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# **"WORKING CAPITAL MANAGEMENT OF TRADING HOUSES IN INDIA"**

**A  
THESIS  
SUBMITTED TO  
SAURASHTRA UNIVERSITY  
FOR  
AWARD OF THE DEGREE OF  
DOCTOR OF PHILOSOPHY  
IN  
COMMERCE  
(FACULTY OF COMMERCE)**

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**February - 2009**

## ***Certificate***

This is to certify that the work embodied in this thesis on, **"WORKING CAPITAL MANAGEMENT OF TRADING HOUSES IN INDIA"** for the award of degree of Doctor of Philosophy in Commerce has done under my guidance and supervision and it is his own original contribution.

Also certify that this presentation has not been previously submitted to any institute and / or any other univeristy for any degree or award.

Place :- Rajkot

Date:

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Rajkot.

## ***Declaration***

I hereby declare that the research work presented in this thesis is entirely prepared by me. Suggestions from the research are purely based on ratio analysis and anova analysis of sampled Trading Houses which are listed on Bombay Stock Exchange, Mumbai.

For this research study, information on Trading Houses were collected from DGFT offices at Delhi, Mumbai and Rajkot. Federation of Indian Exporters Organisation (FIEO) is also important resource of information on Trading Houses. Keynote information and data were also collected from websites of National Informatic Centre - New Delhi and Ministry of Commerce & Industry, Government of India for this research study. The appropriate data and the required information were collected from the companies under study. I further declare that the thesis has not been submitted to any other institute / university for any type of degree.

Place : Rajkot

Date :

**(Jayeshkumar P. Vora)**

## *Acknowledgement*

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***Jayeshkumar Vora.***

## **PREFACE**

There is a growing need felt that people managers of the future are going to be increasingly called upon to understand financial management, information technology and production and material management systems. There is no denying this contention since every manager has to thrive on the cutting edge of global competition in the new world order. So his knowledge has to be well rounded. The present study deals with the aspect of working capital management of Trading Houses in India. The main aim of study is to analyse working capital management of selected companies working as Trading Houses mainly related with exports and imports of goods and services. Export sector is most dynamic setor with the advantages such as (1) Earning of foreign exchange (2) Employment generation. (3) Exports allow fuller utilisation of capacity (4) Over-all development of the country and (5) Increased exports has been strongly asosciated with the reduction of poverty in most developing countries.

The major challenges faced by the financial manager is to see that there is sufficient liquidity to pay back current liabilities without blocking too much funds. The trade off between profitability and risk is the key to working capital management. Too little working capital increases profit but reduces liquidity. If at a point of time the organization does not have sufficient funds to meet its short-term debts such as creditors and salaries as well as day-to-day expenses it may become technically insolvent. On the other hand, if it is very conservative it will have a surplus of working capital, which will adversely affect profits.

Present study is based on thirty private sector companies listed on Bombay Stock Exchange. All are engaged in production of goods and services and in foreign trade. Data collected for the period of five years from 2001-'02 to 2005-'06 of the accounting year.

For the analysis of working capital management of selected Trading Houses, most useful information has been gathered from personal interview of managers of selected companies, published annual reports, various publications, Directory of Indian exporters Published by FIEO, useful web-sites etc. Have been studied. During the course of study hypothesis have been tested with the help of two-way analysis of ANOVA at 5% level of significance.

The study is divided into seven chapters. The first chapter describes the statement of the problem, aims and objectives, significance, area and scope, hypothesis, research methodology and chapter plan of the research study. The second chapter highlights review of literature on working capital management. The third chapter briefly describes meaning, functions types, importance and incentives offered to Trading Houses. The fourth chapter describes theory of working capital along with components like inventory, receivables and cash. History and development of selected companies working as Trading Houses in India have been pointed out in the fifth chapter. In the sixth chapter working capital ratios ratios are calculated and hypothesis have been tested with the help of two-way analysis of anova at 5% level of significance of sampled Trading Houses. The Seventh and the last chapter shows finding, suggestions from present research study and conclusion for present study.



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## List of Abbreviation

Trading Houses	Full Name
GAEL	Gujarat Ambuja Exports Ltd.
RSIL	Ruchi Soya Industries Ltd.
CCL	Colour Chem Ltd.
HIKAL	Hikal Ltd.
ASCL	Asian Star Company Ltd.
SCL	Shrenuj & Company Ltd.
GIL	Graphite India Ltd.
HEG	HEG Ltd.
KRBL	KRBL Ltd.
SOL	Satnam Overseas Ltd.
CIPLA	Cipla Ltd.
SPIL	Sun Pharmaceuticals Industries Ltd.
LUPIN	Lupin Ltd.
ORCHID	Orchid Chemicals & Pharmaceuticals Ltd.
GWAL	George Williamson (Assam) Ltd.
TTL	Tata Tea Ltd.
JISCO	Jindal Iron & Steel Co. Ltd.
TISCO	The Tata Iron & Steel Co. Ltd.
LOYAL	Loyal Textile Mills Ltd.
BD	The Bombay Dyeing & Manufacturing Co. Ltd.
WIL	Welspun India Ltd.
ZCCL	Zodiac Clothing Co. Ltd.
HSL	Himatsingka Seide Ltd.
ZEL	Zenith Exports Ltd.
MSML	Mahavir Spinning Mills Ltd.
MCMSL	Malwa Cotton Spinning Mills Ltd.
IRSIL	Indo Rama Synthetics (India) Ltd.
RSWL	Rajasthan Spinning & Weaving Mills Ltd.
ATL	Apollo Tyres Ltd.
CEAT	Ceat Ltd.

# **CHAPTER - 1**

## **INTRODUCTION**

- 1.1 INTRODUCTION
- 1.2 STATEMENT OF THE PROBLEM
- 1.3 AIMS & OBJECTIVES OF THE PROBLEM
- 1.4 SIGNIFICANCE OF THE STUDY
- 1.5 AREA & SCOPE OF THE PROBLEM
- 1.6 HYPOTHESIS OF THE PROBLEM
- 1.7 RESEARCH METHODOLOGY
- 1.8 EXPLANATION OF TECHNICAL WORDS USED
- 1.9 CONCLUSION

## 1.1 Introduction

Capital formation is of crucial importance in the process of economic development. Experience of development in other countries suggests that a high rate of capital formation was achieved to trigger rapid economic growth. It is quite necessary to step up the rate of capital formation so that the community accumulates a large stock of machines, tools and equipment which can be geared in to production.

The Indian planning commission puts this idea correctly when it states: "The level of production and the material well-being a community can attain depends, in the main, on the stock of capital and its disposal, i.e., on the amount of land per capital and of productive equipment in the shape of machinery, buildings, tools and implements factories, locomotives, engines, irrigation facilities, power installations and communications. The large stock of capital, the greater trend to be the productivity of labour and therefore, the volume of commodities and services that can be turned out with same effort." <sup>1</sup>

Capital plays a vital role in the modern productive system production without capital is hard for us even to imagine. With the growth of the technology and specialization, capital has become more complex and is of superior and advanced type. More goods can be produced with the aid of capital. In fact, greater productivity of the modern economy like USA is mainly due to the extensive use of capital. Capital adds greater to the productivity of workers and hence of the economy as a whole. Country's capital is its stock of produced or man-made means of production consisting of such items as buildings factories, machinery, tools, equipments and inventories of goods in stock. Capital may be classified into fixed capital, working capital and human capital.

Working capital management refers to the administration of all aspects of current assets, namely cash, marketable securities, debtors

and inventories and current liabilities. A firm needs fixed and current assets to support a particular level of output.

The investment in the working capital is decisive to any financial manager as it is important as the investment in the fixed capital. The management of current assets is similar to that of fixed assets in a sense that in both cases the firm analyses their effects on its return and risk. Thus, there is an unavoidable need to manage working capital well. The financial manager must determine levels and composition of current assets.

We know that firm's aim at maximizing the wealth of share holders. The financial manager should determine the optimum level of current assets so that the wealth of share holders is maximized. Working capital management focuses on firm's investment in current assets and current liabilities. Excessive investment in current assets impairs firm's profitability, as idle investment earns nothing while inadequate amount of working capital can threaten the solvency of the firm, if it fails to meet its current obligations.

## **1.2 STATEMENT OF THE PROBLEM:**

The statement of the problem is "Working capital management of Trading Houses in India."

Working capital management refers to the firm's investment in current assets. Current assets are the assets which can be converted in to cash within an accounting year. It includes cash, bills receivables, short-term securities, debtors, inventories and current liabilities such as creditors, bills payable, out standing expenses etc.

The financial manager must determine levels and composition of current assets. He must see the right source are tapped to finance current assets, and that current liabilities are paid in time. Firm should have adequate working capital to run its business operations. Excessive as well as inadequate working capital positions are dangerous from



firm's point of view as it directly affect profitability, risk, solvency and liquidity.

The firm should maintain a sound working capital position. It should have adequate working capital to run its business operations. Both excessive as well as inadequate working capital positions are dangerous from the firm's point of view. Excessive working capital means idle funds which earn no profits for the firm. Inadequate working capital not only impairs firm's profitability but also results in production interruption and inefficiencies.

The dangers of excessive working capital are as follows:

- It results in unnecessary accumulation of inventories. Thus, chances of inventory mishandling, waste, theft and losses increase.
- It is an indication of defective credit policy and stock collection period. consequently, higher incidence of bad debts results, which adversely affects profits.
- Excessive working capital makes management complacent which degenerates into managerial inefficiency.
- Tendencies of accumulating inventories to make speculative profits grow. This may tend to make dividend policy liberal and difficult to cope with in future when the firm is unable to make speculative profits.

Inadequate working capital is also bad and has the following dangers:

- It stagnates growth. It becomes difficult for the firm to undertake profitable projects for no availability of working capital funds.
- It becomes difficult to implement operating plans and achieve the firm's profit target.
- Operating inefficiencies creep in when it becomes difficult even to meet day-to-day commitments.

- Fixed assets are not efficiently utilized for the lack of working capital funds. Thus, the firm's profitability would deteriorate.
- Paucity of working funds renders the firm unable to avail attractive credit opportunities etc.
- The firm loses its reputation when it is not in position to honor its short-term obligations. As a result, the firm faces tight credit terms.

The main aim of working capital management is determining the optimum level of current assets. It should not be a minimum or maximum. Investment in current assets represents a very significant portion of the total investment in assets. For example, in the case of the large and medium public limited companies in India, current assets constitute about 60 per cent of total net assets or total capital employed.

This study is based on the secondary data drawn from published annual reports of various companies under study. Various studies have been conducted under the university faculty but no significant research work seems to have been undertaken on "Working capital management of Trading Houses in India." Present attempt will be an original contribution in this field as the problem of the study is unique in every aspect.

### **1.3 AIMS & OBJECTIVES OF THE PROBLEM:**

The major objective of the present study is to examine and evaluate the working capital management in sampled companies working as Trading Houses in India over a period of five years 2001-'02 to 2005-'06. The specific objectives of the study are as under:

- 1) To assess short-term liquidity & solvency of sampled Trading Houses in India.
- 2) To evaluate the efficiency of sampled Trading Houses in selling its product.

- 3) To identify the relationship between inventory and working capital of sampled Trading Houses in India.
- 4) To examine the efficiency of credit management of selected Trading Houses in India.
- 5) To find out the efficiency of collection efforts of sampled Trading Houses in India.
- 6) To identify the relationship between sales and current assets of sampled Trading Houses in India.
- 7) To identify the relationship between net current assets and sales of sampled Trading Houses in India.
- 8) To assess the average spread between the cost of goods sold and the sales revenue of sampled Trading Houses in India.
- 9) To examine management's efficiency in manufacturing, administering and selling the products of sampled Trading Houses in India.
- 10) To examine operating efficiency of sampled Trading Houses in India.
- 11) To suggest some measures for improvement in working capital management of sampled Trading Houses in India.

#### **1.4 SIGNIFICANCE OF THE STUDY:**

- 1) The government has established or sponsored a number of organizations to provide different types of assistance to the export sector. While some of these organizations are product specific, others are general. Apart from the organizations established exclusively for export promotion, there are also a number of other institutions which assist the export sector. Export incentives are a widely employed strategy of export promotion. The main aim of these incentives is to increase the profitability of export business. Trading Houses are a part of export promotion measures of

Government of India. So it very important to analyses working capital management of Trading Houses in India.

- 2) With view to doubling India's percentage share of global trade within five years of the foreign trade policy, 2004-09 and expanding employment opportunities, especially in semi urban and rural areas, certain special focus initiatives have been identified for the agriculture, handlooms, gems & jewellery. Trading Houses have to play important role for filling up the above objectives and thus research work seems to have pride place.
- 3) Present study is very much useful to the industries Suggestion from study provides important managerial Information so as management take some decisions for better working capital management. Present study gives qualitative inputs to management towards day-to-day business operations in the area of cash, inventory, accounts receivable etc. so present study is very important to Industries at large.
- 4) Present study is also significance to the Trading Houses in India. Working capital management is very crucial for finance managers. Present study provides scientific aspects of working capital to Trading Houses in India.
- 5) Present study is very much useful for the purpose of knowledge as it covers all aspects of working capital management, management of cash, inventory and receivables etc. It focus current assets management. It also improves knowledge on Trading Houses in India. Study contains detailed information on types, functions, criteria and classification of Trading Houses, which helps to improve knowledge of readers at large.
- 6) Every research work is result of hard work, dedication, knowledge of the research scholar under the supervision of guide. It gives inspiration and motivation to all readers of society at large to become a highly educated and well cultured persons.

## 1.5 AREA & SCOPE OF THE PROBLEM:

The area of the study consists of all the manufacturing Trading Houses and Trading Houses engaged in merchant actives in India. However, for the sake of clarity, the scope has been restricted to only Trading Houses listed in Bombay Stock Exchange - Mumbai.

Federation of Indian Export organizations, popularly known as "FIEO", is the apex body of all export promotion organizations in the country, set up by the ministry of commerce, Government of India. FIEO represents directly or indirectly, over 1,00,000 exporters across India. The federation has been bringing out the directory of Indian exporters from time to time. The researcher has been used the directory to get list of Trading Houses. As on August 1,2003, out of 1,00,000 FIEO members, the following are numbers of exporters which have special category of status issued by DGFT.

**Table - 1.1**  
**Status of Export Houses**

<b>Sr. No.</b>	<b>Category</b>	<b>Number of Units</b>
1	Trading Houses	238
2	Star Trading Houses	26
3	Super Star Trading Houses	8
4	Golden Super Star Trading Houses	3
	<b>Total...</b>	275

Out of 238 Trading Houses, researcher has selected 30 private sector Trading Houses as the sample for this study. Sample has been selected considering the following factors:-

- 1) Data for the entire period of study i.e. from 2001-'02 to 2005-'06 were collected from annual reports of sampled companies.

- 2) The sampled firms had special category license of "Trading Houses" issued by the DGFT.
- 3) The sampled Trading Houses should be managed by private sector in India.
- 4) The sample companies were listed Bombay Stock Exchange - Mumbai.
- 5) The sampled Trading Houses fall under various fifteen Industry classifications; the industry classifications should be as per FIEO norms. The following table shows industry classifications of sampled companies under study.

**Table - 1.2**  
**Industry classifications of the companies**  
**under research study**

Sr. No.	Industry Classification	No. of Companies
1	Agricultural & Processed Food products – Solvent Extractions	2
2	Chemicals – organic/inorganic/ specialties	2
3	Diamond Cutting / Gems / Jewellery	2
4	Electrodes	2
5	Food Processing – Food & Dairy Products	2
6	Pharmaceuticals – Bulk Drugs & Formulations	2
7	Pharmaceuticals – Bulk Drugs	2
8	Plantation – Tea & Coffee	2
9	Steel – Carbon Steel	2
10	Textiles – Composite	2
11	Textiles – Products	2
12	Textiles – Silk / Jute / Embroidery	2
13	Textiles – Spinning – Cotton / Blended	2
14	Textiles – Spinning – Synthetic / Blended	2
15	Tyre	2

### **1.6 HYPOTHESIS OF THE PROBLEM:**

"A Hypothesis is special proposition, formulated to be tested in a certain given situation as a part of research which states what the researcher is looking for." <sup>2</sup>

Following hypothesis are tested in the present study.

- 1) There is no significant difference in current ratio of the sampled companies working as Trading Houses in India.
- 2) There is no significant difference in quick ratio of the sampled companies working as Trading Houses in India.
- 3) There is no significant difference in cash ratio of the sampled companies working as Trading Houses in India.

- 4) There is no significant difference in interval measure of the sampled companies working as Trading Houses in India.
- 5) There is no significant difference in net working capital ratio of the sampled companies working as Trading Houses in India.
- 6) There is no significant difference in inventory turnover ratio of the sampled companies working as Trading Houses in India.
- 7) There is no significant difference in inventory to working capital ratio of the sampled company working as Trading Houses in India.
- 8) There is no significant difference in debtors turnover ratio of the sampled companies working as Trading Houses in India.
- 9) There is no significant difference in average collection period of the sampled companies working as Trading Houses in India.
- 10) There is no significant difference in current assets turnover ratio of the sampled companies working as Trading Houses in India.
- 11) There is no significant difference in working capital turnover ratio of the sampled companies working as Trading Houses in India.
- 12) There is no significant difference in gross profit margin of the sampled companies working as Trading Houses in India.
- 13) There is no significant difference in net profit margin of the sampled companies working as Trading Houses in India.
- 14) There is no significant difference in operating expense ratio of the sampled companies working as Trading Houses in India.

### **1.7 RESEARCH METHODOLOGY:**

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. Research methodology must contain the following items.

- Research items
- Data collection



- Limitations
- Tolls and Techniques
- Chapter plan

### **A) Research design**

The formidable problem that follows the task of defining the research problem is the preparation of the design of the research project, popularly known as the "research design". Decisions regarding what, where, when, how much, by what means concerning an inquiry or a research study constitute a research design. "A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure." In fact, the research design is the conceptual structure within which research is conducted. It constitutes the blueprint for the collection, measurement and analysis of data.

Keeping in a view the above stated design decisions; one may split the over all research design in to the following parts:

- a) The sampling design which deals with the method of selecting items to be observed for the given study.
- b) The observational design which relates to the conditions under which the observations are to be made.
- c) The statistical design which concerns with the question of how many items are to be observed and how the information and data gathered are to be analyzed, and
- d) The operational design which deals with the techniques by which the procedures specified in the sampling, statistical and observational designs can be carried out.

In brief, research design must, at least, contain -

- (a) a clear statement of the research problem;
- (b) procedures and techniques to be used for gathering information;
- (c) the population to be studied and

(d) methods to be used in processing and analyzing data.

From what has been stated above, for present research study over all research design has been divided into the following parts:

- (1) Statement of research problem: As stated earlier the statement of present research problem is "working capital management of Trading Houses in India."
- (2) Procedures and techniques to be used for gathering information: The prime source of information of present study is annual reports of the company. Annual reports of selected Trading Houses may be collected directly from registered office of the company. Income statement, balance sheet and other related information is collected from web sites of companies. Web sites of National informatics centre, Bombay stock exchange, center for monitoring Indian economy and ministry of commerce, Govt. of India etc. are very useful sources for the present research work.

Personal interview of company secretary, officers, executives etc. have been conducted to collect some keynote information on the Trading Houses.

To collect special information on Trading Houses, personal interview of I/c Director -Trading Houses- DGFT- Delhi and DGFT Rajkot have been conducted.

Personal interview of vice president -FIEO- New Delhi has been conducted to collect information on Indian exporters.

(3) The sample to be studied:

The present research work has been conducted on thirty Trading Houses in India. Balance sheet and income statements have been studied for research.

(4) Methods to be used in processing and analyzing data:

The figures contained in annual reports and accounts have rounded off to corers of rupee up two decimal places. All the collected

data have been presented and formulating in the form of condensed balance sheet and income statement. The following ratios have been calculated from financial statements of selected Trading Houses.

Current ratio, quick ratio, cash ratio, Interval measure, Inventory turnover, net working capital ratio, Inventory to working capital ratio, debtors turnover, Average collection period, Current assets turnover, Working capital turnover ratio, Gross profit margin, Net profit margin and Operating expense ratio of sampled Trading Houses have been analyzed.

For analysis purpose, inter-firm comparison has been made. F-Test has been applied to test the hypothesis. At the end, some suggestions have been made for effective working capital management of Trading Houses.

## **B) DATA COLLECTION:**

The period of the study is five years starting from 2001-'02 to 2005-'06. The study is based on secondary data taken from annual reports of private sector Trading Houses in India. As definition point of view the term secondary data refers to "the statistical material which is not originated by the investigator himself but which he obtains from some one else's records." <sup>3</sup>

In addition to that financial literature, Govt. & Non-Govt. documents; published articles, books on the related aspects were also included.

Directory of Indian Exporters published by FIEO, web-sites of National Informatic center New Delhi, Bombay Stock Exchange, electronic data retrival & filling, centre for monitoring Indian economy, ministry of commerce & Industry - Govt. of India etc. from which important data were collected. The researcher has taken some data and information from capital market database. In additional to this, the researcher has also organized personal unstructured interviews and

meeting of key personality of DGFT-Delhi, executives, company secretary etc. of selected Trading Houses in India.

### **C) LIMITATIONS**

The major drawbacks of the present study are as under :

1. This study is based on secondary data taken from published annual reports of private sector Trading Houses in India and its findings depend entirely on the accuracy of such data
2. The present study is largely based on ratio analysis and it has own limitations which also applies to the study.
3. The researcher has also modified some of the formula used for the study, so its conclusion depends upon formulated ratio.
4. There are different methods of analysis of working capital management of an Industry. In this connection views of experts differ from one another.
5. The study should be based on thirty companies belong to private sector only and are listed on Bombay Stock exchange.
6. Suggestions are based on study of thirty Trading Houses only, such are not properly apply to all Trading Houses in India.

### **D. TOOLS AND TECHNIQUES :**

During the process of research, the researcher has used various tools for analysis of working capital management like ratio analysis, variance analysis etc. Ratio analysis is powerful tool of financial analysis. A ratio is defined as "the indicated quotient of two mathematical expressions" and as "the relationship between two or more things." <sup>4</sup>

The collected data were duly edited, classified and analyzed using all type of relevant statistical techniques and employing the most appropriate parametric test. The data were presented through simple

classification and with the help of percentage; average dispersion; anova, the data were analyzed and the hypothesis were tested at 5% level of significance by employing mean; standard deviation; co-efficient etc.

## **E) CHAPTER PLAN :**

The present study is divided in to seven chapters which are outlined here under :

### **Chapter- 1 INTRODUCTION :**

The first chapter is introductory in nature shows concept of working capital management. It covers objectives of the study, research problem, hypothesis of study, research methodology, period of the study, explanation of technical words used and limitations of the study.

### **Chapter-2 Review of Literature :**

The literature on working capital management have been divided in two groups by the researcher . The major areas of availability information are as follows :

1. literature for theoretical issue and
2. literature with research study.

### **Chapter 3: TRADING HOUSES:**

This chapter includes introduction, definitions of Trading Houses, Types of export houses classification, functions, objectives, significance of Trading Houses in India, criterion for recognition of Trading Houses, Assistance/incentives offered to Trading Houses by Government of India and role of Trading Houses in India.

#### **Chapter 4: WORKING CAPITAL MANAGEMENT:**

This chapter cover introduction to management on working capital. It also deals with theory of components of the working capital viz, management of cash, management of account receivables and management of inventory.

#### **Chapter 5: History and development of selected companies working as Trading Houses in India.**

This chapter gives history and development of selected companies working as Trading Houses in India.

#### **Chapter 6: Analytical study of working capital management of Trading Houses in India.**

This chapter deals with analysis of working capital ratios of sampled Trading Houses in India. This chapter also deals with testing of hypothesis through F-test at 5% level of significance.

#### **Chapter 7: Findings, Suggestions and Conclusions**

This chapter gives its emerging conclusion based on analysis carried out and points out the variation if any from the literature. It also gives concrete suggestion for enhancing profitability.

#### **1.8 Explanation of Technical words used:**

The following concepts are used in research study :

##### **1. Department of Commerce**

The department of commerce in the ministry of commerce is responsible for the country's external trade and all matters connected with it such as commercial relations with other countries, state trading, export promotion measures, and the promotion, development or regulation of certain export oriented industries and commodities. The

department of commerce formulates policies in the sphere of foreign trade, in particular the import and export of the country.

The Department of commerce consists of seven principal functional divisions as mentioned below :

- i) Administrative and General divisions
- ii) Finance Division
- iii) Trade policy Division
- iv) Foreign trade territorial division
- v) Export products division
- vi) Export Industries division, and
- vii) Export service division

## **2) Office of the Director General of Foreign Trade (DGFT)**

Organization set up by central government, the DGFT is responsible for the execution of the export and import policies of the government. Import and export licensing of iron and steel and ferroalloys is also looked after by this organization. The DGFT with the head office at new delhi has subordinate offices located at different parts of the country. Earlier the office of the DGET was known as the Chief Controller Of Imports And Exports (CCIE).

## **(3) Federation of Indian Export Organisations :**

Popularly known as FIEO, is the apex body of all export promotion organization in the country set up by the ministry of commerce government of India. FIEO provides content, direction and thrust to India's expanding international trade. It expresses all the dynamism and resurgence that are the hallmark of India's open, liberal and progressively market friendly economic and trade regime, representing the Indian Export Promotion effort in its entirety.

FIEO' s membership largely comprise professional exporting firms with strong credentials, called government recognised Export Houses, Trading Houses, Star Trading Houses and Super Star Trading Houses FIEO's members contribute more than 74% of India's Total exports

**(4) Balance of Payments :**

The Balance Of Payments (BOP) is broader in its scope and include trade in merchandise and services. It is a systematic record of all international economic transactions, visible and invisible, of a country during a given period, the period generally being one year. BOP, therefore, presents better picture of a country's financial transaction with the rest of the world than the balance of trade

The analysis of BOP can be done in terms of two major sub-divisions - current account and capital account. Transactions relating to goods, services and income constitute the current account. A surplus on current account leads to an acquisition of assets or repayment of debt previously contracted, and a deficit involves the withdrawal of previously accumulated assets or is met by borrowings. The capital account presents transfer of money and other capital items and changes in the country's foreign assets and liabilities resulting from the transaction recorded in the current account

**(5) Deemed Exports:**

Deemed export means those transactions in which the goods supplied do not leave the country and the payment for the goods in received by the supplier in Indian rupees. These transactions have the same effect as exports on the foreign exchange position of the country. For example supply of goods, by an Indian firm, against licenses issued under the duty exemption scheme has the effect of saving foreign exchange (because if the license holder import the goods, instead of obtaining from India, it will cause outflow of foreign exchange).



## **(6) Working capital**

Working capital refers to the firm's investment in current assets. Current assets are the assets which can be converted into cash within an accounting year. It include cash, short-term securities, debtors, bill receivables and inventory.

There are two concepts working capital. The gross working capital, simply called as working capital and net working capital. The former we have discussed while net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders which are expected to mature for payment within an accounting year and include creditors, bills payable and outstanding expenses.

## **(7) Current Assets**

Current assets, sometimes also called liquid assets, are those resources of the firm which are either held in the form of cash or are expected to be converted into cash within the accounting period or the operating cycle of the business. It includes cash marketable securities, book debts, bills receivable, stock, loan and advances and prepaid expenses and accrued incomes.

## **(8) Current Liabilities :**

Current liabilities are debts payable within an accounting period. The typical examples of current liabilities are creditors, bills payable, bank overdraft, tax payable, outstanding expenses and incomes received in advance.

## **(9) Inventory**

Inventory are stock of the product which a company is manufacturing for sale and components that make up the product. The

various forms in which inventories exist in a manufacturing company are raw material work – in – process, finished goods store and spares and miscellaneous items which include scrap and goods-in-transit at the close of the accounting year.

**(10) Cash**

Cash is the money which a firm can disburse immediately without any restriction. The term cash includes coins, currency and cheques held by the firm, and balance in its bank accounts sometimes near cash items such as marketable securities or bank time-deposits, are also included in cash

**(11) Book debts (Account Receivables)**

This refers to the amount due from debtors (customers) to whom goods or service have been sold on credit.

**(12) Bills receivables:**

It represents the promises made in writing by debtors to pay definite sums of money after some specified period of time

**(13) Sundry Debtors**

This item is net of provision of bad and doubtful debts and includes debts outstanding over six month and debts outstanding for less than six months.

**(14) Loan and Advances**

Loan and advances are also included in current assets in India. They include dues from employees or associates advances for current supplies and advances against acquisition of capital assets.

### **(15) Marketing Securities**

These are the temporary or short term investment in shares debentures. Bonds and other securities. These securities are readily marketable and can be converted into cash within the accounting period. A firm usually invests in marketable securities when it has temporary surplus cash

### **(16) Value of netsales:**

This included all receipts from sale of finished goods and service of the company, including sale of bye products, waste and scrap sales are net of rebate, discount and freight and excise duty.

### **1.9 Conclusion:**

This chapter highlighted introduction to Working Capital Management. This chapter also identified statement of the problem, aims and objectives of the problem, significance of the study, area and scope of the problem, hypothesis and research methodology.

**References:**

- 1) Planning Commission, First Five Year Plan, p.13.
- 2) Michael V. P., "Research Methodology in Management" Himalaya Publishing, Bombay, 1985, p.107.
- 3) Boot John C. G. and Cox Edwin B., "Statistical Analysis for Managerial Decisions." 2nd Edition, Tata McGraw Hill Publishing Co., New Delhi, 1979, p. 7.
- 4) Webster's New Collegiate Dictionary, 8th ed., Springfield, Mass: G & C, Merriam, 1975, p. 958.

# **CHAPTER - 2**

## **REVIEW OF LITERATURE**

- 2.1 INTRODUCTION
- 2.2 THEORETICAL STUDIES
- 2.3 RESEARCH STUDIES
- 2.4 CONCLUSION

## **2.1 Introduction:**

In recent past it has been observed that working capital management has acquired a significant position. However, the empirical research work in this regard is still in the infancy. Working capital management, which related to short-term financial decision seems to be relatively neglected by financial experts.

In the study of literature regarding project it is traditionally bifurcated into two major parts. These relevant studies are having a sound impact on the present work in this report on working capital management

- 1) Theoretical studies
- 2) Research studies

## **2.2 Theoretical studies:**

Theoretical studies are also known as conceptual studies. These studies provide strong theoretical background and conceptual foundation on the subject. This includes those books which deal with concepts and problems of the subject. The textbooks that fall under this studies written by writers like Van Horne<sup>1</sup>, Walker<sup>2</sup>, Gerstenberg<sup>3</sup>, Lincoln<sup>4</sup>, Sailer<sup>5</sup>, Donaldson<sup>6</sup>, Hampton<sup>7</sup>, Solomon<sup>8</sup>, Starr and miller<sup>9</sup>, Willets<sup>10</sup>, Howard<sup>11</sup>, Baumol<sup>12</sup>, Keynes<sup>13</sup>, Prichard and Eage<sup>14</sup>, Guthmann and Dougall<sup>15</sup>, Cohen and Robbins<sup>16</sup>, Stevens<sup>17</sup>, Zenoff and Zack Zwick<sup>18</sup>, Smith<sup>19</sup>, Stancill<sup>20</sup>, Buchan and Koenigsberg<sup>21</sup>, Plosal and Evert Welch<sup>22</sup>, Whitin<sup>23</sup>, Armer<sup>24</sup>, Dobler and Lee<sup>25</sup>, Bierman<sup>26</sup>, Beehler<sup>27</sup>, Hattley and Meltzer<sup>28</sup>, Beckman and Ronald<sup>29</sup>, Seiden<sup>30</sup>, Gitman<sup>31</sup>, Field<sup>32</sup>, Mead<sup>33</sup>, Beraneck<sup>34</sup>, Michael<sup>35</sup>, Fee<sup>36</sup>, Baker and Malott<sup>37</sup>.

Moreover, it also includes some of the articles written on these subjects especially by Indian authors, since the research study consists the working in the Indian Environment. These authors are Yadav<sup>38</sup>, Ananthakrishnan<sup>39</sup>, Pandey<sup>40</sup>, Agrarwal and Jain<sup>41</sup>, Desai and Darji<sup>42</sup>,

Natarajan<sup>43</sup>, Pradhan<sup>44</sup>, Kishore<sup>45</sup>, Chopra<sup>46</sup>, Chakraborty<sup>47</sup>, George<sup>48</sup>, Rao and Gupta<sup>49</sup>, Fernandes<sup>50</sup>, Mehta<sup>51</sup>, Ramamoorthi<sup>52</sup>, Roy Choudhary<sup>53</sup> and Gopalkrishnan and sandilya<sup>54</sup>.

### **2.3 Research Studies:**

Following were the major efforts at research in the subject, which have been referred for this study purpose.

#### **(1) Anand, Manoj (2003)<sup>55</sup>**

This paper attempts to develop quantitative benchmarks at the firm and the industry level, so as to evaluate the working capital management performance of corporate India from time to time. An earlier attempt was made by Anand (2001) based on the methodology designed by the CFO Europe and REL Consultancy Group for the year 1996-97. In another attempt, Anand, manoj (2003) of Indian Institute of management - Lucknow, experimented with a number of parameters and different weights in the overall score to have a better picture of working capital management performance of corporate India. The study employs the methodology developed by Anand, Manoj and provides estimates by using the data of 339 S & P CNX 500 non-financial companies with at least three years of publicly available records over the period 2001-'02 to 2003-'04 for each company and industry. During the period of study, corporate India has achieved a compound annual growth rate (CAGR) of 26.3% in net sales and 1.6% in the three year average cash operating margins. The length of the operating cycle and cash conversion cycle has reduced by 10.2% and 12.7% respectively on compounded annual basis. The paper finds very little evidence on the positive relationship between working capital management and firm profitability. The findings of the paper capture the dynamics of

risk-return trade-off which will help the performance evaluation of working capital management of corporate India.

**(2) Dr. Mukhopadhyay<sup>56</sup>, (2005)**

An attempt has been made to examine working capital management practices and the problems faced by the firm in working capital management process particularly in heavy engineering industries. An engineering firm having two hundred years old legacy of culture and heritage and being located in Eastern India has been selected for the purpose of research. The company has two subsidiary corporate. The corporate office of the company selected for study is in kolkata and the name of the company is being kept undisclosed as per the request of the same and thus let the firm be named as "M/s. Heavy engineering company ltd." for the purpose of study. It manufactures railway wagons of various types and incidental spare - parts and equipments for the Indian Railways Authority, Creamic Products and refractory for the Indian steel plants. The principal components of wagons are bogies and couplers and the same is bought out - sub contracted from/to different suppliers in spite of having in-house infrastructure for production of the same. Bogies and couplers constitute 30 to 40% of cost of manufacture, which range between four lakhs to ten lakhs depending on the category of wagons. The company is a sick company within the meaning of the sick companies (special provisions) Act, 1985 and presently the company is running the show by 2,000 work force and outsourcing work force as and when required. The company is an erstwhile professionally managed one having goodwill built up during last two centuries. Today the management of the company is having no option other than selling it off under the circumstances, Dr. D. Mukhopadhyay - Associate professor



(Accounting & Finance) EILM School of Business, Kolkata EILM University), have undertaken the project to examine the process of working capital management of the firm for last 10 years w.e.f. 1993-94 to 2002-03

Following were fundamental objective of the study:

- a. To examine the effectiveness of working capital management practices of the firm.
- b. To assess short - term liquidity and solvency of firm.
- c. To find out how adequacy or otherwise of working capital affects commercial operations of the company.
- d. To prescribe remedial measures to encounter the problems faced by the firm.

**(3) "Dalbir Singh",<sup>57</sup> (2005-06)**

Dalbir Singh Lecturer in Commerce, Govt. PG College, Bhiwani, Studied working capital management of Aluminum industry in Indian. It is not possible for researcher to cover all the Aluminum industries. Hence the main focus of the study would be on Primary Aluminum Producing industry which includes National Aluminum Co. Ltd. (NALCO), Bharat Aluminum Co. Ltd. (BALCO), Hindalco Industries Ltd. (HINDALCO), Indian Aluminum Co. Ltd. (INDAL) and Madras Aluminum Co. Ltd. (MALCO). The study concerns itself with the period of seven years i.e. from 1997-98 to 2003-04.

The researcher used working capital requirement as an index of working capital needs. The study would perform a comparison of the working capital policies operative in primary aluminum producing industry. The study also attempted to have a look into relationship between liquidity and profitability.

**(4) "Santanu Kr. Ghosh and Santi Gopal Maji".<sup>58</sup>**

This paper makes an attempt to examine the efficiency of working capital management of the Indian cement companies during 1992-93 to 2001-2002. For measuring the efficiency of working capital management three index values performance index, utilization index and overall efficiency index are calculated, instead of using some common working capital management ratios. Using industry norms as target efficiency level of the individual firms, this paper also tests the speed of achieving that target level of efficiency by individual firms during the period of study.

Finding of the study indicates that the Indian cement Industry as a whole did not perform remarkably well during this period.

**(5) "Pandey I M and Parera KLW".<sup>59</sup>**

The study provides an empirical evidence of working capital management policy and practices of the private sector manufacturing companies in Sri Lanka. The information and data for the study were gathered through questionnaires and interviews with chief financial officers of a sample of manufacturing companies listed on the Colombo stock exchange.

The main conclusions of the study are summarised below:

- (1) Most of companies in Sri Lanka have informal working capital policy. The Managing director plays a major role in formulating formal or informal policy. Company size has an influence on the overall working capital policy (formal or informal) and approach (conservative, moderate or aggressive) and review period.
- (2) Finance Manager is the responsible for managing working capital components. Stretching of credit payment and ageing schedule are the primary tools of managing disbursement float and controlling debtors respectively. Material requirement planning

(MRP) and Perpetual Inventory Control (PIC) System are key techniques of inventory management. Company profitability and working capital policy influence the payable management and working capital finance respectively. Most of the companies take cash discounts, but their annual cost of working capital funds is high that ranges between 15-20%.

- (3) Current and cash budget are major techniques of working capital, planning and control. Company profitability has an influence on the methods of working capital planning and control. Companies sometimes consider working capital changes when they evaluate capital budgeting. Most of the companies in this study use bank interest rate as a hurdle rate for evaluating the working capital changes.
- (4) A comparison of the working capital practices of the Sri Lankan companies with the USA companies reveals a lot of similarities. The basic difference is in terms of the use of computerized system and the opportunity to invest surplus cash in the money market instruments.

**(6) "Vedavinayagam Ganesan,"<sup>60</sup>**

This study analyses the working capital management efficiency of firms from telecommunication equipment industry. The relationship between working capital management efficiency and profitability is examined using correlation and regression analysis. ANOVA analysis is done to study the impact of working capital management on Profitability. Using a sample of 443 annual financial statements of 349 telecommunication equipment companies covering the period 2001-2007, this study found evidence that even though "days working capital" is negatively related to the profitability, it is not significantly impacting the profitability of firms in telecommunication equipment industry.

**(7) "R. K. Mishra"<sup>61</sup>**

The study was made at the University of Rajasthan by Dr. Ram Kumar Mishra, under the title "problems of working capital" with special reference to public undertakings in India. The data were collected from 1960-61 to 1967-68 of six large public enterprises. The basic issues outlined in Dr. Mishra's study and the findings therein have relevance to many of the units in the public sector even today, but due to the functional and structural changes that public enterprises have witnessed in the post 1968 era, a repeated effort on a different sample is called for to bring the perceptions up-to-date.

**(8) "G. S. Panda,"<sup>62</sup>**

G. S. Panda studied the working capital problems of small manufacturing companies confined to the state of orissa. The study covered the problems of adequacy, the choice, sources and problems of rising working capital. The study was based on a sample of fifty small manufacturing companies. However, the sample was further reduced to twenty six companies due to (a) Incomplete data (b) Non-manufacturing and (d) Habitual defaulters. Some of the issues, which were examined in the study, are (1) Current investments in the small firms lead to low current ratios. (2) Small firms depend mainly on short-term credit because the accessibility to acquire long-term funds is relatively limited. (3) Small firms at growth stage characteristically hold a high proportion of total investment in current form. (4) The expanding sales firms and the need for financing current assets have close and direct relationship. (5) Higher funds generating ability determine current position of firms. and (6) Bank loans bridge a greater part of working capital gap in the firms. Lastly he

concludes that one important reason for low performance is imprudent management of working capital.

**(9) "K. Rajeswara Rao".<sup>63</sup>**

Rajeswara Rao thoroughly examined the managerial aspects of inventories, receivables and advances and cash of certain central public enterprises in India. The study revealed that the inventories formed a major proportion of total current assets investment, which recorded 63% in 1971-72 and 66% by 1976-77 in the public sector. The inventory of finished goods proportion had been increasing year after year. He pointed out that the policies of public enterprises for achieving the working capital objectives were not clearly defined. His impression is that the prudent management of working capital shall be recognised as an important area for the enterprises studies.

**(10) "Eljelly, A. 2004."<sup>64</sup>**

Eljelly elucidated that efficient liquidity management involves planning and controlling current assets and current liabilities in such a manner that eliminates the risk of inability to meet due short-term obligations and avoids excessive investment in these assets. The relation between profitability and liquidity was examined, as measured by current ratio and cash gap (cash conversion cycle) on a sample of joint stock companies in Saudi Arabia using correlation and regression analysis. The study found that the cash conversion cycle was of more importance as a measure of liquidity than the current ratio that affects profitability. The size variable was found to have significant effect on profitability at the industry level. The results were stable and had important implications for liquidity management in various Saudi companies. First, It was clear that there was a negative

relationship between profitability and liquidity indicators such as current ratio and cash gap in the Saudi sample examined. Second, the study also revealed that there was great variation among industries with respect to the significant measure of liquidity.

**(11) "Deloof, M. 2003"<sup>65</sup>**

Deloof discussed that most firms had a large amount of cash invested in working capital. It can therefore be expected that the way, in which working capital is managed will have a significant impact on profitability of those firms. Using correlation and regression tests he found a significant negative relationship between gross operating income and the number of days accounts receivable, inventories and accounts payable of Belgian firms. On the basis of these results he suggested that managers could create value for their shareholders by reducing the number of days account receivable and inventories to a reasonable minimum. The negative relationship between accounts payable and profitability is consistent with the view that less profitable firms wait longer to pay their bills.

**(12) "Smith, M. Beaumont, Begemann, E. "<sup>66</sup> (1997)**

Smith and Begemann emphasized that those who promoted working capital theory shared that profitability and liquidity comprised the salient goals of working capital management. The problem arose because the maximization of the firm's returns could seriously threaten its liquidity, and the pursuit of liquidity had a tendency to dilute returns. This article evaluated the association between traditional and alternative working capital measures and return on investment. (ROI), specifically in industrial firms listed on the Johannesburg Stock Exchange

(JSE). The problem under investigation was to establish whether the more recently developed alternative working capital concepts showed improved association with return on investment to that of traditional working capital ratios or not. Results indicated that there were no significant differences amongst the years with respect to the independent variables. The result of their stepwise regression corroborated that total current liabilities divided by funds flow accounted for most of the variability in return on investment (ROI). The statistical test results showed that a traditional working capital leverage ratio, current liabilities divided by funds flow, displayed the greatest associations with return on investment. Well known liquidity concepts such as the current and quick ratios registered insignificant associations whilst only one of the newer working capital concepts, the comprehensive liquidity index, indicated significant associations with return on investment.

**(13) "Shin, H. H. and Soenen, L."<sup>67</sup> (1998)**

Shin and Soenen 1998 highlighted that efficient working capital management (WCM) was very important for creating value for the shareholders. The way working capital was managed had a significant impact on both profitability and liquidity. The relationship between the length of net trading cycle, corporate profitability and risk adjusted stock return was examined using correlation and regression analysis, by industry and capital intensity. They found a strong negative relationship between lengths of the firm's net trading cycle and its profitability. In addition shorter net trade cycles were associated with higher risk and adjusted stock returns.

**(14) "BA Ranjith Apputhami" <sup>68</sup>**

The purpose of the research is to investigate the impact of firm's capital expenditure on its working capital management. The author used the data collected from listed companies in the Thailand Stock Exchange. The study used Shulman and Cox's (1985) net liquidity balance and working capital requirement as a proxy for working capital measurement and develop multiple regression model. The empirical research found that the firms capital expenditure has significant impact on working capital management. Study also found that the firm's operating cash flow which was recognized as a control variable has a significant relationship with working capital management, which is consistence with findings of previous similar research. The findings enhance the knowledge base of working capital management and help companies to manage working capital efficiently in growing situations associated with capital expenditure.

**(15) "Md. Sayaduzzaman,"<sup>69</sup>**

The major objective of the study is to examine and evaluate the working capital management in BATBCL over a period of 5 years (1999-2000 to 2002-2003). The efficiency of working capital management of British American Tobacco Bangladesh Company Ltd. is highly satisfactory due to the positive cash inflows, planned approach in managing the major elements of working capital. Applications of multi- dimensional models of current assets mix have positive impact on the continuous growth and development of this multinational enterprise. The depends on co-operation of the stakeholders and business environment in the context of globalization.



**(16) "Kesseven Padachi"<sup>70</sup>**

A well designed and implemented working capital management is expected to contribute positively to the creation of a firm's value. The purpose of this paper is to examine the trends in working capital management and its impact on firms' performance. The trend in working capital needs and profitability of firms are examined to identify the causes for any significant differences between the industries. The dependent variable, return on total assets is used as measure of profitability and the relation between working capital management and corporate profitability is investigated for a sample of 58 small manufacturing firms, using panel data analysis for the period of 1998-2003. The regression results show that high investment in inventories and receivables is associated with lower profitability. The key variables used in the analysis are inventories day, accounting receivables days, accounts payable days and cash conversion cycle. A strong significant relationship between working capital management and profitability has been found in previous empirical work. An analysis of the liquidity, profitability and operational efficiency of the five industries shows significant changes and how best practices in the paper industry have contributed to performance. The findings also reveal an increasing trend in the short-term component of working capital financing.

## **2.4 Conclusion**

This chapter deals with literature on working capital management. The literature have been divided in two groups viz. (1) literature for theoretical issue and (2) Literature with empirical study.

Theoretical studies provided strong theoretical background and conceptual foundations on the subject. This includes those books which deal with concepts and problems of the subject. While literature with empirical study deals with research done in this subject.

**References:**

- 1) Van Horne J. C., Financial Management and Policy, New Delhi: Prentice Hall of India Pvt. Ltd., 1983.
- 2) E. W. Walker, Essentials of Financial Management, New Delhi: Prentice Hall of India Pvt. Ltd., 1974.
- 3) Gersternberg, C.W., Financial Organization and Management, New York : Prentice Hall, 1959.
- 4) E.E. Lincoln, Applied Business Finance, New York: McGraw-Hill, 1929.
- 5) E.A. Sailer, Hand Book of Corporate Management and Procedure , New York: McGraw Hill, 1943.
- 6) E.R. Donaldson, Corporate Finance, New York: Ronald press Co., 1957.
- 7) J.J. Hampton, Financial Decision Making : Concepts, Problems and cases, New Delhi: Prentice Hall of India Pvt., 1983.
- 8) Solomon Ezra, Theory of Financial Management, New York: Columbia University press, 1969.
- 9) M.K. Starr and D.W. Miller, Inventory Control Theory and Practice, New Delhi: Prentice Hall of India Pvt.,1974.
- 10) W.E. Willets, Fundamentals of Purchasing, New York : Appleton Century Crafts, 1969.
- 11) L.R. Howard, Working capital. Its Management and Central, London : Macdonald & Evans Ltd., 1977.
- 12) W.J. Baumol, "The Transactional demand for cash: An inventory theoretic approach," Quarterly Journal of Economics, Vol. LXV, November 1952, pp. 545-546.
- 13) J.M. Keynes, "General Theory of Employment, Interest & Money," London : Macmillan & Co. Ltd., 1964.
- 14) J.W. Prichard and R.H. Eigel, Modern Inventory Management, New York: John Wiley and Sons, Inc., 1965.

- 15) H.G. Guthman and H.E. Dougall, Corporate Financial Policy, New York : Prentice Hall, 1955.
- 16) J. B. Cohen and S. M. Robbins, The Finance Manager, New York: Harper & Row Publishers, 1966.
- 17) W. M. Stevens, Financial Organization and Administration, New York : McGraw Hill, 1934.
- 18) D. B. Zenoff & Zack Zwick, International Financial Management, New Jersey: Prentice Hall Inc., 1969.
- 19) K. V. Smith, Management Working Capital, New York: West Publishing, 1974.
- 20) Jr. Stancill, James Men, The Management of Working Capital, London : Intext Educational Publishers, 1971.
- 21) Joseph Buchanan and Ernev Koenigsberg, Scientific Management, New Delhi : Prentice Hall of India, 1966.
- 22) G. W. Plosal and W Evert Welch, The role of Top Management in the Control of Inventory, Reston : Reston Publishing Co., Co. Inc. 1979.
- 23) T. M. Within, Theory of Investment Management, New Jersey : Princeton University Press, 1953.
- 24) D. S. Armer, Materials Management, Homewood : Richard D. Irwin Inc., 1968.
- 25) D. W. Dobler and Jr. Lee Lemer, Purchasing and Material Management, New York : McGraw Hill 1965.
- 26) H. J. Bierman, and A. K. Mc Adams, Management Decisions for Cash and Marketable Securities, New York : Graduate School of Business, Cornell University, 1962.
- 27) Beechler, Contemporary Cash Management, New York, John Wiley & Sons, 1968.
- 28) W. C. F. Hartley and Y. L. Meltzer, Cash Management, Planning Forecasting and Control, New Jersey : Prentice Hall Inc., 1979.

- 29) T. N. Beckman and R. S. Ronald, Credit and Collections, New York: McGraw Hill Book Company, 1969.
- 30) N. H. Seiden, The Quality of Trade Credit, Occasional Paper 87, National Bureau of Economic Research, 1964.
- 31) J. Gitman Lawrence, Principle of Managerial Finance, New York: Harper and Row Publishers, 1979.
- 32) Kenneth Field, Corporation Finance, New York: The Ronald Press Co., 1938.
- 33) E. S. Mead, Corporation Finance, New York: Appleton Century Company, 1933.
- 34) William Beranek, Working Capital Management, California: Wordsworth Publishing Co. Inc. , 1966.
- 35) Firth Michael, Management of Working Capital, London: The McMillan Press Ltd., 1976.
- 36) P. W. Fee, The Working Capital Concept, Accounting Theory: Text and Reading, New York: John Wiley and Sons, 1978.
- 37) J. C. Baker, and D. W. Malott, Introduction to Corporation Finance, New York: McGraw Hill Book Co., 1936.
- 38) R. V. Yadav, "Working Capital Management - A Parametric Approach", The Chartered Accountant, Vol. XXXIX, No. 11, May 1986, pp. 952-955.
- 39) G. P. Ananthakrishnan, "Working Capital Finance Provided by Banks to Industrial Units, "The Banker, Vol. XXXIII, No. 4, June 1986, pp. 31-33.
- 40) Pandey, I. M., Financial Management, New Delhi, Vikas Publishing House Pvt. Ltd., 1985.
- 41) N. P. Agarwal and R. K. Jain, "Fundamentals of Working Capital Management", Financial Express, Vol. VII, No. 168, October 29, 1986, Page 9.

- 42) B. H. Desai and R. B. Darji, Working Capital Financing by Bank, (A Case Study of NTC (Gujarat) Ltd.) The Management Accountant, Vol. XXI, No. 5, May 1986, pp. 273-275.
- 43) Sundar Natrajan, "Working Capital Management & Finance", Economic and Political Weekly, Vol. XX, No. 8, February 1980, pp. M 25- M31.
- 44) R. S. Pradhan, "Financing Pattern of Working Capital in Indian Industries". The Management Accountant, Vol. XXI, No. 4, April 1986, pp. 205-206.
- 45) D. Kishore, "Working Capital Policy - A General Framework of Analysis", Lok Udyog, Vol. XI, No. 11, February, 1978, pp. 9-16.
- 46) D. D. Chopra, "Management of Working Capital", The Chartered Accountant, Vol. XXVI, No. 2, August 1977, pp. 52-54.
- 47) S. K. Chakraborty, "Cash Working Capital Vs. Balance Sheet Working Capital" in Chakraborty and others (Eds.), Topics in Accounting and Finance, Calcutta : Oxford University Press, 1976.
- 48) K. K. George, "Planning and Banking Systems Control of Working Capital" in L. C. Gupta (Ed., Banking & Working Capital Finance, Delhi). The Macmillan Co. of India Ltd., 1978, pp. 91-114.
- 49) Nageshwara Rao and Omji Gupta, "Management of Inventory Position", The Management Accountant, Vol. XXI, No. 6, June 1996, pp. 355-359.
- 50) P. J. Fernandes, "Materials Manager and Stagflation", Lok Udyog, Vol. 8, No. 1, April 1974, pp. 21-28.
- 51) D. R. Mehta, Working Capital Management, New Jersey, Prentice Hall Inc., 1974.
- 52) V. E. Ramamoorthy, Working Capital Management, Madras: Institute for Financial Management and Research, 1978.

- 53) A. B. Roy Choudhary, Working Capital Management- A Work Book on Corporate Liquidity, Calcutta: 6 Southern Avenues, 1987.
- 54) P. Gopalkrishnan, and M. S. Sandilya, Inventory Management Text and Cases, Delhi: The Macmillan Company of India Pvt. Ltd., 1978.
- 55) Anand, Manoj, "Working Capital Performance Of Corporate India: An Empirical study" (2003), ICFAI Journal of Applied Finance, Vol. 13, No. 1, pp. 46-81, January 2007.
- 56) Dr. Mukhopadhyay, "Working capital management in heavy engineering firms -A case study" (2005).
- 57) Dalbir Singh, "Management of working capital - A Comparative Study of Indian public and Private Sector Primary Aluminum Producing Companies." (2005-06).
- 58) Santanu Kr. Ghosh and Santi Gopal Maji, "Working Capital Management efficiency: A Study on the Indian Cement Industry."
- 59) Pandey I M and Perera KLW, "Working Capital Management of the private sector manufacturing companies in Sri Lanka."
- 60) Vedvinayagam Ganesan, "An Analysis of Working Capital Management efficiency in Telecommunication equipment industry."
- 61) R. K. Mishra, "Problems of Working Capital (with reference to selected undertakings in India)", Bombay: Samaiya Publications Pvt. Ltd. 1975.
- 62) G. S. Panda, "Management of working Capital in Small Scale Industries," New Delhi, Ashish Publishing House, 1985.
- 63) K. Rajeswara Rao, "Working Capital Planning and Control in Public Enterprises in India", Delhi: Ajanta Publications, 1985.
- 64) Eljelly, A. 2004, "Liquidity Profitability Trade off: An empirical investigation in an Emerging Market" International Journal of commerce and management, Vo. 14, No. 2, pp. 48-61.

- 65) "Deloof, M. 2003" "Does Working Capital Management affects profitability of Belgian Firms", Journal of Business Finance & Accounting, Vol. 30, No. 3 & 4, pp. 573-587.
- 66) "Smith, M. Beaumont, Begemann, E. 1997. "Measuring Association between Working Capital and Return on Investment", South African Journal of Business Management, Vol. 28, No.1
- 67) "Shin, H. H. and Soenen, L. 1998." Efficiency of working capital management and corporate profitability", Financial practice and Education, Vol. 8, No. 2, pp. 37-45.
- 68) BA Ranjith Apputhami, The Impact of firms' Capital Expenditure on Working Capital Management: An empirical study across industries in Thailand."
- 69) Md. Sayaduzzaman, "Working Capital Management : A study on British American Tobacco Bangladesh Company Ltd."
- 70) Kesseven Padachi, "Trends in Working Capital Management and its Impact on Firms' performance: An analysis of Mauritian small manufacturing firms."



# **CHAPTER - 3**

## **TRADING HOUSES**

- 3.1 INTRODUCTION
- 3.2 DEFINITIONS OF TRADING HOUSES
- 3.3 TYPES OF EXPORT HOUSES
- 3.4 CLASSIFICATION OF TRADING HOUSES
- 3.5 CRITERION FOR RECOGNITION OF TRADING HOUSES
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- 3.7 OBJECTIVES OF TRADING HOUSES
- 3.8 ASSISTANCE/INCENTIVES OFFERED TO TRADING HOUSES  
BY GOVERNMENT OF INDIA
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- 3.11 CONCLUSION

### 3.1 INTRODUCTION

The comparative export performance of India, on the whole, was not satisfactory. The share of India in the total world exports fell from about 2 per cent in 1950 to 0.4 per cent in 1980.<sup>1</sup> Since the mid eighties, there has, however, been some improvement. In 2002 it was 0.8 per cent and the target set by the Ministry of Commerce is one per cent by 2007.<sup>2</sup> India was the 13<sup>th</sup> largest exporter in the world in 1950,<sup>3</sup> but there are more than 30 countries above India now. Except for two years, in all the years. Since 1951, imports were larger than exports.<sup>4</sup>

India has experienced balance of payments problems of varying intensity in twenty nine out of thirty five years since the beginning of the second five year plan. The cost of India of this prolonged balance of payments problem, caused by the poor export performance has been heavy. The major drawbacks of India's export sector are lack of integrated approach; problem recognition and action lags; technological problems; high costs; poor quality image; limited R&D and marketing research; supply constraints; faceless presence of Indian products abroad; infrastructural bottlenecks; structural weakness; uncertainties, procedural complexities and institutional rigidities; and inadequacy of trade information system.

From the beginning of the second five year plan (1956-61), the foreign exchange problem began to assume serious proportions. The Government began to realize the need for vigorous export promotion. It was very clear that concentrated efforts should be made for the promotion of the export of non-traditional items like engineering goods, iron and steel, iron ore, chemical & allied products, gems and jewellery, marine products, leather & leather manufacturers etc. It was also realized that unless positive steps were taken to build up a number of merchant houses, concentrating almost exclusively on exports and capable of undertaking trade on a sustained basis, it would be impossible to complete successfully against the highly experienced and

resourceful trading house of other countries. The importance of promoting merchant houses was further underlined by the need for providing channels for the export of the products of the small scale sector.

In September 1960, certain broad principles for recognition of export houses were formally adopted. The scheme of export houses has been modified a number of times thereafter.<sup>5</sup>

An export house is a registered exporter holding a valid export house certificate issued by the director general of foreign trade.<sup>6</sup>

With a view to developing new products and new markets for exports, particularly from the small and cottage industries sector, a new scheme for the recognition of trading houses was introduced in 1981-82. Trading houses are special category of export houses which have demonstrated export capabilities and have facilities for testing and quality control.<sup>7</sup>

### **3.2 Definitions of Trading Houses**

(1) Trading Houses are of various types and forms. They exist in a number of countries and their activities and organization vary according to the historical background and the scenario in which they operate as well as national priorities and government policies. They are known by different names in different countries. So it is difficult to formulate a definition of Trading Houses which would be universally applicable. There are, however, resemblance in certain important aspects in the organizational structures of most of Trading Houses which make it possible for them to be analyzed as one generic entity. It is thus possible to describe activities, organization and definition of Trading Houses which would be universally applicable. A definition that covers most cases is "Trading Houses are commercial intermediaries specialized in the long term development of trade in goods & services supplied by the other

parties” they focus on exporting, importing and third country trading as their core activity and use overseas marketing organization and infrastructure as well as procurement networks to service suppliers and customers. They procure internationally and sell locally and they also procure internationally and sell internationally. They have flexibility and the agility to work in many markets with many products simultaneously as international marketing is their core business. They serve as commercial intermediaries between suppliers and buyers located in different countries.<sup>8</sup>

(2) Government of India has a scheme to recognize established exporters as Exports Houses, Trading House etc. Trading Houses are special category of exporters which enjoy export incentives granted by Government on exporting of goods & services.

A Trading House is defined as a registered exporter holding a valid and special category of export house certificate issued by the DGFT.

### **3.3 TYPES OF EXPORT HOUSES**

The Foreign Trade Policy 2003-04 classified Export Houses into the following categories :-<sup>9</sup>

- (1) Export House
- (2) Golden Export House
- (3) Golden Star Export House
- (4) Service Export House
- (5) International Service Export House
- (6) International Superstar Service Export House
- (7) Trading House
- (8) Star Trading House
- (9) Golden Trading House
- (10) Golden Star Trading
- (11) Golden Super Star Trading House

However, the classification should be very from time-to-time subject to amendment in the foreign trade policy.

The current Foreign Trade Policy, 2004-09, effective from September 1, 2004, classifies Export Houses, into following five categories. Such classification should apply for the period of 2004-05, 2005-06 and 2006-07.

- (1) One Star Export House
- (2) Two Star Export House
- (3) Three Star Export House
- (4) Four Star Export House
- (5) Five Star Export House

Recent amendment in Foreign Trade Policy 2004-09, which came into effect April-2007, classifies the Export Houses as follows. The classification is for the period of 2007-08.

- (1) Export House (EH)
- (2) Star Export House (SHE)
- (3) Trading House (TH)
- (4) Star Trading House (STH)
- (5) Premier Trading House (PTH)

### **3.4 CLASSIFICATION OF TRADING HOUSES**

Classification of Trading Houses can be divided into two categories: <sup>10</sup>

- (1) Classification of Trading Houses on the basis of export performance level.
- (2) Classification of Trading Houses on the basis of activity.

1. Classification of Trading Houses on the basis of export performance level :-

Trading Houses are special category of export house. Merchant and manufacture exporters including those with foreign equity may apply for classification as Trading Houses and avail of special associated benefits.

There are four such categories viz.

- (1) Trading House
- (2) Star Trading House
- (3) Super Star Trading House
- (4) Golden Super Star Trading House

The applicant is required to achieve the prescribed average export performance level. The level of export performance for the purpose of recognition shall be as per the table below.

**Table- 3.1**

**Export performance level for Recognition of Export Houses & Trading Houses in India.**

Sr. No.	Category	FOB		NFE	
		Average FOB value of eligible exports made during the preceding three licensing years, in Rupees	FOB value of eligible exports made during the preceding licensing year, in Rupees	Average net foreign exchange earned relating to eligible exports during the preceding three licensing years in Rupees	Net foreign exchange earned relating to eligible exports during the preceding licensing year in rupees
1	Export Houses	15 crores	22 crores	12 crores	18 crores
2	Trading Houses	75 crores	112 crores	82 crores	90 crores
3	Star Trading Houses	375 crores	560 crores	312 crores	450 crores
4	Super Star Trading Houses	1125 crores	1680 crores	937 crores	1350 crores
5	Golden Super Star Trading Houses	Exporters who have attained Export Houses, Trading Houses, Star Trading Houses and Super Star Trading Houses status for three terms or more and continue to export shall be eligible for golden status certificate which would enable them to enjoy the benefits of status certificate irrespective of their actual performance thereafter as per the guidelines issued in this regard from time to time.			

1. Classification of Trading Houses on the basis of activity :-

On the basis of activity, we may classify Trading Houses as under.

**A. Merchant Trading Houses :**

The main aim of such firm is exporting of goods produced by other firms/companies. Such houses are not carry any manufacturing activities. They play an important role as merchant middlemen and exports goods & services on behalf of producer. As merchants, they buy and sell on their own account and earn a margin. They may also act as agents on behalf of the manufacturers or on behalf of the buyer and earn commission for their various services. They focus on exporting; importing and third country trading. They serve as commercial intermediaries between suppliers and buyers located in different countries. They have a network overseas for marketing and the experts at sourcing and procurement. They also have specialist departments providing expertise in trade support services. They provide essential value-adding services economically and they serve foreign customers as well as manufacturers. They operate with low margins on high volumes and make their profits mainly by quick and frequent turn around of funds. These companies have contributed substantially to the growth of foreign trade to the economic development of the country.

**B. Manufacturer Trading Houses :**

They focus on manufacturing of goods & services. The prime activities of manufacturer trading houses are production and marketing its products to domestic as well as foreign countries. They imports capital goods and raw materials, intermediates, components from the international market for own use only. Such Trading Houses export goods & services produced by itself only. They are not related with exporting of good produced by other firms/companies. In other word, manufacturer Trading Houses are not fall under the category of merchant or brokerage houses.



**C. Manufacturer & merchant Trading Houses :**

They are engaged in manufacturing, exporting, importing and trading activities.

**3.5 Criterion for recognition of Trading houses**

The following are the criteria for grant of recognition as trading houses, star trading houses, super star trading houses, golden super star houses.

**A. Eligibility :**

Merchant as well as manufacturer, exporters, service providers, export oriented units (EOUs) and units located in special economic zones (SEZs), agri export zone (AEZ's), electronic hardware technology parks (EHTS), software technology parks (STPs), bio technology parks (BTPs), units in small scale Industry/ tiny sector/ cottage sector and units registered with KV/Cs/KVIBs shall be eligible for supplying for status as Trading Houses.

**B. Value of Exports :**

The criterion for recognition as trading house shall be on the goods and services, including software exports made directly, as well as on the basis of services rendered by the service provider during the preceding three licensing years or the preceding licensing year, at the option of the exporter. The exports made, both in free foreign exchange and in Indian Rupees, shall be taken into account for the purpose of recognition.

**C. Export Performance Level :**

The applicant is required to achieve the prescribed average export performance level.

**D. Deemed Exports :**

Deemed exports and exports of imports goods shall not be counted for export performance and not qualify for the purpose of recognition.

**E. Exports made by subsidiary company :**

The exports made by a subsidiary of a limited company shall be counted towards export performance of the limited company for the purpose of recognition.

**F. Exports made by small scale industries :**

Double Weightage is given to CIF or FOB earned by the export of products manufactured by small scale industries (SSI).

**G. Exports made by the handlooms & handicraft sectors :**

Products manufactured by the handlooms and handicrafts sector, including hand – knitted carpet and silk products are given.

- (1) Double weightage on FOB earned by the export of such products;  
or
- (2) Triple weightage on NFE earned by the export of such products.

**H. Exports of sports goods :**

Double weightage is given on FOB earned by the export of sports goods :

**I. Export of goods manufactured in North Eastern States**

Goods manufactured by units located in North Eastern States shall be entitled for double weightage on FOB or NFE value of exports made for grant of trading house status.

**J. Exports of agro products and horticulture produce:**

Exports of agro products like fruits and vegetables, floriculture and horticulture produce/products shall be entitled for double weightage on FOB or NFE value of exports made for grant of trading house status.

### **3.6 Functions of Trading Houses**

Trading Houses are so important to all, discharge the following vital functions: <sup>12</sup>

#### **Market selection and market research**

Trading Houses have data bases and information networks as well as a presence in overseas markets. They use these continually to

scan for opportunities world wide. They search for demand/supply gaps, locate availability of finance, study the long-term plans of organization and governments, price trends and even political scenarios. They play a key role in monitoring the competition. These companies therefore know which product to sell where.

### **Customer identification and evolution**

The Trading Houses collect information about potential customers and their credit worthiness, reliability and reputation. They closely study their customers, their current activities and future plans and make efforts to build with them relationship of confidence, trust and friendship.

### **Commercial and technical negotiations**

Trading Houses are efficient in making business offers through their marketing organization backed with their electronic databases, communication systems and networks. They have the experience and competence to carry out all the commercial work relating to export. The manufacturer makes the techno-commercial offer to the trading houses which then negotiates all the terms, secures the order, arranges delivery of the goods, pays the manufacturer and obtains the payment from the customer. Moreover the trading house's presence in the overseas market enables it to obtain better prices and other terms.

### **Vendor development**

The Trading Houses also have an organization in the home country comprising of geographically dispersed regional facilities to facilitate vendor development and procurement. This organization identifies and develops manufacturers and also ensures that the long-term arrangements are satisfactorily implemented.

### **Product/packaging adaptation and technology upgrading**

Trading House continually keep associate manufacturers informed about developments in foreign countries related to the technical features of the product, product techniques, design changes and packaging methods. For this service they use their overseas

network and specialized product experts who are well traveled and who attend to international fairs and exhibitions.

### **Imports, particularly of items required for export production**

Trading Houses use their foreign offices and network for imports as well as for exports. They are able to negotiate favorable terms because of bulk buying and presence in the market. This helps manufacturers who generally require some imported components and materials for export production. Often these imported goods are stocked by the Trading Houses in customs bonded warehouses and supplied to the manufacturer when required.

### **Financial arrangements including securing credits**

Trading Houses borrow in bulk from financial institutions at comparatively low rates of interest and help to finance the transaction with cheaper funds. Trading Houses also provide financial assistance to the manufacturer through arranging deferred payments, financial guarantees and advance payments.

### **Counter-trading**

Counter-trade leverages governmental and sometimes other imports, to generate reciprocity by requiring foreign suppliers to buy products and services from the home country. Counter trade is best handled by Trading Houses because they have the size, range and infrastructure to deal with its diverse requirements. Counter-trade opens up new and large opportunities for manufacturers to have their products exported.

### **Export documentation and shipping**

Trade documents must be carefully prepared so that there are no problems in transportation, shipping, clearing, customs, obtaining payments as well as handling and subsequent claims. Trading Houses have well staffed and well equipped documentation and shipping departments and this is a major service provided to manufacturers. They have knowledge and experience which enables them to select the

best modes of transport in terms of cost and quality of service. They can consolidate cargo which may often be going to its own warehouse overseas, thus lowering costs.

### **Protection against export risks including insurance**

The risk in exports is a factor which adversely affect business of exporters. Trading Houses are continually involved in ascertaining the risks in foreign trade and know how to minimize these risk. They have gathered rich and varied experience as well as expertise in risk management which no single manufacturer/exporter would have been able to accumulate. With their established track records they get better terms from insuring organizations. Also they have access to expert advice on currency exchange rate. Fluctuations and are able to minimize these risks as well.

### **Ensuring payments**

Collecting dues is a regular activity of Trading Houses for which they have specialties. In fact with their experience, databases and information networks, they are in a position to avoid the problem of bad debts. They are routinely in touch with major international credit rating agencies, banks etc., for checking out foreign customers. Again because of size they obtain these services at low rates.

### **Dealing with claims**

Since Trading Houses are committed to international trading on a long-term basis, they build credibility and a reputation for honoring their commitments, particularly with respect to quality and to avoid claims. However, if a claim is raised they will ensure that it is deal with promptly and efficiently. There are sometimes frivolous or unreasonable claims made by unscrupulous buyers. Trading Houses have the expertise and the clout to deal with such matters, thus providing much needed protection to the manufacturer. In many emerging economies and economies in transition there are bureaucratic hurdles involved in remitting funds abroad to settle claims or to re-import rejected goods.

The governmental authorities are concerned that there could be misuses of this facility. Trading Houses, however are recognized by the government as a trusted organization with a stake in developing long-term trading and therefore manage to obtain such approvals and permissions with relative ease.

### **Managing crises and disasters**

Export activity is dependent on number of variable factors. Many beyond the exporters control. This sometimes leads to unforeseen occurrences, for example, the inability of a supplier to deliver at the last moment resulting in the Trading Houses having to locate an alternative source or a buyer being unable to accept delivery of ordered goods requiring that an alternative customer be found soon. Trading Houses would have had experience of many such dangers and would have developed capabilities of declining with them. Disasters that could have sunk a manufacturer are managed by a Trading House.

### **After-sale service and spare-parts availability**

Trading Houses often export items that require after sale service. They will ensure that adequate arrangements for after-sale service, and stocking of spare-parts and repairs and maintenance are in place before they export such products. Often it is the Trading House itself which creates the facilities abroad for after-sale service. Manufacturers who associated with Trading Houses are therefore saved from expense and effort by getting at their disposal the after-sale service facilities arranged by the Trading House.

### **Creating distribution network abroad**

Trading Houses long-term involvement with exporting carefully chosen products to chosen markets makes it possible for them to go further than just doing one-off deals. In fact, even at the stage when the Trading House is preparing its market entry strategy for a product, it is already developing long-term plans for selling the product through appropriate distribution channels. It chooses suitable locally available

channels. For certain products it could create its own channels including a warehouse for just-in-time delivery to customers.

### **Project export, consortia and tender business**

Trading Houses play a vital role when the foreign customers requirements is for goods and services to be supplied by a number of different organizations, often against a tender. Here the Trading House takes on the overall responsibility as principal and subcontracts the supply of various products and services to a number of companies including, if necessary, companies abroad. This is a function of the Trading Houses which is useful for a manufacturers because often the manufacturers would not even know about the existence of a tender, particularly if the tender pertained to a large project or supply of a range of products of which the manufacturers product formed only a small part. Moreover the chance of success is much greater if a manufacturer ties-up with a Trading House because of the latter's experience in dealing with project exports and tenders. Trading House is dealing with such business, continually and has developed the knack of assessing chances of success; it is unlikely to waste time and effort on bids that are not likely to succeed.

### **Special relations with the government**

Government use Trading Houses for achieving national goals. In many countries committed and trusted Trading Houses work closely with the governments in formulating and implementing the nations trading objectives. Some government export promotion schemes, such as those for helping small manufacturers to export, can be efficiently handled using the organizations of the Trading Houses. This helps governments as they can pass on some of the administrative and monitoring work to the Trading House which has the requisite expertise and infrastructure. Since Trading Houses are selected after checking their track records, they can be relied upon to perform such tasks efficiently and with diligence.

### **3.7 Objectives of Trading Houses**

The important objectives of Trading Houses are :

- (1) To operate itself as highly professional and dynamic institutions and act as important instruments of export growth.
- (2) To increase the relative profitability of the export business.
- (3) To provide necessary assistance to the new and small exporters & manufacturers to develop export business.
- (4) To provide marketing support for the development of exports.
- (5) To provide organizational and infrastructural facilities for development of exports.
- (6) To compensate the exporters for the high domestic cost of production.
- (7) To earn foreign exchange we need export earning to finance our imports.
- (8) To generate employment opportunities.
- (9) To contribute to the overall development of the economy.
- (10) The Trading Houses because of its size can obtain the benefits of economies of scale in purchasing, transporting, shipping, insuring and borrowing funds. A part of these benefits are passed on to the manufacturer/exporter for improving competitiveness.

### **3.8 Assistance/Incentives offered to Trading Houses by Government of India <sup>13</sup>**

#### **(A) Assistance provided to Trading Houses by Government of India**

The following are assistance that are provided to Trading Houses by Government of India.

#### **(A) Production Assistance / Facilities**

The important government measures related to export production are the following.

1. Export processing zones(EPZs) were set up as enclaves separated from the domestic tariff area(DTA) by fiscal barriers



and intended to provide an internationally competitive duty free environment. For export production at low cost, eight of the EPZs have since been converted into special economic zones(SEZs).

2. The export oriented units(EOUs) scheme, which is complementary to the EPZ scheme, was set up in 1981 under which a unit can be set up in any of the seven EPZs or at any other location in the country and be eligible for a host of liberal package of incentives which include same entitlements as given to EPZs.
3. In order to fully exploit the potential in the information technology (IT) sector and to promote IT related exports, the central government has set up software technology parks (100 per cent EOUs) since 1991.
4. To build a strong and efficient electronics industry with goods export potential, electronic hardware technology parks (EHTPs) were also set up.

#### **(B) Financial Assistance**

Financial assistance is given to the export sector mostly by the export-import bank of India, specified co-operative banks, commercial banks provide packing credit (Pre-shipment credit) at concessional rates. They also provide post-shipment credit.

With the establishment of the Export-Import (Exim) bank in 1982, export Credit functions performed by the IDBI were transferred to the Exim bank. The export-import bank of India, set-up in 1982 by an Act of Parliament, for the purpose of financing, facilitating and promoting foreign trade of India, is the principal financial institution in the country for co-ordinating, working of institutions engaged in financing exports and imports. Exim banks plays a four-pronged role with regard to India's foreign trade: those of a co-ordinators, a source of finance, consultant and promoter.

### **(C) Marketing Assistance :**

Some of the schemes and facilities which assist export marketing are mentioned below.

#### **(1) Establishment of India Brand Equity Fund**

Government of India initiated steps to establish an Indian Brand Equity Fund with the objective of promoting the made in India image abroad.

#### **(2) Foreign Exchange**

Foreign exchange is released for undertaking approved market development activities, such as participation in trade fairs and exhibitions, foreign travel for export promotion, advertisement & abroad market research, procurement of samples and technical information from abroad etc.

#### **(3) Trade Fairs and Exhibitions**

As trade fairs and exhibitions are effective media of promoting products, facilities are provided for enabling and encouraging participation of Indian exporters/manufacturers in such events. As mentioned earlier, foreign exchange is released for such purpose, the cost of participation is subsidized and the India Trade Promotion Organization (ITPO) plays an important role in organizing and facilitating participation in trade fairs/exhibitions. Besides the ITPO, some other promotional agencies also organize trade fairs. For example, the Marine Products Export Development Authority (MPEDA) organizes sea-foods trade fair, in India, in every 2<sup>nd</sup> year which attracts a number of foreign buyers and others connected with the sea-foods industry.

#### **(4) Export Risk Insurance**

The Export Credit Guarantee Corporation of India Ltd. (ECGC), a company wholly owned by Government of India and which functions under the administrative control of the Ministry of Commerce, has a number of schemes to cover several risks which are not covered by general insurers.

The primary role of ECGC is to support and strengthen the export development of India by :

- a) providing a range of credit risk insurance covers to exporters against loss in of goods and services.
- b) offering guarantees to banks and financial institutions to enable exporters obtain better facilities from them.

In other words, the objectives of ECGC are :

- (1) To provide insurance cover to exporters against political and commercial risk.
- (2) To provide insurance cover to exporters against the risk of exchange rate fluctuations in respect of deferred payments.
- (3) To provide insurance cover to banks against export credit and guarantees extended by them
- (4) To provide insurance cover to Indian investors abroad against political risks.

The covers issued by ECGC may be broadly divided into the following four groups.

- (1) Standard policies issued to exporters to protect them against payment risks involved in exports on short-term credit.
- (2) Specific policies designed to protect Indian firms against payment risks involved in exports on deferred terms of payment, services rendered to foreign parties construction works and turnkey projects undertaken abroad.
- (3) Special Schemes.

**(5) Quality Control and Pre-shipment Inspection**

The international market is very competitive and quality of the export products is one of the important determinants of business. Inferior quality of exports damages the credibility of not only the exporter but also the nation. Hence, there shall not be any compromise on quality of exports. Exporters shall become quality conscious and the governments shall spare no efforts to assist quality improvements and

to ensure that only products of satisfactory quality are shipped to foreign markets.

Pre-shipment inspection is the process of inspection of a batch of goods just prior to shipment to determine whether it satisfies the conditions for shipment, which may be concerned either with the quality weight, packaging, contraband character etc.

**Quality standards** : Standards or specifications of quality are pre-requisites of quality control because unless quality characteristics are assessed, specified and measured, quality control cannot be implemented. Sometimes, specifications are given by the buyer himself.

**Export quality control and inspection act, 1963 :**

The Export (Quality Control and Inspection) Act, 1963, which is intended to provide for the sound development of the export trade of India through quality control and inspection and four matters connected therewith, empowers the central government to :-

- (1) Notify commodities which shall be subject to quality control or inspection or both prior to export;
- (2) Specify the type of quality control or inspection which will be applied to a notified commodity;
- (3) Establish, adopt or recognize one or more standard specifications for a notified commodity,

**(6) Institutional Assistance**

Export marketing is assisted in different ways by a number of organizations. Some of autonomous bodies are mentioned below :

1. Commodity Boards
2. Export-Inspection Council
3. Indian Institute of Foreign Trade
4. Indian Institute of Packaging
5. Export Promotion Councils
6. Federation of Indian Export Organization
7. Indian Council of Arbitration

8. Marine Products Export Development Authority
9. Agricultural and Processed Food products Export Development Authority (APEDA)
10. Indian Trade Promotion Organization

**(B) Incentives provided to Trading Houses by Government of India :**

The following are incentives that are provided to Trading Houses by Government of India.

**(A) Town of Export Excellence :**

A number of towns in specific geographical locations have emerged as dynamic industrial clusters contributing handsomely to India's exports. For example, Tirupur is exporting 80 per cent of its production of hosiery. It is consider industrial cluster towns such as Tirupur for hosiery, Panipat for woolen blankets, Ludhana for woolen knit wears to be eligible for the following benefits. Common service providers in these areas will be entitled for facility of EPCG scheme.

**Export Promotion Capital Goods Scheme :**

The EPCG scheme allows import of capital goods for pre production, production and post production at 5 per cent customs duty subject to an export obligation equivalent to 8 times of duty saved on capital goods imported under EPCG scheme to be fulfilled over a period of 8 years reckoned from the date of issuance of license. Capital goods would be allowed at 0 per cent duty for exports of agricultural products and their value added variants. However, in respect of EPCG licenses with a duty saved of Rs. 100 crores or more, the same export obligation shall be required to be fulfilled over a period of 12 years.

**(C) Target Plus Scheme :**

The objective of the scheme is to accelerate growth in exports by rewarding star exports houses who have achieved a quantum growth in exports. High performing star export houses shall be entitled for a duty

credit based on incremental exports substantially higher than the general annual export target fixed.

**(D) Duty Exemption / Drawback:**

The scheme of duty exemption is designed to avoid the incidence of commodity taxes like excise duty, customs duties on the exports so as to make the exports more price competitive. Customs duty and excise duty on inputs raise the cost of production in export industries and thereby affect the competitiveness of exports. Therefore, exporters needed to be compensated for the escalation in their costs attributable to such customs and excise duties. There are two types of drawback rates, viz..(a) all industry rate applicable to a group of products and (b) brand rate applicable to individual products not covered by the industry rate.

**(E) Income Tax Exemption & Deductions :**

The following exemptions and deductions are available to the exporters and other foreign exchange earners under the Income Tax Act, 1961.

- a. Deduction in respect of profits and gains from projects outside India (Sec.80HHB).
- b. Deduction in respect of export turnover (Sec. 80 HHC).
- c. Deduction in respect of earnings in convertible foreign exchange (Sec. 80 HHD).

This facility will cease to be operative after close of financial year April 2010 to March 2011.

**3.9 Significance of Trading Houses**

Having a trading house develop certain specific markets can be extremely beneficial even for manufacturers who already have experience in exporting to a number of foreign markets. A trading house can help manufacturers: <sup>14</sup>

1. Save time since the Trading Houses already has well-established networking overseas.

2. Save money by spreading costs over several product lines.
3. Benefit from the established credibility of the Trading Houses on foreign markets.
4. Benefit from greater efficiency from the Trading Houses' experience in specific markets.
5. Diversify their market and improve their export strategy.
6. Minimize financial risks as Trading houses are specialized in export finance and management.
7. Trading Houses have proven record of reliability for quality, prices and delivery of goods with long-term business perspective.
8. Trading Houses have global network for techno-commercial information.
9. Benefit of better price realizations because of having overseas marketing organization.
10. All risks and hassles of exporting avoided with the help of Trading Houses.

### **3.10 Role of Trading Houses**

The role of Trading Houses in international trade is very important. Trading Houses play an important role for the growth of exports and the dynamism of the export sector. India's total exports have been growing and the export sector has achieved some diversification and sophistication.

Trading Houses are resourceful in terms of capital, skill, experience, exposure, ideas etc., are an assets which can contribute globalization of Indian business.

So many small manufacturers and exporters are indirect exporters who exports through merchant exporters including Export/Trading houses and agents. Hence, the indirect export is more popular with firms which are just beginning their exporting and with those whose export business is small. In indirect export business, Trading Houses act as independent international marketing middlemen

and take responsibility for the selling job on behalf of small Indian exporters. The major advantage of exporting through Trading Houses is that a firm does not have to build up the infrastructure required for exporting and it does not have to bear the risks associated with international exports business.

The exporting activity involves several commercial and regulatory procedures. These procedures also involve considerable documentation requirements. Besides the documentation pertaining to the commercial aspects of the export business, there are documentation requirements of a regular in nature like excise clearance, foreign exchange regulations etc. The export documentation involved preparation of the specified number of copies of the prescribed documents pertaining to the different procedures. The exporting is special task and bundle of procedures which requires assistance from highly professional and dynamic institutions. Indian manufacturers with small export business are not in a position to build up infrastructure and expertise required for export activities. Further procedural complexities and delays in exporting activities are time and money consuming for small exporters. Trading Houses provide all such necessary infrastructure and act as international marketing middlemen and perform selling job of manufacturer. Trading Houses are one of the important channels between the home country and the overseas market (exporters and buyers). Trading Houses fulfill complex export procedure on behalf of manufacturers. It also bears risks & responsibilities relating to exports and helps small exporters and manufacturers for international marketing of products and services. The Trading Houses is, therefore, often regarded as especially advantages for firms with small means and for those whose limited export business do not justify large investments in developing their own international marketing infrastructure. Trading houses provide necessary assistance to the new and infant exporters to



develop export business. So, the Trading Houses play dominant role to broad base the export effort by co-opting small exporters.

By exporting through Trading Houses, manufacturers can benefit from Trading Houses, unrivalled knowledge of foreign markets. Trading Houses are specialized in export finance and management and can minimize financial risks. They are conversant with overseas buyer's needs and market requirements. In addition, Trading Houses can tailor their services to the needs of manufacturers and buyers. They manage the risks associated with international trade transactions by establishing long-term business relationship with foreign clients and by carefully monitoring developments in overseas markets.

### **3.11 Conclusion**

This chapter deals with introduction, definitions of Trading Houses, types, classification, functions, objectives, significance of Trading Houses in India. It also gives criteria for recognition of Trading Houses, assistance and incentives provided to Trading Houses by Government of India and role of Trading Houses in India.

**References:**

- 1-7) Francis, Cherunilam. "Business Environment", Himalaya Publishing House, Delhi.
- 8) [www.oath.on.ca](http://www.oath.on.ca).
- 9) Foreign Trade Policy of Govt. of India - [www.exim.indiamart.com](http://www.exim.indiamart.com).
- 10) Federation of Indian Export Organization, Ministry of Commerce, Govt. of India, New Delhi.
- 11) [www.oath.on.ca](http://www.oath.on.ca).
- 12) Ministry of Commerce and Industries, Department of Commerce, Udyog Bhavan - New Delhi 110 011.  
Center for Monitoring Indian Economy.
- 13) Francis, Cherunilam. "International Trade and Export Management", Himalaya Publishing House, Delhi.
- 14) National Informatics Centre - New Delhi.

# **CHAPTER - 4**

## **WORKING CAPITAL MANAGEMENT**

### **UNIT - 1 CONCEPT OF WORKING CAPITAL MANAGEMENT**

- 4.1 INTRODUCTION
- 4.2 WORKING CAPITAL – MEANING & DEFINITION.
- 4.3 CONCEPTS OF WORKING CAPITAL
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- 4.6 NEED FOR THE WORKING CAPITAL
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## **UNIT - 1 CONCEPT OF WORKING CAPITAL MANAGEMENT**

### **4.1 Introduction**

The job of the financial manager is not just limited to the long-term financial decisions, but also extends to the short-term financial decisions aiming at safeguarding the firm against illiquidity or insolvency. Surveys indicate that the largest portion of a financial manager's time is devoted to the day-to-day internal operations of the firm, this may be appropriately subsumed under the heading "Working Capital Management"

Working capital management usually is considered to involve the administration of current assets of a firm – namely cash, sundry debtors, bills receivables and inventory. The management of working capital is an important decision – making area of financial management of an enterprise. It calls for knowledge of

- a) Method of augmenting and allocating financial resources.
- b) Mode of relating short-term investments and financial decisions to the overall objectives of the firm.
- c) Deciding the optimal mix of short-term funds in relation to long-term capital

The objectives of working capital management are two fold:

- i) Maintenance of working capital, and
- ii) Availability of ample funds in times of need.

The rudimentary goal of working capital management is to manage each of the firm's current asset and current liabilities in such a way that an acceptable level of working capital is always maintained in the business with current liabilities each current asset should be managed efficiently in order to maintain the firm's liquidity. It ultimately facilitates in enhancing the profitability of the concern. The problem of

efficient management of working capital is to establish a trade between liquidity and profitability. An astute financial manager has to manage working capital in such a way as to maximize profitability of the firm without impairing its liquidity. This calls for setting optimal level of working capital setting optimal level of working capital again call for an exercise of determining that level of current assets where total cost (i.e., cost of liquidity and cost of illiquidity) is minimum.

#### **4.2 Working Capital – Meaning & Definition.**

Working Capital actually refers to that port of total capital which is available and used for carrying out the routine or regular business operations. Thus the capital required for purchasing raw materials, payment of direct and indirect expenses, carrying out production, investment in stocks and stores, receivables and to be maintained in the form of cash is generally known as working capital

Definition : The following are some of the definitions on working capital

- 1) According to mead, Baker, Malott, “Working capital means current assets”<sup>1</sup>
- 2) According to Weston & Brigham, “Working capital refers to a firm’s investment in short-term assets cash, short-terms securities, accounts receivable and inventories”<sup>2</sup>

#### **4.3 Concepts of Working Capital**

Various financial theorists have used the term working capital in a number of ways. Some explain it in a narrow sense, while some others on a very wide sense. In the narrow sense, some authorities define the term as the difference between current assets and current liabilities. Other writers think of working capital as being equal to the total of the current assets. On the other hand, some writers like Gerstenberg are not ready to call it as “Working Capital. They prefer to call it as “Circulating capital”<sup>3</sup>.

There are two concepts of working capital gross concept and the net concept. The gross concept is supported by authorities like D.W. Mallot, Keneth Field, Jules Bogen, Edward s. Mead, A.K. Sen, John C. Baker, A.S. Dewing.<sup>4</sup> The net concept is supported by authorities like E.A. Saliers, H.G. Gladson, Colin Park, John W. Gradson, Edward E. Lincoln, W. Mackenzie Stevens and Herbert E. Dongall.<sup>5</sup>

### **(1) Gross working capital**

Simply called as working capital, refers to the firm's investment in current assets. Current assets are the assets which can be converted into cash within an accounting year and include cash, short-term securities, debtors, bills receivables and stock.

### **(2) Net working capital**

Net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsider which are expected to mature for payment within an accounting year and include creditors, bills payable and outstanding expenses. Net working capital can be positive or negative A positive net working capital will arise when current assets exceed current liabilities. A negative net working capital occurs when current liabilities are in excess of current assets.

The gross and net working capital concepts present two distinct and important faces of working capital. In other words, working capital management includes both the management of current assets and management of current liabilities.

The gross working capital concept focuses attention on two aspects of current assets management:

- a) Optimum investment in current assets and
- b) Financing of current assets

The consideration of the level of investment in current assets should avoid two danger points excessive and inadequate investment in current assets. Investment in current assets should be just adequate, not more not less, to the needs of the business firm. Excessive investment in current assets should be avoided because it impairs firm's profitability, as idle investment earns nothing. On the other hand, inadequate amount of working capital can threaten solvency of the firm because of its inability to meet its current obligations. It should be realized that the working capital needs of the firm may be fluctuating with changing business activity. This may cause excess or shortage of working capital frequently. The management should be too prompt to initiate an action and correct imbalances.

Another aspect of the gross working capital points to the need of arranging funds to finance current assets. Whether a need for working capital funds arises due to the increasing level of business activity or for any other reason, arrangement should be made quickly. Similarly, if suddenly some surplus funds arise, they should not be allowed to remain idle, but should be invested in short-term securities. Thus, the financial manager should have a knowledge of the sources of working capital funds as well as investment avenues where idle funds may be temporarily invested.

Net working capital, being the difference between current assets and current liabilities, is a qualitative concept. It has two aspect:

- a) It indicates the liquidity position of the firm
- b) It suggests the extent to which working capital needs may be financed by permanent sources of funds.

Current asset should be sufficiently in excess of current liabilities to constitute a margin or buffer for maturing obligations within the appropriate time. It is a conventional rule to maintain the level of current assets twice of the level of current liabilities, A weak liquidity position



poses a threat to solvency of the company and makes it unsafe and unsound. A negative working capital means a negative liquidity, and may prove to be harmful for the company. Excessive liquidity is also bad. It may be due to mismanagement of current assets.

Net working capital concept also covers the question of judicious mix of long-term and short-term funds for financing current assets. For every firm, there is a minimum amount of net working capital which is permanent. Therefore, a portion of the working capital should be financed with the permanent sources of funds such as owner's capital, debentures, long-term debt, preference capital or retained earnings. Management must, therefore, decide the extent to which current assets should be financed with equity capital and or borrowed capital.

In summary, it may be emphasized that both gross and net concepts of working capital are equally important for the efficient management of working capital. There is no precise way to determine the exact amount of gross, or net, working capital for any firm. The data and problems of each company should be analyzed to determine the amount of working capital. There is no specific rule as to how current assets should be financed. It is not feasible in practice to finance current assets by short-term sources only.

#### **4.4 Components of working capital**

Current assets constitute the components of working capital while components of net working capital includes the difference between current assets and current liabilities.

For easy recapitulation both the current assets & current liabilities are enumerated below :<sup>6</sup>

**Table 4.1**  
**Components of Working Capital**

<b>Current Assets</b>	<b>Current Liabilities</b>
1. Cash in hand	1. Sundry creditors for goods and expenses
2. Cash imprest	2. Accrued expenses
3. Prepaid expenses	3. Unclaimed dividends
4. Advances to be received	4. Security deposit
5. Inventories	5. Bank overdraft
6. Debtors	6. Provisions for taxation, proposed dividend & contingencies
7. Bills Receivable	7. Short-term loans
8. Short-terms investments	8. Cash credit, Bank Loans
9. Excise duty, sales tax recoverable	9. Bill payable

#### **4.5 Types of Working Capital**

Working Capital can be divided into two categories on the basis of time :<sup>7</sup>

- 1) Permanent working capital
- 2) Temporary or variable working capital

Permanent working capital :

This refers to that minimum amount of investment in all current assets which is required at all times to carry out minimum level of business activities. In other words, it represents the current assets required on a continuing basis over the entire year. Tandon committee has referred to this type of working capital as "Core Current Assets".

The following are the characteristics of this type of working capital

- 1) Amount of permanent working capital remains in the business in one form or another. This is particularly important from the point

of view of financing. The suppliers of such working capital should not expect its return during the life – time of the firm.

- 2) Greater the size of the business, greater is the amount of such working capital and vice versa.
- 3) Permanent working capital is permanently needed for the business and therefore it should be financed out of long-term funds.

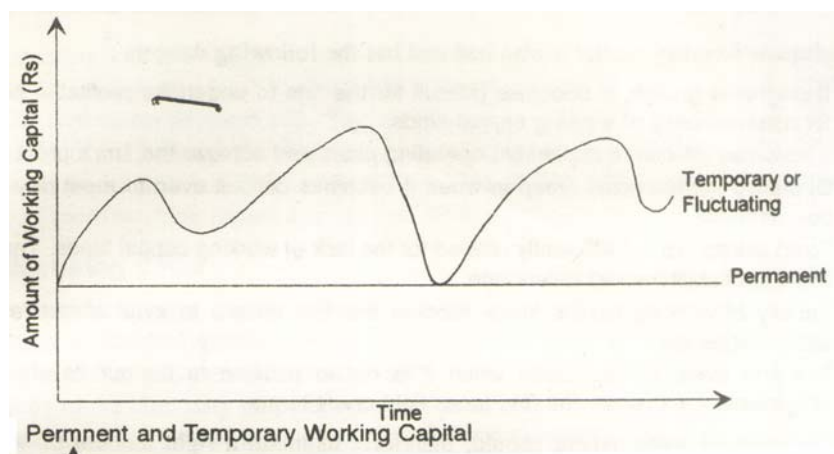
### Temporary working capital :

The amount of such working capital keeps on fluctuating from time to time on the basis of business activities. In other words, it represents additional current assets required at different times during the operating year. For example, extra inventory has to be maintained to support sales during peak sales period. Similarly, receivables also increase and must be financed during period of high sales. On the other hand investment in inventories, receivables, etc. with decrease in periods of depression.

Suppliers of temporary working capital can expect its return during off season when it is not required by the firm. Hence, temporary working capital is generally financed from short-term sources of finance such as bank credit.

**Figure -1**

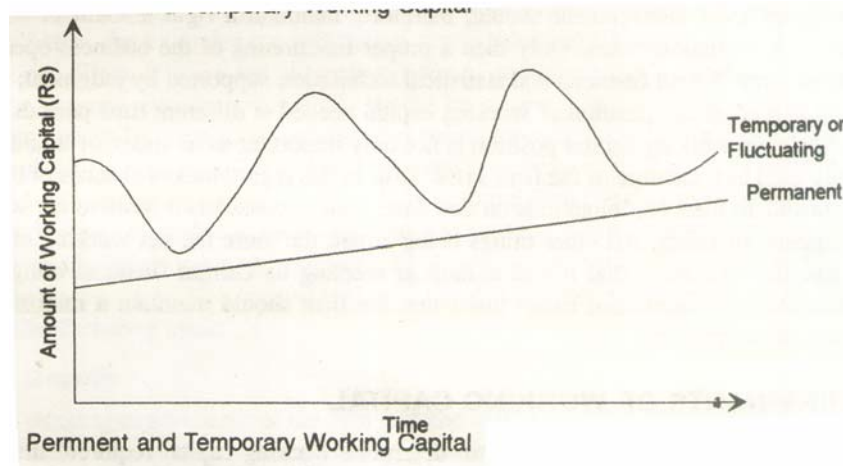
**Permanent and Temporary Working Capital-1**



The diagrams given below illustrate the difference between permanent and temporary working capital. In figure 1 permanent working capital is fixed over a period of time, while temporary working capital is fluctuating sometimes increasing and sometimes decreasing.

**Figure -2**

**Permanent and Temporary Working Capital-2**



In figure 2, the permanent working capital is increasing over a period of time with increase in the level of business activity. However, the permanent capital is increasing (or decreasing) over period. For a growing firm, the difference between permanent and temporary working capital can be depicted through figure 2

**4.6 Need for the working capital**

The need for working capital is to run the day-to-day business activities cannot be overemphasized. We will hardly find a business firm which does not require any amount of working capital. Indeed, firms differ in their requirements of the working capital. The following points justify need for the working capital toward business enterprises.

- 1) Working capital gives an idea of the solvency of a concern. Its proper calculation provides to the business, the right amount of cash to maintain regular flow of its operations. If proper cash balance is maintained, the business can avail of the cash discount facilities offered to it by suppliers. Besides, it enhances

the image and reputation of the concern. The concern by maintaining an adequate amount of working capital is able to maintain a sound bank credit, trade credit and can escape insolvency, take advantages of cash discount facility offered by suppliers by making prompt payment and bargain profitability in any business transaction. Adequacy of working capital provides funds for unforeseen emergencies so that business can successfully go through the periods of crisis.

- 2) Besides, the basic objective of financial management's object of maximizing shareholders' wealth can be realized only when the concern continues to earn profits year after year. However, as sales, do not convert into cash forthwith, there is usually a time lag between the sale and cash receipt. Current assets are needed because sales do not convert into cash instantaneously. There is always an operating cycle involved in the conversion of sales into cash. <sup>8</sup>

Working capital cycle or operating cycle indicates the length of time between a firm's paying for materials entering into stock and receiving the cash from sale of finished goods.

In the case of manufacturing company, the operating cycle is the length of time necessary to complete the following cycle of events:

- i) Conversion of cash into raw materials
- ii) Conversion of raw materials into work-in-process.
- iii) Conversion of work-in-process into finished goods,
- iv) Conversion of finished goods into accounts receivable and
- v) Conversion of accounts receivable into cash

The cycle will be repeated again and again.

In the case of a "trading firm" the operating cycle will include the length of time required to convert i) cash into inventories ii) inventories into accounts receivable and iii) accounts receivable into cash.

- 3) moreover, fixed assets cannot work without working capital,

- 4) No research programmes, innovations and technical advancement are possible without working capital
- 5) The expansion programmes and diversification plans would be highly successful, if they are financed through working capital, or otherwise borrowing has to be done at exorbitant rates of interest.
- 6) Finally, the profitability of a concern depends in no small measure, on the right proportion of fixed assets to working capital.

#### **4.7 Aims & Objectives of working capital management**

The two important aims of the working capital management are : profitability and solvency. Solvency, used in the technical sense, refers to the firm's continuous ability to meet maturing obligations. Lenders and creditors expect prompt settlements of their claims as and when due. To ensure solvency, the firm should be very liquid, which means larger current assets holdings. If the firm maintains a relatively large investment in current assets, it will have no difficulty in paying claims of creditors when they become due and will be able to fill all sales orders and ensure smooth production. Thus, a liquid firm has less risk of insolvency, that is it will hardly experience a cash shortage or stock-outs. However, there is a cost associated with maintaining a sound liquidity position. A considerable amount of the firm's funds will be tied up in current assets, and to the extent this investment is idle, the firm's profitability will suffer. To have higher profitability, the firm may sacrifice solvency and maintain a relatively low level of current assets. When the firm does so, its profitability will improve as less funds are tied up in idle current assets, but its solvency would be threatened and would be exposed to greater risk of cash shortage and stock outs.

#### **4.8 Determinants of working capital**

There are no set rules or formulate to determine working capital requirements of the firms. A large number of factors influence working capital needs of firms. All factors are of different importance. Also, the importance of factors changes for a firm over time. Therefore, an analysis of relevant factors should be made in order to determine total investment in working capital. The following is the description of factors which generally influence the working capital requirements of firms. <sup>9</sup>

##### **Nature and size of business**

The effect of the general nature of the business on the working capital requirements cannot be exaggerated. Trading and financial firms have a very small investment in fixed assets, but require a large sum of money to be invested in working capital. Rail, roads and other public utility services have large fixed investment, so they have lower requirements for current assets. Industrial and manufacturing enterprises on the other hand generally require a large amount of working capital.

The size of the business also has an important impact on its working capital needs. Size may be measured in terms of the scale of operation. A firm with larger scale of operation will need more working capital than a small firm.

##### **Production Policy**

The nature of production policy exercise its impact on capital needs. Strong seasonal movements have special working capital problems and requirements. A steady production policy will cause inventories to accumulate during the off-season periods and the firm will be exposed to greater inventory costs and risks. Those firms, whose productive capacities can be utilized for manufacturing varied products, can have the advantage of diversified activities and solve their working

capital problems. A high level production plan also involves higher investment in working capital

### **Manufacturing cycle**

The manufacturing cycle comprises of the purchase and use of raw materials and the production of finished goods. The time which elapses between the commencement and end of the manufacturing process has an important bearing upon the requirements of working capital. Longer the manufacturing cycle, large will be the firm's working capital requirements

### **Sales Growth**

The working capital needs of the firm increase as it sales grow. It is difficult to precisely determine the relationship between volume of sales and working capital needs. In practice, current assets will have to be employed before growth takes place. It is, therefore, necessary to make advance planning of working capital for a growing firm on a continuous basis.

### **Demand Conditions**

Most firms experience seasonal and cyclical fluctuations in the demand for their products and services. These business variations affect the working capital requirement, specially the temporary working capital requirement of the firm. When there is an upward swing in the economy, sales will increase, correspondingly, the firm's investment in inventories and book debts will also increase. On the other hand, when there is decline in the economy, sales will fall and consequently, levels of inventories and book debts will also fall.



### **Firm's credit policy**

The credit of the firm affects working capital by influencing the level of book debts. A liberal credit policy, without rating the credit worthiness of customers, will be detrimental to the firm and will create a problem of collecting funds later on. Slack collection procedures can increase the chance of bad debts. Liberal credit policy of a firm require more book debts which increase high working capital. On the other hand, tight credit policy reduce investment in book debts which decrease working capital needs of the firm.

### **Availability of credit**

The working capital requirements of a firm also affected by credit terms granted by its creditors. A firm will need less working capital if liberal credit terms are available to it. A firm, which can get bank credit easily on favorable conditions, will operate with less working capital than a firm without such a facility.

### **Price level changes**

The financial manager should anticipate the effect of price level changes on working capital requirements of the firm. Generally, rising price level will require a firm to maintain higher amount of working capital. However, companies which can immediately revise their product prices with rising price levels will not face a severe working capital problem. Further, effects of increasing general price level will be felt differently by the firms as individual prices may move differently. Thus, effect of rising prices will be different for different companies. Some will face no working capital problem, while working capital problems of others may be aggravated.

## **Operating Efficiency and Performance**

The operating efficiency of the firm relates to the optimum utilization of resources at minimum costs. The firm will be effectively contributing to its working capital if it is efficient in controlling operating costs. The use of working capital is improved and pace of cash cycle is accelerated with operating efficiency. Better utilization of resources improves profitability and, thus help in releasing the pressure on working capital. Although it may not be possible for a firm to control prices of materials or wages of labors, it can certainly ensure efficient and effective use of its materials, labor and other resources.

### **4.9 Financing Current Assets**

A firm can adopt different financing policies vis-a-vis current assets. Three types of financing may be distinguished: long-term, short-term and spontaneous financing. The important sources of long-term financing are shares, debentures, preference shares, retained earnings and long-term debt from financial institutions. Short-term financing refers to those sources of short-terms credit that the firm must arrange in advance. These sources include short-term bank loans, commercial papers, factoring receivables, and public deposits. Spontaneous financing refers to the automatic sources of short-term funds arising in the normal course of a business. The major sources of such financing are trade credit (creditors and bills payable) and outstanding expenses. Spontaneous sources of finances are cost free. There fore, a firm would like to finance its current assets with spontaneous source as much as possible. Depending on the mix of short-term and long-term financing, the approach followed by a company may be referred to as:<sup>10</sup>

- Matching approach
- Conservative approach
- Aggressive approach

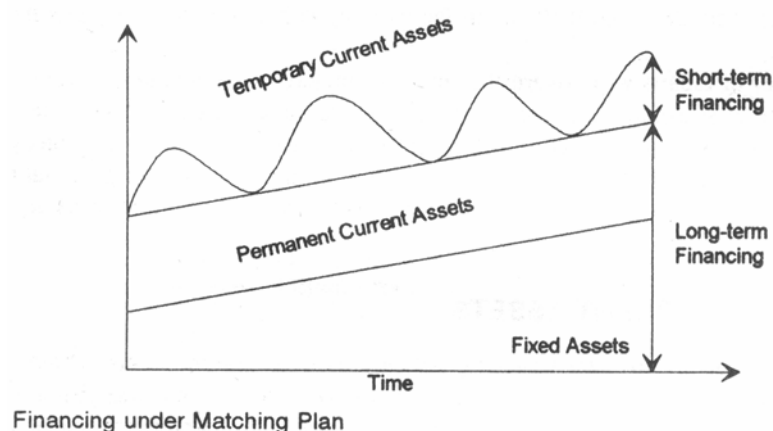
## Matching Approach

The firm can adopt a financial plan which matches the expected life of assets with the expected life of the sources of funds raised to finance assets. Thus, a ten year loan may be raised to finance a plant with an expected life of ten years, stock of goods to be sold in thirty days may be financed with a thirty day bank loan and so on. The justification for the exact matching is that, since the purpose of financing is to pay for assets, the source of financing and the asset should be relinquished simultaneously. Using long-term financing for short-term assets is expensive as funds will not be utilized for the full period. Similarly; financing long-term assets with short-term financing is costly as well as inconvenient as arrangement for the new short-term financing will have to be made on continuing basis.

When the firm follows matching approach (also known as hedging approach), long-term financing will be used to finance fixed assets and permanent current assets and short-term financing to finance temporary or variable current assets. However, it should be realized that exact matching is not possible because of the uncertainty about the expected lives of assets. The matching financing is illustrated in figure - 3.

**Figure - 3**

### Financing under matching plan



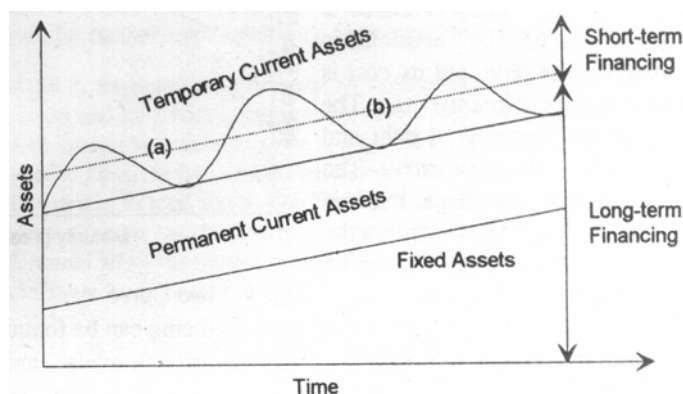
The firm's fixed assets and permanent current assets are financed with long-term funds and as the level of these assets

increases, the long-term financing level also increases. The temporary or variable current assets are financed with short-term funds and as their level increases, the level of short-term financing also increases. Under matching plan, no short-term financing will be used if the firm has a fixed current assets need only.

### Conservative Approach

A firm in practice may adopt a conservative approach in financing its current and fixed assets. The financing policy of the firm is said to be conservative when it depends more on long-term funds for financing needs. Under a conservative plan, the firm finances its permanent assets and also a part of temporary current assets with long-term financing. In the periods when the firm has no need for temporary current assets, the idle long-term funds can be invested in the tradable securities to conserve liquidity. The conservative plan relies heavily on long-term financing and, therefore, the firm has less risk of facing the problem of shortage of funds. The conservative financing policy is shown in following figure-4.

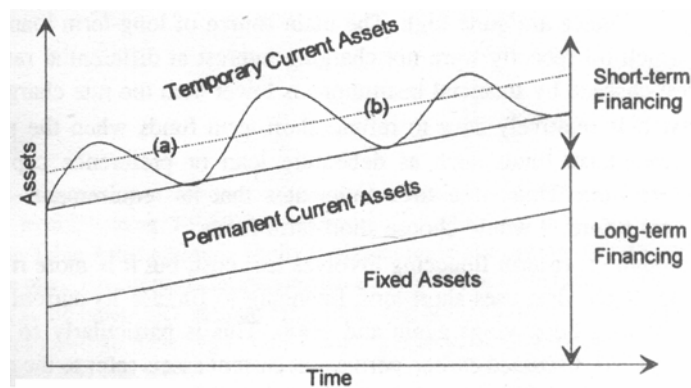
**Figure - 4**  
**Financing under conservative plan**



## Aggressive Approach

A firm may be aggressive in financing its assets. An aggressive policy is said to be followed by the firm when it uses more short-term financing than warranted by the matching plan. Under an aggressive policy, the firm finances a part of its permanent current assets with short-term financing. Some extremely aggressive firms may even finance a part of their fixed assets with short-term financing. The relatively more use of short-term financing makes the firm more risky. The aggressive financing is illustrated in figure -5.

**Figure - 5**  
**Financing under matching plan**



## UNIT- 2 INVENTORY

The quantity goods between the time of processing raw material and the time of delivering the goods to the customers is known as “Inventory” or “goods in stock”. It is money invested in raw materials, work-in-progress, finished goods, stores etc. Inventories constitute the most significant part of current assets of a large majority of companies in India. <sup>11</sup> On an average, inventories are approximately 60 percent of current assets in public limited companies in India. Because of the large size of inventories maintained by firms, a considerable amount of funds is required to be committed to them. It is, therefore, absolutely imperative to manage inventories efficiently and effectively in order to avoid unnecessary investment. An undertaking neglecting the management of inventories will be jeopardizing its long-run profitability and may fail ultimately.

### 4.10 Types of inventories

Inventories are stock of the product a company is manufacturing for sale and components that make up the product. The followings are various forms in which inventories exist in a manufacturing company: <sup>12</sup>

- A. Raw materials
- B. Work in process
- C. Finished goods

Raw materials are those basic inputs that are converted into finished product through the manufacturing process. Raw materials inventories are those unit which have been purchased and stored for future productions

Work-in-process inventories are semi-manufactured products. They represent products that need more work before they become finished products for sale.

Finished goods inventories are those completely manufactured product which are ready for sale. Stocks of raw materials and work-in-process facilitate production, while stock of finished goods is required for smooth marketing operations.

#### **4.11 Motives for holding inventories**

The question of managing inventories arises only when the company holds inventories. Maintaining inventories involves tying up to the company's fund and incurrance of storage and handling costs. If it is expensive to maintain inventories, why do companies hold inventories?

There are three general motives for holding inventories: <sup>13</sup>

- A. Transactions Motive
- B. Precautionary Motive
- C. Speculative Motive

Transactions motive emphasizes the need to maintain inventories to facilitate smooth production and sales operations. Firm should continuously require raw materials for production. Raw materials, work-in-process inventories and finished goods should keep for uninterrupted production and sales process.

Precautionary motive necessitates holding of inventories to guard against the risk of unpredictable changes in demand and supply forces and other factors. Uncertainty exists in procuring raw materials in time on many occasions. The procurement of materials may be delayed because of such factors as strike, transport disruption or short supply. Therefore, the firm should maintain sufficient stock of raw materials at a given time to streamline production.

Speculative motive influences the decision to increase or reduce inventory levels to take advantage of price fluctuations. The firm may purchase large quantities of raw materials than needed for desired production and sales levels to obtain quantity discounts of bulk purchasing. At times, the firm would like to accumulate raw materials in

anticipation of price rise. Other factors which may necessitate purchasing and holding of raw materials, inventories are quantity discounts and anticipated price increase.

#### **4.12 Functions of inventory management**

If inventories are not useful, no business firm will like to tie-up even a rupee in inventory. In fact, inventories have proved to be highly useful. This is due to the following functions they perform:

##### **1) Inventory gives protection against uncertainties**

Sometimes forecasts of market demand go wrong creating disturbances in production flow. Such disturbances can be easily absorbed through the use of inventories. Supposing there is an unexpected sudden increase in the demand for the company's product. In such a case production will require additional materials. These materials can be easily withdrawn from the stocks i.e. inventory. Thus, the requirement of production and sales department can always be fulfilled through inventories.

##### **2) Inventory enables continuous production for seasonal goods**

Even in industries in which products of seasonal demand are manufactured, men and machines are continuously and smoothly used. This is made possible due to the provision of adequate inventory. For instance, Woolen cloth is in demand only during winter and yet woolen industry functions throughout the year continuously using men and materials that it has employed. Only due to inventory it is possible to continue production throughout the year though the demand is seasonal.

##### **3) Inventory helps in getting quantity discounts**

It is on account of inventory that a company can have the facility of discounts associated with large scale buying of materials, also



inventory of finished goods allows it to produce on a large scale and there by get all the economies of large scale production.

#### **4.13 Objectives of Inventory Management**

The followings are objectives of inventory management

**1) Adequate stock:**

An inventory control system should ensure adequate stocks for continuity of operations and sales. Wherever raw materials or spare parts are required for production, they must be readily available. There should not be running out of any item at a crucial moment.

**2) Minimize inventories**

This is the most important object of Inventory management. The inventory must be minimum. But it must be consistent with the optimum requirements of production.

**3) Maintaining continuity of production**

It must be seen that production runs continuously and it must not stop for want of some raw materials, supplies or spare parts. This will help fulfill the achievement of production plan.

**4) Minimise cost of purchasing and storage**

The cost of placing frequent orders is heavy but at the same time it saves lot of expenditure on storage cost, insurance, interest etc. So a balance must be maintained between these two types of costs.

**5) Reduce wastage and losses**

It there is excessive inventory, there is a risk that goods will be stolen or will deteriorate, resulting in waste and loss. Even during

handling of materials, there is likelihood of breakage, wastage etc. Inventory control ensures that such wastage and losses are minimized.

**6) Minimise risk of obsolescence.**

When much time elapses between receipt and use of material, there is risk of deterioration of materials as well as it going out of use. Thus high inventory will lead to losses. Inventory control ensures that inventory is maintained at optimum level to avoid such deterioration and obsolescence.

**7) Effective use of funds.**

Unnecessary investment in inventory is avoided when maximum and minimum inventory levels are fixed. With the help of inventory control necessary quantity is purchased when necessary only. This ensures economical use of inventory.

**8) Assisting purchase of inventory**

One of the main objectives is to help in making purchasing scientific. This will ensure efficient purchasing, so that production is not interrupted and sales is not postponed.

**9) Giving maximum satisfaction to customers.**

Inventory control is essential for supplying products of good quality, when required and at reasonable price. It makes purchasing economical, ensures continuity of production and efficient storage possible, which will ultimately lead to customer satisfaction.

**10) Reducing loss due to fall in prices.**

If excessive inventory is purchased, it may be that there will be a great crash in prices of raw materials when it is to be used for production. Inventory control ensures that such risk is reduced to minimum.

**11) Maximum use of space**

Maximum use of space available for storage is made possible by inventory management.

**12) Proper storage**

Inventory control aims at proper storage of hundreds of items of materials and parts. This ensures that necessary material is available easily when required.

**4.14 Importance of inventory control**

The following points show how inventory management is important:

- 1) Inventory control minimize or removes the possibility of delay in production. If control over inventory becomes slack, there will be mismanagement in respect of materials and production plan would be upset.
- 2) Inventory control is necessary for successful budgeting if adequate inventory is maintained without locking-up huge capital in it, the targets of production and sales budget would be achieved.
- 3) Inventory control is essential for efficient functioning of cost accounting system, particularly for strict and efficient control over materials.
- 4) Just as too much inventory is dangerous too small inventory is also harmful. Both have their disadvantages. Excessive inventory

results in locking unnecessary capital, high inventory carrying charges, possible losses due to price decline and deterioration. Too little inventory will interrupt production, making machines and men idle and will cause sales losses. Inventory control strikes a balance between the two and saves the company from the disadvantages of both.

- 5) Inventory control protects the stock from losses and damages due to improper handling and stealing of goods by workers. There is an ample possibility of theft in case of those goods which can be easily sold in the market or which can be used in workers' homes. There are instances in which the relatives of workers employed by electricity boards have opened electric stores, where all goods are supplied by the workers employed by stealing them from board's godowns.
- 6) If inventory control system is efficient, there will be no surplus materials and spare parts, etc. waiting for orders in production department. There is a possibility of surplus getting deteriorated by dust or weather conditions.
- 7) The efficient inventory taking is a part of inventory control. It is necessary to fix various quantity levels in and system of inventory control. This is helpful in effective production planning, economical purchasing, preparing cost accounting and timely reports for managerial control.

## UNIT - 3 RECEIVABLES

### 4.15 Introduction

When goods are sold on credit in business, the price of the goods becomes receivable. We know this amount as “trade debtors” or “debtors” or “receivables” or accounts receivables. These receivable are assets of the business. Trade credit is considered as an essential marketing tool, acting as a bridge for the movement of goods through production and distribution stages to customers. A firm grants trade credit to protect its sales from the competitors and to attract the potential customers to buy its product as favorable terms. Trade credit, thus, creates receivables or book debts which the firm is expected to collect in the near future. There are three important features of receivables <sup>14</sup> (i) It involves an element of risk. There is no risk in cash sales, but in credit sales, there is a risk of bad debts. (ii) it is based on economic value. When sale is made, the economic value immediately passes to the buyer, while it will pass to the seller in future (iv) it implies futurity in the sense that the money is receivable in future.

In the present competitive economic system, credit sales are essential, unless the goods sold are in short supply. The money involved in receivables is blocked till future and the management has to arrange for the funds through debt or through issuing equity shares. Thus there is an opportunity cost of receivables. However, credit sales is essential in order to meet the severe competition. And so the management of receivable requires great care. It must be so managed that the benefit available from additional sales (i.e. profit from additional sales) and the cost of funds raised to finance the additional credit coincide.

Management of receivable is important from another view point also. It is an important component of current assets and in India it forms about one third of current assets. The funds are tied up in trade debtors and if proper care is not taken, it will affect the profitability.

#### **4.16 Meaning of receivables:**

When a firm sells goods for cash, payments are received immediately and therefore no receivables are created. However, when a firm sells goods or services on credit, payments are received only at a future date and receivables are created. It is an essential marketing tool in modern business trade. Credit sales creates receivables which the firm is expected to collect in near future. A firm grants credit to its customers so that its sales are not lost to competitors. Account receivable constitutes a significant portion of the total current assets of the business after inventories.

- 1) According to Hampton "Receivable are asset accounts representing accounts owed to the firm as a result of the sale of goods services in the ordinary course of business"
- 2) O.M. Joy writes "The term receivable is defined as a debt owed to the firm by customers arising from sale of goods or services in the ordinary course of business"
- 3) According to Bolten, "The objective of receivable management is to promote sale and profits unit that point is reached where return on investment in future funding receivables is less than the cost of funds raised to finance that additional capital."

This means that an organization can continue to be liberal in its credit policy till the point is reached where cost of extending credit exceeds the benefits arising out of liberal credit terms.

#### **4.17 Objectives of maintaining receivables:**

Credit sale is an essential part of the modern business operations, particularly in a situation where there is competition; no business can survive without selling goods or services on credit. There is bound to be some level of permanent receivables. We can identify three main objectives of maintaining receivables:

**(1) To achieve growth in sales :**

It is natural that a firm which sell on credit will get more sales than the firm which sells only for cash. Many customers do not like to pay cash when they make purchases. They may not have enough cash at the time of purchase and must wait until they resell the goods before they have money to pay them. Some business firms may want the bill to be sent to their accounts department, where they would be checked before payment is made. Because of such practices of customers, the firm which sell on credit will have larger sales.

**(2) To Increase profits**

Due to practice of selling goods on credit, there will be increased sales and it will result into higher profits for the firm. This will happen only when the gross profit margin is greater than the additional cost associated with the credit policy. The additional margin should be greater than the collection costs, loss of bed debts and also the opportunity costs. If it is not possible to cover these costs, it would be better to make additional sale for cash only.

**(3) To meet competition :**

Where competition prevails, all firm in that business will adopt similar policy as regards credit sales. Of course, credit policy varies widely from industry to industry e.g. in textile industry, there is a practice of granting credit of 180 days due to severe competition, but in automobile industry, no credit sale is there. Of course, the practice of hire purchase selling is prevalent there. A firm would lose the customers if it does not fall in line with competitors as regards credit sales.

**4.18 Costs of maintaining receivables:**

The following are the major costs associated with receivables:

**(a) Capital cost :**

The increased level of accounts receivable arising out of liberal credit policy results in blocking of firm's resources in them. This is because there is a time lag between the sale of goods to customers and receipt of money from them. But, the firm has to arrange money, in the meantime for meeting. It's own obligations such as suppliers of materials, wages to labor etc. Additional funds may either be raised from outside or out of profits retained in business. In the former case, the firm has to pay interest to the outsider while in the latter case, there is an opportunity cost to the firm. This opportunity cost is the return which the firm could have earned otherwise by investing the funds somewhere else.

**(b) Collection cost :**

These costs are incurred in collecting the payments from the customer to whom credit sales have been made. It includes cost of additional steps taken to recover money from customers. It involves cost of stationery, postage, legal costs in extreme cases.

**(c) Administrative costs:**

The firm has to incur additional administrative costs for maintaining accounts receivable. It includes cost of creation and maintenance of credit department, staff cost, stationery cost and also the expenses incurred in making investigations regarding credit worthiness of the customers.

**(d) Default cost :**

Bad debt losses arise when the firm is unable to collect some of its accounts receivables such debts are treated as bad debts and have to be written off. Such costs are known as default cost associated with credit sales and accounts receivable.



#### **4.19 Optimum credit policy:**

If a firm sells on credit, it has to decide the optimum credit policy. It has to be neither too liberal nor too rigid. The sales must go on rising and yet the bad debts and collection costs are kept to the minimum. Thus two types of credit policies are to be considered (i) liberal or lenient credit policy and (ii) strict or stringent credit policy.

In case of liberal credit policy, the customers are allowed liberal terms for credit sales and credit is granted for a longer period even to those customers whose financial position is doubtful. While a tight or strict or stringent credit policy implies that the firm sell on credit on a highly selective basis and only to those customers whose financial position is sound.

A liberal credit policy results into increased sales and increased profits. The firm generally sells on credit to expand its sales to existing customers or it may sell on credit to attract new customers. Sometimes in case of severe competition, it may have to grant credit to maintain its sales. This motive is sales-retention. But along with the increased sale and profitability, the costs will also increase along with the size of receivables. The bad debts cost or what is called default expenses will increase. The collection costs will likewise increase. Thirdly the opportunity costs also rise along with the increase in the size of receivables. All these would affect the liquid position of the firm adversely. Thus on one hand, due to increased sales, profitability increases, on the other hand liquidity decreases. So the optimum size of receivable will be that where there is equilibrium between profitability and liquidity.

#### **4.20 Credit policy variables:**

While framing optimum credit policy the following three variables of credit policy must be carefully considered. <sup>15</sup>

- 1) Credit standards
- 2) Credit terms
- 3) Collection policy

The credit policy is generally framed and administered by a finance manager. But the credit policy has a wide ranging impact on production sales and finance functions. Hence it would be advisable to establish a committee consisting of executives of production, sales and finance departments to frame the credit policy and its implementation should be left to the finance manager.

The credit policy should be reviewed from time to time by the committee and necessary changes must be effected in view of the experience of its implementation. Of course, it is very difficult to analyze the effects of the changes in above variables and it is all the more difficult to establish an optimum credit policy by proper combination of the above variables. Hence, the optimum credit policy is framed gradually by making changes in one or two variables and observing the changes in the sales and cost. Thus by experience an optimum credit policy is framed.

#### **(A) Credit Standards :**

Credit standards means the criteria on the basis of which credit is granted to a particular customer or a group of customers, if the standards are very strict and most of the sales are made for cash, the bad debts would be minimum and administrative costs would also be lower. At the same time, the sales also would not increase and consequently profit will not rise. If the credit standards are lenient, the sales and debtors both would increase, but the possibility of bad debts will also increase and collection costs would rise. Hence, the credit

policy must be so framed that it will lead to increase in sales and costs would be low.

In order to determine the creditworthiness of customers two factors are important. One the average collection period of the particular customer and two, his default rate. Average collection period means number of days after which the customers make payment. The longer this period, the larger would be the size of book debts. Default rate means proportion of bad debts or bad debts loss ratio. It indicates default risk, which means possibility of customer not making payment at all. While determining the credit worthiness of a customer five C's are taken in to account <sup>16</sup> (i) character (ii) capacity (iii) collateral (iv) condition (v) capital.

Character of a customers includes the willingness of the customer to make payment. Good customers are conscious about their character. They believe that their prestige would be adversely affected, if they do not meet their obligations on time. The credit manager should determine the character of customer from the reference provided by him, the opinion of the bank and even the past experience of the firm is useful.

Capacity is the customers ability to pay. From the existing position of the customer's business and its profitability, the credit manager would be able to determine his capacity to pay.

Collateral security may be offered by the customer, which must be evaluated by the credit manager and real worth of assets offered must be determined.

Condition is the financial condition and prevailing economic conditions which may affect the customer's ability to pay. The adverse condition may affect the ability of the customer to pay. An experienced credit manger may be able to judge properly whether the customer would be able to pay or not.

Capital of the customer determines the financial strength of the firm. But various ratios are to be computed from customers financial statements on the basis of which his ability to pay can be determined.

### **(B) Credit Terms**

Credit term means both the credit period and the cash discount offered. Credit period is the length of time for which credit is extended to customers. It is stated by such terms as 3/15 net 45 meaning that if payment is made within 15 days 3% cash discount will be given. Even without discount, payment will have to be made within 45 days. Generally, the customers of the industry determine the credit terms. A firm may be able to increase its product demand by extending the credit period. But the cost of the extended credit period must be less than the increased operating profit. As far as cash discount is concerned, it may have some effect on demand and bad debt losses.

### **(C) Collection Policy**

The collection policy must be such as would help in collecting book debts in time and reduce the bad debts. A collection policy should ensure prompt and regular collection. This would reduce the need for more working capital and loss of bad debts. Hence the firm must adopt some tough stand with the customers not making payment even after credit period. Firstly, a letter must be written to the customer to pay his dues. If the customer does not respond, then, a strong letter must be written. As a last step, a letter must be sent informing the customer that legal action would be taken if dues are not paid within certain days. As a final step, legal action may be taken. But in respect of financially weak customers, legal action may spoil the chances of collection. Hence, a settlement must be made. If the regular customers do not make timely payment due to economic conditions temporarily, it would not proper to be strict and credit period may be extended.

#### **4.21 Determinants of size of receivables:**

The amount of receivables may be more or less depending upon number of factors. The primary factors are three, like volume of credit sales, the credit policies and the credit terms. Besides, there are number of other factors which are described below :

##### **1) Volume of credit sales :**

The most important factor determining the size of receivables is the volume of credit sales made by the firm. Generally in all firms in the same industry the credit terms are uniform. Hence, a firm with a large sales volume may have a larger level of receivables than a firm with a small volume of sales. A firm can forecast its changes in receivables on the basis of sales volume. If a firm forecasts an increase 25% in its credit sales for the next year, it will also have an increase of 25% in its receivable..

##### **2) Credit policies :**

If a firm has a liberal credit policy, it will have a higher level of receivable than a firm having a stricter credit policy. If a firm has a liberal credit policy it will encourage even regular customers to pay their dues without hesitate. Firms which otherwise pay their bills on time are not worried even If they are late by a few days in making payment. if there is no pressure on customers to make timely payment, the default in payment will become common.

##### **3) Period of credit :**

The size of receivables is closely linked with the period of credit. A firm with a longer credit period will have a larger size of receivables than a firm having a shorter credit period. If a firm wants to increase its sales, it will have to increase its credit period and in that case the size of the receivable will also increase proportionately. If a firm extends its terms from net 20 to net 40 i.e. from 20 days to 40 days, which is 100

per cent increase, there would be a 100 per cent increase in the size of its receivable. If a firm wants to extend its credit period, then there would be rise in certain expenses like collection charges, the proportion of bad debts and also in opportunity costs. Hence, if the earning from increased sale is in excess of these increased cost then only the credit period may be extended.

#### **4) Cash discount :**

Cash discount tempts customers to settle their accounts promptly. Cash discount will thus reduce the size of the receivables and the opportunity costs of the firm also get reduced. If the demand for goods is elastic, the offer of cash discount will lead to increased sales and the profitability increases. Finally, due to prompt payment even the risk of bad debts is minimized. However, cash discount reduces the cash inflow of the firm and to that extent even the profitability declines. Hence, before taking decision of offering cash discount the management must compare its benefits with its costs: The benefits are (i) The profit resulting from increased sales. (ii) The return on saving due to reduced size of receivables and (iii) The reduce possibility of bad debts. Against this the total amount of cash discount allowed to customer, must be compared. If the benefits exceed this amount of cash discount, the policy must be adopted.

## **UNIT - 4 CASH**

### **4.22 Introduction**

Cash is the important current asset for the operations of the business. Cash is the basic input needed to keep the business running on a continuous basis. Cash is the money which a firm can disburse immediately without any restriction. The term cash includes coins, currency and cheques held by the firm and balances in its bank accounts. Sometimes near cash items, such as marketable securities or bank time-deposits, are also included in cash. When a firm has excess cash, it invests it in marketable securities. This kind of investment contributes some profit to the firm.

The firm should keep sufficient cash, neither more nor less. Cash shortage will disrupt the firm's manufacturing operation while excessive cash will simply remain idle, without contributing anything towards the firm's profitability.

### **4.23 Motives for holding cash**

Following are the motives for holding cash by firm: <sup>17</sup>

- The Transactions Motive
- The Precautionary Motive
- The speculative Motive

#### **Transaction Motive**

The transactions motive requires a firm to hold cash to conduct its business in the ordinary course. The firm needs cash primarily to make payments for purchases, wages and salaries, other operation expenses, taxes, dividends etc. The need to hold cash would not arise if there were perfect synchronization between cash receipts and cash payments, i.e. enough cash is received when the payment has to be made. But cash receipts and payments are not perfectly synchronized. For those periods, when cash payments exceed cash receipts, the firm

should maintain some cash balance to be able to make required payments. For transactions purpose, a firm may invest its cash in marketable securities. Usually, the firm will purchase securities whose maturity corresponds with some anticipated payments, such as dividends, or taxes in future. The transactions motive mainly refers to holding cash to meet anticipated payments whose timing is not perfectly matched with cash receipts.

### **Precautionary Motive**

The precautionary motive is the need to hold cash to meet contingencies in future. It provides a cushion or buffer to withstand some unexpected emergency. The precautionary amount of cash depends upon the predictability of cash flows. If cash flows can be predicted with accuracy, less cash will be maintained for an emergency. The amount of precautionary cash is also influenced by the firm's ability to borrow at short notice when the need arises. Stronger the ability of the firm to borrow at short notice less the need for precautionary balance. The precautionary balance may be kept in cash and marketable securities. Marketable securities play an important role here. The amount of cash set aside for precautionary reasons is not expected to earn anything, therefore, the firm should attempt to earn some profit on it. Such funds should be invested in high liquid and low risk marketable securities. Precautionary balance should thus, be held more in marketable securities and relatively less in cash.

### **Speculative Motive**

The speculative motive relates to the holding of cash for investing in profit making opportunities as and when they arise. The opportunity to make profit may arise when the security prices change. The firm will hold cash, when it is expected that interest rates will rise and security prices will fall. Securities can be purchased when the interest rate is



expected to fall, the firm will benefit by the subsequent fall in interest rates and increase in security prices. The firm may also speculate on materials prices. If it is expected that materials prices will fall, the firm can postpone material purchasing and make purchases in future when price actually falls. Some firms may hold cash for speculative purposes. By and large business firms do not engage in speculations.

### **Compensative motive**

Banks provide different types of services to the firms e.g. clearance of cheque, transfer of funds etc. against a nominal fee or commission. Generally, clients (firms) are required to maintain a minimum cash balance at the bank which cannot be utilized by them for transaction purpose. The bank can use the same for generating returns. To get compensated for free services, they provide to customers, the banks require the clients to always keep a bank balance sufficient to earn a return equal to the cost of services. Such balance are called compensating balance.

### **4.24 Factors affecting cash management**

Cash management involves the following four factors.

- a) Ascertainment of the minimum cash balance and controlling the level of cash
- b) Controlling cash inflows
- c) Controlling cash out flows
- d) Optimum investment of surplus cash

#### **(a) Controlling the level of cash**

The following tools are available for controlling level of cash.

**(i) Preparing cash budget**

Cash budget is a statement showing estimated cash inflows and cash outflows over the next planning period. The surplus or short fall in cash is highlighted by the cash budget.

**(ii) Providing for contingencies**

Cash budget takes care of estimated cash inflows and cash outflows. In addition, a suitable minimum amount of cash must be kept for meeting unforeseen contingencies such as strikes, floods short-term recession etc.

**(iii) Consideration of cost of shortage of cash**

Such costs may arise when the firm is not able to meet its obligation in time. The cost arises in terms of loss of firm's reputation or additional cost of borrowing at higher rate of interest.

**(iv) Availability of other sources of funds**

If there are other sources, from which cash can be arranged at shorter periods, then levels of cash may be kept little lower.

**(b) Controlling of cash inflows**

After having prepared a cash budget, a finance manager must ensure that there is no significant deviation between projected cash inflow and its actual receipts. Speedier collection of cash can be made possible by adoption of the following techniques.

**(i) Concentration Banking**

Concentration banking is system of decentralized collection of accounts receivable in case of large firms having their business spread over a large area. Under this system, a number of collection centres are opened by the firm at select strategically located places. The customers

are required to send their payments to their nearest collection centre. The firm opens bank accounts at those places. These cheques are then deposited into local banks. Instructions are given to those local banks to transfer funds telegraphically to the bank at head office. The finance manager sitting in the head office then disburses funds according to needs.

**ii) Lock Box system :**

Lock box system is a further step in speeding up collection of cash. In this system, the firm hires a post office box and asks its customers to send the cheques to the box. The firm's local bank is given authority to open the box and credit the payment in the firm's bank account. The bank picks up the mail several times a day. Standing instructions are given to the local banks to transfer funds to head office bank when they exceed a particular limit. The lock box system has the following advantages:

- a) All remittances are handled by the banks at a very low cost
- b) The cheques are deposited immediately upon receipt of remittances and the process of collection does not have to wait till the firm completes its processing for internal accounting purposes.

**(c) Controlling cash outflows :**

The operating cash requirement can be reduced by controlling cash outflows. There are several techniques:

**i) Centralized disbursements :**

All the payments can be made from only one account at head office. This will result in delay in presentation of cheques for payments by parties who are working from distant places.

## **ii) Playing Float :**

Float means the amount tied-up in cheques that have been drawn but have not yet been presented for payment. There is always a time lag between issue of a cheque by the firm and its actual presentment for payment. As a result of this a firm's actual balance at bank may be more than the balance as shown by its books. This difference is called "payment in float". There are two ways of doing it:

- a) Paying from a distant bank
- b) Cheque encashment analysis

In the first case cheque can be issued from a bank situated at distant place from the customers bank. In the second case, an analysis can be made when actually the cheques are normally presented to firm's bank. Because there are always a situation in which cheque has been issued but is not presented by the customer for payment for several days.

## **(d) Optimum investment of surplus funds:**

Following points need to be considered for the investment of surplus funds. (i) Determination of surplus cash: surplus cash is the cash in excess of the firm's normal cash requirements. This requirement can be computed by the multiplication of desired days of cash and average daily outflows. If the cash balance is more than this normal requirement, then the surplus cash can be invested some where to earn returns. (ii) Determining channels of investment : Surplus funds can be invested in marketable securities or somewhere else. While exercising such discretion, a finance manager must take care of security, liquidity, yield and maturity associated with marketable securities.

## **4.25 Factors Determining Cash Needs.**

The primary factors that determine the cash needs are :

- i) Synchronization of the cash flow

- ii) "Cash out" cost
- iii) "Idle cash carrying cost
- iv) Cost of cash management
- v) Uncertainty in cash flows

**i) Synchronization of cash flow :**

The need for maintaining cash balance arise from a mis-match of cash receipts and cash payments. Hence, the first factor taken into account is the non-synchronisation of cash receipts and cash payments. Cash budget is an appropriate technique to determine when the firm will have excess cash or a shortage of cash.

**ii) Cash out cost :**

Every shortfall in cash whether expected or unexpected is associated with some cost, depending upon the severity, duration and frequency of shortfall and here the shortage is covered. Expenses incurred as a result of shortfall are called short costs. They are as follows:

- a) Cost of rising cash cost incurred (brokerage etc) in selling of marketable securities interest expense incurred for borrowing cash.
- b) Loss of benefit of purchasing on "cash discount" terms.
- c) Loss of reputation for not being able to make payment in due time.

**iii) Idle cash carrying cost :**

If the cash remains idle in the firm, the firm is incurring an opportunity cost in terms of loss of interest had this money been utilized some where else to earn some return. This loss of interest is the idle cash carrying cost.

**iv) Cost of cash management :**

These are administrative cost incurred for management of cash. It includes cost, salary of the concerned staff, handling cost of securities etc.

**v) Uncertainty in cash flows :**

The cost incurred is keeping idle cash to take care of an irregular cash collections, customer's default etc. This can be reduced through improved forecasting of cash payments and through ability to borrow through bank overdraft.

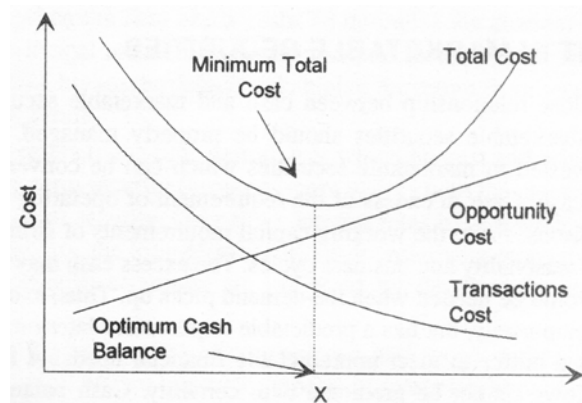
**4.26 Determining the optimum cash balance**

One of the most important tasks of a finance manager is to maintain cash balance including bank balance at a proper level. The firm needs cash not only to purchase raw materials and pay wages, but also for payments of dividend, interest, taxes and countless other purposes. The operating cash balance is maintained for transaction purposes and an additional amount may be maintained as a buffer or safety stock. The financial managers should determine the appropriate amount of cash balance. Such a decision is influenced by a trade-off between risk and return. If the firm maintains a small cash balance, its liquidity position weakens and it suffers from a paucity of cash to make payments. But a higher profitability can be attained by investing released funds in some profitable opportunities. When the firm runs out of cash, it may have to sell its marketable securities, if available, or borrow. This involves transaction costs. On the other hand, if the firm maintains a high level of cash balance, it will have a sound liquidity position but forego the opportunities to earn interest. The potential interest lost on holding large cash balance involves an opportunity cost to the firm. Thus, the firm should maintain an optimum cash balance,

neither too small nor too large. To find out the optimum cash balance, the transaction costs and risk of too small a balance should be matched with the opportunity costs of too large a balance.<sup>18</sup>

The following figure shows this trade-off graphically. If the firm maintains larger cash balances, its transaction cost would decline but the opportunity cost would increase. At point x the sum of the two costs is minimum. This is the point of optimum cash balance which a firm should seek to achieve.

**Figure - 6**  
**Optimum Cash Balance**



#### **4.27 Conclusion**

This chapter is related with theory on working capital management. It also deals with components of the working capital viz cash, inventory and accounts receivables.

**References:**

1.
  - i) Edward S. Mead, Corporate Finance, Appleton Century Co., New York: 1933, p. 303.
  - ii) John C. Baker and D. W. Mallot, Introduction to Corporate Finance, McGraw Hill Book Co., New York, 1936, p. 92.
2. Weston J. Fred and Eugene F. Brigham, Managerial Finance, Illinois : Dryden Press, 1975, p. 114-115.
3. Charles Gerstenberg, Financial Organisation and Management of Business, Fourth Edition, Asia Publishing House, Mumbai, 1960.
4. View on Gross Working Capital concept refer:
  - i) John C. Baker and D. W. Mallot, Introduction to Corporate Finance, McGraw Hill Book Co., New York : 1936, p.92.
  - ii) Keneth Field, Corporation Finance, The Roland Press Co., New York, 1938, pp. 173, 175 & 180.
  - iii) Jules L. Bogen, Financial Handbook, The Ronald Press Co., New York, 1933, p. 303.
  - iv) Edward S. Mead, Corporate Finance, Appleton Century Co., New York, 1933, p. 303.
  - v) A. K. Sen, Working Capital in the Indian Economy - A Conceptual Framework and Some Estimates in Pricing and Fiscal Policies, edited by A. N. Rosenstein Rodan; George Allen and Unwin Ltd., London, 1964, p. 125.
  - vi) A. S. Dewing, The Financial Policy of Corporations, The Ronald Press Co., New York, 1953, p. 686.
5. View on Net Working Capital concept refer:
  - i) E. A. Saliers, Handbook of Corporate Management Procedure, McGraw Hill, New York, 1927, p. 728.
  - ii) Hanry G. Guthmann and Herbert E. Dougall, Corporate Financial Policy, Prentice Hall, New York, 1959, p. 282.



- iii) Colin Park and John W. Gladson, Working Capital, McMillan Company, New York, 1963, p. 2.
  - iv) Edward E. Lincoln, Applied Business Finance, McGraw Hill, New York, 1929, p. 212.
  - v) W. Mackenzie Stevens, Financial Organization and Administration, McGraw Hill Book Co., New York, 1934, p. 84.
6. Van Horne J.C. and Wachowicz J. M., Fundamentals of Financial Management, Prentice-Hall of India Private Ltd., New Delhi, 2005, p.213.
  7. Panday I. M., Financial Management, Vikas Publishing House Pvt. Ltd., New Delhi : 1995, pp. 736-737.
  8. Moyer, R. C. et. al., Contemporary Finance Management, West Publishing Co., 1984, p. 562.
  9. Ramamoorthy, V. E., Working Capital Management, IFMR, Madras, 1976, pp. 51-63.
  10. Weston, J. Fred and Eugene F. Brigham, Managerial Finance, Illinois: Dryden press, 1975 P. 510.
  11. Reserve Bank of India Bulletin, "Finances of Medium and large public limited companies. 1975-'76, RBI Bulletin, September 1977, P. 556.
  12. Howard, Leslie R., working capital : its management and control, London : Macdonald and Evan Ltd., 1971, pp. 92-93.
  13. Starr, Martin, K. and David W. Miller, Inventory control : theory and practice. Englewood cliffs, N.J. : Prentice – Hall 1962, P 17.
  14. Ramamoorthy, V. E., Working Capital Management, Madras : Institute for financial management and research, 1976 p. 183.
  15. Oh, J. S. "Opportunity cost in the evaluation of investment in accounts receivables," financial management summer 1976; and Dyle E.A., "another look at the evaluation of investments in accounts receivables", financial management, winter 1977.

16. Weide, J.V. and Maier, S.E., Managing corporate liquidity : An Introduction to working capital management, John Wiley, 1985, p. 258.
17. Pogue, G.A. Faucett, R.B. and Bussard, R.N., "Cash management : A System approach" Industrial Management Review (Feb. 1970) pp. 55-74.
18. Solomon, E and Pringle, J. J., An introduction to financial management, prentice Hall of India, 1977 P 185.

# **CHAPTER - 5**

## **HISTORY AND DEVELOPMENT OF SELECTED COMPANIES WORKING AS TRADING HOUSES IN INDIA**

- 5.1 HISTORY AND DEVELOPMENT OF SELECTED TRADING HOUSES
- 5.2 CONCLUSION

## **1. Gujarat Ambuja Exports Ltd.**

Gujarat Ambuja Exports (GAEL) incorporated in August 1991, and was promoted by Vijaykumar Gupta. The company is engaged in the manufacture of refined castor oil, hydrated castor oil and hydrogenated castor oil. These products have extensive usage in industries manufacturing detergents, lubricants and chemicals. The promoters also have interests in Ambuja Agro, Gujarat Ambuja Soya Products, Ambuja Flour Mills, etc.

It came out with a public issue aggregating Rs. 3.78 crores in April 1992. The issue was to part-finance a project for crushing castor seed, setting up a refinery and to meet working capital requirements.

The company's soya cakes plant commenced commercial production in December 1995, and the vanaspati ghee project in the 1996-'97. During 1998-'99, Gujarat ambuja cotspin and Gujarat ambuja proteins were amalgamated with the company. The company converted its two solvent extraction plants at Kadi into 100% EOU. It also received ISO 9000 certification for the above two plants.

The company has formed a strong technical department to continuously monitor energy consumption and plan and execute energy conservation schemes. Effective steps are being taken for overall technological up gradation of the plant & machinery.

The company has expanded the installed capacity of solvent extraction unit during the year 2000 by 30,000 tones and with this expansion the total capacity has been increased to 4,50,000 tones. The company continued its journey to growth. The soya de-oiled cake exports won the company the coveted recognition of being second largest manufacturer exporter in India based on the performance of 1999-2000. The exports of de-oiled cakes have also registered tremendous growth during the year 2000-'01. The amalgamation of the

company with Jupiter biotech ltd. was approved by the Hon'ble high court of Gujarat. The exchange ration is fixed as 1:1. With effect from 30.01.2001, Jupiter biotech ltd. was merged with Gujarat Ambuja Exports Ltd.

## **2. Ruchi Soya Industries Ltd.**

Ruchi Soya Industries Ltd. (RSIL), a flagship of indore based Ruchi group of companies is the first exporter of soya bean meal from India. Ruchi, a pioneer soya processor group started operations in 1972-'73. Ruchi is one of the largest crushers of soya beans in India, and has installed a crushing capacity of 2500 mts. per day in Indore, which is the largest crushing capacity at a single location. Ruchi crushes 25% of soya crop in India. It is a leading manufacturer of textured soya protein and vanaspati marketed under the "Nutrela" and "Soyumm" brands respectively.

At present Ruchi Soya Industries has three subsidiaries namely Ruchi Worldwide Ltd., Ruchi Health Foods Ltd. and Aneja Solvex Ltd. Ruchi International Ltd. was a subsidiary of the company till the year 1999. The company divested the equity shares of Ruchi International Ltd. in the year 2000 and subsequently it ceased to be the subsidiary of the company.

The company went public in 1986. In October 1986, the company made a right issue aggregating to Rs. 7.03 crores. The next rights issue of fully convertible debentures was made in 1989. RSIL utilized the proceeds from right issue for enhancing the capacities of soya food processing and also it had set up a vanaspati refinery plant. During the year 1990-'91, 2,89,413 – 13.5% fully convertible debentures of Rs. 70/- out of Rs. 150/- each has been converted into 5 equity shares of Rs. 10/- each at a premium of Rs. 4/- per equity share on 15<sup>th</sup> september 1990. The production in vanaspati plant and food

processing unit commenced in the month of March 1991, with capacity of 7,500 mt. 60,000 mt. 12,000 mt respectively.

During 1991-'92, the company increased its existing capacity of textured soya protein from 12,000 mt. to 24,000 mt. and vanaspati from 7,5000 mt. to 15,000 mt. The Lecithin plant has commenced production with its full capacity during the year 1992. The company came out with right equity issue of Rs. 39.10 crores in the month of August 1992, to part finance the expansion programme and for long-term working capital requirements. During the year 1992-93, the capacity of vanaspati ghee was increased from 15,000 mt. to 30,000 mt. and capacity of soya bean extraction was installed with a capacity of 60,000 mt.

During the year 1993-'94, the company issued 11,75,000 equity shares on private placement basis to the foreign institutional investors in the month of march 1994, to meet the long-term working capital requirements of the company. During the year the company has also issued 70 lac warrants on private placement basis.

In the month of March 1995, the installed capacity of oil has been increased from 30,000 tpa to 55,000 tpa and soya bean extraction from 60,000 tpa to 1,85,000 tpa.

During the year 1997-'98, the company has launched two new brands namely 'SUNRICH' for sunflower refined edible oil and 'RUCHI GOLD' for refined edible palmolein oil. The company's products are also being marketed to neighboring countries like Srilanka, Bangladesh, Nepal etc. During the year 1998-99, the company launched "RUCHI SONA" new brand for imported rapeseed refined oil and "RUCHI STAR" new brand for imported soya bean refined oil to cater the need of popular segment.

During the year 1999-2000, the company issued 8,53,250 equity shares of Rs. 10/- each at a price of Rs. 28/- per share on preferential basis in accordance with SEBI guidelines prevailing at that time. During

this period one of the subsidiary of the company has set up a refinery unit near Chennai, which has commenced commercial production in the month of January 2000. The company has also increased the capacity of vanaspati ghee by 70,000 mt. during the period.

During the year 2001-'02, the company has set up a composite unit comprising of refinery, vanaspati and textures vegetable protein plants at Mangalore.

In the year 2003-'04, the company setup a composite unit comprising of edible oil refinery and vanaspati plant at village Esambe, Distt. Raigad in Maharashtra. The company acquired a solvent extraction plant at Sriganganagar (Rajasthan) through its wholly owned subsidiary Aneja Solvex Ltd. during the year.

During the year 2004-'05, the company has setup a solvent extraction plant and refinery unit at Nagpur in the state of Maharashtra. Solvent extraction plant was commissioned Sujalpur in Madhya Pradesh. The company has also commissioned wind turbine of 1.2 MW capacity at Nagda Hills, Dewas in Madhya Pradesh for generation of power for captive use. The capacity of textured soya proteins, seed extraction, oils, were also increased to 84,000 mt. 10,47,000 mt. and 11,01,000 mt. respectively. To cater the growth demands of eastern region the company is implementing a composite unit comprising edible oil refinery and vanaspati plant at Haldia in West Bengal.

### **3. Color Chem Ltd.**

Colour Chem Ltd. (CCL) was incorporated in 1956 with technical and financial collaboration of Hoechst and Bayer AG and three Indian business groups – the Ruias, the Khatau and Ghias. In October 2000, 50.1% equity stake of the company held by Hoechst AG, Germany was transferred to EBITO Chemieeteiligungen AG, Switzerland, a

subsidiary of Clariant International AG, Switzerland and subsequently EBITO acquired 20% stake of the company in 2005. Now EBITO holds 70.1% equity stake of the company. Subsequently to the merger of the speciality chemicals division of Hoechst AG with Clariant AG in 1997, CCL has become a part of the global Clariant group. CCL has subsidiaries – Vanavil dyes & chemicals in Cuddalore, Tamilnadu and Kundalika Investments Ltd.

CCL is a leading manufacturer and merchant exporter of pigments, fine chemicals and leather chemicals and currently enjoys Trading House status.

The business structure of the company now comprises of the following division: life science and electronic chemicals, pigments and additives, textile, leather and paper chemicals, cellulose ethers & polymer sates, functional chemicals.

During 2000-'01, the Reserve Bank of India approved the disinvestments of Colour Chem's holding of 24,000 equity shares of face value of Rs. 100/- each in Haycolour limited, Sri Lanka to M/s. Hayleys textile services limited, Sri Lanka at par value. It has also introduced several new products both in leather chemicals and textile chemicals. As a part of acquiring various new technologies, the company has acquired the technology for manufacture of Diketen and the company is a dominant player in these industrial segments.

In 2005, the company decided to amalgamate the companies namely, Clariant (India) Ltd., BTP India pvt. Ltd., Vanavil dyes & chemicals Ltd. and Kundalika Investments Ltd. into the company, with the swap ratio of 1 equity share of CCL for 1 equity share of Clariant India Ltd., 1 equity share of CCL for 5 equity share of BTP India pvt. Ltd. and 1 equity share of CCL for 5 equity share of Vanavil dyes & chemicals Ltd. Accordingly the scheme of amalgamation Vanavil dyes & chemicals Ltd. and Clariant India Ltd. was amalgamated with the company in April 2006



in the above said ratio and the name of the company has changed from colour chem ltd. (CCL) to Clariant Chemicals (India) Ltd.

During 2004-'05, the Company expanded installed capacity of synthetic resins, binder materials and auxiliaries by 3000 mt with this expansion the installed capacity of synthetic resins, binder materials and auxillaries increased to 19,150 mt.

#### **4. Hikal Ltd.**

Hikal limited (Hikal) was incorporated in 1988, with equity participation of Hiremaths, Kalyani group and subsequently Sumitomo corporation of Japan. The manufacturing activities started at Mahad in 1991, at Taloja in 1998 and at Panoli in the year 2000.

The company has expanded facilities of its existing products and diversified into the production of metoxuron technical, a wheat herbicide, which is being manufactured for the first time in the country. Sumitomo corporation, Japan, which earlier marketed Hikal's products, acquired an equity stake in the company to source intermediates on a toll-manufacturing basis to be marketed through Sumitomo's worldwide marketing network.

In the year 1996, company came with public issue to part finance the expansion rproject of Thiabendazol. The company has been accorded export house status by the government of India. The company setup a new manufacturing facility near Mumbai in collaboration with Merck & Co. Inc, USA for the manufacture of a post-harvest fungicide.

A 100% EOU unit for the manufacture of Thiabendazole at Taloja has been successfully commissioned and quality matches Merck & Co. Inc.- USA standard and is now being sold all over the world. The company also received the prestigious "5 star safety award" from British Safety Council – UK for high standards maintained at the Taloja site.

During 1999-2000, the company has acquired an Agrochemical manufacturing site at Panoli, Gujarat from Novartis India limited. The company's status as an export house has been elevated to that of a Trading House.

In 2001, the company acquired the R & D unit and Bulk Drug manufacturing facility of Wintac Ltd. at Bangalore in Karnataka. In 2004, the company commissioned a new bulk active pharmaceutical plant with CGMP requirements in Bangalore Unit. The Bangalore API plant approved by USFDA and Australian TGA. During 2004-05 a 100% EOU plant for Pharmaceutical intermediates is being setup. This unit is expected to be operational in the first half of the coming year.

During 2004-'05, the company is establishing a state-of-art R & D facility in Pune and this research facility is expected to be operational the year 2006.

In August 2004, the company has entered into an agreement with Bayer Crop Science AG to manufacture and supply agro biochemical intermediates and has setup a plant to manufacture this products in Mahad Plant.

In 2005, the company made an agreement with Crompton corporation, USA to manufacture and market a new generation crop protection products.

In November 2005, the company entered into a joint venture agreement with a subsidiary company of Sinochem Corporation, China.

In the financial year 2004-'05, the company expand its installed capacity of pharmaceutical products by 114 mt. With this expansion, the installed capacity of the company increased to 180 MT in pharmaceutical products.

## **5. Asian Star Company Ltd.**

Incorporated in November 1971 as a partnership firm, Asian Star Company became public in March 1995. It obtained certificate of commencement of business in March 1995. The company is spearheaded by Mr. Dinesh Tarachand Shah.

The main activities of the company are importing rough diamonds cutting and polishing them and exporting of cut & polished diamonds. The company is carrying out its processing activities from its facilities at Goregaon – Mumbai, Mandvi and Gopipura in Surat & Thala (Chikhli) in Gujarat. It also gets works done on a job work basis from contractors in Mumbai and Surat.

In January 1993, company became a sight-holder of Diamond Trading Company (DTC) on the basis of its performance. The company came out with public issue of 26,70,000 equity shares of Rs. 10/- each for cash at a premium of Rs. 65/- per share aggregating to Rs. 2002.50 lakh for primary object to raise working capital funding required for company's business of processing and exporting diamonds. The company is in discussion with DTC for higher allocation of rough diamonds and also plans to initiate marketing campaign covering the global market.

## **6. Shrenuj & Company Ltd.**

Incorporated on 13 April 1982, Shrenuj & Company was promoted by House of Doshi's to export polished diamonds. Emkay Drilling Equipments is a subsidiary of the company.

The company imports rough diamonds mainly from Diamond Trading Company (DTC) – London, and gets them cut, processed and polished in Mumbai, Surat, Navsari and Bhavnagar (Gujarat) through skilled artisan and exports them to major international markets. It is one

of the few sight-holders in India accepted by the DTC and is assured of direct supplies of rough diamonds regularly. The company has a laser-processing unit at Andheri (Mumbai). It diversified into Jewellery manufacture by opening a unit at SEEPZ, Mumbai.

The company exports diamonds and precious stones to many international markets, mainly Japan, the US, France, Belgium, Hong Kong, New Zealand and Germany.

## **7. Graphite India Ltd.**

Graphite India Ltd. (GIL), formerly Carbon Everflow Ltd. a part of K K Bangur group, was incorporated in 1974 and is into manufacture of graphite electrodes & anodes, miscellaneous graphite and carbon products.

The company has its plant in Nashik-Maharashtra. The graphite equipment division produces graphite electrodes which are mainly used in steel manufacturers using electric arc furnaces. The impervious graphite equipments (IGE) division manufactures impervious graphite equipments like heaters impervious graphite equipments like heat exchangers, pumps, pipes etc. The GRP division manufactures glass reinforce plastics (GRP) pipes and tanks. The company has diversified into this business only on 1994.

GIL exports its products to South America, Western Europe and the US. It has won the special exports award for graphite electrode six times in the last seven years.

The subsidiaries of GIL are Carbon finance Ltd., Graphite international BV, Carbon international Holdings NV Netherlands Antille, Graphite COVA GMBh, Bavaria Electrodes GmbH – Germany, Bavaria Cargon Specialities GmbH, Germany and Bavaria carbon holdings GmbH – Germany.

The company's backward integration project has resulted in the improvement of graphite electrodes production – in 1996 the company has installed two modern energy efficient re-banking furnaces with technology availed from Riedhammer GmbH & KG Germany. This was commissioned in March 1996. The company's impervious Graphite Electrodes (IGE) division has obtained ISO 9001. The company plans to diversify into floriculture, polymer products, telecommunications and the power sector.

Effective from May 23, 2002 Graphite India, also an K. K. Bangur group company and the producer of graphite electrodes, was amalgamated with Carbon Everflow Ltd. During the same period, Carbon Investments, another group company was also amalgamated with CEL. Subsequently CEL was renamed as Graphite India Ltd.

The 1.5 MW Canal project in Mandya District, Karnataka will be commissioned and synchronized with the on set of monsoon season. The de-bottlenecking project has raised the capacity of graphite electrodes to 35000 mt. p.a.

An entire new module of 20,000 mt. per annum of graphite electrodes at estimated cost of Rs. 160 crore is being added which will raise the total capacity of Durgapur plant from 14,000 mt to 34,000 mt and this expected to be completed by February of 2005. Due to some delay it will come fully operational in July 2005. Such a major modular expansion, coupled with debottlenecking of existing facilities, will increase the total installed capacity to 60,000 mt. per annum of graphite products. This project was nearing its completion during 2004-05. In August 2004, the company acquired the assets concerning production of graphite electrodes, coating of electrodes and specialty business unit of Conradty group and has renamed Graphite Cova GmbH.

During 2004-05 the company has enhanced its installed capacity of carbon paste and calcined petroleum coke by 5200 mt. respectively

and with this expansion the total installed capacity of carbon paste and calcined petroleum coke has increased to 25,000 mt. and 30,000 mt. respectively.

## **8. HEG Ltd.**

HEG Ltd., a flagship company of LNJ Bhilwara Group was established in the year 1977, in technical cum financial participation of SERS a subsidiary of Pechiney, France.

HEG is an ISO 9002 company since 1996. It has the largest integrated graphite electrodes plant in South East Asia & Middle east. The company is the market leader for graphite electrodes in India and exports 80% of its production (graphite electrodes) to international markets. Started as an importer of electrodes, the company turned to production of graphite anodes with technical and financial assistance from La societe Des Electrodes Et Refractories Societe—France. The graphite electrode plant of the company is situated at Mandideep near Bhopal. The company expanded the capacity of this unit to produce 30,000 MTPA (from 24,000 MTPA) of graphite electrodes at a cost of Rs. 47 crores during the year 2001-'02. The power for the Mandideep unit was supplied by the power generating plants of the company at Tawa (Hydel Power Plant) and Durg. This place the company at competitive advantage in the market place. Today it has a production capacity of 32,000 mt.

Diversification into textile business (polyester viscose yarn) happened by the way of acquisition of a defunct textile unit in 1989-'90. Later it has set up India's first integrated knitwear unit at Nodia in technical collaboration with Devanlay, France.

The textile unit at Jammu was closed due to slow down in production and now the unit is in the process of being wound up. The

company is also considering various alternatives for restructuring of Rishabdev textile unit in order to be more focused on the core business of graphite, sponge iron and power. The Rishabdev unit also had 4.2 MW Wartsila genset for captive consumption of textile division.

This Rishabdev unit was hived off of Rajasthan Spinning & Weaving Mills Ltd. (RSWM Ltd.) with effective from April 1, 2003.

HEG setup a sponge iron unit at Durg with technical assistance from sponge Iron India – a Government undertaking, which became fully operational in May 1992. The company has also setup a co-generation power plant from waste heat recovery from sponge iron unit. The power generated from this unit satisfies the captive power needs of the sponge iron unit and the entire excess power is wheeled to the graphite unite at Mandideep.

In 1987-'88, Bhilwara Viking Petroleum was promoted as a subsidiary in technical and financial collaboration with Viking Offshore Drilling-Norway, for oil exploration. It was merged with the company in 1989. This brought two oilrigs into HEG's fold, one in the Krishna-Godavari basin and another in Ankleshwar.

During 2004-05, the company has enhanced the installed capacity of graphite electrodes & anodes and sponge iron 3,600 mt. and 30,000 mt. respectively. With this expansion the total installed capacity of graphite electrodes & anodes and sponge Iron has increased to 33,600 mt. and 1,20,000 mt. respectively.

The company has completed its first phase of expansion of increasing the production capacity to 52,000 mt. per annum during 2004-'05. Further the second phase of expansion of increasing the production up to 64,500 mt. per annum. In addition to this the company has decided to establish a 25 MW coal-based thermal plant to provide captive power to the expanded graphite electrode operations. Apart from this the company is constructing a 1,00,000 mt. per annum steel

billet plant at the sponge iron facility at a competitive cost of Rs. 23 crores. This project expected to be completed by 2006.

The company has commissioned an 86 MW Malana Hydro Electric project at Kullu at a cost of Rs. 3.75 crore per MW. Further a six-wind energy project was also commissioned at Jaisalmer- Rajasthan at a total capacity of 3.60 MW. The work on the 200 MW Allain-Duhangan Hydro Electric project was commenced at Manali.

## **9 KRBL Ltd.**

Khushi Ram Behari Lal (KRBL) was started as K.B. Overseas, a partnership firm, by Anil K. Mittal, Anoop K. Gupta and Arun K. Gupta in 1998. In April 1993, the partners of the firm promoted Khushi Ram Behari Lal to take over the operations and business of the partnership firm. The company was incorporated on March 30, 1993. The company received certificate of commencement of business on April 26, 1993 from the registrar of companies.

KRBL is the largest exporter of basmati rice and a significant player in the branded food industry. KRBL's milling and packing units are located at Gaziabad (UP), Dhuri (Punjab), Alipur (Delhi) and Gandhidham (Gujarat).

The Ghaziabad plant has a capacity of 45 Mt. per hour. At this plant, company processes paddy to obtain rice and in the process derives husk and rice bran as by-products. The company's integrated unit at Dhuri (erstwhile Oswal agro furane plant) one of the largest in the world with a capacity of 150 mt. per hour, has all the imported machineries.

The company manufactures products like rice bran oil, furfural and de-oiled cakes. It has the capacity to generate 10.5 MW power using husk as fuel at low cost for own consumption as well as outside



sale. It has its procurement network for basmati rice that spreads across Punjab, Haryana, Uttaranchal and Uttar Pradesh.

KRBL has earmarked 87,000 acres of land for contract farming in Uttaranchal, Uttar Pradesh and Punjab, which is expected to go up to 200,000 acres in next 3-4 year. The company is also in the process of setting up private “mandies” which would aid paddy procurement.

KRBL is the world’s largest basmati rice exporter, holding a 11% market share of India basmati rice export. It exports to around 25 countries including Saudi Arabia, Kuwait and the US. The company has a network of 26 lakh retailers, 87 distributors and 434 dealers across the country with popular brands like Doon, India Gate, Nur Jahan, Aarati, Necklace, Bemisal, Shubh Mangal and Lotus.

KRBL began operation at its 145 TPD integrated milling plant in Dhuri, Punjab from October 1, 2006. Apart from this, it has commissioned a 12.5 MW wind farm in August 2006 at Dhulia, Maharashtra.

The company plans to launch its own brand of rice bran oil in consumer packs by December 2007. The company had planned to set up a 3.5 MW power plant in Ghaziabad for captive consumption to be operational from January 2007. This would lead to power cost saving of around Rs. 50 million each year.

## **10 Satnam Overseas Ltd.**

Satnam Overseas Ltd. (SOL), was incorporated as a private limited company in July 1989 and was converted into a public limited company in December 1992. The company is an associated of the Satnam overseas group, know for its presence in the rice trade since 1979.

Satnam Overseas Ltd. one of the leading player in the organized basmati rice industry, the company also exports basmati rice and trades in pulses, oil seeds in international market. SOL retails basmati rice and its ready-to-eat pulav under the brand “Kohinoor”.

At present the company has two rice mills in rice-growing areas, one at Murthal-Haryana and the other at Amritsar-Punjab, with an installed capacity of 12 TPH. In addition, it is located on the national highway and is close to the major grain markets.

In January 1993, it went public to part-finance the modernization of the plants. The company forays in to allied areas like pulses, rice based snacks etc. It has already launched premium quality branded pulses at the national level and plans to launch a product rice and spice (rice mixed with dehydrated vegetables and spices in ready-to-cook pouches).

Company has bagged award from World Economic Forum in view of its excellent contribution towards global growth, also bagged the prestigious APEDA award for the recognition for its outstanding contribution to promoting exports of agriculture and processed food product and product development.

The company has started joint venture company Indo European Foods limited with head quarters in United Kingdom and the operations have already started to penetrate into the Middle East region. A new joint venture company Rice Rice Raisers Factory LLC has been established with the head quarters in Dubai.

In the year 2006, the name of the company has changed from Satnam Overseas Ltd. to Kohinoor Foods Ltd. Under the brand name of “Kohinoor” the company is planning to launch ready-to-eat and ready-to-cook food products both in the domestic as well as the overseas markets.

## **11. Cipla Ltd.**

Cipla Ltd. was incorporated in the year 1935. Today Cipla is one of the largest manufacturer and marketer in bulk drugs and formulations. It has been ranked as first in India by ORG IMS rating 2005 in terms of retail pharmaceutical sales. All the bulk drug facilities have been approved by the US FDA and the formulation facilities have been approved by the Medicine Control Agency-UK, the Medicine Control Council – South Africa, the Therapeutic Goods Administration - Australia and other international agencies. It has manufacturing facilities at Kurkumbh – Bangalore, Patalganga and Vikroli in Mumbai. The company's products are currently registered in over 150 countries.

Cipla has very wide product range which include antibiotics, anti-bacterial, anti-asthmatics, anti-inflammatory, anti-cancer and cardiovascular. (anti-ulcerants, oncology, corticosteroids, anthelmintics, nutritional supplements)It is a leader in the anti-bacterial and anti-asthmatic segments and is the first player in Asia to launch non-cfc metered does inhaler. Formulation contribute 84.1% (mainly sold in the domestic market) and bulk drugs 15.9% (mostly exported).

Exports contribute approximately 25% of net sales. A major portion of Cipla's exports is to the developed countries of Europe and US. Other major markets are Africa, Middle East, Asia and Australia. The company exports raw materials, intermediates, prescription drugs and OTC products. It also earns fees for supplying know-how to overseas firms for the manufacture of pharmaceutical products.

Cipla was one of the first among the Indian pharmaceutical companies to introduce ampicillin and norfloxacin. Some of the leading brands are Ciplox (Ciprofloxacin), Novamox (Amoxicillin) and Norflox (Norfloxacin).

The company is constantly maintained its lead in introducing new drug formulation. The company has very strong research and development facilities, which has been bearing fruits. Cipla spends large sums on R&D approximately 4% of the turnover. Every year, it launches close to 15 products. The company has made substantial progress in the field of novel drug delivery system (NDDS) and viral synthesis. Initiatives in viral chemistry have been successful in case of Salbutamol (asthma) and Lamuvidine (AIDS) wherein the company has launched the single Isomer Chiral version of both these drugs. The focus areas continue to remain asthma, corticosteroids, and anti-ulcerants and oncology. Cipla already has a market share of 25% while in the anti-AIDS segment it is the only other player besides Glaxo.

Cipla has tie-ups with Novo pharma of Canada and Medpro of South Africa for marketing formulation products. In year 1999-2000, it entered into an alliance with Neolab of UK and Chanelle Pharmaceuticals of Ireland for marketing its products in Europe. Cipla has also entered into joint ventures with firms in China and Australia for manufacturing formulation. It has an agreement with Zenith Goldline, and affiliate of the US-Based IVAX Corporation and United Research Labs for marketing Flutamide in the US and European markets. There is also a tie-up with Ranbaxy laboratories ltd. for marketing a select basket of drugs in the cardiovascular and anti-infective segment in the domestic market. In the year 1996-'97, the company started the Cipla palliative cancer care institute.

Cipla has one of the best R&D facilities for reverse engineering in the country. As in the past, its R&D division continues with its focus on finding new process for existing products.

## **12. Sun Pharmaceutical Industries Ltd.**

Sun Pharmaceutical industries Ltd. (SPIL), started as a partnership firm in 1983 by Dilip Shanghvi, manufactures formulations and bulk drugs. Initially operating with a plant at Vapi-Gujarat, it set up two more plants at Silvassa and Panoli. The company operates in select therapeutic segments like psychiatric, neurology, cardiology and gastro-enterology. It markets speciality ranges of high value branded formulations in several countries across Asia, Africa and West Asia.

During June 2000, the company introduced several products including Celact (Celecoxib), Oleanz (Olanzapine), Rofact (Rofecoxib), Nodict (Naltrexone) Fexotrol (Fexofenadine) Zelast (Azolastine) and Ketorid (Ketotifen). In the year 2000-'01, across the company's eight specialty divisions, 33 new products were launched. Taking the lead for new products among the therapy areas were cardiology (6 products), diabetology (4) and ophthalmology (6). Likely brand out performers among these are the anti-hypertensive Irovel (Rapillin, Pioglit, Rezult) for anti-diabetics and the erectile dysfunction treatment Edegra. In the year 2004-05, the company has introduced over 40 products and also the company took 26 Apls from lab to plants, which includes 18 processes for drug mater files.

The company has been aggressive on M & A (merger & acquisition) front and has acquired companies and brands like Knoll Pharma's bulk drug facility, Gujarat Lyka organics, M.J. Pharma, Natco's brands, Milmet Labs. with this the company has acquired critical mass and extended its range of specialized therapy products. The company has acquired Detroit based Caraco pharmaceutical laboratories (acquired for US\$ 7.5 million).

Sun Pharmaceutical Industries Ltd. was merged its 99.98% subsidiary Sun pharmaceuticals exports and Pradeep drug

company, with effective from April 1, 2000. M. J. Pharmaceuticals Ltd. (MJPL) was merged with the company effective from January 2002.

The company went into takeover by acquiring Hindustan Antibiotics Ltd. oldest PSU in pharma sector. The deal was struck at a price of Rs. 260 crore by which Sun pharma would meet the liabilities of Hindustan Antibiotics. SPIL would use the manufacturing facilities of Hindustan Antibiotics for product expansion and to specific particularly for penicillin – G.

The subsidiaries of SPIL are Zao Sun Pharma Industries Ltd. Sun pharma Global Inc., Milmet Pharma Ltd., Sun Pharmaceuticals (Bangladesh) Ltd., Caraco Pharmaceutical Laboratories Ltd., Sun Farmaceutical Ltd. (Brazil), Sun Pharma De Mexico SA DE VC, Sun Pharmaceutical Industries Inc.

A new formulation plant at Dadra has started its operations in order to meet its domestic market requirements. The plant was built up at an area of 120,000 sq.ft.

In the year 2004-05 company added 250000 sq.ft. of research floor area across 2 high capability sites in Baroda and Mumbai. At Baroda the new chemical entity facilities enable to take ahead a project from idea through animal testing and preliminary testing in humans under one roof and in Mumbai the research facility offers a state of the art pharmaceuticals lab over 50000 sq.ft. with 65 scientists offering technical support for US projects. Further the company has recently commissioned a new dosage form sites at Dadra and Jammu which offer over 70000 sq.ft. of manufacturing floor area and 2160 mill/year tabs capacity, production for the local market has been shifted to these sites. At Halol, manufacturing unit for formulations has added a new injectables area. The company has also completed its expansion of 36000 sq.ft. of manufacturing floor area with 7 high speed lines to make injectable and eye-drops for the regulated markets and this was

commissioned in the first quarter of 2005-06. Further the company has planned about the capacity expansion at Ahmednagar to tackle the increasing demand for Caraco's products.

The face value of the share were sub-divided to Rs. 5 each from Rs. 10 in year 2003. SPIL went for expansion during 2003-04, as it increased installed capacity of bulk drugs by 109.50 kg. liters and consequent of this expansion the total capacity of bulk drugs has been increased to 648.00 kilo liters.

During 2004 the company allotted bonus share of its equity shareholders in the ratio of 1:1. The company has merged Phlox pharmaceuticals Ltd. with itself from 1<sup>st</sup> march 2004.

In 2006, the company has undertaken de-merger of its units of innovative research & development activities and new drug delivery system effective from 1<sup>st</sup> April 2006.

The company's acquisition and merger has significantly added to the manufacturing base. The company has now 16 plants in all. Seven of these plants make bulk drugs and nine make formulations. In addition to streamlining and corrections at the newly acquired plants, there was some capacity expansion at the existing plants too.

### **13. Lupin Ltd.**

Lupin chemicals was incorporated in the year 1983, promoted by Lupin laboratories, with in aim to manufacture Rifampicin, an anti-TB drug at Tarapur. The company consolidated its position in fermentation to produce rifampicin from the basic stage. The highly complicated procedure of stabilizing the Bacteria, which normally takes three to four years under local condition was achieved in around one year with the help of a technological tie – up from Fermic – Mexico.

Lupin Laboratories was bought as defunct firm in 1968. It had manufacturing facilities in Aurangabad, Ankleshwar and Mandideep and joint venture in Thailand. Its activities included pharmaceuticals, bulk drugs, fermentation, bio-technology, natural products and agro-chemicals. It was one of the largest producer of ethambutol, an anti-TB drug. Its other main focus was Rifampicin, a bulk drug, which was manufactured from fermentation stage. It was the first Indian company to undertake commercial manufacture of vitamin B6. In 1985, the company diversified into agrochemicals and in 1995, it launched specialty and natural products. It had technical tie-up with Gruppo Lepetit, Italy, a subsidiary of Marion Merrell Dow for fermentation.

Lupin commissioned its state of art USFDA approval oral cephalosporin dosage manufacturing plant, for meeting the requirements the generic markets with some of the cephalosporins going off patent in the coming years.

During February 2002, Rebeprazole an anti-peptic in the therapeutic segment was introduced by Lupin under the brand name of Rablet. The company spent most of the capital expenditure for expansion of its R & D facilities, expansion & modernization of the anti-TB dosage facility, commissioning of a new lisinopril facility. The company is setting up a USFDA approval plant at Tarapur-Maharashtra for manufacturing lovastatin.

During 2003-04 the company commissioned a new facility at Verna-Goa for non-cephalosporin oral finished dosage and this facility has started its commercial production.

The company is offering solutions in the respiratory segment with a range covering anti-TB, anti-Asthma (inhalation segment), anti-infective, anti-allergic and supportive products. During 2004-05 the company has entered into the anti-asthma inhalation product range.



The company has launched its herbal division during 2004 and the company has promoted a range of herbal products in therapeutic areas including diabetes, common pediatric problems, GL disorders, pain management and gynecological problems.

The company has increased its installed capacity of Bulk drugs & intermediates by 519.60 mt. and with this expansion the total installed capacity of drugs & intermediates have increased to 3563.90 mt. during 2004-'05.

During the year 2004-'05, the company's Ankleshwar plant, manufacturing Ethambutol, Pyranzinamide and other optically active intermediates underwent "Kayapalat", a complete transformation for improving every function and this was successfully completed.

#### **14. Orchid Chemicals & Pharmaceuticals Ltd.**

Incorporation in July-1992, and promoted by K. R. Rao and M. N. Reddy, Orchid chemicals and pharmaceuticals (Orchid) has setup a 100% Export Oriented Unit at Alathur, Tamilnadu to manufacture 7 – ADCA (a drug intermediate), cephalexin, cetrizine, cefadroxyl bulk drugs in technical and financial collaboration with Sintofarm – Italy.

In December 1999, the company issued 1,06,53,192 equity shares on private placement basis to foreign companies incorporated in Mauritius belonging to Schroder Ventures Group.

The company launched its formulation operations through "Orchid Healthcare" during June 2001.

The company's subsidiaries are Orchid Europe( previously known as Orchid Nutricare Ltd.) - UK, Ognafarma – Brazil, Gene Arrayas inc. USA and Orchid Pharmaceuticals Inc. – USA.

Orchid Nutricare was established in UK as a joint venture to market certain nutraceutical products which has become the wholly

owned subsidiary of the company. Orchid chemicals has established 50:50 joint venture in the USA for new drug discover with Bexel Biotechnology Inc., a new company by name Bexel Pharmaceuticals Inc. is now operational in California. A total of 8 million US\$ cash in equity is being provided by Orchid for this joint venture. During the year 2004-'05, the company entered into an agreement with Bexel to increase Orchid's stake in the joint venture upto 74 per cent. The new company will mainly focus on metabolic and auto-immune disease including diabetes, inflammation and cardiovascular diseases. BchD Biotechnological Chemical Development Ltd.-UK is also a joint venture of the company.

Orchid has established a manufacturing and marketing joint venture in china, which represents a major market for anti-infective. The total outlay of the project will be US\$ 25 million at a capacity of 300 mt. of sterile cephalosporin products at its peak capacity. During 2003-'04, the manufacturing joint venture in China, NCPC Orchid Pharmaceuticals is fully operational with sterile crystalline facility commissioned in September 2003, and sterile lyophilized facility commissioned in January 2004.

Orchid has two active pharmaceutical ingredients (API) manufacturing plants in India as well as one API manufacturing plant in China.

A global leader in cephalosporin antibiotics, Orchid has chalked out plans to replicate its regulated generics model in diverse therapeutic groups. The company is establishing new USFDA compliant infrastructure to develop and manufacture drugs in these non-cephalosporin segments. The bulk actives facility is being setup in Aurangabad. The above facility is versatile, multipurpose and modular in nature.

During the year 2004-'05, the company has established a new and enhanced drug discovery center in the R & D campus at Sholinganallur near Chennai.

The company has entered into an exclusive distribution alliance in October 2005 with Mayne Parma, the injectable specialty pharmaceuticals division of the Mayne Group Ltd. for making Orchid's select life saving injectable. This alliance covers US, Canada, European and Australian geographics.

During September 2005, the company has made bonus issue of equity shares in the ratio of 1:2.

#### **15. George Williamson (Assam) Ltd.**

Williamson Tea Assam Ltd. (formerly George Williamson (Assam) Ltd.) is one of the leading tea company in India with plantations mostly in the North-eastern state of Assam. At present the total area under cultivation is approximately 9,200 hectares spread over various estates located at Mangaladi, Thakurbari, East Boroj, Dhunseri/Moran, Lingri and Doom Dooma all in Assam. B M Khaitan controlled Borelli Tea Holdings Ltd. of UK holds 70 per cent of the equity stake in the company.

The company was incorporated in 1977 to take over the Indian undertakings of UK registered 12 Sterling Tea companies. The sterling companies had eighteen tea estates in Assam. The consideration for taking over the Indian operations was fixed at Rs. 49 crores, and equity shares of Rs. 10 worth Rs. 2.45 crores were issued and allotted at par. The total nominal value of the sterling companies – Williamson Tea Holdings and Borelli Tea Holdings, both of the UK – was credited as fully paid up to the shareholders.

In 1990-91, the company carried out successful experiments in packaging bulk tea on the estates, which resulted in garden – fresh tea reaching the final customers after a long period in transit and storage.

The factory modernization programme and introduction of the latest technology in the field are an on-going process, which has resulted in the production of high quality teas at lowest possible cost.

Recently, Borilli Tea Holdings had acquire 61.74 per cent of total paid-up equity shares of the company thereby taking the total holding to 69.96% as a measure of restructuring of shareholding within the group. Both Borilli and GWAL are group companies of B M Khaitan group of companies, which also has management stake in Eveready industries India Ltd. and Bishnauth Tea Company.

The company has acquired 80% stake in Nilpur Tea Co. Pvt. Ltd., Kolkata thus making it as a subsidiary of the company.

With effect from 7<sup>th</sup> June 2006, the company has been amalgamated with McLeod Russell (India) Ltd.

## **16. Tata Tea Ltd.**

Incorporated in 1962 and controlled by he house of Tatas, Tata Tea Ltd. (TTL) commenced operations in 1964 with the manufacture of packaged tea. The instant tea plant started in 1965. It acquired the business of James Finlay – UK and its seven associated tea companies in India, with effect from 1976. The technical and financial collaboration with James Finlay expired in 1971. Today the company along with its subsidiaries has significant presence in over 40 countries worldwide.

The tea industry is cyclical in nature. India is the largest producer & consumer of tea in the world and Tata Tea is one of the largest selling brands in India, which is the largest black tea market in the world.

TTL acquired the share holding of the Tetley group – UK through a new subsidiary company, Tata Tea (GB). Tetley is the second largest branded tea company in the world and is the market leader in tea products in Canada, the UK and a number of other European countries. In September 2000, the company exited from the loss-making mushroom company – Saptarishi Agro Industries, by selling 65 per cent stake to a L M Thapar group company for a consideration of Rs. 50 lakh.

In December 2000, the bulk tea segment launched one of its superfine, premium dust teas under the brand name of Kanniamallay Tea. The brand is produced from the Kanniamallay estate of Tata Tea Ltd. Bambio Investment & Trading Co. Ltd. was merged with TTL in October 2001 with prior approval from board of directors.

The company has started production of organic green tea at Chanduvare estate near Munnar. The green tea is cultivated in a 500 hectare estate. The cost of production of green tea is higher than that of ordinary tea, with labour costs sixty per cent higher. The organic tea will be marketed mainly in Europe and will use Tetley network to market the same.

During 2002-03 Tetley group has outsourced its entire manufacturing operations to a joint venture and formed another joint venture company to retain a presence in the food service sector.

The subsidiaries of Tata tea are : Tata coffee ltd., Tata tea Inc., Tata Tetley ltd., and Tata Tea (GB) Ltd. As a part of restructuring of south India plantation operations, the company has transferred its business and undertakings of 16 tea estate in Munnar to Kanan Deven Hills Plantations Company Pvt. Ltd. (KDHP) with effect from 1<sup>st</sup> April 2005.

## **17. Jindal Iron & Steel Company Ltd.**

Jindal Iron & Steel company ltd. (JISCO) a part of the Jindal group was originally promoted by the primal group. The company originally incorporated as Parimal steel in 1972, has changed hands as Jindals acquired forty per cent of the stake. Subsequently the name has also changed to Jindal Iron & Steel Company in 1983.

Jisco has focus on the flat product segment which constitutes 51% of the total steel consumption in India. It has facilities at Vasind and Tarapur in Maharashtra. The main products of the company are HR plates, CR Coils (mostly intermediate products) and galvanized products. In 1990, it merged Navin Alloys, a group company, and subsequently merged two more group companies, Nasarpar Metal, and Nalwa International.

In November 1994, the company came out with a right issue to part finance the pelletisation plant in collaboration with lurgi- Germany, and a cold-rolling and galvanizing project at Torangallu-Karnataka, totaling Rs. 793.5 crores. However the company has passed on the pelletisation project to Jindal Vijaynagar Steel (JVSL), since plant would essentially feed the raw material requirements of JVSL.

As a part of the restructuring exercise the Vasind based cold rolling division of Jindal Strips Ltd. (JSL) is being merged with Jindal Iron & Steel company at a cost of Rs. 75 crores.

In May 1999, a new galvanized line with state of the art technology and L-shaped non-ox furnace was successfully commissioned. During 1999-2000, it increased the installed capacity of galvanized coils / sheet to 3,75,000 mt. at Tarapur plant. The online skin pass mill in the new galvanizing line at Tarapur has been fully commissioned and stabilized. During 2001-'02, the company developed ASTM A 653-340 class 3 grade steel and also it is studying the process of cold rolling mill at Vasind for gauge accuracy as per industry norms.

During 2002-'03, the company focused mainly on debottlenecking, enhancing capabilities for meeting changing requirements of discerning customers, subsequent to this it has commissioned TM-5 cold rolling mill at Tarapur in march -2003, this mill is capable of producing cold rolled material.

The company has expanded the installed capacity of cold rolled coils & galvanized coils during the financial year 2003-'04 by 190000 mt. and 185000 mt. respectively. Consequent upon this expansion, the total capacity of CR coils and galvanized coils have been increased to 790000 mt. and 735000 mt. respectively.

The company has decided to demerge its investment division (including equity holding in Jindal Vijaynagar Steel Ltd.) into Jindal South West holdings Ltd. According to scheme of merger, one equity share of Rs. 10/- of JSWHL will be issued for every four equity shares of Rs. 10/- each held by the shareholders of JISCO, and for amalgamation of the company (excluding investment division) into JVSL- one equity share of Rs. 10/- each of JVSL will be issued for every one equity share of Rs. 10/- each held in by the shareholders of JISCO.

The company has changed its name as JSW Steel Ltd. after amalgamation with effect from 7<sup>th</sup> July 2005. Now the company is known as the name of JSW Steel Ltd.

## **18 The Tata Iron & Steel Company Ltd.**

The Tata Iron & Steel Company Ltd. (TISCO) was incorporated in 1907. Over the years TISCO has diversified to manufacture, apart from saleable steel, welded – steel tubes, cold rolled strips, seamless tubes, carbon and alloy steel bearing rings, alloy steel ball bearing rings, bearing, ferro manganese, ferro chrome, metallurgical machinery, etc.

The company has its manufacturing facilities located at Jamshedpur, Kharagpur, Joda, Bamnival, Tarapur, Mumbai, Sisdra and Bangalore.

The company's subsidiaries include Tata refractories, Tata pigments, Kalimati investment, Tata korf, Tata incorporated, Stewarts & Lloyds of India, Nath Steel Asia Pte. Ltd., Sila Eastern Ltd., Hooghly Metcoke & power company ltd.

In 1994-'95, the company completed the third phase of its modernization programme whereby the installed capacity of saleable steel increased to 2.7 MTPA. In February 1994, it successfully completed its Euro-convertible bond issue of US \$ 100 million. The company's plants at Jamshedpur, Bamnival (Orissa) and Kharagpur was accorded the ISO 9002 certification.

TISCO commissioned two cement plants with a combined capacity of 1.78 MTPA at Sonadih – MP and Jamshedpur – Bihar. It also commissioned a 1 – MTPA hot strip mill to produce hot tolled coils. In 1999-2000, the company's cement plant was sold to Lafarge.

In April 2000 the company's cold rolling mill was inaugurated, in a world record time of 26 ½ months. The invested capital was the lowest in the world for a mill of its kind. The second galvanizing line – CGL 2, which targets the high-end market for galvanized CR products was commissioned in June 2001. In fiscal 2000-'01, TISCO acquired Tata SSL ltd. a major player in steel wires.

Ferro Chrome business is not a profitable business in India. Since the power cost is one fifth in Australia compared to India, TISCO plans to take its raw materials over there and produce and sell it to the world. The company is setting up a ferro chrome project at Richards Bay-South Africa to produce 1.20 lakhs TPA of high carbon ferro chrome. The company has obtained the environment clearance for the said project and has also acquired the land at Richard Bay. A subsidiary



company in the name of "Tata Steel KZN Pty. Ltd." has been incorporated in South Africa.

In order to secure raw materials especially coal in the future the company has been evaluating options to acquire strategic stake in coal companies in India and overseas. Pursuant this, the company has entered into an agreement with AMCL (CQ) Pty. Ltd. Australia to secure upto twenty per cent of the coal produced by it.

During February 2005, the company has acquired the steel business of Nath Steel Ltd. Singapore, Nath steel Ltd. is a dominant steel producer of Singapore and own mills in China, Thailand, Vietnam, Phillipines and Australia.

During September 2005, the company has signed memorandums of understanding (MOUs) with the government of Jharkhand to setup a new green filled steel capacity and enhancement of capacity of Jamshedpur works. The greenfield integrated steel plant of 12 MTPA will be setup in two phases. The project will also include the development of iron ore mines and other raw materials sources including coal and logistic linkages of this plant. The company has signed MOV with the government of Chhattisgarh at Raipur for setting up a 5 million tones per annum greenfield integrated steel plant in the Bastar region Chhattisgarh.

During 2005-'06, the company has started a program for expansion of crude steel making capacity at Jamshedpur by 1.8 mtpa. The expansion project is expected to be complete by 2008. The increased requirement of coke would be sourced from hooghly met coke & power company Ltd. a subsidiary of the company. The coke making capacity to be setup a Haldia is also being increased from 0.8 MTPA to 1.2 MTPA along with power generating capacity from 60 MW to 90 MW.

The company is also exploring the option of setting up of a steel plant in Iran, During June 2005 the company has also signed a joint venture agreement Iranian Mines & Mining Industries Development and Renovation Organization to join them in their proposed steel making project and mining operations in Iran.

The company has signed the share subscription agreement and joint venture agreement with Blue scope steel limited, Australia in November 2005, for manufacture of colour coated coils and pre-engineered buildings to be used in building solution business. The manufacturing facility would be setup in Jamshedpur with a production capacity of 2.50 lakhs TPA of Zinc and aluminum coated and 1.50 lakhs TPA of color-coated coils. This building solution business would have manufacturing facility at Delhi, Pune and Chennai.

During 2006-'07, TISCO acquired UK based steel making company Corus Group Plc. (CORUS). The acquisition was completed on 2<sup>nd</sup> April 2007 at a price of 608 pence per ordinary share in cash for a net consideration US\$ 12.9 Billion, making the company the sixth largest manufacturer in the world.

The name of the company has been changed during October 2005 from Tata Iron & Steel Company ltd. to Tata Steel ltd.

## **19 Loyal Textile Mills Ltd.**

Loyal Textile Mills, the Tamilnadu based company was incorporated in 1946 and has it's plant at Kovilpatti. It manufactures cotton yarn, fabric, hosiery cloth, caps etc. It exports yarn and cloth to the US, Russia, Germany, Spain, Switzerland, UK, Portugal and other countries. The company exports around twenty seven per cent of its production.

Loyal textiles was the first to introduce tandem carding in the early seventies and the earliest to introduce air splicing and automatic cone winding technology, which allows sophisticated electronic controls to detect and mend defects in yarn automatically.

The company undertook modernization of its facility in 1987. The company has embarked upon an expansion – cum – modernization project and set up 100 air-jet looms for weaving polyester – blended suitings. The looms were supplied by Loyal Machine Works, a subsidiary. Again in 1998-'99, it increased the installed capacity of ring spindles, rotors and automatic looms to 53,492 nos., 3,768 nos., and 285 nos. respectively. The company has spent Rs. 17.33 cr., Rs. 5.39 cr., and Rs. 13.37 cr. on modernization and replacement of machinery during 1998-'99, 99-00 and 2000-'01 respectively.

The company had set up a joint venture company in Italy in the name of M/s. Gruppo P&P Loyal Spa. In the year 2000-'01, the company has increased its stake in the JV company to 47.50 per cent. Apart from this the company has also entered into JV agreement with M/s. Dimco SA, Greece for formation of a joint venture company in Greece for marketing of Garments. During 2000-'01, for replacement of machinery/modernization and installing power plant the company has spent about Rs. 3358.44 lakhs.

## **20 The Bombay Dyeing & Manufacturing Co. Ltd.**

Bombay Dyeing & Manufacturing Company was incorporated in 1879 to setup the country's first indigenous yarn dyeing facility, to cater to the powerlooms which were, till then, totally dependent on yarn dyed abroad. It started with grey yarn in 1895 and soon produced a surplus, which was exported to China. Today, it is one of the largest manufacturers in the composite sector of the Indian textile industry. In

1940, the company shipped its first batch of exports and, over the years, established a market in US, UK, Europe, Gulf and Soviet Union.

In 1981, Bombay dyeing obtained license to manufacture dimethyl terephthalate (DMT), a raw material to manufacture polyester staple fiber, polyester filament yarn, film and engineering plastic. It commenced commercial production in 1986 and further enhanced the capacity from 60,000 TPA to 1,65,000 TPA in technical collaboration with Glitsch – a division of Foster Wheeler Corporation – US.

In December 1993, it came out with a GDR(Global Depository Receipts) issue and spent Rs. 241.8 million (US\$ 7.7 million) to modernize the spinning department as its textile mills to improve quality for export and to install processing equipment for products diversification. Archway Investment Company, Scal Investments, Scal Services, Pentafil Investments, Megapode Airlines were ceased to be the subsidiaries of Bombay dyeing.

Scal Investments Ltd. a wholly owned subsidiary of the company was amalgamated with the company with effect from 1<sup>st</sup> October 2000. In 2000-01, the DMT division obtained ISO 14001 certification.

During October, 2002 the company entered into a joint venture with “Proline India Ltd.” and transferred its readymade garment business. As on March 2003 divested the major part of its holdings in the erstwhile subsidiaries viz. archway investments company ltd., scal services ltd. and pentafil investments ltd.

As a part of the restructuring the company’s textile division and consolidation of its manufacturing facilities at one location, the company disposed of the old equipment at spring mills and right sized the workforce. 450 positions were reduced under a scheme of voluntary separation resulting in considerable cost saving. The company’s textile division is also setting up processing and stitching facility at an alternate location in Maharashtra. Further DMT business of the company is going

head with downstream project for manufacture of polyester staple fiber at the existing DMT plant site with capacity of 1,65,000 TPA and this project is expected to be completed in the third quarter of 2006.

## **21. Welspun India Ltd.**

Welspun India Ltd., the flagship company of Welspun group was incorporated in the year 1985. Welspun India Ltd. is the largest producer of terry towel in Asia and one of the ten leading in the world, possessing a state-of-the-art, fully integrated terry towel unit at vapi-Gujarat. The company's plant with state-of-the-art technology has got ISO-9002 accreditation. Being an environment friendly manufacturing process company, it has been awarded the OKOTEX certification.

The company transferred the spinning division with its assets and liabilities to Welspun Cotton yarn Ltd. Welspun India continues to manufacture terry towels, but yarn spinning is carried out by the new company – Welspun Cotton Yarn Ltd.

In order to give impetus to the market share, the company has embarked upon direct marketing. The company has setup a wholly owned subsidiary in the name of Welspun USA Inc. in New York focus on US markets.

The company has started direct marketing by way of hundred per cent subsidiary in USA and has made grounds for tie-ups with the best in the market for floating the products in the market. The company chalked out an expansion plan by setting up a 20 looms at an capital outlay of Rs. 35 crores which is under implementation and out of which 11 looms have been installed and production has commenced. With this expansion the capacity has been enhanced to 10800 MTPA.

The company has amalgamated Glofame Cotspin Industries Ltd. with itself during May 2005. According to the scheme of amalgamation,

Welspun India will issue 10 equity shares of Rs. 10/- each for every 33 equity shares of Rs. 10/- each held by the shareholders of Glofame Cotspin Industries Ltd. the scheme became effective from 1<sup>st</sup> January 2004.

During 2004-'05, the company has setup a new plant at Anjar, Gujarat at an investment of Rs. 5.75 Billion. This plant was setup for the new product category bed linens with a capacity of 35 million meters per annum. Further the company also undertook a capital expenditure for construction of a commercial building and installation of processing equipments and diesel generator sets at vapi-Gujarat at a cost of Rs. 6002.80 million. The company has also commenced its commercial production to toweling facility in March-2005, the spinning facility commenced its commercial production in June 2005. The bed sheeting facility has commissioned and scheduled to commence its commercial production at full capacity by September 2005.

The company has increased the installed capacity of cotton terry towels by 12000 MTPA during 2004-'05, and with this expansion the total installed capacity of cotton terry towels has increased to 23500 MTPA.

The company has started using Egyptian cotton yarn & American pima cotton in the manufacture of premium equality towels and above it was registered trademark used of "Egyptian Cotton" "Supima".

## **22 Zodiac Clothing Company Ltd.**

Zodiac Clothing Company (ZCL), promoted by M. Y. Noorani and others, was incorporated as a private limited company in June 1984, is into manufacture and export of readymade garments. It become a deemed public limited company in December 1993 and went public in January 1994.

ZCL setup a hundred per cent export oriented unit at Umbergaon-Gujarat, to manufacture and export of men's clothing including shirts, beach wear and suits with an annual licensed capacity of 100000 units in December 1984. Initially, it concentrated on the erstwhile Soviet Union by selling to the central buying organization. In the late eighties, the company also started exploring the sophisticated markets of Western Europe. Three companies Zodiac textiles & apparels exports, Multiplex packaging and Bangalore knitwear – were amalgamated with ZCL.

To upgrade production techniques and to meet exacting equality standards of west European markets, the company, re-designed and modernized its entire plant with technical assistance from a leading European company in 1989.

The company went public with its maiden issue in June 1994 at a premium of Rs. 100 per share to dilute the promoter's holding to 75 per cent. It has installed a new production facility in Bangalore with capacity of 5 lac shirts per annum. Commercial production this unit has commenced in July 1995. Also to boost its export it has invested in a fully owned subsidiary in Switzerland in June-1995. This has enable the company to increase its export.

ZCL have three subsidiary companies, i.e. Mayfair, Multiplex Collapsible Tubes and Zodiac Clothing Co. S.A.

During 2002-03 Mayfair, the subsidiary of ZCL was amalgamated with the company following the approval from high court of Mumbai. It has acquired the whole business of Metropolitan Trading Company a manufacturing readymade garment on a going concern basis. The company entered into a technical agreement with Zodiac UAE LLC-Dubai for a period of 5 years.

### **23. Himatsingka Seide Ltd.**

Promoted by Ajoy Kumar Himatsingka and Dinesh Himatsingka, Himatsingka Seide Ltd. (HSL) was incorporated on 23 January 1985. It is a hundred per cent export oriented unit manufacturing and marketing natural silk fabric; raw silk yarn is imported from China, Brazil, Hong Kong and Korea. Its products are well received in the highly sophisticated markets of Europe and the US.

During the year 2002-'03, the company acquired M/s. Abc trading pvt. ltd., as it owned real estate assets in Bangalore. The total consideration paid was Rs. 5.75 crores. Subsequently the name of the company was changed to Himatsingka wovens private ltd. Himatsingka America Inc. was incorporated in New York on April 20, 2004 as a wholly owned subsidiary, commencing operation from July 2004.

The company came out with a rights issue at a premium in March 1993 to part finance its expansion programme and to augment funds for meeting long-term working capital requirements. HSL was awarded the ISO 9001 certification from RWTUV – Germany for design and manufacture of natural silk fabrics in October 1995. During 1999-2000, the company issued bonus shares in the ratio of 1:1 due to which the share capital increased to Rs. 19.122 crore.

HSL's Bed-Linen production facility is at Hassan – Special Economic Zone , Karnataka with a capacity of 20 million meters per annum and the project cost of Rs. 4000 million.

The company added 12 rapier looms in 2000-01 (including eight looms for high value jacquard fabrics), further augmenting capacity by 400000 meters. The capital expenditure of about Rs. 10 crore was entirely financed through internal accruals.

HSL also invested about Rs. 25 crore in setting up specialized silk/blended velvet production facilities at its manufacturing unit near



Bangalore. Initially the company is installing two velvet looms for sampling/ product development. The company plans to add more capacity in February, 2003 based on the market response to the product.

During April, 2005 the company has expanded capacity of its weaving division at a cost of Rs. 200 million. A new production facility will be setup at Hassan special economic zone (SEZ) in Karnataka. This plant is expected to be commission by the end of 2006. The new project will be geared for the production and export of bed-linen fabric as well as made-up bed-linen sets.

In October 2005, the company sub-divided its equity share face value from Rs. 10/- each to Rs. 5/- each and also issued bonus equity shares to its shareholders in the ratio of 1:1.

#### **24. Zenith Exports Ltd.**

Zenith Exports Ltd. (ZEL) was incorporated in July 23<sup>rd</sup> 1981 to take over the partnership business of Zenith Enterprise, a family business promoted by B.R. Loyalka in 1969. The company is one of the leading export house in India and has been receiving various awards from the Indian government agencies for excellent performance in exports. The company has its operations spread over division namely silk division, spinning division, leather division and leasing finance.

Being in the field for marketing silk fabrics for more than 15 years the company's customer base is spread across the globe and efforts are now being made to establish renowned agents and dealers in principal markets to reinforce marketing efforts further. The company participates in major international fairs adding to its global presence.

Being consistant in export activities, the company gets Trading House status by ministry of commerce, government of India. The

company is professionally managed by board of directors consisting of professionals in relevant trade headed by Mr. B.R. Loyalka as chairman.

The company weave silk, the nature's most exquisite gift to mankind, by hand using traditional methods and with state of the art technology using latest software information technology tools.

Mysore division of the company produces high quality fabric used in fashion and furnishing trade. Fabric is made from state of art technology machineries such as dornier weaving machines, latest staubli jacquards, Banninger ergotronic warping machines etc., this unit is having computer aided dyeing facility and all process of manufacturing is done in house. The unit is 100% EOU consisting of 28 shuttles looms of dornier make with a capacity of about 1 million meters per annum. This unit produces fabrics for women's wear. Bridal wears and home furnishing for premium segment. The unit is ISO 9001 BVQI certified and has been constantly upgrading its quality standards as per international customer requirements. Technocrats with over 20 years experience in textile field manage the unit. The advance effluent treatment plant located in the unit ensures that operations carried out are environment friendly. A creative design team with well-equipped computer aided design application develops new designs. Over the last one year, the team has developed new designs, which has been well received in international markets.

## **25 Mahavir Spinning Mills Ltd.**

Incorporated in October 1973, Mahavir spinning mills (MSML) was promoted by Vardhman spinning & general mills and is managed by chairman Paul Oswal. The first plant was commissioned in 1975 with 25088 spindles in Hoshiarpur – Punjab.

The company's subsidiaries are Vmt spinning company ltd. (VMT), Vardhman Threads limited (VTL) and Vardhman Yarns & Threads ltd.

In 1977-'78, the company setup a 25000 spindle textile mill at Malerkotla in Sanazur, Pujab. MSML is into the spinning of cotton, staple, acrylic and acetate yarn and sewing thread. The company took over an ailing mini steel plant and renamed it Vardhman steels. It exports yarn to 20 countries including Hon Kong, Japan, South Korea, Australia, New Zealand, Europe and others.

In 1992-93, the company commissioned a 100% export oriented unit at Mandideep. The EOU at Mandideep and the spinning unit at Malerkotla were awarded the ISO 9002/BIS 14002 by Bureau of Indian Standards (BIS). It gassed and mercerized dyed yarn project at Hoshiarpur commenced commercial production in March 1995.

The company has entered into a joint venture agreement with Marubeni Corporation and Toho Rayon – Japan for setting up a 100% EOU at Baddi- Himachal Pradesh. It floated a separate entity called Vardhman Acrylics limited (VAL) for executing the above project. Commercial production of this project commenced on September 1996. During 1998-99 the third 100% EOU at Mandideep with an installed capacity of 25000 spindles was flagged off for production.

Expansion of sewing thread capacity by addition of unit – II at Ludhiana with a capacity of 5 TPD implemented in two phases, the first phase with a capacity of 2.5 TPD has commenced production. Further unit – V with a capacity of 24192 spindles to produce fine counts meant for gassed mercerized unit started commercial production.

The company is also undertaking expansion and technological up gradation of the existing spinning unit at Malerkotla. To manufacture superior sewing thread under their brands of PERMASPUN, D-CORE

and PERMACORE, the company has signed an agreement with American & Effird Inc. USA.

The textile business of Vardhman spinning and general mills Ltd. (VSGM) was vested into the company with effect from 1<sup>st</sup> April 2004 and the manufacturing units belonging to VSGM is now part of the company. According to the scheme the company has allotted 12,763,064 equity shares of Rs. 10/- each to the shareholder of VSGM in the ratio of eight shares for every ten shares of VSGM held. As a result of this allotment the paid-up equity capital of the company has increased to Rs. 3851.30 lakhs. In September 2005, the company has issued bonus equity share to its equity shareholders in the ratio of 1:2.

During 2004-'05, the company has increased its installed capacity of spindles and rolled products by 158392 nos. and 14400 mt. respectively. With this expansion the total installed capacity of spindles and rolled products has increased to 468688 nos. and 80400 mt. Further the company has installed new capacities of looms and rotors with a capacity of 264 nos. and 528 nos. respectively.

During the year 2006, the company has changed its name from Mahavir Spinning Mills Ltd. to Vardhman Textiles Ltd.

## **26. Malwa Cotton Spinning Mills Ltd.**

Malwa Cotton Spinning Mills, the Delhi based company was promoted in 1976 in the joint sector by the Punjab State Industries Development Corporation (PSIDC) and Oswal Woolens Mills to manufacture acrylic yarn and cotton yarn. The company has put up a plant with 24200 spindles capacity to process cotton and acrylic yarn in Barnala- Punjab. The commercial production was commenced in March 1981.

The company has envisaged a new project of 11040 spindles as its existing premises during 1983-'84. In 1988-'89, it setup a 7680 spindle unit at Paonta Sahib. In 1989-'90, the company installed 9,600 spindles to manufactures yarn from man-made fiber. Simultaneously, modernization of the unit was taken up to enable the production quality cotton and polyester yarns, mainly for exports. In 1990-'91, it undertook a project to setup a 10,080 spindle.

In 1995-'96, the Paonta Sahib unit complete the project of 24192 spindles at project cost of Rs. 46 crore and company has taken in had implementation of a 100% EOU at the Barnala unit in Punjab to manufacture cotton yarn with a capacity of 25,200 spindles at a project cost of Rs. 48 crore which was financed by a term loan of Rs. 32 crore and internal accruals of 16 crore.

In 1996-'97, 13104 spindles have been installed and started commercial production. The company has put up a Dyeing House at villager Harian, Dist. Ludhiana with capacity of 12 tones per day. The total project cost of the unit was Rs. 18.65 crore.

## **27. Indo Rama Synthetics (India) Ltd.**

Incorporated in April 1986, Indo Rama Synthetics (India) Ltd. (IRSIL) commenced business in November 1986, promoted by M L Lohia and A P Lohia to manufacture synthetic yarn, PSF and POY.

In September 1993, IRSIL issued fully convertible debentures to part financial its Rs. 5.55 crore expansion cum backward integration project to manufacture partly oriented yarn (POY) and polyester staple fiber (PSF) at Bulibori, near Nagpur, which commenced commercial production in March 1995. Through debottlenecking, polyester, production touched 810 tones per day. This is slated to reach 860 TPD by 2002-'03.

The company has technical collaborations with Chemtex international, US and M/s. Dupont – US and Barmag – Germany for the POY and Polyester chip projects, and Toyobo of Japan, for the PSF Project.

IRSIL exports its products to the US, Germany, France, Belgium etc. The company's 100% exported oriented unit at Pithampur has been awarded the ISO 9002 certification.

The new plant for manufacture of PSF at Nagpur with the capacity of 4,50,000 TPA is being executed partnership with Zimmer AG - Germany.

The company successfully commissioned the mini expansion for PFY/FDY capacity by 70 tones per day (25000 p.a.) and DTY capacity by 27 tones per day. The total cost of the project was Rs. 48 crore. This project was funded by DEF Euro loan of Rs. 26 crore, SBI Yen loan of Rs. 17 crore and the rest through internal accruals.

As a restructuring measure the company has de-merged its spun yarn business into a separate company, Indo Rama textiles limited while retaining its polyester business with itself. This de-merger was done after securing necessary approvals from the shareholders of the company. Pursuant to this de-merger shareholders were allotted 20 shares in IRTL for every 100 shares held in the company while continuing to hold 80 share in the company.

As a step towards leveraging information for value creation, the company has rebuilt its information backbone around an ERP application by implementing SAP R/3 package that links all business activities of the organization. The company also plans to focus on strategic IT initiatives like E-enabling, supply chain management and CRM. It is exploring new markets in Latin America, Argentina, Columbia and Venezuela.

During 2005-'06, the company has taken up expansion of polyester production capacity from 800 tones per day to 1600 tones per day for both polyester staple fiber and partially oriented yarn. The expansion is expected to complete in a phased manner from June, 2006 onwards. After this expansion the polyester capacity of the company will increase to around 6,00,000 TPA at a single location in Butibori, Nagpur.

The production capacity of the company of draw texturised yarn, draw twisted yard, polyester staple fiber, polyester chips and polyester filament yarn stood at 32025 tpa., 132300 tpa, 52500tpa. and 126000 tpa respectively.

## **28. Rajasthan Spinning & Weaving Mills Ltd.**

Rajasthan Spinning and Weaving Mills (RSWML) was incorporated in 1960. It was promoted by the Bhilwara group which has interests in various group companies. The company is managed by chairman L N Jhunjhunwala and vice-chairman and managing director shekhar Agarwal.

RSWML come out with a Rs. 157 crore Euro issue in 1994 to finance its ambitious plans to increase spindle-age by 18,800 add 24 looms at each of the units and to setup a process house at its Bansawara unit with a capacity of processing 156 lac meter of fabric per annum. The product mix of the company includes blends like polyester viscose, 100%, 100% polyester, polyester sewing threads, 100 acrylic, polynosic blends, silk blends, viscose-flax, polyester / cotton, 100% cotton mélange yarn.

In 1993-94 it signed a MOU with Hydro Quebec International, Canada, to implement 86 MW Malana and 192 MW Allain Duhangan projects in Himachal Pradesh. It markets its products under the well-

known Mayur brand in India and exports in products to the European and the US markets. It has opened marketing offices in Italy, Belgium and the UK.

During 1997-98, Bhilwara Melba De Witte Ltd. a joint venture project promoted by the company with Australian and Belgian Partners, has established its leadership in the market for automotive furnishing fabric. In 1998-99, the company increased the installed capacity of spindles and looms to 1,31,376 nos. and 157 nos. respectively and commissioned 4.2 mw each of power plant for captive consumption.

## **29. Apollo Tyres Ltd.**

The flagship of the Raunaq Singh Group, Apollo Tyres Ltd. (ATL) is engaged in the manufacture of automobile tyres and tubes at Permbra – Kerala, Vadodara – Gujarat and Pune – Maharashtra. Mahindra & Mahindra and TAFE are its major clients.

ATL has an MOU with United Tyres, a Canada based giant for a 50% buy-back agreement and joint venture agreement with continental of Germany for passenger car radial tyre factory at Pune.

The company was incorporated in 1972 and commenced its production in 1977. It was the first to receive the ISO 9001 accreditation in the Indian tyre industry for its entire range of brands. ATL took over Premier tyres in April 1995 in which its sick Stallion tyres came under the Apollo brand name.

In 1999-2000, the projects of radial passenger capacity of 2000 tyres per day at Vadodara Plant and 50000 two/three wheeler tyres at conversion unit has been successfully implemented, this has resulted in improving market shares in the respective segment. During 2004-'05, the company plans for expansion project to increase the passenger car radials to 3 lac units per month and light truck radials to 0.5 lacs per



month at the radial facility at Vadodara and expansion projects are proposed at both Vadodara and Kochi plants to achieve the production capacity of 360 mt. & 270 mt. per day respectively.

In 2003-'04, the company has entered into a joint venture with Michelin, France to setup "Michelin Apollo Tyres Pvt. Ltd." for producing dual branded truck & bus radial tyres in India. The plant will be setup at Ranjangaon of Maharashtra with an investment of US\$ 75 million in the ratio of 51:49. The commercial production will commence by September 2005 and produce 3.5 lakh truck and bus radial tyres by 2007.

During 2004-'05, the company launched premium 4 x 4 SUV range of sturdy tyres called "Hawkz" and "Apollo Acelere" H-rated, premium tubeless tyre. During 2004-'05, the company increased its installed capacity of automobile tyres by 1466432 nos. and automobile tubes by 1567200 nos.

The company has invested Rs. 230 crore in Kerala at its perambra plant and expansion programme is being implemented in progressive manner. The company would invest Rs. 150 crore for the manufacture of radial tyres at Vadodara and project activities is in full swing.

During May 2003, the share capital of the company stands, reduced to 36.32 crore due to buy back of 36.90 lac shares @ Rs. 90/- per share. The expansion programme for its subsidiary company which is under lease with Apollo tyres viz. PTL enterprises Ltd. (formerly Premier tyres ltd.) is implemented to enhance capacity from 60 tons per day to 85 tons per day.

### **30. Ceat Ltd.**

Ceat Ltd. (formerly Ceat tyres Ltd.), The flagship of the RPG group, manufactures steel belted radials for passenger cars. The various range of tyres manufactured are marketed under Ceat, Samraat, Secura brand names.

With the amalgamation of Deccan Fibre Glass in 1983 and Murphy India in 1970, Ceat acquired the glass fiber unit and the electronics division respectively. It also acquired Murphy's photocopier division, which had Ricoh-Japan as the technology supplier. The glass fiber unit and the electronics division respectively. It also acquired Murphy's photocopier suppliers. The glass fiber unit was sold to FGP in Jun 1993, while the operations of electronic division have been suspended from 1992-93 onwards.

Associated Ceat (private) Ltd., the company's joint venture in Srilanka, commenced production of tyres for Light Commercial Vehicles towards the end of 1993.

The photocopier division was sold to RPG Ricoh in May 1994. The company sold its tyre cord division to SRF as part of its restructuring programme. It also transferred its Aurangabad unit to South Asia Tyres, a joint venture with Goodyear India, in financial collaboration with Goodyear Tyre company – US, manufacture radial and earthmover tyres.

The radial tyre plant has commenced commercial production in Nasik and the formula one radial tyres have been well received in the market. Ceat is the first tyre company in India to have been awarded the International accreditation ISO/TS 19949 – 2002 quality standard certification.

The company has been entered into agreement with Pirelli of Italy for outsourcing radial tyres, which are marketed in the brand name, Ceat Spider Radials.

The company is exporting its products to nearly 50 countries and is entering into the new markets namely Thailand, Hong Kong, Eritrea and Israel.

## **5.2 Conclusion**

This chapter deals with introduction of sampled Trading Houses in India. It also gives information on promoters, Group company, business activities popular brand names, products, date of establishment, production capacity, locations of manufacturing facilities, export marketing, expansion of business activities, future plans etc. This chapter also deals with capital history of sampled Trading Houses viz. right-issue, public issue, merger, acquisition and amalgamation if any have been highlighted.

### **Refereneces :**

1. [www.moneycontrol.com](http://www.moneycontrol.com)
2. [www.indiinfo.com](http://www.indiinfo.com)
3. Annual reports of sampled Trading Houses.
- A. [www.ambujaglobal.com](http://www.ambujaglobal.com)  
[www.ruchisoya.com](http://www.ruchisoya.com)
- B. <http://www.clariant.in>  
<http://www.hikal.com>
- C. [www.asianstarco.com](http://www.asianstarco.com)  
[www.ho.shrenuj.com](http://www.ho.shrenuj.com)
- D. [www.graphiteindia.com](http://www.graphiteindia.com)  
[www.hegltd.com](http://www.hegltd.com)
- E. [www.krblindia.com](http://www.krblindia.com)  
[www.kohinoorfoods.com](http://www.kohinoorfoods.com)  
[www.stnamoverseas.com](http://www.stnamoverseas.com)
- F. [www.cipla.com](http://www.cipla.com)  
[www.sunpharma.com](http://www.sunpharma.com)
- G. [www.lupinworld.com](http://www.lupinworld.com)  
[www.orchidpharma.com](http://www.orchidpharma.com)
- H. [www.williamsonteaassam.com](http://www.williamsonteaassam.com)  
[www.tatatea.com](http://www.tatatea.com)
- I. [www.jsw.in](http://www.jsw.in)  
[www.tatasteel.com](http://www.tatasteel.com)
- J. [www.loyaltextiles.com](http://www.loyaltextiles.com)  
[www.bombaydyeing.com](http://www.bombaydyeing.com)  
[www.wadiagroup.com](http://www.wadiagroup.com)
- K. [www.welspun.com](http://www.welspun.com)  
[www.zodiaconline.com](http://www.zodiaconline.com)
- L. [www.himatsingka.com](http://www.himatsingka.com)  
[www.zenithexportsltd.com](http://www.zenithexportsltd.com)
- M. [www.vardhman.in](http://www.vardhman.in)  
[www.malwaoswal.com](http://www.malwaoswal.com)
- N. [www.indorama.yarnsandfibers.com](http://www.indorama.yarnsandfibers.com)  
[www.rswm.in](http://www.rswm.in)
- O. [www.apollotyres.com](http://www.apollotyres.com)  
[www.ceatyres.com](http://www.ceatyres.com)

**CHAPTER - 6**  
**ANALYTICAL STUDY OF WORKING**  
**CAPITAL MANAGEMENT OF TRADING**  
**HOUSES IN INDIA.**

- 6.1 INTRODUCTION
- 6.2 STANDARDS OF COMPARISON
- 6.3 WHY ANALYSIS?
- 6.4 CONCLUSION

## 6.1 INTRODUCTION

The researcher has examined working capital ratios for the purpose of analysis of working management of sampled companies under study. Ratio analysis is powerful tool of financial analysis. A ratio is defined as "the indicated quotient of two mathematical expressions." and as "the relationship between two or more things." In financial analysis, a ratio is used as a benchmark for evaluating the financial position and performance of a firm. The relationship between two accounting figures, expressed mathematically, is known as a financial ratio or simply as ratio. Ratio help to summarize the large qualitative judgement about the firm's financial performance.

## 6.2 STANDARDS OF COMPARISON:

The ratio analysis involves comparison for a useful interpretation of the financial statement. A single ratio in itself does not indicate favorable or unfavorable condition. It should be compared with some standard. Standards of comparison may consist of: <sup>1</sup>

1. **Past ratios**, i.e. ratios calculated from the past financial statements of the same firm;
2. **Projected ratios**, i.e. ratios developed using the projected, or proforma, financial statement of the same firm;
3. **Competitor's ratios**, i.e. ratios of some selected firms, especially the most progressive and successful competitor, at the same point in time, and
4. **Industry ratios**, i.e. ratio of the industry of which the firm belongs.

## 6.3 Why Analysis:

Analysis has done to know the overall working capital position of sampled firms working as Trading Houses in India. The researcher has carried out two way F-Test to know the variance between and within

the working capital ratios of companies working as Trading a Houses in India.

### 1. **CURRENT RATIO:**

The current ratio is calculated by dividing current assets by current liabilities :

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current assets include cash and those assets which can be converted in to cash within a years, such as marketable securities, debtors and inventories. Prepaid expenses are also included in current assets as they represent the payments that will not be made by the firm in the future. All obligations maturing within a year include in current liabilities.

Current liabilities include creditors, bills payable, accrued expenses, short-term bank loan, income-tax liability and long-term debt maturing in current year. The current ratio is measure of form's short-term solvency. It indicates its. The availability of current assets in rupees for every one rupee of current liability. A ratio of greater than one means that the firm has more current assets than current claims against them.

The researcher has taken the following item in current ratio of sampled companies working as trading houses in India.

- (A) Current assets =Inventories, Sundry Debtors, Cash & Bank Balance. and short-term loan & Advances.
- (B) Current liabilities = Current liabilities and provisions.

The researcher has examined current ratio of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of current ratio of selected trading houses are as follows:

The following table 6.1 indicates current ratio of sampled companies working as Trading Houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.1**  
**Current Ratio of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	2.91	2.72	6.03	2.98	5.68	<b>4.06</b>
RSIL	1.31	1.38	1.86	1.89	1.52	<b>1.59</b>
CCL	1.43	1.74	1.63	1.60	1.44	<b>1.57</b>
HIKAL	2.43	1.64	1.56	2.22	3.35	<b>2.24</b>
ASCL	12.40	18.04	12.67	13.02	10.48	<b>13.32</b>
SCL	8.06	6.81	8.32	6.38	4.32	<b>6.78</b>
GIL	2.39	2.51	2.22	2.36	3.02	<b>2.50</b>
HEG	2.42	2.00	2.39	1.88	3.67	<b>2.47</b>
KRBL	6.24	6.49	10.56	6.50	9.76	<b>7.91</b>
SOL	9.09	17.38	11.59	7.20	8.66	<b>10.78</b>
CIPLA	1.98	1.97	1.92	2.01	2.27	<b>2.03</b>
SPIL	2.74	2.93	1.82	5.67	5.70	<b>3.77</b>
LUPIN	2.77	2.59	1.77	1.81	2.85	<b>2.36</b>
ORCHID	2.33	1.86	2.12	1.90	2.41	<b>2.12</b>
GWAL	1.18	0.97	1.14	0.88	0.81	<b>1.00</b>
TTL	1.42	1.30	1.09	1.12	1.03	<b>1.19</b>
JISCO	1.27	1.28	1.28	0.99	0.89	<b>1.14</b>
TISCO	0.72	0.77	0.61	0.71	0.72	<b>0.71</b>
LOYAL	2.85	2.57	2.29	2.19	2.13	<b>2.41</b>
BD	1.67	1.82	1.82	2.88	4.61	<b>2.56</b>
WIL	2.47	2.98	3.27	1.53	2.24	<b>2.50</b>
ZCCL	2.03	2.18	2.15	1.91	2.26	<b>2.11</b>
HSL	3.09	2.25	2.55	2.98	8.83	<b>3.94</b>
ZEL	3.48	3.42	2.79	2.96	3.26	<b>3.18</b>
MSML	2.67	2.30	3.17	2.52	2.94	<b>2.72</b>
MCMSL	2.28	2.39	2.75	3.14	3.45	<b>2.80</b>
IRSIL	1.15	1.04	0.88	0.82	0.52	<b>0.88</b>
RSWL	2.28	2.65	2.87	3.47	3.36	<b>2.93</b>
ATL	1.20	1.38	1.35	1.34	1.62	<b>1.38</b>
CEAT	1.93	1.73	1.64	1.53	0.86	<b>1.54</b>
<b>Average</b>	<b>3.01</b>	<b>3.37</b>	<b>3.27</b>	<b>2.95</b>	<b>3.49</b>	



## F-Test (ANOVA) Analysis:

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise current ratio of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.2. The summary of the results of the analysis of variance test is shown in table - 6.3.

**Table - 6.2**  
**Abstract of F-Test**

SUMMARY	Count	Sum	Average	Variance
Company-1	5	20.32	4.064	2.89743
Company-2	5	7.98	1.592	0.07257
Company-3	5	7.84	1.568	0.01747
Company-4	5	11.2	2.24	0.52275
Company-5	5	66.61	13.322	7.92572
Company-6	5	33.89	6.778	2.55582
Company-7	5	12.5	2.5	0.09515
Company-8	5	12.36	2.472	0.50447
Company-9	5	39.55	7.91	4.3096
Company-10	5	53.92	10.784	16.09573
Company-11	5	10.15	2.03	0.01905
Company-12	5	18.88	3.772	3.22597
Company-13	5	11.79	2.358	0.27792
Company-14	5	10.62	2.124	0.06103
Company-15	5	4.98	0.996	0.02583
Company-16	5	5.98	1.192	0.02637
Company-17	5	5.71	1.142	0.03527
Company-18	5	3.53	0.706	0.00343
Company-19	5	12.03	2.406	0.09008
Company-20	5	12.8	2.56	1.54805
Company-21	5	12.49	2.498	0.45817
Company-22	5	10.53	2.106	0.01883
Company-23	5	19.7	3.94	7.5861
Company-24	5	15.91	3.182	0.08862
Company-25	5	13.6	2.72	0.11745
Company-26	5	14.01	2.802	0.24477
Company-27	5	4.41	0.882	0.05792
Company-28	5	14.63	2.926	0.24523
Company-29	5	6.95	1.39	0.0311
Company-30	5	7.69	1.538	0.16517
Year-1	30	90.19	3.006333	6.749148
Year-2	30	101.09	3.369687	16.98244
Year-3	30	98.11	3.270333	10.30033
Year-4	30	88.39	2.946333	6.527679
Year-5	30	104.72	3.490667	7.532482

**Table - 6.3**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	1204.739	29	41.54273	25.37215	1.565322
Years	6.56056	4	1.64014	1.001713	2.44988
Error	189.9309	116	1.637336		
Total	1401.231	149			

From the Table - 6.3 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise current assets ratio of sampled companies working as Trading Houses in India.
- (2) F-Calculated value is statistically less than F-Table value at 5% significance level. Therefore the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise current ratio of sampled companies working as Trading Houses in India.

## **2. QUICK RATIO :**

This ratio establishes a relationship between quick, or liquid assets and current liabilities. An assets is liquid, if it can be converted into cash immediately or reasonably soon without a loss of value. Cash is the most liquid asset. Other assets which are considered to be relatively liquid and included in quick assets are book debts (debtors and bills receivables) and marketable securities (temporary quoted investments.)Inventories are considered to be less liquid. Inventories normally require some time for realising into cash; their value also has a tendency to fluctuate. The quick ratio of sampled Trading Houses is found out by dividing quick assets by current liabilities.

$$\text{Quick Ratio} = \frac{\text{Current assets} - \text{Inventories}}{\text{Current liabilities}}$$

Generally a quick ratio of 1:1 is considered to represent a satisfactory current financial condition.

The researcher has examined quick ratio of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of quick ratio of selected Trading Houses are as follows:

The following table 6.4 indicates quick ratio of sampled companies working as Trading Houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.4**  
**Quick Ratio of Sampled Trading Houses**

Trading Houses	2001-02	2002-03	2003-04	2004-05	2005-06	Average
GAEL	1.56	1.18	1.98	1.53	1.39	1.53
RSIL	1.00	1.01	1.27	1.39	0.97	1.13
CCL	1.01	1.20	1.25	1.17	0.95	1.12
HIKAL	1.12	0.65	0.78	1.28	1.98	1.16
ASCL	8.54	12.63	9.04	8.26	7.25	9.14
SCL	3.77	2.95	4.27	2.91	2.11	3.20
GIL	1.09	1.35	1.37	1.44	2.05	1.46
HEG	1.51	1.14	1.62	1.23	2.33	1.57
KRBL	1.60	2.11	3.17	1.74	3.69	2.46
SOL	1.84	4.20	3.19	1.86	2.81	2.78
CIPLA	1.17	1.07	1.16	1.15	1.32	1.17
SPIL	1.64	1.99	1.21	5.07	5.04	2.99
LUPIN	2.25	2.16	1.18	1.14	2.19	1.78
ORCHID	1.33	0.74	1.00	0.88	1.29	1.05
GWAL	0.96	0.73	0.92	0.66	0.67	0.79
TTL	0.96	0.88	0.67	0.57	0.57	0.73
JISCO	1.06	0.95	1.04	0.61	0.59	0.85
TISCO	0.49	0.57	0.40	0.43	0.40	0.46
LOYAL	1.48	1.31	1.06	1.29	1.22	1.27
BD	1.12	0.97	0.99	1.45	2.91	1.49
WIL	2.25	2.55	2.57	0.96	1.28	1.92
ZCCL	1.53	1.20	1.26	1.18	1.45	1.32
HSL	1.59	1.38	1.69	2.18	7.94	2.96
ZEL	1.72	1.59	1.21	1.24	1.49	1.45
MSML	1.48	1.03	1.37	1.22	1.78	1.38
MCMSL	1.41	1.54	1.87	2.18	2.26	1.85
IRSIL	0.71	0.52	0.35	0.37	0.35	0.46
RSWL	1.20	1.15	1.52	1.97	2.14	1.60
ATL	0.89	0.93	0.91	0.85	1.06	0.93
CEAT	1.63	1.40	1.36	1.27	0.58	1.25
Average	1.66	1.77	1.72	1.65	2.07	

**F-Test (ANOVA) Analysis:**

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise quick ratio of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.5. The summary of the results of the analysis of variance test is shown in table - 6.6.

**Table - 6.5**  
**Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	7.84	1.528	0.08637
Company-2	5	5.64	1.128	0.03602
Company-3	5	5.58	1.116	0.01668
Company-4	5	5.81	1.162	0.27322
Company-5	5	45.72	9.144	4.22413
Company-6	5	16.01	3.202	0.70112
Company-7	5	7.3	1.46	0.1264
Company-8	5	7.83	1.566	0.22103
Company-9	5	12.31	2.482	0.84937
Company-10	5	13.9	2.78	0.97885
Company-11	5	5.87	1.174	0.00823
Company-12	5	14.95	2.99	3.62995
Company-13	5	8.92	1.784	0.32573
Company-14	5	5.24	1.048	0.06587
Company-15	5	3.94	0.788	0.02017
Company-16	5	3.65	0.73	0.03255
Company-17	5	4.25	0.85	0.05385
Company-18	5	2.29	0.458	0.00527
Company-19	5	8.36	1.272	0.02317
Company-20	5	7.44	1.488	0.66882
Company-21	5	9.61	1.922	0.56487
Company-22	5	6.62	1.324	0.02463
Company-23	5	14.78	2.956	7.84873
Company-24	5	7.25	1.45	0.04895
Company-25	5	6.88	1.376	0.07953
Company-26	5	9.26	1.852	0.14177
Company-27	5	2.3	0.46	0.0246
Company-28	5	7.98	1.596	0.19933
Company-29	5	4.64	0.928	0.00832
Company-30	5	6.24	1.248	0.15707
Year-1	30	49.91	1.6636667	2.0426171
Year-2	30	53.08	1.7693333	4.8112961
Year-3	30	51.68	1.7226867	2.8274961
Year-4	30	49.48	1.6493333	2.3387851
Year-5	30	62.06	2.0686667	3.3019982

**Table - 6.6**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	356.2885	29	12.285812	17.326162	1.56532169
Years	3.515936	4	0.878984	1.239594	2.44988031
Error	82.25448	116	0.7090902		
Total	442.0589	149			

From the Table - 6.6 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise quick ratio of sampled companies working as Trading Houses in India.
- (2) F-Calculated value is statistically less than F-Table value at 5% significance level. Therefore the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise quick ratio of sampled companies working as Trading Houses in India.

### 3. CASH RATIO:

This ratio establishes a relationship between cash and current liabilities of sampled companies working as Trading Houses in India.. Cash is the most liquid asset. Trade investment or marketable securities are equivalent of cash, therefore, they may be included in the computation of cash ratio of sampled Trading Houses. Cash ratio is calculated as per follows :

$$\text{Cash Ratio} = \frac{\text{Cash + Marketable securities}}{\text{Current liabilities}}$$

The researcher has examined cash ratio of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of cash ratio of selected Trading Houses are as follows:

The following table 6.7 indicates cash ratio of sampled companies working as Trading Houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.7**  
**Cash Ratio of Sampled Trading Houses**

Trading Houses	2001-02	2002-03	2003-04	2004-05	2005-06	Average
GAEL	0.113	0.079	0.253	0.758	0.085	0.2576
RSIL	0.11	0.124	0.575	0.535	0.37	0.3428
CCL	0.025	0.048	0.014	0.029	0.053	0.0338
HIKAL	0.049	0.043	0.037	0.043	0.552	0.1448
ASCL	0.874	1.766	1.178	0.833	1.019	1.134
SCL	0.108	0.039	0.148	0.178	0.049	0.1044
GIL	0.026	0.012	0.032	0.014	0.635	0.1438
HEG	0.02	0.032	0.115	0.082	0.85	0.2198
KRBL	0.091	0.284	0.791	0.187	1.077	0.486
SOL	0.13	0.224	0.205	0.075	0.6	0.2468
CIPLA	0.031	0.02	0.008	0.012	0.044	0.023
SPIL	0.208	0.473	0.286	2.876	3.109	1.3904
LUPIN	0.079	0.044	0.041	0.047	0.959	0.234
ORCHID	0.266	0.093	0.087	0.052	0.028	0.1052
GWAL	0.065	0.09	0.28	0.106	0.029	0.114
TTL	0.027	0.019	0.03	0.154	0.021	0.0502
JISCO	0.008	0.005	0.009	0.061	0.032	0.023
TISCO	0.047	0.064	0.042	0.0361	0.041	0.04602
LOYAL	0.069	0.539	0.04	0.04	0.03	0.1436
BD	0.033	0.028	0.034	0.039	0.267	0.0802
WIL	0.069	0.101	0.546	0.35	0.395	0.2922
ZCCL	0.111	0.03	0.064	0.047	0.049	0.0602
HSL	0.427	0.181	0.277	0.399	6.158	1.4884
ZEL	0.208	0.195	0.223	0.126	0.23	0.1964
MSML	0.115	0.074	0.081	0.055	0.551	0.1752
MCMSL	0.03	0.065	0.081	0.063	0.096	0.067
IRSIL	0.027	0.007	0.009	0.026	0.013	0.0164
RSWL	0.022	0.014	0.015	0.084	0.042	0.0354
ATL	0.144	0.204	0.175	0.163	0.312	0.1996
CEAT	0.102	0.125	0.063	0.048	0.06	0.0796
<b>Average</b>	<b>0.121133</b>	<b>0.1674</b>	<b>0.1913</b>	<b>0.250603</b>	<b>0.591867</b>	

### F-Test (ANOVA) Analysis:

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise cash ratio of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.8 The summary of the results of the analysis of variance test is shown in table - 6.9

**Table - 6.8**

#### **Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	1.288	0.2576	0.083255
Company-2	5	1.714	0.3428	0.048417
Company-3	5	0.169	0.0338	0.000266
Company-4	5	0.724	0.1448	0.051834
Company-5	5	5.87	1.134	0.143197
Company-6	5	0.522	0.1044	0.003669
Company-7	5	0.719	0.1438	0.075488
Company-8	5	1.099	0.2198	0.125578
Company-9	5	2.43	0.486	0.182134
Company-10	5	1.234	0.2468	0.042544
Company-11	5	0.115	0.023	0.000215
Company-12	5	6.952	1.3904	2.154996
Company-13	5	1.17	0.234	0.164492
Company-14	5	0.526	0.1052	0.008782
Company-15	5	0.57	0.114	0.009456
Company-16	5	0.251	0.0502	0.003387
Company-17	5	0.115	0.023	0.000568
Company-18	5	0.2301	0.04602	0.000116
Company-19	5	0.718	0.1436	0.049069
Company-20	5	0.401	0.0802	0.01092
Company-21	5	1.461	0.2922	0.041175
Company-22	5	0.301	0.0602	0.000952
Company-23	5	7.442	1.4884	6.823828
Company-24	5	0.982	0.1964	0.001732
Company-25	5	0.876	0.1752	0.044803
Company-26	5	0.335	0.067	0.000607
Company-27	5	0.082	0.0164	8.98E-05
Company-28	5	0.177	0.0354	0.000865
Company-29	5	0.998	0.1996	0.004422
Company-30	5	0.398	0.0796	0.001055
Year-1	30	3.834	0.121133	0.023033
Year-2	30	5.022	0.1674	0.10776
Year-3	30	5.739	0.1913	0.070399
Year-4	30	7.5181	0.250603	0.290187
Year-5	30	17.756	0.591867	1.477287



**Table - 6.9**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	21.20681	29	0.731263	2.35435	1.565322
Years	4.281031	4	1.07027	3.445308	2.44988
Error	36.02968	116	0.310601		
Total	61.51737	149			

From the Table- 6.9 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise cash ratio of sampled companies working as Trading Houses in India.
- (2) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among year-wise cash ratio of sampled companies working as Trading Houses in India.

#### **4 INTERVAL MEASURE :**

Interval measure assesses sampled Trading Houses ability to meet its regular cash expenses. It relates liquid assets to average daily operating cash out flows. The daily operating expenses will be equal to cost of goods sold plus selling, administrative and general expenses less depreciation (and other non-cash expenditures) divided by number of days in the year.

$$\text{Interval Measure} = \frac{\text{Current assets-Inventory}}{\text{Average daily operating expenses}}$$

The researcher has examined interval measure of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of interval measure of selected Trading Houses are as follows:

The following table 6.10 indicates interval measure of sampled companies working as Trading Houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.10**  
**Interval Measure of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	43	36	35	48	21	<b>36.6</b>
RSIL	66	61	107	102	75	<b>82.2</b>
CCL	133	127	135	150	111	<b>131.2</b>
HIKAL	145	104	139	196	246	<b>166</b>
ASCL	207	186	195	181	192	<b>192.2</b>
SCL	148	135	162	135	169	<b>149.8</b>
GIL	138	153	177	203	303	<b>194.8</b>
HEG	139	113	239	190	286	<b>193.4</b>
KRBL	44	54	64	76	125	<b>72.6</b>
SOL	52	60	62	66	100	<b>68</b>
CIPLA	194	207	210	198	200	<b>201.8</b>
SPIL	148	223	177	644	543	<b>347</b>
LUPIN	322	339	154	149	269	<b>246.6</b>
ORCHID	221	134	151	199	284	<b>197.8</b>
GWAL	93	58	83	67	142	<b>88.6</b>
TTL	125	128	94	78	77	<b>100.4</b>
JISCO	158	118	156	99	139	<b>134</b>
TISCO	148	180	117	123	109	<b>135.4</b>
LOYAL	129	131	116	123	137	<b>127.2</b>
BD	151	98	81	72	112	<b>102.8</b>
WIL	413	307	258	219	170	<b>273.4</b>
ZCCL	95	100	82	100	131	<b>101.6</b>
HSL	186	269	327	355	1314	<b>490.2</b>
ZEL	110	79	78	76	94	<b>87.4</b>
MSML	155	127	119	116	203	<b>144</b>
MCMSL	148	157	160	195	188	<b>169.6</b>
IRSIL	144	109	76	63	61	<b>90.6</b>
RSWL	82	68	72	81	96	<b>79.8</b>
ATL	127	111	112	98	114	<b>112.4</b>
CEAT	264	228	224	201	81	<b>199.6</b>
<b>Average</b>	<b>150.9333</b>	<b>140</b>	<b>138.7333</b>	<b>153.4333</b>	<b>203.0667</b>	

## F-Test (ANOVA) Analysis:

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise interval measure of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.11. The summary of the results of the analysis of variance test is shown in table - 6.12.

**Table - 6.11**  
**Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	183	36.6	104.3
Company-2	5	411	82.2	442.7
Company-3	5	656	131.2	199.2
Company-4	5	830	166	3078.5
Company-5	5	961	192.2	97.7
Company-6	5	749	149.8	239.7
Company-7	5	974	194.8	4266.2
Company-8	5	967	193.4	5022.3
Company-9	5	363	72.6	998.8
Company-10	5	340	68	346
Company-11	5	1009	201.8	43.2
Company-12	5	1735	347	52625.5
Company-13	5	1233	246.6	8206.3
Company-14	5	989	197.8	3557.7
Company-15	5	443	88.6	1076.3
Company-16	5	502	100.4	614.3
Company-17	5	670	134	641.5
Company-18	5	677	135.4	834.3
Company-19	5	636	127.2	64.2
Company-20	5	514	102.8	963.7
Company-21	5	1367	273.4	8626.3
Company-22	5	508	101.6	324.3
Company-23	5	2451	490.2	216256.7
Company-24	5	437	87.4	210.8
Company-25	5	720	144	1325
Company-26	5	848	169.6	425,3
Company-27	t)	453	90.6	1260.3
Company-28	5	399	79.8	117.2
Company-29	5	562	112.4	106.3
Company-30	5	998	199.6	4904.3
Year-1	30	4528	150.9333	6117.375
Year-2	30	4200	140	5593.379
Year-3	30	4162	138.7333	4445.72
Year-4	30	4603	153.4333	13073.56
Year-5	30	6092	203.0667	54258.27

**Table - 6.12**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	1237067	29	42657.49	4.17895	1.565322
Years	83821.87	4	20955.47	2.052907	2.44988
Error	1184094	116	10207.7		
Total	2504983	149			

From the Table- 6.12 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise interval measure of sampled companies working as Trading Houses in India.
- (2) Calculated F-Value is statistically less than the F-Table Value at 5% significance level. Therefore the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise interval measure of sampled companies working as Trading Houses in India.

#### **5. NET WORKING CAPITAL RATIO:**

The difference between current assets and current liabilities excluding short-term borrowing is called net working capital (NWC) or net current assets (NCA) . Net working capital is used as a measure of Trading Houses liquidity. It is considered that, between two firms, the one having the larger NWC has the greater ability to meet its current obligations.

$$\text{NWC Ratio} = \frac{\text{Net working capital}}{\text{Net assets}}$$

The researcher has examined net working capital ratio of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of net working capital ratio of selected trading houses are as follows:

The following table 6.13 indicates net working capital ratio of sampled companies working as Trading Houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.13**

**Net Working Capital Ratio of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	0.03	0.337	0.635	0.496	0.523	<b>0.4042</b>
RSIL	0.457	0.493	0.677	0.623	0.442	<b>0.5384</b>
CCL	0.377	0.452	0.463	0.368	0.295	<b>0.391</b>
HIKAL	0.188	0.166	0.165	0.286	0.43	<b>0.247</b>
ASCL	0.974	0.975	0.956	0.944	0.934	<b>0.9566</b>
SCL	0.856	0.836	0.862	0.845	0.851	<b>0.85</b>
GIL	0.282	0.343	0.325	0.34	0.465	<b>0.351</b>
HEG	0.325	0.278	0.331	0.189	0.381	<b>0.3008</b>
KRBL	0.787	0.769	0.746	0.764	0.755	<b>0.7642</b>
SOL	0.877	0.876	0.856	0.845	0.836	<b>0.858</b>
CIPLA	0.52	0.548	0.395	0.505	0.524	<b>0.4984</b>
SPIL	0.387	0.455	0.187	0.495	0.58	<b>0.4208</b>
LUPIN	0.511	0.511	0.341	0.321	0.564	<b>0.4496</b>
ORCHID	0.279	0.202	0.234	0.238	0.306	<b>0.2518</b>
GWAL	0.022	-0.003	0.019	-0.017	-0.035	<b>-0.0028</b>
TTL	0.086	0.07	0.02	0.03	0.008	<b>0.0428</b>
JISCO	0.049	0.075	0.12	-0.002	-0.038	<b>0.0408</b>
TISCO	-0.18	-0.179	-0.298	-0.236	-0.159	<b>-0.2104</b>
LOYAL	0.486	0.43	0.402	0.307	0.275	<b>0.38</b>
BD	0.319	0.263	0.221	0.378	0.442	<b>0.3246</b>
WIL	0.388	0.41	0.432	0.126	0.183	<b>0.3078</b>
ZCCL	0.238	0.502	0.42	0.307	0.465	<b>0.3864</b>
HSL	0.22	0.19	0.222	0.21	0.607	<b>0.2898</b>
ZEL	0.49	0.468	0.476	0.503	0.557	<b>0.4988</b>
MSML	0.367	0.347	0.477	0.402	0.464	<b>0.4114</b>
MCMSL	0.421	0.449	0.548	0.601	0.65	<b>0.5338</b>
IRSIL	0.059	0.024	-0.061	-0.105	-0.284	<b>-0.0734</b>
RSWL	0.232	0.293	0.334	0.328	0.354	<b>0.3082</b>
ATL	0.166	0.263	0.215	0.206	0.335	<b>0.237</b>
CEAT	0.383	0.351	0.36	0.319	-0.113	<b>0.26</b>
<b>Average</b>	0.3532	0.373133	0.369333	0.353867	0.386567	

### F-Test (ANOVA) Analysis:

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise net working capital ratio of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.14. The summary of the results of the analysis of variance test is shown in table - 6.15

**Table - 6.14**  
**Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	2.021	0.4042	0.055088
Company-2	5	2.692	0.5384	0.011087
Company-3	5	1.955	0.391	0.004711
Company-4	5	1.235	0.247	0.012944
Company-5	5	4.783	0.9566	0.000328
Company-6	5	4.25	0.85	0.000101
Company-7	5	1.755	0.351	0.004654
Company-8	5	1.504	0.3008	0.005237
Company-9	5	3.821	0.7642	0.00024
Company-10	5	4.29	0.858	0.000336
Company-11	5	2.492	0.4984	0.003579
Company-12	5	2.104	0.4208	0.021956
Company-13	5	2.248	0.4496	0.01224
Company-14	5	1.259	0.2518	0.001666
Company-15	5	-0.014	-0.0028	0.000582
Company-16	5	0.214	0.0428	0.001125
Company-17	5	0.204	0.0408	0.003888
Company-18	5	-1.052	-0.2104	0.00322
Company-19	5	1.9	0.38	0.007644
Company-20	5	1.623	0.3246	0.007798
Company-21	5	1.539	0.3078	0.020232
Company-22	5	1.932	0.3864	0.012249
Company-23	5	1.449	0.2898	0.031603
Company-24	5	2.494	0.4988	0.001238
Company-25	5	2.057	0.4114	0.003319
Company-26	5	2.669	0.5338	0.009534
Company-27	5	-0.367	-0.0734	0.01813
Company-28	5	1.541	0.3082	0.002298
Company-29	5	1.185	0.237	0.004192
Company-30	5	1.3	0.26	0.044005
Year-1	30	10.596	0.3532	0.07168
Year-2	30	11.194	0.373133	0.068853
Year-3	30	11.08	0.369333	0.079538
Year-4	30	10.616	0.353887	0.079156
Year-5	30	11.597	0.386567	0.093226

**Table - 6.15**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	10.1839	28	0.351169	34.02463	1.565322
Years	0.023658	4	0.005914	0.573053	2.44988
Error	1.197239	116	0.010321		
Total	11.4048	149			

From the Table- 6.15 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise net working capital ratio of sampled companies working as Trading Houses in India.
- (2) F-Calculated value is less than F-Table value. Therefore, the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise net working capital ratio of sampled companies working as Trading Houses in India.

## 6. INVENTORY TURNOVER:

This ratio indicates the efficiency of the sampled Trading Houses in selling its product. It is calculated by dividing the sale by inventory.

$$\text{Inventory Turnover} = \frac{\text{Sales}}{\text{Inventory}}$$

- The inventory turnover shows how rapidly the inventory is turning in to receivable through sales. Generally, a high inventory turnover is indicative of good inventory management. A low inventory turnover implies excessive inventory levels than warranted by production

and sales activities, or a slow-moving or obsolete inventory. A high level of sluggish inventory amounts to unnecessary tie-up of funds, reduced profit and increased costs. If the obsolete inventories have to be written off, this will adversely affect the working capital and liquidity position of the firm. Again, a relatively high inventory turnover should be carefully analyzed. A high inventory turnover may be the result of a very low level of inventory which results in frequent stock outs; the firm may be living from hand to mouth. The turnover will also be high if the firm replenishes its inventory in too many small lot sizes. The situations of frequent stockouts and too many small inventory replacements are costly for the firm. Thus, high and too low inventory turnover ratios should be investigated further. The computation of inventory turnovers for individual components of inventory may help to detect the imbalanced investments in the various inventory components.

The researcher has examined inventory turnover ratio of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of inventory turnover ratio of selected trading houses are as follows:

The following table 6.16 indicates inventory turnover ratio of sampled companies working as trading houses in India for the period of 2001-2002 to 2005-06.



**Table - 6.16****Inventory Turnover Ratio of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	35	44	71	42	63	<b>51</b>
RSIL	20	22	49	36	42	<b>33.8</b>
CCL	51	53	46	52	53	<b>51</b>
HIKAL	99	111	97	114	146	<b>113.4</b>
ASCL	84	75	73	103	82	<b>83.4</b>
SCL	144	180	141	149	173	<b>157.4</b>
GIL	157	150	92	115	135	<b>129.8</b>
HEG	76	77	88	82	148	<b>94.2</b>
KRBL	140	99	140	218	188	<b>157</b>
SOL	221	183	151	193	202	<b>190</b>
CIPLA	112	148	111	123	119	<b>122.6</b>
SPIL	68	70	62	56	56	<b>62.4</b>
LUPIN	60	54	68	77	70	<b>65.8</b>
ORCHID	143	178	143	209	181	<b>170.8</b>
GWAL	19	20	19	21	26	<b>21</b>
TTL	54	55	51	67	52	<b>55.8</b>
JISCO	24	39	32	42	54	<b>38.2</b>
TISCO	55	48	42	47	52	<b>48.8</b>
LOYAL	107	104	119	76	89	<b>99</b>
BD	75	85	68	71	76	<b>75</b>
WIL	32	47	65	103	111	<b>71.6</b>
ZCCL	31	84	57	61	74	<b>61.4</b>
HSL	103	94	95	76	101	<b>93.8</b>
ZEL	110	88	100	108	108	<b>102.8</b>
MSML	106	133	134	103	108	<b>116.8</b>
MCMSL	83	78	79	78	90	<b>81.6</b>
IRSIL	73	94	93	65	24	<b>69.8</b>
RSWL	60	80	55	58	49	<b>60.4</b>
ATL	37	49	50	53	58	<b>49.4</b>
CEAT	44	52	44	40	38	<b>43.6</b>
<b>Average</b>	<b>80.76667</b>	<b>86.46667</b>	<b>81.16667</b>	<b>87.93333</b>	<b>92.26667</b>	

**F-Test (ANOVA) Analysis:**

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise inventory turnover ratio of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.17. The summary of the results of the analysis of variance test is shown in table - 6.18

**Table - 6.17**  
**Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	37.68	7.536	4.54288
Company-2	5	60.59	12.118	24.33447
Company-3	5	35.33	7.066	0.19063
Company-4	5	16.22	3.244	0.24788
Company-5	5	21.89	4.378	0.33247
Company-6	5	11.55	2.31	0.0644
Company-7	5	14.37	2.874	0.43118
Company-8	5	20.25	4.05	0.87135
Company-9	5	12.34	2.468	0.58842
Company-10	5	9.63	1.928	0.08213
Company-11	5	14.81	2.962	0.10537
Company-12	5	29.08	5.816	0.37808
Company-13	5	27.72	5.544	0.58923
Company-14	5	10.77	2.154	0.12528
Company-15	5	88.88	17.336	4.79443
Company-16	5	32.61	6.522	0.46092
Company-17	5	50.87	10.174	10.78743
Company-18	5	37.37	7.474	0.59388
Company-19	5	18.61	3.722	0.43387
Company-20	5	24.15	4.83	0.16175
Company-21	5	31.29	6.258	11.15857
Company-22	5	33.07	6.614	8.82343
Company-23	5	19.33	3.866	0.24763
Company-24	5	17.86	3.532	0.11902
Company-25	5	15.59	3.118	0.15682
Company-26	5	22.09	4.418	0.06952
Company-27	5	33.17	6.634	22.42393
Company-28	5	30.64	6.128	1.08477
Company-29	5	37.38	7.476	1.74958
Company-30	5	41.78	8.356	1.01303
Year-1	30	195.55	6.518333	20.76332
Year-2	30	168.93	5.631	13.89668
Year-3	30	188.02	5.600867	11.29737
Year-4	30	163.31	5.443667	10.19447
Year-5	30	158.71	5.290333	10.39247

**Table - 6.18**  
**Result of F-Test**

<b>Source of Variation</b>	<b>SS</b>	<b>DF</b>	<b>MSS</b>	<b>F-Cal. Value</b>	<b>5% F Limit</b>
Companies	1569.476864	29	54.11989	17.42372	1.585322
Years	27.53339733	4	6.883349	2.216072	2.44988
Error	360.3080027	116	3.106103		
Total	1957.318264	149			

From the Table- 6.18 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise inventory turnover ratio of sampled companies working as Trading Houses in India.
- (2) F-Calculated value is statistically less than F-Table value at 5% significance level. Therefore, the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise inventory turnover ratio of sampled companies working as Trading Houses in India.

**7) INVENTORY TO WORKING CAPITAL RATIO :**

This ratio establishes a relationship between inventory and net current assets of sampled Trading Houses in India. This ratio shows the extent of inventories in current assets of sampled companies under study. Inventory to working capital ratio is calculated as per follows :

$$\text{Inventory To Working Capital Ratio} = \frac{\text{Inventory}}{\text{Net Current Assets}}$$

The researcher has examined inventory to working capital ratio of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of inventory to working capital ratio of selected trading houses are as follows:

The following table 6.19 indicates inventory to working capital ratio of sampled companies working as Trading Houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.19**

**Inventory to Working Capital Ratio of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	0.7	0.89	0.8	0.72	0.91	<b>0.804</b>
RSIL	0.98	0.95	0.67	0.56	1.04	<b>0.84</b>
CCL	0.96	0.72	0.6	0.7	1.09	<b>0.814</b>
HIKAL	0.91	1.52	1.38	0.76	0.57	<b>1.028</b>
ASCL	0.33	0.31	0.31	0.39	0.34	<b>0.336</b>
SCL	0.6	0.66	0.55	0.64	0.66	<b>0.622</b>
GIL	0.92	0.76	0.69	0.67	0.48	<b>0.704</b>
HEG	0.63	0.85	0.54	0.73	0.5	<b>0.65</b>
KRBL	0.88	0.79	0.77	0.86	0.83	<b>0.826</b>
SOL	0.89	0.8	0.79	0.86	0.76	<b>0.82</b>
CIPLA	0.82	0.92	0.82	0.84	0.74	<b>0.828</b>
SPIL	0.63	0.48	0.73	0.12	0.14	<b>0.42</b>
LUPIN	0.29	0.26	0.76	0.81	0.35	<b>0.494</b>
ORCHID	0.75	1.29	0.99	1.13	0.78	<b>0.988</b>
GWAL	1.21	-0.1	1.5	-1.95	-0.7	<b>-0.008</b>
TTL	1.09	1.37	4.5	4.44	11.81	<b>4.642</b>
JISCO	0.71	1.17	0.83	-37.64	-2.91	<b>-7.568</b>
TISCO	-0.78	-0.86	-0.54	-0.95	-1.13	<b>-0.852</b>
LOYAL	0.73	0.79	0.94	0.75	0.8	<b>0.802</b>
BD	0.82	1.02	1.01	0.75	0.47	<b>0.814</b>
WIL	0.15	0.21	0.3	1.06	0.76	<b>0.496</b>
ZCCL	0.48	0.82	0.77	0.79	0.64	<b>0.7</b>
HSL	0.71	0.69	0.55	0.4	0.11	<b>0.492</b>
ZEL	0.7	0.75	0.88	0.88	0.78	<b>0.798</b>
MSML	0.71	0.97	0.82	0.85	0.59	<b>0.788</b>
MCMSL	0.67	0.6	0.5	0.44	0.48	<b>0.538</b>
IRSIL	2.8	11.63	-4.8	-2.59	-0.36	<b>1.336</b>
RSWL	0.83	0.9	0.71	0.6	0.51	<b>0.71</b>
ATL	1.48	1.17	1.22	1.42	0.9	<b>1.238</b>
CEAT	0.32	0.45	0.43	0.48	-2.1	<b>-0.084</b>
<b>Average</b>	<b>0.764</b>	<b>1.092667</b>	<b>0.667333</b>	<b>-0.68267</b>	<b>0.661333</b>	

### F-Test (ANOVA) Analysis:

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise inventory to working capital ratio of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.20. The summary of the results of the analysis of variance test is shown in table - 6.21

**Table - 6.20**  
**Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	4.02	0.804	0.00913
Company-2	5	4.2	0.84	0.04475
Company-3	5	4.07	0.814	0.04128
Company-4	5	5.14	1.028	0.16537
Company-5	5	1.88	0.338	0.00108
Company-6	5	3.11	0.622	0.00222
Company-7	5	3.52	0.704	0.02533
Company-8	5	3.25	0.85	0.02035
Company-9	5	4.13	0.826	0.00213
Company-10	5	4.1	0.82	0.00285
Company-11	5	4.14	0.828	0.00412
Company-12	5	2.1	0.42	0.07805
Company-13	5	2.47	0.494	0.07193
Company-14	5	4.94	0.988	0.05282
Company-15	5	-0.04	-0.008	2.00407
Company-16	5	23.21	4.642	18.69097
Company-17	5	-37.84	-7.588	285.3566
Company-18	5	-4.26	-0.852	0.04737
Company-19	5	4.01	0.802	0.00677
Company-20	5	4.07	0.814	0.05083
Company-21	5	2.48	0.496	0.15693
Company-22	5	3.5	0.7	0.01985
Company-23	5	2.46	0.492	0.08112
Company-24	5	3.99	0.798	0.00842
Company-25	5	3.94	0.788	0.02082
Company-26	5	2.69	0.538	0.00892
Company-27	5	6.68	1.336	41.01253
Company-28	5	3.55	0.71	0.02585
Company-29	5	8.19	1.238	0.05272
Company-30	5	-0.42	-0.034	1.27373
Year-1	30	22.92	0.764	0.299158
Year-2	30	32.78	1.092667	4.171186
Year-3	30	20.02	0.687333	1.869772
Year-4	30	-20.48	-0.68267	49.95933
Year-5	30	19.84	0.681333	5.25055

**Table - 6.21**  
**Result of F-Test**

<b>Source of Variation</b>	<b>SS</b>	<b>DF</b>	<b>MSS</b>	<b>F-Cal. Value</b>	<b>5% F Limit</b>
Companies	438.0932	29	15.10866	1.306711	1.565322
Years	56.21033	4	14.05258	1.215534	2.44988
Error	1341.057	116	11.56083		
Total	1835.36	149			

From the Table- 6.21 it is observed that:

- (1) Calculated F-Value is statistically less than the F-Table Value at 5% significance level. Therefore, the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among company-wise inventory to working capital ratio of sampled companies working as Trading Houses in India.
- (2) Calculated F-Value is statistically less than the F-Table Value at 5% significance level. Therefore, the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise inventory to working capital ratio of sampled companies working as Trading Houses in India.

## 8. DEBTORS TURNOVER:

A firm sells goods for cash and credit . Credit is used as a marketing tool by a number of companies. When the firm extends credits to its customers, book debts (debtors or receivables) are created in the firm's accounts. Book debts are expected to be converted into cash over a short period and, therefore, are included in current assets. Debtors turnover can be calculated by dividing total sales by the year-end balance of debtors:

$$\text{Debtors Turnover} = \frac{\text{Sales}}{\text{Debtors}}$$

The researcher has examined debtors turnover ratio of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of debtors turnover ratio of selected trading houses are as follows:

The following table 6.22 indicates debtors turnover ratio of sampled companies working as trading houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.22****Debtors Turnover Ratio of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	22	23	26	20	18	<b>21.8</b>
RSIL	46	43	48	46	32	<b>43</b>
CCL	84	76	69	68	61	<b>71.6</b>
HIKAL	17	15	32	81	70	<b>43</b>
ASCL	160	145	148	146	143	<b>148.4</b>
SCL	110	110	106	98	132	<b>111.2</b>
GIL	86	129	109	118	85	<b>105.4</b>
HEG	75	60	90	85	85	<b>79</b>
KRBL	35	31	33	63	71	<b>46.6</b>
SOL	34	39	26	39	41	<b>35.8</b>
CIPLA	72	89	98	70	109	<b>87.6</b>
SPIL	56	90	49	70	55	<b>64</b>
LUPIN	136	154	68	73	79	<b>102</b>
ORCHID	114	58	78	105	136	<b>98.2</b>
GWAL	5	6	11	6	19	<b>9.4</b>
TTL	6	7	10	12	8	<b>8.6</b>
JISCO	41	37	60	15	14	<b>33.4</b>
TISCO	58	39	22	14	13	<b>29.2</b>
LOYAL	61	57	52	56	61	<b>57.4</b>
BD	38	23	26	26	57	<b>34</b>
WIL	70	55	36	28	24	<b>42.6</b>
ZCCL	30	53	54	36	34	<b>41.4</b>
HSL	39	61	58	60	73	<b>58.2</b>
ZEL	59	36	27	34	40	<b>39.2</b>
MSML	46	41	44	41	42	<b>42.8</b>
MCMSL	100	108	111	116	115	<b>110</b>
IRSIL	19	18	15	18	13	<b>16.6</b>
RSWL	42	33	29	31	42	<b>35.4</b>
ATL	44	17	23	25	24	<b>26.6</b>
CEAT	60	56	63	55	53	<b>57.4</b>
<b>Average</b>	<b>58.83333</b>	<b>56.96667</b>	<b>54.03333</b>	<b>55.16667</b>	<b>58.3</b>	

**F-Test (ANOVA) Analysis:**

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise debtors turnover ratio of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.23. The summary of the results of the analysis of variance test is shown in table - 6.24



**Table - 6.23**  
**Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	83.48	16.696	5.03073
Company-2	5	42.7	8.54	2.47185
Company-3	5	25.43	5.086	0.38793
Company-4	5	66.38	13.276	83.00173
Company-5	5	12.16	2.432	0.01257
Company-6	5	16.38	3.278	0.12283
Company-7	5	15.98	3.198	0.37653
Company-8	5	23.17	4.634	0.59778
Company-9	5	43.85	8.77	9.75525
Company-10	5	51.4	10.28	4.54205
Company-11	5	19.74	3.948	0.41457
Company-12	5	29.5	5.9	1.74535
Company-13	5	19.76	3.952	1.87237
Company-14	5	20.04	4.008	2.00392
Company-15	5	239.73	47.946	519.4293
Company-16	5	228.28	45.852	167.1093
Company-17	5	73.91	14.782	85.60907
Company-18	5	84.72	16.944	90.94048
Company-19	5	31.41	6.282	0.21062
Company-20	5	59.35	11.87	14.9546
Company-21	5	49.88	9.978	17.74523
Company-22	5	48.13	9.226	5.65268
Company-23	5	32.03	6.406	2.41318
Company-24	5	49.04	9.808	7.18447
Company-25	5	42.08	8.412	0.17217
Company-26	5	16.37	3.274	0.04093
Company-27	5	111.14	22.228	13.62827
Company-28	5	52.29	10.458	3.10277
Company-29	5	74.83	14.966	23.00138
Company-30	5	31.48	6.296	0.21173
Year-1	30	354.7	11.82333	260.0629
Year-2	30	362.9	12.09667	194.4561
Year-3	30	315.88	10.52933	68.99521
Year-4	30	331.8	11.06	99.21699
Year-5	30	327.32	10.91067	106.0826

**Table - 6.24**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	16931.37	29	583.8402	18.11109	1.565322
Years	51.31149	4	12.82787	0.353986	2.44988
Error	4203.655	116	36.23841		
Total	21186.33	149			

From the Table- 6.24 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise debtors turnover ratio of sampled companies working as Trading Houses in India.
- (2) F-Calculated value is statistically less than F-Table value at 5% significance level. Therefore, the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise debtors turnover ratio of sampled companies working as Trading Houses in India.

#### **9. AVERAGE COLLECTION PERIOD:**

The average number of days for which books debts remain outstanding is called the average collection period (ACP) and can be computed as follows :

$$ACP = \frac{\text{Debtors} * 360}{\text{Sales}}$$

The average collection period measures the quality of debtors since it indicates the speed of their collection. The shorter the average collection period, the better the quality of debtors, as a short collection period implies the prompt payments by debtors The average collection

period should be compared against the firm's credit terms and policy to judge its credit and collection efficiency.

The researcher has examined average collection period of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of average collection period of selected Trading Houses are as follows:

The following table 6.25 indicates average collection period of sampled companies working as Trading Houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.25****Average Collection Period of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	22	23	26	20	18	<b>21.8</b>
RSIL	46	43	48	46	32	<b>43</b>
CCL	84	76	68	68	61	<b>71.4</b>
HIKAL	17	15	32	81	70	<b>43</b>
ASCL	160	145	148	144	142	<b>147.8</b>
SCL	110	110	106	97	131	<b>110.8</b>
GIL	86	129	109	118	135	<b>115.4</b>
HEG	75	61	90	85	85	<b>79.2</b>
KRBL	35	31	33	63	71	<b>46.6</b>
SOL	34	39	26	39	41	<b>35.8</b>
CIPLA	72	89	97	97	109	<b>92.8</b>
SPIL	56	89	49	70	55	<b>63.8</b>
LUPIN	136	154	68	73	79	<b>102</b>
ORCHID	113	58	78	105	136	<b>98</b>
GWAL	5	6	11	8	19	<b>9.8</b>
TTL	30	25	17	12	18	<b>20.4</b>
JISCO	41	37	61	15	14	<b>33.6</b>
TISCO	58	40	22	14	13	<b>29.4</b>
LOYAL	61	57	52	56	61	<b>57.4</b>
BD	38	23	26	26	57	<b>34</b>
WIL	70	55	36	28	24	<b>42.6</b>
ZCCL	30	53	54	34	34	<b>41</b>
HSL	40	61	58	60	73	<b>58.4</b>
ZEL	59	36	27	34	40	<b>39.2</b>
MSML	46	41	44	41	42	<b>42.8</b>
MCMSL	100	108	111	116	115	<b>110</b>
IRSIL	19	18	158	18	13	<b>45.2</b>
RSWL	41	33	29	31	43	<b>35.4</b>
ATL	44	17	23	25	24	<b>26.6</b>
CEAT	60	56	63	56	52	<b>57.4</b>
<b>Average</b>	<b>59.6</b>	<b>57.6</b>	<b>59</b>	<b>56</b>	<b>60.23333</b>	

**F-Test (ANOVA) Analysis:**

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise average collection period of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.26. The summary of the results of the analysis of variance test is shown in table - 6.27

**Table - 6.26**  
**Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	109	21.8	9.2
Company-2	5	215	43	41
Company-3	5	357	71.4	77.8
Company-4	5	215	43	938.5
Company-5	5	739	147.8	51.2
Company-6	5	554	110.8	155.7
Company-7	5	577	115.4	370.3
Company-8	5	396	79.2	133.2
Company-9	5	233	46.6	356.8
Company-10	5	179	35.8	36.7
Company-11	5	464	92.8	186.2
Company-12	5	319	83.8	257.7
Company-13	5	510	102	1596.5
Company-14	5	490	98	929.5
Company-15	5	49	9.8	31.7
Company-16	5	102	20.4	50.3
Company-17	5	168	33.6	386.8
Company-18	5	147	29.4	372.8
Company-19	5	287	57.4	14.3
Company-20	5	170	34	198.5
Company-21	5	213	42.6	376.8
Company-22	5	205	41	133
Company-23	5	292	58.4	140.3
Company-24	5	196	39.2	144.7
Company-25	5	214	42.8	4.7
Company-26	5	550	110	41.5
Company-27	5	83	16.6	6.3
Company-28	5	177	35.4	38.8
Company-29	5	133	26.6	104.3
Company-30	5	287	57.4	17.8
Year-1	30	1788	59.6	1302.662
Year-2	30	1728	57.6	1523.421
Year-3	30	1627	54.23333	1169.495
Year-4	30	1680	56	1323.724
Year-5	30	1807	60.23333	1628.806

**Table - 6.27**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	173427.7	29	5980.267	24.7159	1.565322
Years	744.2	4	186.05	0.768928	2.44988
Error	28067.4	116	241.9603		
Total	202239.3	149			

From the Table- 6.27 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise average collection period of sampled companies working as Trading Houses in India.
- (2) F-Calculated value is statistically less than F-Table value at 5% significance level. Therefore, the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise average collection period of sampled companies working as Trading Houses in India.

#### **10. CURRENT ASSETS TURNOVER:**

This ratio establishes a relationship between sales and current assets of sampled companies working as Trading Houses in India. This also indicates the extent at which current assets of sampled Trading Houses generate sales. This ratio is calculated as per following way :

Hypothesis Testing:

$$\text{Current Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Current Assets}}$$

The researcher has examined current assets turnover ratio of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of current assets turnover ratio of selected trading houses are as follows:

The following table 6.28 indicates current assets turnover ratio of sampled companies working as Trading Houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.28  
Current Assets Turnover Ratio of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	4.7	4.57	3.39	4.21	4.29	<b>4.232</b>
RSIL	4.31	4.41	2.3	2.62	3.09	<b>3.346</b>
CCL	2.04	2.09	1.83	1.83	2.28	<b>2.014</b>
HIKAL	1.95	1.93	1.86	1.33	1	<b>1.614</b>
ASCL	1.33	1.44	1.41	1.27	1.34	<b>1.358</b>
SCL	0.75	1.13	1.24	1.31	1.06	<b>1.098</b>
GIL	1.24	1.1	1.49	1.21	0.86	<b>1.18</b>
HEG	1.76	1.99	1.3	1.5	0.89	<b>1.488</b>
KRBL	1.92	2.44	1.8	1.21	1.19	<b>1.712</b>
SOL	1.3	1.48	1.73	1.38	1.2	<b>1.418</b>
CIPLA	1.31	1.11	1.28	1.25	1.26	<b>1.242</b>
SPIL	2.13	1.62	1.94	0.68	0.74	<b>1.422</b>
LUPIN	1.11	1.09	1.77	1.7	1.17	<b>1.368</b>
ORCHID	1.08	1.21	1.33	0.92	0.92	<b>1.092</b>
GWAL	3.47	4.36	3.68	4.33	2.22	<b>3.612</b>
TTL	2.19	2.12	2.7	2.62	3.09	<b>2.544</b>
JISCO	1.96	2.38	2.07	3.23	2.04	<b>2.336</b>
TISCO	2.01	1.94	2.92	2.98	2.18	<b>2.406</b>
LOYAL	1.62	1.68	1.62	1.93	1.72	<b>1.714</b>
BD	1.59	1.97	2.43	2.5	1.74	<b>2.046</b>
WIL	1	1.11	1.19	1.29	1.37	<b>1.192</b>
ZCCL	2.9	1.92	2.62	2.24	1.75	<b>2.286</b>
HSL	1.68	1.47	1.27	1.25	0.35	<b>1.204</b>
ZEL	1.65	2.19	2.03	1.94	1.8	<b>1.922</b>
MSML	1.51	1.48	1.51	1.79	1.3	<b>1.518</b>
MCMSL	1.66	1.62	1.46	1.4	1.37	<b>1.502</b>
IRSIL	1.89	1.9	2.3	3.03	4.9	<b>2.804</b>
RSWL	2.82	2.55	3.07	2.68	2.66	<b>2.756</b>
ATL	2.48	2.43	2.33	2.47	2.16	<b>2.374</b>
CEAT	1.27	1.32	1.38	1.54	3.08	<b>1.718</b>
<b>Average</b>	<b>1.954333</b>	<b>2.001667</b>	<b>1.975</b>	<b>1.988</b>	<b>1.834</b>	

### F-Test (ANOVA) Analysis:

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise current assets turnover ratio of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.29. The summary of the results of the analysis of variance test is shown in table - 6.30

**Table - 6.29**

#### **Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	21.16	4.232	0.26152
Company-2	5	16.73	3.346	0.93703
Company-3	5	10.07	2.014	0.03623
Company-4	5	8.07	1.614	0.18273
Company-5	5	6.79	1.358	0.00457
Company-6	5	5.49	1.098	0.04717
Company-7	5	5.9	1.18	0.05235
Company-8	5	7.44	1.488	0.17977
Company-9	5	3.56	1.712	0.27637
Company-10	5	7.09	1.418	0.04102
Company-11	5	6.21	1.242	0.00597
Company-12	5	7.11	1.422	0.45612
Company-13	5	6.84	1.368	0.11372
Company-14	5	5.46	1.092	0.03247
Company-15	5	18.08	3.612	0.75937
Company-16	5	12.72	2.544	0.15833
Company-17	5	11.88	2.338	0.27523
Company-18	5	12.03	2.406	0.25468
Company-19	5	8.57	1.714	0.01638
Company-20	5	10.23	2.048	0.16523
Company-21	5	5.96	1.192	0.02122
Company-22	5	11.43	2.288	0.22798
Company-23	5	6.02	1.204	0.25828
Company-24	5	9.61	1.922	0.04317
Company-25	5	7.59	1.518	0.03077
Company-26	5	7.51	1.502	0.01712
Company-27	5	14.02	2.804	1.58773
Company-28	5	13.78	2.756	0.04003
Company-29	5	11.87	2.374	0.01783
Company-30	5	8.43	1.686	0.60938
Year-1	30	58.63	1.954333	0.834198
Year-2	30	60.05	2.001687	0.87878
Year-3	30	59.25	1.975	0.454881
Year-4	30	59.48	1.982667	0.84111
Year-5	30	55.02	1.834	1.082218



**Table - 6.30**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	90.74039	29	3.128979	13.0075	1.565322
Years	0.535057	4	0.133764	0.556073	2.44988
Error	27.90402	116	0.240552		
Total	119.1795	149			

From the Table- 6.30 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise current assets turnover ratio of sampled companies working as Trading Houses in India.
- (2) F-Calculated value is statistically less than F-Table value at 5% significance level. Therefore, the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise current assets turnover ratio of sampled companies working as Trading Houses in India.

#### **11. WORKING CAPITAL TURNOVER RATIO:**

This ratio establishes a relationship between sales and net working capital of sampled companies working as Trading Houses in India. This ratio is calculated as follows :

$$\text{Working capital turnover ratio} = \frac{\text{sales}}{\text{Net working capital}}$$

The researcher has examined working capital turnover ratio of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of working capital turnover ratio of selected trading houses are as follows:

The following table 6.31 indicates working capital turnover ratio of sampled companies working as Trading Houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.31**

**Working Capital Turnover Ratio of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	7.16	7.21	4.06	6.32	5.21	<b>5.992</b>
RSIL	18.01	15.92	4.98	5.55	8.99	<b>10.69</b>
CCL	6.78	4.9	4.72	4.89	7.46	<b>5.75</b>
HIKAL	3.31	4.93	5.15	2.43	1.43	<b>3.45</b>
ASCL	1.44	1.52	1.53	1.37	1.49	<b>1.47</b>
SCL	1.52	1.32	1.41	1.55	1.38	<b>1.436</b>
GIL	2.12	1.83	2.71	2.1	1.28	<b>2.008</b>
HEG	3	3.97	2.23	3.21	1.22	<b>2.726</b>
KRBL	2.28	2.89	1.99	1.43	1.59	<b>2.036</b>
SOL	1.46	1.57	1.89	1.6	1.36	<b>1.576</b>
CIPLA	2.65	2.25	2.66	2.47	2.25	<b>2.456</b>
SPIL	3.35	2.47	4.3	0.83	0.9	<b>2.37</b>
LUPIN	1.74	1.77	4.07	3.81	1.81	<b>2.64</b>
ORCHID	1.89	2.61	2.51	1.94	1.57	<b>2.104</b>
GWAL	22.58	-177.76	28.93	-34.12	-9.64	<b>-34.002</b>
TTL	7.37	9.08	31.71	23.78	81.98	<b>30.784</b>
JISCO	10.99	10.71	9.3	-321.61	-19.59	<b>-62.04</b>
TISCO	-5.17	-6.33	-4.63	-7.39	-7.89	<b>-6.282</b>
LOYAL	2.5	2.76	2.87	3.55	3.24	<b>2.984</b>
BD	3.94	4.35	5.36	3.84	2.22	<b>3.942</b>
WIL	1.69	1.67	1.72	3.71	2.48	<b>2.254</b>
ZCCL	5.7	3.54	4.89	4.7	3.13	<b>4.392</b>
HSL	2.48	2.64	2.09	1.89	0.4	<b>1.9</b>
ZEL	2.32	3.1	3.16	2.98	2.6	<b>2.832</b>
MSML	2.42	2.63	2.21	2.97	1.97	<b>2.44</b>
MCMSL	2.96	2.79	2.29	2.06	1.93	<b>2.406</b>
IRSIL	0.02	44.41	-18.58	-14.45	-5.46	<b>1.188</b>
RSWL	5.02	4.1	4.71	3.76	3.79	<b>4.276</b>
ATL	14.41	8.72	8.94	9.66	5.62	<b>9.47</b>
CEAT	2.643	3.12	3.56	4.43	-20.01	<b>-1.2514</b>
<b>Average</b>	<b>4.619433</b>	<b>-0.84367</b>	<b>4.424667</b>	<b>-9.02467</b>	<b>2.823667</b>	

### F-Test (ANOVA) Analysis:

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise working capital turnover ratio of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.32. The summary of the results of the analysis of variance test is shown in table - 6.33

**Table - 6.32**  
**Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	29.96	5.992	1.82487
Company-2	5	53.45	10.69	35.71225
Company-3	5	28.75	5.75	1.627
Company-4	5	17.25	3.45	2.5552
Company-5	5	7.35	1.47	0.00435
Company-6	5	7.18	1.436	0.00933
Company-7	5	10.04	2.008	0.26887
Company-8	5	13.83	2.726	1.09273
Company-9	5	10.18	2.036	0.33928
Company-10	5	7.88	1.576	0.03983
Company-11	5	12.28	2.456	0.04108
Company-12	5	11.85	2.37	2.30695
Company-13	5	13.2	2.64	1.4174
Company-14	5	10.52	2.104	0.19468
Company-15	5	-170.01	-34.002	7105.461
Company-16	5	153.92	30.784	922.5557
Company-17	5	-310.2	-62.04	21223.48
Company-18	5	-31.41	-8.282	1.94532
Company-19	5	14.92	2.984	0.17083
Company-20	5	19.71	3.942	1.28822
Company-21	5	11.27	2.254	0.77883
Company-22	5	21.96	4.392	1.09307
Company-23	5	9.5	1.9	0.79255
Company-24	5	14.16	2.832	0.12932
Company-25	5	12.2	2.44	0.1478
Company-26	5	12.03	2.406	0.20353
Company-27	5	5.94	1.188	637.2556
Company-28	5	21.38	4.276	0.31883
Company-29	5	47.35	9.47	10.0264
Company-30	5	-8.27	-1.254	110.3718
Year-1	30	138.57	4.619	30.25059
Year-2	30	-25.31	-0.84367	1185.217
Year-3	30	132.74	4.424667	71.51988
Year-4	30	-270.74	-9.02467	3563.716
Year-5	30	84.71	2.823667	266.6014

**Table - 6.33**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	32055.31	29	1 105.355	1.102083	1.565322
Years	3907.293	4	976.8233	0.973914	2.44988
Error	116346.5	118	1002.987		
Total	152309.1	149			

From the Table- 6.33 it is observed that:

- (1) F-Calculated value is statistically less than F-Table value at 5% significance level. Therefore, the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among company-wise working capital turnover ratio of sampled companies working as Trading Houses in India.
- (2) F-Calculated value is statistically less than F-Table value at 5% significance level. Therefore, the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise working capital turnover ratio of sampled companies working as Trading Houses in India.

## **12. GROSS PROFIT MARGIN :**

Gross profit margin is calculated by dividing the gross profit by sales:

$$\text{Gross Profit Margin Ratio} = \frac{\text{Gross profit}}{\text{Sales}}$$

The gross profit margin reflects the efficiency with which management produces each unit of product. This ratio indicates the average spread between the cost of goods sold and the sales revenue. A high gross profit margin relative to the industry average implies that the firm is able to produce at relatively lower cost. A low gross profit

margin may reflect higher cost of goods sold due to the firm's inability to purchase raw materials at favorable terms, inefficient utilization of plant and machinery, or over-investment in plant and machinery, resulting in higher cost of production. The ratio will also be low due to a fall in prices in the market, or marked reduction in selling prices by the firm in an attempt to obtain large sales volume, the cost of good sold remaining unchanged.

The researcher has examined gross profit margin of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of gross profit margin of selected trading houses are as follows:

The following table 6.34 indicates gross profit margin of sampled companies working as Trading Houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.34****Gross Profit Margin of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	0.02	0.04	0.04	0.04	0.05	<b>0.038</b>
RSIL	0.01	0.01	0.02	0.02	0.02	<b>0.016</b>
CCL	0.09	0.09	0.09	0.1	0.1	<b>0.094</b>
HIKAL	0.3	0.25	0.25	0.24	0.22	<b>0.252</b>
ASCL	0.03	0.03	0.02	0.03	0.03	<b>0.028</b>
SCL	0.03	0.03	0.03	0.04	0.05	<b>0.036</b>
GIL	0.17	0.15	0.17	0.17	0.18	<b>0.168</b>
HEG	0.12	0.12	0.2	0.16	0.17	<b>0.154</b>
KRBL	0.05	0.04	0.05	0.06	0.08	<b>0.056</b>
SOL	0.03	0.03	0.04	0.05	0.06	<b>0.042</b>
CIPLA	0.25	0.23	0.23	0.26	0.27	<b>0.248</b>
SPIL	0.29	0.34	0.33	0.29	0.31	<b>0.312</b>
LUPIN	0.13	0.13	0.15	0.1	0.16	<b>0.134</b>
ORCHID	0.11	0.12	0.12	0.13	0.19	<b>0.134</b>
GWAL	0.1	-0.03	-0.08	0.09	0.04	<b>0.024</b>
TTL	0.14	0.16	0.18	0.2	0.25	<b>0.186</b>
JISCO	-0.05	0.16	0.19	0.28	0.27	<b>0.17</b>
TISCO	0.11	0.2	0.3	0.4	0.39	<b>0.28</b>
LOYAL	0.09	0.13	0.14	0.14	0.14	<b>0.128</b>
BD	-0.002	0.08	0.11	0.05	0.18	<b>0.0836</b>
WIL	0.11	0.13	0.17	0.19	0.17	<b>0.154</b>
ZCCL	0.09	0.04	0.09	0.08	0.09	<b>0.078</b>
HSL	0.45	0.45	0.51	0.44	0.43	<b>0.456</b>
ZEL	0.06	0.09	0.08	0.03	0.05	<b>0.062</b>
MSML	0.1	0.12	0.12	0.13	0.18	<b>0.13</b>
MCMSL	-0.007	0.02	-0.04	0.05	0.07	<b>0.0186</b>
IRSIL	0.11	0.18	0.2	0.1	0.08	<b>0.134</b>
RSWL	0.09	0.1	0.09	0.07	0.08	<b>0.086</b>
ATL	0.06	0.12	0.07	0.06	0.06	<b>0.074</b>
CEAT	0.02	0.04	0.03	0.01	0.01	<b>0.022</b>
<b>Average</b>	<b>0.103367</b>	<b>0.12</b>	<b>0.13</b>	<b>0.133667</b>	<b>0.146</b>	

**F-Test (ANOVA) Analysis:**

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise gross profit margin of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.35. The summary of the results of the analysis of variance test is shown in table - 6.36.

**Table - 6.35**  
**Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	7.44	1.488	0.17977
Company-2	5	3.56	1.712	0.27637
Company-3	5	7.09	1.418	0.04102
Company-4	5	6.21	1.242	0.00597
Company-5	5	7.11	1.422	0.45612
Company-6	5	6.84	1.368	0.11372
Company-7	5	5.46	1.092	0.03247
Company-8	5	18.08	3.612	0.75937
Company-9	5	12.72	2.544	0.15833
Company-10	5	11.88	2.338	0.27523
Company-11	5	12.03	2.406	0.25468
Company-12	5	8.57	1.714	0.01638
Company-13	5	10.23	2.048	0.16523
Company-14	5	5.96	1.192	0.02122
Company-15	5	11.43	2.288	0.22798
Company-16	5	6.02	1.204	0.25828
Company-17	5	9.61	1.922	0.04317
Company-18	5	7.59	1.518	0.03077
Company-19	5	7.51	1.502	0.01712
Company-20	5	12.72	2.544	0.15833
Company-21	5	11.88	2.338	0.27523
Company-22	5	12.03	2.406	0.25468
Company-23	5	8.57	1.714	0.01638
Company-24	5	10.23	2.048	0.16523
Company-25	5	5.96	1.192	0.02122
Company-26	5	11.43	2.288	0.22798
Company-27	5	6.02	1.204	0.25828
Company-28	5	9.61	1.922	0.04317
Company-29	5	11.43	2.288	0.22798
Company-30	5	6.02	1.204	0.25828
Year-1	30	9.61	1.922	0.04317
Year-2	30	7.59	1.518	0.03077
Year-3	30	7.51	1.502	0.01712
Year-4	30	12.72	2.544	0.15833
Year-5	30	11.88	2.338	0.27523

**Table - 6.36**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	1.516	29	0.052	30.23	1.565322
Years	0.035	4	0.00875	5.087	2.44988
Error	0.199	116	0.00172		
Total	1.75	149			

From the Table- 6.36 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise gross profit margin of sampled companies working as Trading Houses in India.
- (2) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among year-wise gross profit margin of sampled companies working as Trading Houses in India.

### **13. NET PROFIT MARGIN :**

Net profit margin ratio is obtained by dividing net profit by sales.

$$\text{Net profit margin ratio} = \frac{\text{Net Profit}}{\text{Sales}}$$

Net profit margin ratio establishes a relationship between net profit and sales and indicates management's efficiency in manufacturing, administering and selling the products. This ratio is the overall measure of the firm's ability to turn each rupee sales into net profit. If the net margin is inadequate, the firm will fail to achieve satisfactory return on shareholder's funds. This ratio also indicates the firm's capacity to withstand adverse economic conditions. A firm with a



high net margin ratio would be in an advantageous position to survive in the face of falling sales prices, rising costs of production or declining demand for the product. It would really be difficult for a low net margin firm to withstand these adversities. Similarly, a firm with high net profit margin can make better use of favourable conditions, such as rising sales prices, falling costs of production or increasing demand for the product.

The researcher has examined net profit margin of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of net profit margin of selected trading houses are as follows:

The following table 6.37 indicates net profit margin of sampled companies working as trading houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.37****Net Profit Margin of Sampled Trading Houses**

<b>Trading Houses</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>Average</b>
GAEL	0.005	0.01	0.02	0.02	0.02	<b>0.015</b>
RSIL	0.009	0.007	0.06	0.011	0.01	<b>0.0194</b>
CCL	0.04	0.04	0.08	0.04	0.04	<b>0.048</b>
HIKAL	0.17	0.18	0.19	0.18	0.17	<b>0.178</b>
ASCL	0.02	0.02	0.02	0.02	0.02	<b>0.02</b>
SCL	0.03	0.02	0.02	0.02	0.03	<b>0.024</b>
GIL	0.1	0.09	0.1	0.09	0.1	<b>0.096</b>
HEG	0.06	0.07	0.13	0.09	0.07	<b>0.084</b>
KRBL	0.04	0.02	0.02	0.03	0.04	<b>0.03</b>
SOL	0.02	0.02	0.02	0.03	0.03	<b>0.024</b>
CIPLA	0.18	0.17	0.16	0.18	0.2	<b>0.178</b>
SPIL	0.24	0.29	0.25	0.25	0.27	<b>0.26</b>
LUPIN	0.08	0.07	0.08	0.07	0.11	<b>0.082</b>
ORCHID	0.01	0.03	0.04	0.04	0.09	<b>0.042</b>
GWAL	0.04	-0.09	0.03	0.04	0.04	<b>0.012</b>
TTL	0.09	0.09	0.11	0.14	0.19	<b>0.124</b>
JISCO	-0.07	0.08	0.12	0.13	0.13	<b>0.078</b>
TISCO	0.03	0.11	0.16	0.23	0.23	<b>0.152</b>
LOYAL	0.02	0.04	0.05	0.05	0.03	<b>0.038</b>
BD	-0.03	0.03	0.05	0.02	0.06	<b>0.026</b>
WIL	0.04	0.06	0.08	0.08	0.06	<b>0.064</b>
ZCCL	0.07	0.02	0.06	0.04	0.05	<b>0.048</b>
HSL	0.31	0.31	0.37	0.33	0.32	<b>0.328</b>
ZEL	0.01	0.04	0.05	0.002	0.01	<b>0.0224</b>
MSML	0.03	0.05	0.05	0.06	0.1	<b>0.058</b>
MCMSL	-0.05	-0.009	-0.03	0.02	0.03	<b>-0.0078</b>
IRSIL	0.02	0.07	0.1	0.03	0.02	<b>0.048</b>
RSWL	0.01	0.01	0.02	0.02	0.02	<b>0.016</b>
ATL	0.26	0.07	0.03	0.03	0.02	<b>0.082</b>
CEAT	0.002	0.01	0.009	-0.001	0.002	<b>0.0044</b>
<b>Average</b>	<b>0.059533</b>	<b>0.064267</b>	<b>0.081633</b>	<b>0.0764</b>	<b>0.083733</b>	

### F-Test (ANOVA) Analysis:

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise net profit margin of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table 6.38. The summary of the results of the analysis of variance test is shown in table - 6.39.

**Table - 6.38**

#### Abstract of F-Test

SUMMARY	Count	Sum	Average	Variance
Company-1	5	0.075	0.015	5E-05
Company-2	5	0.097	0.0194	0.000517
Company-3	5	0.24	0.048	0.00032
Company-4	5	0.89	0.178	7E-Q5
Company-5	5	0.1	0.02	0
Company-6	5	0.12	0.024	3E-05
Company-7	5	0.48	0.096	3E-05
Company-8	5	0,42	0,084	0.00078
Company-9	5	0.15	0.03	0.0001
Company-10	5	0.12	0.024	3E-05
Company-11	5	0.89	0.178	0.00022
Company-12	5	1.3	0.26	0.0004
Company-13	5	0.41	0.082	0.00027
Company-14	5	0,21	0.042	0.00087
Company-15	5	0.06	0.012	0.00327
Company-16	5	0.62	0.124	0.00178
Company-17	5	0.39	0.078	0.00727
Company-18	5	0,76	0.152	0.00722
Company-19	5	0.19	0.038	0.00017
Company-20	5	0.13	0.026	0.00123
Company-21	5	0.32	0.064	0.00028
Company-22	5	0.24	0,048	0.00037
Company-23	5	1.64	0.328	0.00082
Company-24	5	0.112	0.0224	0.000449
Company-25	5	0.29	0.058	0.00067
Company-26	5	-0.039	-0.0078	0.001119
Company-27	5	0.24	0.048	0.00127
Company-28	5	0.08	0.016	0.00003
Company-29	5	0.41	0.082	0.01027
Company-30	5	0.0202	0.00404	2.61E-05
Year-1	30	1,786	0.059533	0.007886
Year-2	30	1.928	0.084267	0.008728
Year-3	30	2.449	0.081633	0.006868
Year-4	30	2.292	0.0784	0.00678
Year-5	30	2.5102	0.083673	0.007085

**Table - 6.39**  
**Result of F-Test**

Source of Variation	SS	DF	MSS	F-Cal. Value	5% F Limit
Companies	0.874051	29	0.03014	24.07885	1.565322
Years	0.013728	4	0.003432	2.741767	2.44988
Error	0.145198	116	0.001252		
Total	1.032976	149			

From the Table- 6.39 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise net profit margin of sampled companies working as Trading Houses in India.
- (2) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among year-wise net profit margin of sampled companies working as Trading Houses in India.

**(14) OPERATING EXPENSE RATIO :**

The operating expense ratio is an important ratio that explains the changes in the profit margin ratio. This ratio is computed by dividing operating expenses viz. Cost of goods sold plus selling expenses and general administrative expenses by sales.

$$\text{Operating expnses ratio} = \frac{\text{Operting expense}}{\text{Sales}}$$

A higher operating expenses ratio is un favorable since it will leave a small amount of operating income to meet interests, dividends etc. To get a comprehensive idea of the behaviour of operating expenses, variation in the ratio over a number of years should be

studied. Certain expense are within the managerial discretion, therefore, it should be seen whether change in expenses is due to changes in the management policy. Detailed analysis may reveal that the year-to-year variations in the operating expense ratio are temporary in nature arising due to some temporary conditions. The variations in the ratio, temporary or long-lived, can occur due to several factors such as : (a) changes in the sales prices, (b) changes in the demand for the product, (c) changes in the administrative or selling expenses, or (d) changes in the proportionate share of sales of different products with varying gross margins.

The researcher has examined operating expense ratio of 30 Trading houses for the period of 2001-2002 to 2005-06. The summary of operating expense ratio of selected Trading Houses are as follows:

The following table 6.40 indicates operating expense ratio of sampled companies working as trading houses in India for the period of 2001-2002 to 2005-06.

**Table - 6.40**  
**Operating Expense Ratio of Sampled Trading Houses**

Trading Houses	2001-02	2002-03	2003-04	2004-05	2005-06	Average
GAEL	0.95	0.96	0.98	0.92	0.95	0.952
RSIL	0.97	0.98	1	0.98	0.99	0.984
CCL	0.93	0.93	1.1	0.95	0.94	0.97
HIKAL	0.58	0.71	0.69	0.79	0.86	0.726
ASCL	0.92	0.93	0.93	0.99	0.96	0.946
SCL	0.85	1.02	0.76	0.92	0.98	0.906
GIL	0.96	0.91	0.84	0.88	0.93	0.904
HEG	0.91	0.91	0.78	0.82	0.89	0.862
KRBL	1.09	0.88	0.93	1.04	0.91	0.97
SOL	1.07	0.97	0.91	1.01	0.96	0.984
CIPLA	0.83	0.84	0.8	0.83	0.82	0.824
SPIL	0.68	0.67	0.69	0.72	0.78	0.708
LUPIN	0.81	0.81	0.87	0.89	0.87	0.85
ORCHID	0.86	0.88	0.84	0.9	0.74	0.844
GWAL	0.9	1.07	0.94	0.93	0.95	0.958
TTL	0.88	0.9	1.15	0.88	0.83	0.928
JISCO	1	0.94	0.9	0.7	0.75	0.858
TISCO	0.83	0.76	0.69	0.6	0.61	0.698
LOYAL	0.89	0.83	0.88	0.89	0.87	0.872
BD	0.99	0.99	0.98	1	1.16	1.024
WIL	0.78	0.89	0.91	0.79	0.88	0.85
ZCCL	0.98	1.03	0.97	0.98	0.98	0.988
HSL	0.59	0.55	0.57	0.59	0.68	0.596
ZEL	0.97	0.96	0.98	1.03	0.97	0.982
MSML	0.85	0.85	0.86	0.83	0.82	0.842
MCMSL	0.9	0.89	1.03	0.9	0.9	0.924
IRSIL	0.81	0.87	0.82	0.86	0.81	0.834
RSWL	0.82	0.89	0.85	0.93	0.9	0.878
ATL	0.85	0.9	0.93	0.94	0.95	0.914
CEAT	0.9	0.96	0.95	0.96	0.97	0.948
<b>Average</b>	0.878333	0.889333	0.884333	0.881667	0.887	

**F-Test (ANOVA) Analysis:**

The researcher has applied the two-way analysis of variance (F-Test) to judge the significance variance in company - wise and year-wise operating expenses ratio of sampled companies working as Trading Houses in India. Abstract of F-Test is shown in table

6.41. The summary of the results of the analysis of variance test is shown in table - 6.42.

**Table - 6.41**  
**Abstract of F-Test**

<b>SUMMARY</b>	<b>Count</b>	<b>Sum</b>	<b>Average</b>	<b>Variance</b>
Company-1	5	7.84	1.528	0.08637
Company-2	5	5.64	1.128	0.03602
Company-3	5	5.58	1.116	0.01668
Company-4	5	5.81	1.162	0.27322
Company-5	5	45.72	9.144	4.22413
Company-6	5	16.01	3.202	0.70112
Company-7	5	7.3	1.46	0.1264
Company-8	5	7.83	1.566	0.22103
Company-9	5	12.31	2.482	0.84937
Company-10	5	13.9	2.78	0.97885
Company-11	5	5.87	1.174	0.00823
Company-12	5	14.95	2.99	3.62995
Company-13	5	8.92	1.784	0.32573
Company-14	5	5.24	1.048	0.06587
Company-15	5	3.94	0.788	0.02017
Company-16	5	3.65	0.73	0.03255
Company-17	5	4.25	0.85	0.05385
Company-18	5	2.29	0.458	0.00527
Company-19	5	8.36	1.272	0.02317
Company-20	5	7.44	1.488	0.66882
Company-21	5	9.61	1.922	0.56487
Company-22	5	6.62	1.324	0.02463
Company-23	5	12.31	2.482	0.84937
Company-24	5	13.9	2.78	0.97885
Company-25	5	5.87	1.174	0.00823
Company-26	5	14.95	2.99	3.62995
Company-27	5	8.92	1.784	0.32573
Company-28	5	5.24	1.048	0.06587
Company-29	5	3.94	0.788	0.02017
Company-30	5	3.65	0.73	0.03255
Year-1	30	4.25	0.85	0.05385
Year-2	30	2.29	0.458	0.00527
Year-3	30	8.36	1.272	0.02317
Year-4	30	12.31	2.482	0.84937
Year-5	30	13.9	2.78	0.97885

**Table - 6.42**  
**Result of F-Test**

<b>Source of Variation</b>	<b>SS</b>	<b>DF</b>	<b>MSS</b>	<b>F-Cal. Value</b>	<b>5% F Limit</b>
Companies	1.42	29	0.0490	14.848	1.565322
Years	0.01	4	0.0025	0.7575	2.44988
Error	0.38	116	0.0033		
Total	1.81	149			

From the Table- 6.42 it is observed that:

- (1) Calculated F-Value is statistically greater than the F-Table Value at 5% significance level. Therefore the result of the F-Test rejects the null hypothesis. So we conclude that there is significant variation among company-wise operating expenses ratio of sampled companies working as Trading Houses in India.
- (2) F-Calculated value is statistically less than F-Table value at 5% significance level. Therefore the result of the F-Test accepts the null hypothesis. So we conclude that there is no significant variation among year-wise operating expenses ratio of sampled companies working as Trading Houses in India.

### **6.3 Conclusion**

This chapter deals with analytical study of working capital management of sampled Trading Houses in India. Various working capital ratios are calculated and hypothesis are tested at 5% level of significance with the help of two way analysis of variance (F-test).



**Reference :**

- 1) Anothony, R.N. and Reece, J.S., Management Accounting Principles, Taraporewals, 1975, PP. 260-263.

# **CHAPTER-7**

## **FINDINGS, SUGGESTIONS AND CONCLUSION**

7.1 FINDINGS

7.2 SUGGESTIONS

7.3 CONCLUSION

## 7.1 FINDINGS

The findings of this research are as follows:

- (1) The major elements of working capital are inventory, debtors, cash balances and short-term investments of sampled Trading Houses in India.
- (2) Inventories are grouped into raw materials, work-in-process, finished goods, stores and spares etc.
- (3) Modern techniques of inventory management like Economic order quantity (EQO), ABC analysis, Maximum and minimum level of inventory, CPM/PERT etc. are followed in a routine way by sampled Trading Houses in India.
- (4) The major sources of raw materials of sampled Trading Houses are local while rough diamonds are imported from Belgium, Hong-Kong, London etc.
- (5) Purchase procedure is done through separate department for purchases of raw materials etc. of sampled Trading Houses in India.
- (6) Finished goods have good demand in domestic as well as international markets. There is no question of stockpiling at all of sampled Trading Houses in India.
- (7) Credit sales are given to the dealers and high commissions are allowed. No difficulty is found in collection of receivables. Sometimes accounts receivables are grouped into ageing schedule of sampled Trading Houses in India.
- (8) The sampled Trading Houses follows wide human resource management through staff development program.
- (9) Every year performance evaluation is done highlighting the different ratios of sampled Trading Houses in India.
- (10) Total quality management, participating management decisions and management audit and ethical audit are regularly followed by sampled Trading Houses in India.

- (11) There are two concepts of working capital : gross concept and net concept.

Gross working capital, simply called as working capital, refers to the firm's investment in current assets. Current assets are the assets which can be converted into cash within an accounting year and include cash, short-term securities, debtors, bills receivables and inventory.

Net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders which are expected to mature for payment within an accounting year and include creditors, bills payable and outstanding expenses.

- (12) The financial manager should determine the optimum level of current assets so that the wealth of shareholders is maximized.
- (13) F-test has carried out for data analysis and hypothesis tested at 5% significance level.
- (14) From the beginning of the second five year plan (1956-61), the foreign exchange problem began to assume serious proportions. The Government of India began to realize the need for various exports promotion.
- (15) In September 1960, certain board principles for recognition of Export Houses were formally adopted. The scheme of Export Houses has been modified a number of times thereafter.
- (16) An Export House is a registered exporter holding a valid export house certificate issued by the Director General of Foreign Trade.
- (17) With a view to developing new products and new market for exports, particularly from small and cottage industries sector, a new scheme for recognition of Trading Houses was introduced in 1981-82. Trading Houses are special category of Export Houses which have demonstrated export capabilities and have facilities for testing and quality control.

- (18) Government of India has a scheme to recognize established exporters as Export House, Trading House etc. Trading Houses are special category of exporters which enjoy export incentives granted by Government on exporting of goods and services.
- (19) Trading Houses are commercial intermediaries specialized the long-term development of trade in goods and services supplied by the other parties. They focus on services supplied by the other parties. They focus on exporting, importing and third country trading as their core activity and use overseas marketing organization and infrastructure as well as procurement networks to service suppliers and customers. They procure internationally service suppliers and customers. They procure internationally and sell locally and they also procure internationally and sell locally and they also procure internationally and sell internationally. They have flexibility and agility to work in many markets with many products simultaneously an international marketing is their core business.
- (20) Foreign Trade Policy (2004-09), which came into effect April 2007, classifies the export houses as follows:
- A) Export Houses (EH)
  - B) Star Export House (SHE)
  - C) Trading House (TH)
  - D) Star Trading House (STH) and
  - E) Premier Trading House (PTH)
- (21) On the basis of activities Trading Houses classify as
- A) Merchant Trading Houses
  - B) Manufacturer Trading Houses and
  - C) Manufacturer & Merchant Trading Houses.

- (22) There are number of Assistance / Incentives provided by Government of India to Trading Houses. viz.
- A) Production Assistance
  - B) Financial Assistance
  - C) Marketing Assistance and
  - D) Institutional Assistance

## 7.2 SUGGESTIONS

- (1) Diamond cutting / Gems / Jewellery
- Asian Star Co. Ltd.
  - Shrenuj & Co. Ltd.
- (2) Food Processing - Food & Dairy products.
- KRBL
  - Stanam Overseas Ltd.

During the study periods, the above companies held very high degree of current assets than current claims. So managers have advised to decrease the level of current aspects as idle assets earn nothing. They are advised to strike proper balance between high liquidity and lack of liquidity.

- (3) During study period, sampled Trading Houses carried small amount of cash and its equivalent to current liabilities. So managers are advised to go for cash credit limits from banks.
- (4) The following Trading Houses have excessively long collection period.
- Asian Star Company Ltd.,
  - Shrenuj & Company Ltd.
  - Graphite India Ltd.
  - Cipla Ltd.
  - Mlawa Cotton Spinning Mills Ltd.

Long collection period implies a very liberal and inefficient credit and collection performance. The chances for bed debt losses

were increased. Managers are advised for boost up to collection procedures and have the speed of receivables collection.

- (5) During study period, sampled Trading Houses reflected higher cost of good sold. It may be due to inability to purchase raw materials at favorable terms, inefficient utilization of plant and machinery or over-investment in plant and machinery, resulting higher cost of productions, managers are advised to detect the causes of falling gross margin and initiate action to improve the situation.
- (6) Some of Sampled Trading Houses suffer from lack of liquidity. It may be interpreted to be insufficiently liquid. It also indicates smaller margin of safety for creditors. It means firms have not sufficient current assets to meet current liability. The failure of a company to meet its obligation due to lack of sufficient liquidity, will result in a poor creditworthiness. Loss of creditor's confidence or even in legal tangles resulting in closure of the company. So the financial manager of the above Trading Houses should ensure that it does not suffer from lack of liquidity.
- (7) If inventories do not sell, few of sampled Trading Houses find difficulty to meet its obligations. So financial managers of the said Trading Houses should ensure that it does not suffer difficulty to meet obligations.
- (8) To make sound cash management in some of the sampled Trading Houses, financial managers are advised for proper planning and controlling of cash. Cash inflows and cash outflows should be planned to project cash surplus or deficit for each period of the planning period. Cash budget should be prepared for this purpose. Financial managers are advised to decide about the appropriate level of cash balances and surplus cash balances should be properly invested to earn profits.

- (9) Some of Sampled Trading Houses have not sufficient liquid assets to finance its operations even if it does not receive any cash. So financial managers are advised to optimize such level.
- (10) Very few of sampled Trading Houses suffers to meet its current obligations excluding short-term borrowing. Financial Managers are advised to maintain the level of current assets so as to Trading Houses have sufficient funds to meet its obligations.
- (11) Few of sampled Trading Houses' efficiency in turning its inventories is continuously deteriorating. Said Trading Houses utilization of inventories in generating sales is poor, the yearly holding of all types of inventories is increasing. It stock is getting heavier. The increasing level of finished goods is a matter of concern for Trading Houses. Methods should be devised to sell goods fast. Trading Houses can examine whether it can use credit policy to boost up sales.
- (12) Some of sampled Trading Houses shows the trend of increasing level of inventories with compared to current asset. This is due to purchase of stocks, financial manager are advised to sell fast and to find out the way to decrease levels of inventories.
- (13) Few of sampled Trading Houses have very liberal and inefficient credit and collection performance. They have poor quality of debtors. This certain delays the collection of cash and impairs the liquidity position. The chances of bad debt losses are also increased. So, the financial managers are advised to plan restrictive credit policy and increase efficiency in collecting outstanding amount from customers.
- (14) Most of sampled Trading Houses unable to produce a large volume of sales for a given amount of current assets. This is most important aspects of operating performance of Trading Houses. Unutilized or underutilized assets increase the Trading Houses need for costly financing as well as expenses for maintenance



and unkeep. So financial managers are advised for effective use of current assets.

- (15) Some of sampled Trading Houses have vast gap on net current assets to sales. This gap will be met from bank borrowings and long term sources of funds. This increase the cost and impairs the profitability so managers are advised to decrease the level of net current assets and take steps to produce a large volume of sales.
- (16) Some of sampled Trading Houses have higher operating expenses ratio which is unfavorable since it will leave a small amount of operating income to meet interest, dividends, etc. So financial managers are advised to find out reasons for increasing operating expenses. The increase may be due to controllable or non controllable factors. Way and means of controlling expenses should be thought of.

### **7.3 CONCLUSION**

Chapter-wise conclusion of this research study are as follows:

- (1) Statement of the problem, aims and objectives of the problem, significance of the study, area and scope of the problem, hypothesis, research methodology, limitations and chapter plan of the study are identified.
- (2) The literature on working capital management have been divided in two groups. (1) Literature for theoretical issue, and (2) Literature with empirical study.
- (3) Introduction to Trading Houses, definitions, types classification, functions, objectives, criteria and incentives, role of Trading Houses etc. are explained.

- (4) Detailed aspects on working capital management with components like cash, accounts receivables and inventory are discussed.
- (5) Brief History and development of selected companies working as Trading Houses in India are to be given.
- (6) Analytical study of working capital management of Trading Houses in India has done through ratio analysis and two-way analysis (ANOVA) has done to know significant variance and F-Test give mixed results.
- (7) Findings from present study, suggestions and conclusion of the study are outlined.

## **BIBLIOGRAPHY**

### **A. BOOKS**

1. Abani, A.S., Financial Management in some of the Enterprises of Rajasthan Government -An Abstract.
2. Agarwal, N. K., Management of Working Capital, New Delhi: Sterling Publishers Pvt. Ltd., 1981.
3. Agarwal N. P. and Jain, R. K., Fundamentals of Working Capital Management, Financial Express, Vol. VII, No. 168, October 29, 1986 page 9.
4. Ambegaonkar, Nalini, Working Capital Requirements and Availability of Bank Credit (Indian Processing and Manufacturing Industries), Reserve Bank of India Bulletin, Vol. XXIII, No. 10, October, 1969, pp. 1535-53.
5. Ananthakrishnan, G. P., Working Capital Finance Provided by Banks to Industrial Units, The Banker, Vol. XXXIII, No. 4, June 1986 pp. 31-33.
6. Armer, D. S., Materials Management, Home wood: Richard D. Irwin Inc., 1968.
7. Baker, J. C. and Malott, D. W., Introduction to Corporation Finance, New York: Mc Graw-Hill Book Co., 1936.
8. Lt. Gen. Banga, Importance of material handling in corporate system, (Lok Udyog-September 1980).

9. Bari R.R., Cash Planning and Management, Delhi: Triveni Publications, 1980.
10. Baumol, W. J., The Transactional Demand For Cas: An Inventory Theoretic Approach, Quarterly Journal of Economics, Vol. LXV, November 1952, pp. 545-546.
11. Bazle Karim and Bahadur, Spare Parts Management in Public Enterprises (Lok Udyoug July and August 1978).
12. Beckman, T. N. and Foster, R. S., Credit and Collections, New York: Mc Graw Hill Book Company, 1969.
13. Beehler, Contemporary Cash Management, New York: John Wiley & Sons, 1968.
14. Beranek, William, Waking Capital Management, California: Wordsworth Publishing Co Inc., 1966.
15. Bhattacharya,A.H., Total Management by Ratios - An Integrated Approach,Sage Publications.
16. Bierman., H. J., and Me Adams, A. K., Management Decisions for Cash and Marketable Securities, New York: Graduate School of Business, Cornell University, 1962.
17. Bogen, Jules L., Financial Handbook, New York: The Ronald Press Co., 1933, p.303.
18. Buchanan, Joseph and Koenigsberg, Ernew, Scientific Management, New Delhi: Prentice Hall of India, 1966.

19. Chadda, R. S., Inventories Management in India, Bombay: Allied Publishers, 1964.
20. Chakraborty, S. K., Cash Working Capital Vs. Balance Sheet Working Capital in Chakravarthy & others ( Eds. ), Topics in Accounting and Finance, Calcutta: Oxford University Press, 1976.
21. Chalapathi Rao G. V., Finance Function in relation to Materials Management, Lok Udyog, Vol. 9, No. 9, December 1975, and Vol. 9, No. 10, January 1976.
22. Chatterjee, Bibhas, West Bengal: How to Lift the State Undertakings from Morass Capital, 14 April, 1977, pp.485-486.
23. Chattopadhyay, P., Credit Management in Public Sector: Some issues, Commerce Phamplet, 1980.
24. Chattopadhyay, P., Why are State Undertakings in West Bengal, Languishing Capital, 15 January, 1976, pp. 102-103 and 22nd January, 1977, pp. 129-131.
25. Chopra, D. D., Management of Working Capital, The Chartered Accountant, Vol. XXVI, No. 2, August 1977, pp. 52 - 54.
26. Cohen, J. B. and Robbins, S. M., The finance Manager, New York: Harper & Row Publishers, 1966.
27. Cooly, Philip, L., Advances in Business Financial Management - A Collection of Readings, The Dryden Press.

28. Desai, B.H., and Darji, R.B., Working Capital Financing by Banks: A Case Study of NTC (Gujarat) Ltd, The Management Accountant, Vol. XXI, No. 5, May 1986 pp. 273-275.
29. Dewing, A.S., The Financial Policy of Corporations, The Ronald Press Co., New York, 1953, p.686.
30. Dobler, D. W. and Lee Lemer (Jr.), Purchasing and Materials Management, New York: McGraw Hill, 1965.
31. Donaldson, E. R., Corporate Finance, New York: Ronald Press Co.,1957.
32. Ezra, Solomon, Theory of Financial Management, New York: Columbia University Press, 1969.
33. Fees, P. W., The Working Capital Concept, Accounting Theory: Text and Reading, New York: John Wiley and Sons, 1978.
34. Field, Kenneth, Corporation Finance, New York: The Ronald Press Co., 1938, pp. 173, 175 & 180.
35. Fernandes, P. J., Materials Manager and Stagflation, Lok Udyog, Vol. 8, No. 1, April 1974, pp. 21-28.
36. Goel.K.C, Goel.B.K.and Nagar., Inflation Accounting Approach To Receivable Management, The Indian Journal of Commerce, Vol. XXXVII, No. 144, July-September., 1985, pp. 96-102.

37. George, K.K.. Planning and Banking Systems Control of Working Capital in L.C. Gupta (Ed., Banking & Working Capital Finance, Delhi), The Macmillan Co. of India Ltd., 1978 pp. 91-114.
38. Gerstenberg, C. W., Financial Organisation and Management, New York: Prentice Hall, 1959.
39. Gopalakrishnan, Charles, Financial Organisation and Management, of business, Fourth Edition, Mumbai: Asia Publishing House, 1960,p.295.
40. Gitman Lawrence I., Principals of management finance, harper & row publishers,1976.
41. Gopalkrishana,P. and Sandilya, M. S., Inventory Management Text and Cases Delhi: The Macmillan Company of India Pvt. Ltd. 1978.
42. Gupta, N. K., Selectivity Approach to Inventory Control- A Case Study of Public Sector (Departmental) Enterprise, Lok Udyog, Vol. Kill, No. 3, June 1979, pp. 27-30 and Lok Udyog, Vol. XIII, No. 4, July 1979, pp. 13-16.
43. Guthman, Hanry G and Dougall, Herbert E., Corporate Financial Policy, New York: Prentice Hall, 1959,p.282.
44. Hampton, J. J., Financial Decision Making: Concepts, Problems and Cases, New Delhi: Prentice Hall of India Pvt. Ltd., 1983

45. Hartley, W. C. F. and Meltzer. Y. L., Cash Management, Planning, Forecasting and Control, New Jersey: Prentice Hall Inc., 1979.
46. Howard, L. R., Working Capital- Its Management and Control, London: Macdonald & Evans Ltd., 1977.
47. Husband, William R and Dockeray, C. James, Modern Corporation Finance, Sixth Edition, Illinois: Richard D. Irwin Inc., 1966, p.536.
48. Jain.R.K., Working Capital Management of State Enterprises In India, Jaipur: I National Publishing house, 1988.
49. John. C. Baker, John C. and Mallot, D.W., Introduction to Corporate Finance, New York: McGraw-Hill Book Co., 1936, p. 92.
50. Joshi U. D. Monthly Cash Collections- A Research Study of Companies Level, Company News and Notes, Vol. III, No. 1, January 1965, pp. 52-3.
51. Kanvinde, P. J., Credit Controls and Company Finances in India: 1972-73 and 1973-74, State Bank of India Monthly Review, Vol. XV, No. 7, July, 1976, pp. 240-64.
52. Keynes J. M., General Theory of Employment, Interest & Money, London: Macmilan & Co. Ltd., 1964.
53. Khan, M.Y., and Jain.P.K., Financial Management, New Delhi: Tata McGraw-Hill Publishing Co. Ltd., 1983, p.607.



54. Khandelwal, N.M., Working Capital in Small Scale Industries, New Delhi: Ashish Publishing House, 1985.
55. Kishore, D., Working Capital Policy - A General framework of Analysis, Lok Udyog, Vol. XI, No. 11, February 1978, pp. 9-16.
56. Lai. A.B., Inventory Models and The Problems of Price Fluctuation, New Delhi: Shree; Publishing House, 1981.
57. Lawrence J. Gitman, Principal of Managerial Finance, New York: Harper and Row Publishers, 1979.
58. Laxmi Narain, I., (1) Fall in rate of returns: Financial Performance of Central Government Public Enterprises, (2) Management of Working Capital, Economic Times, dated 2nd and 3rd December, 1977.
59. Lincoln, Edward E., Applied Business Finance, New York: McGraw-Hill 1929 p.212.
60. Madan, M. K., Managing Working Capital - Stock Management, The Banker. Vol XXVIII, No. 11, January 1982, pp. 19-21.
61. Mead, Edward S., Corporate Finance, New York: Appleton Century Co., 1933,p.303.
62. Mehta, D. R., Working Capital Management, New Jersey: Prentice Hall Inc., 1974.

63. Michael Firth, *Management of Working Capital*, London: The Macmillan Press Ltd., 1976.
64. Mishra, R.K., *Problems of Working Capital (With Reference to Selected Public Undertakings in India)*, Bombay: Somaiya Publications Pvt. Ltd., 1975.
65. Mongia, M. L., *Materials Management in Public Enterprises*, *Management Review*, (3) 1976, pp. 14-20.
66. Murthy, V., *Management Finance*, Mumbai: Vakils Feffer and Simons, 1978, p. 186.
67. Nageswara Rao and Gupta, Omji, *Management of Inventory Position*, *The Management Accountant*, Vol. XXI, No. 6, June 1996 pp. 355 - 359.
68. Narendrakumar, *Credit Policy For Busy Season And its Implications*, *The Banker*, Vol. 37, No. 7, November, 1980, pp. 75-80.
69. Natarajan Sundar, *Working Capital Management & Finance*, *Economic and Political Weekly*, Vol. XX, No. 8, February 1980, pp. M25 - M31.
70. National Association of Credit Management, USA, *Credit Management Hand Book*, Illinois: Richard D. Irwin Inc., 1965.
71. National Council of Applied Economic Research, *Structure of Working Capital*, NCAER, New Delhi, 1966.

72. Palit, A. R., Increased Profits in Public Enterprises Through Better Materials 1 Management in Management of Public Sector In India, Ibid., 152-62.
73. Panda, G. S., Management of Working Capital in Small Scale Industries, New Delhi: Ashish Publishing House, 1985.
74. Parameswaran, N., Cash Management in Public Sector Undertakings, Lok Udyog, Vol. XII, No. 9, December 1978, pp. 15-18.
75. Parashar S. P., Liquidity Management - Principles and Practice of Managing Cash Flow, New Delhi, Vision Books Pvt. Ltd., 1986.
76. Pardhan, R.S., Financing Pattern of Working Capital in Indian industries. The Management Accountant, Vol. XXI, No. 4, April 1986, pp. 205-6.
77. Park, Colin and Gladson, John W., Working Capital, New York: McMillan Company, 1963, p.2.
78. Plosal, G. W. and Evert Welch, W., The Role of Top Management in The Control of Inventory, Reston: Reston Publishing co, Co Inc 1 979.
79. Prakash, .Unused inventories in Central Government enterprises, Lok Udyog-Vol. XII, No. 9, Vol. XII Nos. 10,11.

80. Prakash, Om, The Logic of Materials Management in Relation to Public Enterprises in Management of Public Sector in India, Ibid., pp. 163-172.
81. Prichard, J. W. and Eigel, R. H., Modern Inventory Management, New York: John Wiley and Sons, Inc., 1965.
82. Rajeswararao K., Working Capital planning and control in Public Enterprises in India, Delhi: Ajanta Publications, 1985.
83. Ram Prakash, Rajasthan State Enterprises in Action, Prashasika, 1(3) July-September, 1972, pp. 37-52.
84. Ramachendra Rao, Cash Management of Cash in Working Capital, Bankers' views, The Banker, Vol. 32, No. 12, February 1987, pp. 16-18.
85. Rarnakrishnan. R, Effective Cash Management, Why and How.?, The Banker, Vol. 27, No. 7, September, 1980, pp. 11-13.
86. Ramamoorthy, V. E., Working Capital Management, Madras: Institute for Financial Management and Research, 1978.
87. Raman, Maitreyi. Trade Credits- Their significance in the Finances of Indian Companies, RBI Bulletin, Vol. XVII, No. 7, July 1963, pp. 904-13.
88. Ramaswamy, S., Materials Management Perspectives, Lok Udyog, Vol. 8, No. 3, June 1974, pp. 47-50.

89. Rao, P.S., Problems in Inventory Management, Lok Udyog, Vol. 10, No. 10, January 1977, pp. 21-26.
90. Rao, S.R.K., Inventory Investment in Public Sector Enterprises in India, in Management of Public Sector in India, edited by Raj K.Nigam, Bomabay: Vora &Co.1974, pp. 173 91.
91. Report of the Study Group to Frame Guidelines for Follow-up of Bank Credit, Reserve Bank of India, Mumbai, 1975, p.2.
92. Roy Choudhury, A. B., Working capital Management- A Work Book on Corporate Liquidity, Calcutta: 1987
93. Saliers, E.A., Handbook of Corporate Management Procedure, McGraw-Hill, New York, 1927, p.728.
94. Sen, A.K., Working Capital in the Indian Economy - A Conceptual Framework and some Estimates in Pricing and Fiscal Policies, edited by A.N. Rosenstein Rodan, London: George Alien and Unwin Ltd., 1964, p. 125.
95. Sharma B. S., Financial Planning in Indian Public Sector, Delhi: Vikas Publishing House, 1974.
96. Sharma, G. D., Working of State Enterprises in Rajasthan, New Delhi: Sterling Publishers Pvt. Ltd., 1975.
97. Siden, N. H., The Quality of Trade Credit, Occasional Paper 87, National Bureau of Economic Research, 1964.

98. Singh.K.P., Sinha.A.K. and Singh. S.C., Management of Working Capital in India, New Delhi, Janaki Prakashan, 1986.
99. Smith, K. V., Management Working Capital, New York: West Publishing, 1974.
100. Stancill! Jr., James Men, The Management of Working Capital, London: Intext Educational Publishers, 1971.
101. Starr, M. K. and Miller, D. W., Inventory Control Theory and Practice, New Delhi: Prentice Hall of India Pvt. Ltd., 1974.
102. Stevens, W. Mackenzie, Financial Organisation and Administration, New York: McGraw-Hill Book Co., 1934, p.84.
103. Surendra.V. Singhvi, and Kapisch, John A., Cash Management in Developing Economy, Economic Political Weekly, Vol. 35, 29th August 1970., MI95-M100.
104. Suresh B. H., Materials: A Potential Area for Improving Profits, The Management Accountant, Vol. XXI, No. 4, April 1986 pp 209-212.
105. Swami H. R., Materials Management in Public Undertakings. New DdIn: Ashish Publishing House, 1987.
106. Van Home, James C., Financial Management and Policy, New Delhi: Prentice Hall of India Pvt. Ltd, 1983.

107. Vijayasaradhi, S.P., Problems of Working Capital Management in Public Enterprises, Lok Udyog , January, 1981.
108. Vijayasaradhi, S.P., Working Capital Management: A Conceptual Overview, The Management Accountant, June 1981, p.273.
109. Wahi. A., Organisation of Materials Management Function, Lok Udyog, August 1980.
110. Walker, E. W., Essentials of Financial Management, New Delhi: Prentice Hall of India Pvt. Ltd., 1974.
111. Walker, E. W., Essentials of Financial Management, New Delhi: Prentice Hall of India, 1983.
112. Willets, W. E., Fundamentals of Purchasing, New York: Appleton Century Crafts, 1969.
113. Within, T. M, Theory of Investment Management, New Jersey: Princeton University Press, 1953.
114. Yadav, R. V., Working Capital Management - A Parametric Approach, The Chartered Accountant, Vol. XXXIX, No. 11, May 1986 pp. 952-955.
115. Zenoff, D. B. and Zack Zwick, International Financial Management, New Jersey: Prentice-Hall Inc., 1969
120. Pandey, I. M., Financial Management, New Delhi, Vikas Publishing House Pvt. Ltd., 1985.

## **B. LIST OF PERIODICALS**

### **1. DAILIES**

1. The Times of India
2. Hindustan Times
3. The Economic Times
4. The Financial Express

### **2. WEEKLY**

1. Business Week
2. Indian Finance
3. Indian Trade Journal

### **3. MONTHLY**

1. Journal of Industry and Trade
2. Capital Market

## **C. DIRECTORIES**

1. Federation of Indian Export Organisation - FIEO
2. Directory on Indian Exporters.



## **D. WEBSITES**

[www.moneycontrol.com](http://www.moneycontrol.com)  
[www.indiainfo.com](http://www.indiainfo.com)  
[www.ambujaglobal.com](http://www.ambujaglobal.com)  
[www.ruchisoya.com](http://www.ruchisoya.com)  
<http://www.clariant.in>  
<http://www.hikal.com>  
[www.asianstarco.com](http://www.asianstarco.com)  
[www.ho.shrenuj.com](http://www.ho.shrenuj.com)  
[www.graphiteindia.com](http://www.graphiteindia.com)  
[www.hegltd.com](http://www.hegltd.com)  
[www.krblindia.com](http://www.krblindia.com)  
[www.kohinoorfoods.com](http://www.kohinoorfoods.com)  
[www.stnamoverseas.com](http://www.stnamoverseas.com)  
[www.cipla.com](http://www.cipla.com)  
[www.sunpharma.com](http://www.sunpharma.com)  
[www.lupinworld.com](http://www.lupinworld.com)  
[www.orchidpharma.com](http://www.orchidpharma.com)  
[www.williamsonteaassam.com](http://www.williamsonteaassam.com)  
[www.tatatea.com](http://www.tatatea.com)  
[www.jsw.in](http://www.jsw.in)  
[www.tatasteel.com](http://www.tatasteel.com)  
[www.loyaltextiles.com](http://www.loyaltextiles.com)  
[www.bombaydyeing.com](http://www.bombaydyeing.com)  
[www.wadiagroup.com](http://www.wadiagroup.com)  
[www.welspun.com](http://www.welspun.com)  
[www.zodiaconline.com](http://www.zodiaconline.com)  
[www.himatsingka.com](http://www.himatsingka.com)  
[www.zenithexportsltd.com](http://www.zenithexportsltd.com)  
[www.vardhman.in](http://www.vardhman.in)  
[www.malwaoswal.com](http://www.malwaoswal.com)  
[www.indorama.yarnsandfibers.com](http://www.indorama.yarnsandfibers.com)  
[www.rswm.in](http://www.rswm.in)  
[www.apollotyres.com](http://www.apollotyres.com)  
[www.ceatyres.com](http://www.ceatyres.com)