies are required to maintain proper quantum of working capital which assists the business to achieve the goal and also enables it to survive in competitive business environment.

Excessive short-term investment in current assets reduces profitability of the business enterprises. On the contrary, holding low working capital put the business's liquidity in danger. Allowing easy credit policy (i.e. delay in collection of sales proceeds of products from customers) and making quick or prompt payment to creditors have an effect on earning from the business. So, efficient management of working capital components is of utmost necessity to increase business profits.

Presently, giant players of iron and steel producing companies in West Bengal (especially based in Asansol sub-division and Durgapur sub-division regions of Burdwan district) are Indian Iron & Steel Company (IISCO) located at Burnpur in Asansol region, and Durgapur Steel Plant (DSP) and Alloy Steel Plant (ASP) in Durgapur region; these companies have been successful in meeting up the demand of steel products to major consumers of steel in India such as railway infrastructure, building construction sector, etc. Three companies i.e. IISCO, DSP, and ASP are the subsidiaries of Maharatna public sector company, SAIL (Steel Authority of India Limited), and are fulfilling the demands for steel products, both domestically as well as globally.

Steel manufacturing companies play a very crucial role to help the state and the central governments in generating revenues by exporting and collecting tax (either excise or sales tax). This is one of the major sectors that contribute nearly two percent of country's Gross Domestic Product -thus considered as back bone of an economy.

Other private steel manufacturing companies in West Bengal like Gagan Steel Pvt. Ltd., Super Smelters Sai group Ltd., Shyam Steel Pvt. Ltd., JSIS iron and Steel Pvt. Ltd. have been struggling to survive. Recent closure of Ankit Steel Pvt. Ltd. in Bankura district region, West Bengal, is evidenced to have shut down their business because of high operations cost being the main cause of financial distress.

In the last few years, Asansol-Durgapur industrial belt has seen the closure of so many industries due to high operating cost, managerial inefficiency and political factors; yet another giant industry is on the verge of shutting down. Alloy Steel Plant (ASP), a unit of SAIL in Durgapur has been given green signal by the Prime Minister's Office (PMO) for strategic sales aimed at reducing government ownership to below 51 percent.

The present study undertaken by the present researcher is new one in the sense that there is lack of empirical evidence on public sectors, especially, iron and steel manufacturers of West Bengal. This arouses strong motivation for an in-depth examination of working capital management in public sector iron and steel manufacturers under SAIL in West Bengal.

1.4 Research Questions: The research questions explained and answered in the present study are as follows:

(a) How efficiently do the public sector iron and steel manufactures manage their working capital components in maximizing profitability?

(b) Which independent variable or group of variables of working capital is / are associated in enhancing firm's value?

(c) What is the impact of accounts collection period (ACP; in number of days) on profitability of the companies?

(d) What is the effect of cash conversion cycle (CCC) on firm's performance?

(e) Is/ are there any other key internal financial factor / factors (other than working capital) that is/ are liable for deteriorating earnings of the selected public steel manufacturers?

1.5 Objectives of the study

1.5.1 General objective of the study

The primary objective of the study is to find out the efficiency of working capital management of the selected Indian iron and steel companies in West Bengal. This major broad objective is split into four specific objectives as follows:

1.5.2 Specific objectives of the study

- i. To evaluate and analyze the working capital management of the selected firms.
- ii. To discover the relationship between working capital management efficiency and profitability to find out if there is any evidence of working capital management in selected Indian iron and steel units.
- iii. To investigate the effect of accounts collection period (in days) on selected firms' performance.
- iv. To examine the impact of the length or period of cash conversion cycle on selected units' profitability.

1.6 Development of Hypotheses:

Hypothesis H₁: There exists significant difference in working capital management components (ACP, ICP, APP, and CCC) among the selected firms under the study.

Hypothesis H₂: Working capital management has significant relationship with firm's profitability.

Hypothesis H₃: Accounts collection period (ACP) of less than 27 days has significant impact on profitability in the selected samples.

Hypothesis H₄: Cash conversion cycle (CCC) of less than 24 days affects significantly the profitability of the selected firms in the study.

1.7 Significance of the Study: The findings or outcomes of the present study would be useful to the management of selected public sector companies in determining the standard number of days required or to be maintained for all the four components of working capital management. Maintaining the components of working capital according to a benchmark (i.e. industrial average) would make the organization financially stronger, specifically in terms of profitability and liquidity. Understanding the importance of working capital would enable them to take decisions related to investment in the current assets. Further, the managers could identify that the factor / factors related to working capital, if managed efficiently, may improve the business conditions.

1.8 Scope of the Study: In this study, overall working capital and its major components and their administration have been discussed in detail. The study includes only public sector iron and steel manufacturers operating under government owned company "SAIL" (Steel Authority of India Limited) in the state of West Bengal. The study covered a period of twelve years

commencing from 2001-02 to 2012-13. The present research study is restricted to only working capital management, its efficiency as measured by various accounting ratios related to working capital such as, accounts collection period (in days), inventory holding period (in days), accounts payable period (in days) and cash conversion cycle (in days). Private iron and steel companies operating in the study area have been excluded. Thus, the scope of the study is confined to working capital management as a functional scope.

1.9 Structure of the Thesis

The rest of this thesis is divided into six more chapters and arranged as follows:

Chapter 2: Literature Review and Research Methodology

This chapter is categorized into two parts; one part examines the previous studies related to working capital management and its association with the profitability in various sectors. It contains an extensive review on the past studies to find out the research gap within the context of conceptual and theoretical field so that it could bridge the gap in the literature by contributing a significant study.

And the next part of chapter two explains in detail the research methodologies adopted in the study to attain the stated objectives. It also elaborates the various tools and techniques used for analyzing the data. Various methods include Ratio Analysis, Descriptive Analysis (Mean, Standard deviation, Minimum and Maximum), Pearson Correlation Analysis, Linear Regression Analysis, One-way ANOVA Analysis, and Post-hoc multiple comparison tests using Games-Howell step by step justification; all these have been explained in detail in the study while using them to analyse the data.

Chapter 3: Working Capital Management- Concepts and Techniques

The Chapter three elaborates the fundamentals of working capital, its broader components and their management in the manufacturing operations of iron and steel industries. It also explains factors affecting the management of working capital. It discusses the relevant techniques for efficient working capital management for maintaining an optimum level for it.

Chapter 4: Study on the relationship between Profitability and Inventory Management in Iron & Steel Industry in West Bengal

This chapter probes into the theoretical concepts that relate working capital with inventory management. It deals with the different challenges of inventory holding. Also, it expounds the various reasons for holding inventory as transaction motive, precautionary motive and speculative motive. It also describes the vital techniques for inventory control (EOQ, JIT and ABC analysis).

Chapter 5: Impact of Debtors Management on Profitability in Iron and Steel Industry in West Bengal

This chapter traces a conceptual framework explaining the effect of accounts receivable on the profitability. It lays down the various costs and benefits that arise in holding accounts receivable; different determinants affecting the magnitude of accounts collection. Also, it presents the dimension of credit policy (credit standard, credit period, cash discount and collection effort). It ends with the different methods or techniques of controlling accounts receivable (DSO, Ageing Schedule, and Collection Experience Matrix).

Chapter 6: Data Analysis and Observations

This chapter deals with the entire analysis of the data collected from annual reports of selected units. It also presents the interpretation and results of each of the objectives of the study. This

brings about the statistical analysis or testing of each hypothesis of the study; interpretation of the same leads to drawing concrete conclusions of the study.

Chapter 7: Conclusions, Suggestions and Recommendations

This chapter presents the findings and interpretations of the study based on the analysis carried out and identifies the variations, if any, from the results of the existing studies. Apart from this, it also lays down definite suggestions for the steel industry to improve their financial performance (profitability) further by proper or efficient management of working capital.