

**A STUDY ON WORKING CAPITAL
MANAGEMENT WITH SPECIAL REFERENCE TO
V.A. TREADS, PALAKKAD**

by

ASITH PAUL.K

(2015-31-006)

MAJOR PROJECT REPORT

Submitted in partial fulfillment of the
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KERALA, INDIA

2017

Declaration

DECLARATION

I, hereby declare that this project report entitled “A STUDY ON WORKING CAPITAL MANAGEMENT WITH SPECIAL REFERENCE TO V.A. TREADS, PALAKKAD” is a bonafide record of research work done by me during the course of project work and that it has not previously formed the basis for the award to me for any degree/diploma, associateship, fellowship or other similar title of any other University or society.



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Certificate

4

CERTIFICATE

Certified that this project report entitled “A STUDY ON WORKING CAPITAL MANAGEMENT WITH SPECIAL REFERENCE TO V.A. TREADS, PALAKKAD” is a record of project work done independently by Mr. Asith Paul.K under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship or other similar title to him.



A handwritten signature in blue ink, appearing to read "Binu John Sam".

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr.Asith Paul K, Reg.No. 2015-31-006, MBA in Agri-Business Management Student of Kerala Agricultural University has done his project work here under the topic : 'A STUDY ON WORKING CAPITAL MANAGEMENT WITH SPECIAL REFERENCE TO V.A.TREADS, PALAKKAD' from 24th July 2017 to 24th September 2017 in partial fulfillment of the requirements for the award of the degree MBA. He was found to be sincere and enthusiastic in collecting various data and information required for the study.

We thank him for selecting our organisation for the study purpose.

For V.A.Treads

Anurup K
Managing Partner

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Needless to say I solely am responsible for any errors , which may remain..

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DESIGN OF THE STUDY

CHAPTER 1

DESIGN OF THE STUDY

1.1 INTRODUCTION

The financial management of business firms involves the management of long-term assets, the management of long-term capital and the management of short-term assets and liabilities. The first of the three functions is capital budgeting, the second is the management of capital structure and the final is working capital management. The management of working capital is concerned with the management of assets such as cash, marketable securities, accounts receivable; investor paid expenses and the current assets also liabilities such as accounts payable, wages payables and accruals.

Working capital management is the process of planning and controlling the level and mix of the current assets of the firm as well as financing these assets. Specifically working capital management requires financial managers to decide what quantities of cash, other liquid assets accounts receivables, and inventories the firm will hold at any point in time. In addition, financial managers must decide how their current assets are to be financed. Financing choices includes the mix of current as well as long-term liabilities. The main aim of the study is to find out whether the company is efficiently managing its working capital. The effective working capital necessitates careful handling of current assets to ensure short-term liquidity and solvency of the business.

Keeping in view the pragmatic importance of working capital management as a gray area of corporate finance function, an attempt has been made to examine working capital management practices and the problems faced by the V.A.Treads at Kanjikkode, Palakkad in working capital management process. No studies were conducted on the firm regarding the working capital aspect so this study will benefit the firm way too big to find the loopholes in the financial aspects with the help of relevant accounting ratios.

1.2 Statement of the problem

The primary purpose of working capital management is to make sure the company always maintains sufficient cash flow to meet its short-term operating costs and short-term debt obligations. This study is conducted to know whether the working capital management of V.A.Treads is efficient or not with help of balance sheet and profit & loss account for the year 2011-2016 by using accounting ratios. The study throws light on various aspects such as the firm's working capital efficiency, financial performance, liquidity and solvency. No study has been conducted in the firm before. Hence, it will be of great help for the firm to find the efficiency of working capital management.

1.3 Objectives of the study

Primary Objective:

- To analyze the effectiveness of Working Capital Management of V.A.Treads

Secondary Objective:

- To ascertain the liquidity position of the firm.
- To estimate the long term and short term solvency issues of the company.

1.4 Methodology

Locale of the study

The study was conducted in V.A.Treads located in Wise Park, Kanjikkode, Palakkad in Kerala

Period of the study

The study had been confined to a span of one months' from 24nd July 2017 to 24st September 2017.

Method of data collection

The analysis of financial condition and performance of the enterprise necessitates accurate and reliable data. The study was based on both primary and secondary data.

- **Primary Data**

The Primary data has collected from Personal Interaction with Partners.

- **Secondary Data**

The major source of data for this project were collected through annual reports, profit and loss account of 5-year period from 2011-2016 & some more information collected from internet and text sources

Sampling design

Sampling unit : V.A.Treads, Palakkad.
Sampling Size : Last five years financial statements starting from 2011-2016
Tools Used : Ratio analysis, Statement of Changes in Working Capital and Growth Index

1.5 Scope of the study

The study was conducted over a period of six weeks entitled “A study on Working Capital Management of V.A.Treads”. In order to accomplish the aim historical research has been taken as the researcher has to rely on past data to measure and he must find adequate methods for measuring it.

The management of working capital plays an important role in maintaining the financial health of the firm during the normal course of business. It portrays the flow of resources through the firm. Certain aspects covered in the research are to determine whether the firm is able to carry its operations. To ascertain the liquidity position of the firm, to evaluate the financial performance of the firm and to identify the factor that affecting working capital management. Such an analysis is expected is to show and highlight the strength and weakness regarding various aspects of its liquidity and working capital management.

1.6 Limitations of the study

- The financial data required for the present study has obtained from secondary sources namely published financial statements of the company. Therefore, the reliability of the ratios are linked to the accuracy of information in these statements.

- Financial statements are generally based on historical or original cost. The current economic conditions are ignored.
- The study was entirely based on quantitative data involving numerical and no quantitative factors are taken into consideration for the purpose of the study.

REVIEW OF LITERATURE

CHAPTER 2

REVIEW OF LITERATURE

Bhatt V. V. (1972) widely touches upon a method of appraising working capital finance applications of large manufacturing concerns. It states that similar methods need to be devised for other sectors such as agriculture, trade etc. The author is of the view that banks while providing short-term finance, concentrate their attention on adequacy of security and repayment capacity.

Smith Keith V. (1973) believes that Research which concerns shorter range or working capital decision making would appear to have been less productive. The inability of financial managers to plan and control properly the current assets and current liabilities of their respective firms has been the probable cause of business failure in recent years. Current assets collectively represent the single largest investment for many firms, while current liabilities account for a major part of total financing in many instances. This paper covers eight distinct approaches to working capital management. The first three - aggregate guidelines, constraints set and cost balancing are partial models; two other approaches - probability models and portfolio theory, emphasize future, uncertainty and mathematical programming, multiple goals and financial simulation have a wider systematic focus.

Chakraborty S. K. (1974) tries to distinguish cash working capital v/s balance sheet working capital. The analysis is based on the following dimensions:
a) Working capital in common parlance b) Operating cycle concept
b) Computation of operating cycle period in all the four cases. The purpose of the analysis is to demonstrate operating cycle concepts based on published annual reports of the firms.

Natarajan Sundar (1980) is of the opinion that working capital is important at both, the national and the corporate level. Control on working capital at the national level is exercised primarily through credit controls. The Tandon Study Group has provided a comprehensive operational framework for the same. In operational terms, efficient working capital consists of determining the optimum level of working capital, financing it imaginatively and exercising control over it. He concludes that at the corporate level investment in working capital is as important as investment in fixed assets. And especially for a company which is not growing, survival will be possible only so long as it can match increase in operational cost with improved operational efficiency, one of the most important aspects of which is management of working cap

Kaveri V. S. (1985) has based his writing on the RBI's studies on finances of large public limited companies. This review of working capital finance refers to two points of time i.e., the accounting years ending in 1979 and 1983 and is based on the data as given in the Reserve Bank of India on studies of these companies for the respective dates. He observes that the Indian industry has by and large failed to change its pattern of working capital financing in keeping with the norms suggested by the Chore Committee. While the position of working capital management showed some investment between 1975-79 and 1979-83, industries have not succeeded in widening the base of long-term funds to the desired extent. The author concludes with the observation that despite giving sufficient time to the industries to readjust the capital structure so as to shift from the first method to the second method, progress achieved towards this end fell short of what was desired under the second method of working capital finance.

Rao C.(1991) observe the strong and weak points of conventional techniques of working capital analysis. The result has been obviously mixed while some of the conventional techniques which could comprehend the working capital behavior well; others failed in doing the job properly. The authors have attempted to evaluate the efficiency of working capital management with the help of conventional techniques i.e., ratio analysis.

The article concludes prodding future scholars to search for a comprehensive and decisive yardstick in evaluating the working capital efficiency.

Hossain(1997)emphasise he basic objective of working capital management i.e., to arrange the needed working capital funds at the right time, at right cost and from right source with a view to achieving a trade-off between liquidity and profitability. The analysis reveals that BTMC had followed an aggressive working capital financing policy taking the risk of liquidity. There was uninterrupted increasing trend in negative net working capital throughout the period of the study which suggested that BTMC had exploited the entire short-term sources available to it without considering the actual needs

Mallick.A.(1998) attempt to make an empirical study of AFT Industries Ltd, a tea roducing company in Assam for assessing the impact of working capital on its profitability during the period 1986-87 to 1995- 96. The author has explored the co-relation between ROI and several ratios relating to working capital management. On the whole, this study of the correlation between the selected ratios in the area of working capital management and profitability of the company revealed both negative and positive effects. Moreover, the WCL of the company recorded a fluctuating trend during the period under study

Hossain.S (1999) throws light on the various aspects of working capital position. He has evaluated working capital and its components through the use of ratio analysis. For each aspect of analysis certain ratios are computed and then results are compared with the standard ratio or industry average

Singaravel, P. (1999) focuses on the interdependency among working capital, liquidity and profitability, of which sufficiency of liquidity comes in the first preference followed by sufficiency of working capital and profitability. The article is an in-depth analysis of liquidity and its interrelationship with working capital and profitability. As the working capital, liquidity and profitability are in triangular position, none is dispensable at the satisfaction of the other. Excess of stock-in-trade over bank over-draft and excess of liquid assets over current liabilities other than bank over-draft generate working capital for the business. Alternatively working capital requirements are made for long-term funds which affect the profitability.

Garg P (1999) focuses on the study of working capital trend and liquidity analysis in the selected public sector enterprises of Haryana. The study suggests forecasting of working capital requirement confined mainly to various components of working capital. After considering the facts the author realized the need for proper assessment and forecasting of working capital in the public sector undertaking. For this purpose, he has suggested the analysis of production schedule, sales trend, labour cost etc., should be taken into consideration. He further suggested the need for better management of components of working capital.

Batra G. and Sharma A.(1999) analyze the working capital position of Goetze (I) Ltd. with the help of various ratios. They are of the view that the working capital position in the company is quite satisfactory although they have suggested a few measures for further improvement in management of working capital, like necessity of greater attention in the inventory control; active sales department, speedy dispatch of orders and reduction of dependency on trade creditors

Batra G (1999) gives an overview of working capital and its determinants. According to the author working capital management involves deciding upon the amount and composition of current assets and how to finance them. He emphasizes on the hedging approach to finance current assets. He also adds that a management can use ratio analysis of working capital as a means of checking upon the efficiency with which working capital is being used in the enterprises.

Deloof M(2003) presents a picture of how working capital management affects the profitability of Belgium firms. The writer has made use of empirical analysis for the sample firms. It was observed that most of the firms have a large amount of cash invested in working capital. It can, therefore, be deduced that the way in which working capital is managed will have a significant impact on the profitability of the firms.

Filbeck.G. (2005) base their study on the ratings of working capital management published in CFO magazines. The findings of the study provides insight into working capital performance and working capital management, which is explained by macro-economic factors, interest

rates, competition, etc., and their impact on working capital management. The article further studies the impact of working capital management on stock prices.

Meszek.Z(2006) examine the profiles of selected construction companies from the viewpoint of working capital formation and their management strategies applied to working capital. The analysis is based on the financial ratios. The authors conclude with the observation that complex working capital management requires controlling methodology to be developed. A specific character of the construction industry, including operational factors and market requirements make working capital management a task exceeding the financial sphere, as it embraces the issues of organization of investment processes, the organization of production processes and logistics.

Samiloglu F. and Demirgunes K. (2008) intend to analyse the effect of working capital management on firm's profitability. To consider statistically significant relationship between the firm's profitability and the components of cash conversion cycle at length, a sample consisting of Istanbul Stock Exchange (ISE) listed manufacturing firms for the period from 1989 to 2007 has been analysed under a multiple regression model. Empirical findings of the study show that accounts receivable period, inventory period and leverage affect firm's profitability negatively, while growth (in sales) affects firm's profitability positively.

Baig V(2009) aims at reporting comparative findings of a survey of working capital management practices of selected agribusiness firms from diary co-operatives, private and MNC diary firms as a part of the research thesis completed in July 2008. Besides, an attempt has been made to know the effect of the ownership, government regulations, managerial empowerment and cultural factor on the working capital decision making.

Singh S and Bansal S(2010) has carried out a study of the structure of working capital, the management of inventory, accounts receivable, accounts payable and cash. The authors have used the data from the published annual reports of IFFCO and KRIBHCO starting from the year 1999-00 to 2006-07. The main objective of the present study is to examine and evaluate the working capital management in IFFCO and KRIBHCO. The analysis has been done with the help of various ratios to derive conclusions. It may be concluded that as far

as management of working capital is concerned, IFFCO was performing better than KRIBHCO.

Rahman M. (2011) focuses on the co-relation between working capital and profitability. An effective working capital management has a positive impact on profitability of firms. From the study it is seen that in the textile industry profitability and working capital management position are found to be up to the mark.

Ramadu P. and Parasuraman N.(2012) focus on the growth and sales compared with the changes in profitability and in working capital of Indian Pharmaceutical Industries. The study revealed that the growth rate in profits was disproportional to the sales and working capital components like inventory and debtors. The study ends with the view that there was no rationale or relationship between the sales growth and other components like net working capital, inventory turnover and debtors turnover. Further, it can be deduced that growth rate in sales need not reflect the growth rate in profitability and inventory turnover, and debtors turnover also need not exercise any impact on profitability of the firms.

Joshi L and Ghosh S (2012) study the working capital performance of Cipla Ltd during the period 2004-05 to 2008-09. Financial ratios have been applied in measuring the working capital performance, and statistical as well as econometric techniques have been used. It was observed that the selected ratios show satisfactory performance, and significant negative relationship between liquidity and profitability is found to exist.

Akoto K.and Vitor A. (2013) closely study the relationship between working capital management policies and profitability of the thirteen listed manufacturing firms in Ghana. At the end of the study, a significantly negative relationship between profitability and accounts receivable days is found to exist. Profitability is significantly positively influenced by the firm's cash conversion cycle (CCC), current assets ratio and current asset turnover. It is also suggested that managers can create value for the shareholders by creating incentives to reduce their accounts receivable to 30 days.

Joseph J (2014) closely examines the study of working capital management in Ashok Leyland and points out that the liquidity and profitability position of

the company is not satisfactory, and needed to be strengthened in order to be able to meet its obligations in time.

Madhavi K. (2014) makes an empirical study of the co-relation between liquidity position and profitability of the paper mills in Andhra Pradesh. It has been observed that inefficient working capital management makes a negative impact on profitability and liquidity position of the paper mills.

Gurumurthy N. and Reddy K. (2014) have conducted a study on the working capital management of four pharmaceutical companies APSPDCL, APEPDCL, APNPDCL and APCPDCL and have come to the conclusion that the existing system of working capital management was not up to the mark and needed to be improved.

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THEORETICAL BACKGROUND

CHAPTER 3

THEORETICAL BACKGROUND

2.1 CAPITAL

Capital is the keynote of economic development. In this modern age, the level of economic development is determined by the proportion of capital available.

2.2 Meaning of Capital:

In the ordinary sense of the word Capital means initial investment invested by businessman or owner at the time of commencing the business.

Capital (economics), a factor of production that is not wanted for itself but for its ability to help in producing other goods.

Definition:

Capital is a factor of production with a specific, changeable value attached to it that could, potentially, provide its owner with more wealth. It is an abstract economic concept, and, as such, has many different definitions and classifications, but the unifying feature of capital is that it has a certain value, so it in itself is a type of wealth, and it has the potential of generating more wealth.

2.3 Features of Capital:

Capital has the following features.

1. Capital is a man made.
2. Capital is a perishable.
3. Capital is a human control possible.
4. Capital is a mobile.
5. Capital is a human sacrifice.
6. Capital is a scarce.
7. Capital is a passive factor.

2.4 Working capital:

Working capital is the amount of fund used for financing the day-to-day operations in a business concern, such as for purchasing raw materials, meeting expenditure on salaries, wages, rent, rates, advertising etc.

Working capital in simple terms is an amount of funds, which a company must have to finance its day-to-day operations. It is a part of the firm's capital, which is required for financing short-term expenses like purchase of raw materials, payment of wages and other day-to-day expenses etc.

In other words, working capital refers to that part of total capital, which is used for carrying out the routine or regular business operations.

Working capital management is a significant function of financial manager and he has to spend a great of time on working capital management. It ensures both profitability and liquidity of an organization. It is an integral part of overall corporate management.

Definition of working capital:

By definition working capital is the excess of current assets over current liabilities from current assets. It provides an index of financial soundness of current creditors and is one of the primary indicators of short run solvency for a business.

According to Genestenburg "working capital or circulating capital means current assets of a company that are changed in the ordinary course of business from one form to another, for example, cash to inventories, inventories to receivables, receivables to cash."

In the words of Shubin, working capital is "the amount of funds necessary to cover the cost of operating the enterprise." Working capital in a going concern is a revolving fund, it consist of cash receipts from sales which are used to cover the cost of operation.

2.5 Classification of working capital:

Working capital may be classified in two ways:

a) On the basis of concept

On the basis of concept, working capital is classified as gross working capital and net working capital.

b) On the basis of time.

On the basis of time, working capital can be classified into two categories.

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

2.6 Concept of working capital:

There are to concept of working capital:

- ❖ Gross working capital
- ❖ Net working capital

❖ **Gross working capital**

The gross working capital is the capital invested in the total current assets of the enterprise. Current assets are those assets which in the ordinary course of business can be converted into cash within a short period of normally one accounting year. The gross working capital is also known as circulating capital.

❖ **Net working capital**

Net working capital is the different between current assets and current liabilities. The concept of net working capital represents the volume of current assets to be financed by long-term sources. Though current assets and current liabilities are turned over within relatively shorter period of time, the net balance of current assets is that proportion which is permanently owned by the company. This concept is also useful to the members of accountancy profession, investors and creditors and other whose task is to judge the liquidity and financial soundness of the business undertaking. The short-term financiers and creditors are interested in knowing the margin of protection available to meet their commitment fully without any loss. It provides a measurement of strength of current assets and is useful for assessing the financial position of the business.

2.7 Need of Working Capital:

Every business need some amount of working capital. The need of working capital arises due to the time gap between production and realization of cash from sales. There is an operating cycle involved in the sales and realization of cash.

There are time gap in purchase of raw materials and production; production and sales; and sales and realization of cash. Thus, working capital is needed for the following purpose.

- For purchase of raw materials, components and spares
- To pay wages and salaries.
- To incur day-to-day expenses and over head cost such as fuel.
- Power and office expenses etc.
- To meeting selling cost as packing, advertising etc.

- To provide credit facilities to the customers.
- To maintain the inventories of raw materials, work in progress, stores and spares and finished goods.

2.8 Factors determining the working capital requirements:

The working capital requirements of a concern depend upon a large number of factors. It is not possible to rank them because all such factors are of different importance and the influence of individual factors changes for a firm over time. However, the following are important factors generally influencing the working capital requirements.

- Nature of business.
- Time consumed in manufacture.
- Size of the business.
- Turnover.
- Terms of trade. Nature and value of the product.
- Seasonal fluctuation.
- Fluctuations in supply.
- Use of manual labour or machines.
- Growth and expansion of business.
- Company policies.

2.9 Methods of estimating working capital requirements:

Following are the methods generally used in estimating working capital requirement:

❖ Conventional Method :-

According to the conventional method, cash inflows and outflows are matched with each other. Greater emphasis is laid on current ratio, liquidity ratio, etc, which pertain to the liquidity of a business.

❖ **Net current Assets Forecast Method :-**

This is the most practical and widely used method of estimating working capital requirements. Under this method, first of all, value of each current asset is estimated. After this an estimation of current liabilities is made. Difference between the total estimated amount of current asset and current liabilities gives the net working capital requirement of the firm. To this amount some extra amount (or safety margin) by way of provision for contingency is added. This generally calculated as a fixed percentage of working capital.

❖ **Operating Cycle Method :-**

The operating cycles starts with the purchase of raw material and end with the realization of cash from the sale of finished products. This cycle involves the purchase of raw materials and stores, its conversion into stock of finished goods through work-in-progress with progressive increment of labour and service costs, conversion of finished goods into sales, debtors and receivables and ultimate realization of cash and this cycle continues again from cash to purchase of raw material and so on.

❖ **Percentage of sales Method :-**

It is the traditional and simple method of determining the level of working capital and its components. In this method, the working capital is determined on the basis of the past experience. If over the years, the relationship between the sales and the working capital is found to be stable, then this relationship can be taken as the base for determining the working capital for the future.

❖ **Regression Analysis Method :-**

It is a useful statistical technique applied for forecasting working capital requirements. It helps in capital requirement projection after establishing the average relationship between sales and working capital and its various components in the past years. The method of least squares is used in this regard.

2.10 Working capital management:

Working capital management refers to all aspects of the administration of both current assets and current liabilities. In other words, working capital management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and in attempting to manage the current assets, the current liabilities and the interrelationships that exist between them.

The basic objective of working capital management is to manage the firm's current assets and current liabilities in such a way that the satisfactory level of working capital is maintained. The current assets should be sufficient enough to cover current liabilities in order to maintain a reasonable safety margin. Moreover, different components of working capital are to be properly balanced. In the absence of such a situation, the financial position in respect of the firm's liquidity may not be satisfactory.

2.10.1 Objectives of working capital management:

The basic objectives of working capital management are as follows:

- By optimizing the investment in current assets and reducing the level of current liabilities, the company can reduce the locking up of funds in working capital thereby it can improve the return on capital employed in the business.
- The company should always be in a position to meet its current obligations, which should be properly supported by the current assets available with the firm. However, maintaining excess funds in working capital means locking of funds without return.
- The firm should manage its current assets in such a way that the marginal return on investment in these assets is not less than the cost of capital employed to finance the current assets.

In short objective is to ensure the maintenance of satisfactory level of working capital in such a way that it is neither inadequate nor excessive. It should not only be sufficient to cover the current liabilities but ensure a reasonable margin of safety also.

2.10.2 Importance of working capital management:

Working capital is very essential to maintain the smooth running of a business. The importance of the sound and proper management of working capital may be studied from the following facts:

➤ Solvency of Business

Adequate working capital helps in maintaining solvency of the business by providing uninterrupted flow of production.

➤ Goodwill

Sufficient working capital enables a business concern to make prompt payments and hence helps in creating and maintaining goodwill.

➤ Easy Loan

A concern having adequate working capital high solvency and good credit standing can arrange loans from banks and others on easy and favourable terms.

➤ Cash discount

Adequate working capital also enables a concern to avail cash discounts on the purchase and hence it reduces costs.

➤ Regular payment of salaries, wages and day-to-day commitments

A company which has ample working capital can make regular payments of its employees, increase their efficiency, reduce wastages and costs and enhance profits.

➤ Ability to face crisis

Adequate working capital enables a concern to face business crisis in emergencies such as depression because during such periods, generally, there is much pressure on working capital.

➤ **Quick and regular return on investment**

Every investor wants a quick and regular return on their investment. Sufficiency of working capital enables a concern to pay quick and regular dividend to its investors as there may not be much pressure to plough back profits.

➤ **Exploitation of favourable market conditions**

Only concerns with adequate working capital can expect favourable market condition such as purchases its requirement in bulk when the prices lower and by holding its inventories for higher prices.

2.10.3 Dangers of inadequate Working capital:

When working capital is inadequate, a firm faces the following problems:

- It may not be able to take adequate advantage of cash discount.
- It cannot buy its requirement in bulk and unable to utilize the production facilities fully.
- It may not be able to take advantage of profitable business opportunities.
- It may fail to pay its dividend because of non availability of funds.
- Its low liquidity may lead to low profitability in the same way, low profitability results in low liquidity.
- Short-term liabilities cannot be paid because of inadequate working capital. This leads to borrow funds at exorbitant raise of interest.
- Credit worthiness of the firm may be damaged because of lack of liquidity.
- Low liquidity position may lead to liquidation of firm. When a firm is unable to meets its debt at maturity, there is an unsound position.

2.10.4 Dangers of Excessive Working Capital:

It is also dangerous. Excessive working capital raises the following problem:

A firm may be tempted to overcome trade and lose liquidity

- The situation may lead to unnecessary purchases and accumulation of inventories; this causes more chances of theft, waste, losses etc.
- These arises an imbalance between liquidity and profitability.
- Excessive working capital means funds are idle; no profit is earned when it is so, and the rate of returns on its investment goes down.
- The situation leads to greater production which may not have matching demand.
- The excess of working capital may lead to carelessness about cost of production.

2.11 Components of Working Capital

The components of working capital are:

- Cash Management
- Receivables Management
- Inventory Management

2.11.2 Cash Management:

Cash is the important current asset for the operation of the business. Cash is the Basic input needed to keep the business running in the continuous basis, it is also the ultimate output expected to be realized by selling or product manufactured by the firm.

The firm should keep sufficient cash neither more nor less. Cash shortage will disrupt the firm's manufacturing operations while excessive cash will simply remain ideal without contributing anything towards the firm's profitability. Thus a major function of the financial manager is to maintain a sound cash position. 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 account.

Need For Holding Cash

The need for holding Cash arises from a variety of reasons which are,

1. Transaction Motive:

A company is always entering into transactions with other entities. While some of these transactions may not result in an immediate inflow/outflow of cash (E.g. Credit purchases and Sales), other transactions cause immediate inflows and outflows. So firms keep a certain amount of cash so as to deal with routine transactions where immediate cash payment is required.

2. Precautionary Motive:

Contingencies have a habit of cropping up when least expected. A sudden fire may break out, accidents may happen, employees may go on a strike, creditors may present bills earlier than expected or the debtors may make payments earlier than warranted. The company has to be prepared to meet these contingencies to minimize the losses. For this purpose companies generally maintain some amount in the form of Cash.

3. Speculative Motive:

Firms also maintain cash balances in order to take advantage of opportunities that do not take place in the course of routine business activities. For example, there may be a sudden decrease in the price of Raw Materials that is not expected to last long or the firm may want to invest in securities of other companies when the price is just right. These transactions are purely of speculative nature for which the firms need cash.

Objectives of Cash Management

Primary object of the cash management is to maintain a proper balance between liquidity and profitability. In order to protect the solvency of the firm and also to maximize the profitability. Following are some of the objectives of cash management.

1. To meet day to day cash requirements.
2. To provide for unexpected payments.
3. To maximize profits on available investment opportunities.
4. To protect the solvency of the firm and build up image.
5. To minimize operational cost of cash management.
6. To ensure effective utilization of available cash resources.

Cash Budgeting

Cash budgeting is an important tool for controlling the cash. It is prepared for future period to know the estimated amount of cash that may be required. Cash budget is a statement of estimated cash inflows and outflows relating to a future period. It gives information about the amount of cash expected to be received and the amount of cash expected to be paid out by a firm for a given period.

Cash budgeting indicates probably cash receipts and cash payments for an under consideration. It is a statement of budgeted cash receipts and cash payment resulting in either positive or negative cash or for a week or for a year and so on.

2.11.3 Receivables Management:

Receivables or debtors are the one of the most important parts of the current

Assets which is created if the company sells the finished goods to the customer but not receive the cash for the same immediately. Trade credit arises when a company sales its products or services on credit and does not receive cash immediately. It is an essential marketing tool, acting as a bridge for the moment of goods through production and distribution stages to customers.

The receivables include three characteristics

- 1) It involve element of risk which should be carefully analysis.
- 2) It is based on economic value. To the buyer, the economic value in goods or services passes immediately at the time of sale, while seller expects an equivalent value to be received later on.

3) It implies futurity. The cash payment for goods or services received by the buyer will be made by him in a future period.

A company gives trade credit to protect its sales from the competitors and to attract the potential customers to buy its products at favorable terms. Trade credit creates receivables or book debts that the company is expected to collect in the near future. The customers from whom receivables have to be collected are called as "Trade Debtors" receivables constitute a substantial position of current assets.

Granting credit and crediting debtors, amounts to the blocking of the company's funds. The interval between the date of sale and the date of payment has to be financed out of working capital as substantial amounts are tied up in trade debtors. It needs careful analysis and proper management.

2.11.4 Inventory Management:

Inventories are goods held for eventual sale by a firm. Inventories are thus one of the major elements, which help the firm in obtaining the desired level of sales. Inventories include raw materials, semi finished goods, finished products.

In a company there should be an optimum level of investment for any asset, whether it is plant, cash or inventories. Again inadequate disrupts production and causes losses in sales. Efficient management of inventory should ultimately result in wealth maximization of owner's wealth. It implies that while the management should try to pursue financial objective of turning inventory as quickly as possible, it should at the same time ensure sufficient inventories to satisfy production and sales demand.

The main objectives of inventory management are operational and financial. The operational means that the materials and spares should be available in sufficient quantity so that work is not disrupted for want of inventory. The financial objective means that investments in inventories should not remain idle and minimum working capital should be locked in it.

The following are the objectives of inventory management:-

- ◆ To ensure continuous supply of materials, spares and finished goods.
- ◆ To avoid both over and under stocking of inventory.

- ◆ To maintain investments in inventories at the optimum level as required by the operational and sale activities.
- ◆ To keep material cost under control so that they contribute in reducing cost of production and overall purchases.
- ◆ To minimize losses through deterioration, pilferage, wastages and damages.
- ◆ To design proper organization for inventory control so that management. Clear cut account ability should be fixed at various levels of the organization.
- ◆ To ensure perpetual inventory control so that materials shown in stock ledgers should be actually lying in the stores.
- ◆ To ensure right quality of goods at reasonable prices.

Benefits of Holding Inventories:

Holding of large and adequate inventories is very beneficial to every firm. The benefits or advantages of holding inventories area as follows.

1. Reducing orders cost.
2. Continuous production.
3. To avoid loss.
4. Availing quantity discount.
5. It enables the firm to avoid scarcity of goods meant for either production o sale.

Cost of Holding Inventories:

Holding of inventory exposes the firm to a number of risks and costs. Risks of holding inventories can be put as follows.

1. Material cost
2. Order cost
3. Storage cost
4. Insurance
5. Obsolescence
6. Spoilage

2.12 Economic Order Quantity (EOQ):

This refers to the optimal ordering quantity that will incur the minimum total cost (order cost and carrying cost) for an item of inventory. With the increase in the order size, the ordering cost decreases but the carrying cost increases and the optimal order, quantity is determined where these two costs are equal. The company is always tried to keep an eye on the level of safety stock and the lead-time associated with the orders made.

$$\text{E.O.Q} = \frac{\sqrt{2AO}}{C}$$

Here, A= Annual consumption. O= Ordering cost per order. C= Carrying cost per unit

2.13 Ratio Analysis:

The ratio is one of the most powerful tools of financial analysis. It is the process of establishing and interpreting various ratios. It is with the help of ratio that the financial statements can be analyzed more clearly and decisions can be made from such analysis.

“A ratio is a simple arithmetical expression of the relationship of one number to another. It may be defined as the indicated quotient of two mathematical expressions.”

According to accountants handbook by Wixom Kelly and Bedford a ratio is “an expression of the quantitative relationship between two numbers.”

The ratios not only help the managerial persons but also the shareholders, creditors, employees, government and for tax audit requirement etc.

In every firm it is very important to have a proper balance in regard to the liquidity, solvency, efficiency and profitability. The ratio analysis is helpful to maintain this balance effectively.

The ratios are mainly classified into:

A. Liquidity Ratios	1.Current ratio 2.Quick Ratio 3.Absolute Liquidity Ratio
B. Working Capital Ratio	1.Net Working Capital Ratio 2.Current Asset to Working Capital Ratio 3.Current Assets to Fixed Assets Ratio
C. Efficiency Ratios	1.Inventory Turnover Ratio 2.Debtors Turnover Ratio 3.Creditors Turnover 4.Working Capital Turnover Ratio
D. Profitability Ratio	1.Net Profit Ratio 2.Gross Profit Ratio

A. Liquidity Ratios

Liquidity refers to the ability of a concern to its current obligation when this becomes due. If the current asset can pay off current liabilities, the liquidity position will be satisfactory. The bankers, suppliers of goods and other short-term creditors are interested in the liquidity position of the concern.

Liquidity Ratio:	Equation:
A. Current Ratio	$\text{Current Assets} / \text{Current Liabilities}$
B. Quick Ratio	$\text{Quick Assets} / \text{Current Liabilities}$
C. Absolute Liquidity Ratio	$\text{Cash} + \text{Marketable Securites} / \text{Current Liabilities}$

B. Working Capital Ratios

The net working capital is divided into mainly four, which are as follows:

Working Capital Ratios:	Equations
A. Net Working Capital Ratio	Net Working Capital/Net Assets
B. Current Assets to Working Capital Ratio	Current Assets/Net Working Capital
C. Current Liability to Working Capital Ratio	Current Liabilities/Net Working Capital Ratio
D. Current Asset to Fixed Asset	Current Asset/ Fixed Asset

C. Efficiency Ratio / Turnover Ratio

Activity ratio measures the efficiency or effectiveness with which a firm manages resources or assets. This ratio indicates that inventories are converted into sales so it is called turnover ratio. This highlights upon the activity and operational efficiency of the business.

The turnover ratios are divided into mainly four, which are as follows:-

Efficiency Ratios:	Equation
A. Inventory Turnover Ratio	Net Sales / Closing Inventory
B. Debtors Turnover Ratio	Net Sales / Average Debtors
C. Creditors Turnover Ratio	Net Credit Purchase / Sundry Creditors
D. Working capital turnover Ratio	Sales/ Net Working Capital Ratio

D. Profitability Ratio

A business firm is basically a profit earning organization. Profitability is an indication of the efficiency with which the operations of the business are carried on. It refers to the ability of a firm to earn maximum profit from best utilization of its resources. The profitability of a firm can be easily measured by its profitability ratios. It measures the ability of the firm to earn an adequate return on sales, total assets and invested capital.

Profitability Ratio	Equation
Net profit ratio	$\text{Net Profit/Net sales} * 100$
Gross Profit Ratio	$\text{Gross Profit/ Net Sales} * 100$

INDUSTRY AND COMPANY PROFILE

CHAPTER 4

INDUSTRY AND COMPANY PROFILE

Indian tyre industry has been reporting good growth figures over the past few years, spurred by the growing passenger vehicle and two-wheeler market. It has emerged as one of the most competitive markets in the world and with the emergence of new technology, ultra-modern production facilities and availability of raw materials, the sector is poised to grow further. Major technological changes have taken place in tyre design from conventional bias or diagonal ply from the past to the current steel radial tyres, tubeless tyres, with low aspect ratio tyres, puncture resistant tyres etc. Testing standards have also evolved accordingly to ensure high performance, mileage, safety, reliability and longevity of the tyres. The Indian tyre industry has been quick in adopting the latest technology trends through foreign collaborations and tailoring these to Indian needs. The manufacturers are also investing in the development of 'green tyres' and in capacity expansion for radial tyres. Innovative technologies like self-inflation and run flat tyres (RFT) are also gaining popularity in the Indian market. The market for radial tyres in the commercial 64 vehicles segment has seen rapid growth in recent times. As per ATMA, 2015-16 report, in the medium and heavy commercial vehicle segment the current adoption levels of radial tyres is around 18 per cent. In the light commercial vehicle segment, it is estimated to be 20 per cent. The passenger car segment switched to radial tyres earlier, and within a short period of time, penetration levels reached almost 98 per cent (Table 3.1). This segment will surely be the focus for Indian tyre manufactures as it is expected to grow at about 15 per cent over the next few years to Rs 393 billion by 2018.

4.1 Global Scenario

As per www.ffmnag.com, (July,2016) report, increasing sales of passenger and commercial vehicles in developing countries and a strong demand for replacement tyres is providing significant opportunities for players in the automotive tyre industry. A projected CAGR of around 4 per cent over the next five years for the global tyre market means an estimated \$187 billion by 2018. The passenger car segment is forecast to witness the highest growth over the next five years. Regionally, the APAC region is anticipated to lead growth during the forecast period. It is expected to see the strongest growth in rubber demand, reflecting the strength of the tyre market in China, India, Thailand and Vietnam. The global automotive tyre market is

highly consolidated and consists of passenger car tyres, heavy truck tyres and other segments. North America dominates this market with approximately 30 per cent of the total global demand for tyres. Fuel efficiency and safety concerns are key factors influencing the purchase of tyres in developed markets, which are transitioning into higher-performance tyres. Japan and Europe have implemented stringent tyre performance criteria (covering rolling resistance related fuels having, wet grip related braking distance and noise reduction). Europe anticipates a 20 million tones reduction in traffic related carbon dioxide emissions per year due to enhanced tyre performance.

While the tyre industry is mainly dominated by the organized sector, the unorganized sector holds sway in bicycle tyres. The major players in the organized tyre segment consist of MRF, Apollo Tyres, Ceat and JK Industries, which account for 77 per cent of the organized tyre market. The other key players include Modi Rubber, Kesoram Industries and Goodyear India, with 11 percent, 7 per cent and 3 percent share respectively. Dunlop, Falcon, Tyre Corporation of India Limited (TCIL), TVS-Srichakra, Metro Tyres and Balkrishna Tyres are some of the other players in the industry. MRF, the largest tyre manufacturer in the country, has strong brand equity. While it rules supreme in the industry, other players have created niche markets of their own. The Indian tyre industry is two tiered; Tier-I players (top 5 tyre companies), account for over 77% of industry turnover and have a well-diversified product-mix and presence in all three major segments, i.e., Replacement market, Original Equipment Manufacturers (OEM's) and exports. Tier-II companies are small, mainly concentrating on production of small tyres (for two/ three-wheelers, etc.), tubes & flaps and the replacement market.

The tyre industry is a major consumer of the domestic rubber production. Natural rubber constitutes 80 per cent of the material content in Indian tyres. Synthetic rubber constitutes only 20 per cent of the rubber content of a tyre in India. Worldwide, the ratio of natural rubber to synthetic rubber is 30:70. Apart from natural and synthetic rubber, rubber chemicals are also widely used in tyres. Most of the RSS-4 grade natural rubber required by the Indian tyre industry is domestically sourced, with only a marginal amount being imported. This is an advantage for the industry, since natural rubber constitutes 25 per cent of the total raw material cost of the tyres. The two types of synthetic rubber used in tyres are Poly Butadiene Rubber (PBR) and Styrene Butadiene Rubber (SBR). The former is used in most of the tyres, while the latter is mainly used in the radials for passenger cars. Synthetic rubber accounts for 14 per cent of the raw material cost. Unlike in the case of natural rubber, India imports 60 per cent

of its synthetic rubber requirements. Apart from rubber, major raw materials are nylon tyre cord and carbon black. The former is used to make the tyres strong and impart tenacity to it. The latter is responsible for the colour of the tyre and also enhances the life span of the tyre. Nylon tyre cord comprises 34 per cent, while carbon black accounts for another 13 per cent of the raw material cost. In India, the carbon black used is of the N660, N220 and N330 variety. To sum up, the tyre industry is highly raw-material intensive, with raw material costs accounting for 70 per cent of the cost of production. Fortunately for the industry, the rubber and carbon black prices have taken a beating recently, which means lower costs for the tyre industry. The export-import policy allows free import of all types of new tyres and tubes. However, import of retreaded tyres, either for use or for Reclamation of rubber is restricted. This has led to used tyres being smuggled into the country under the label of new tyres. Though tyre import and all raw materials for tyre except natural rubber are under Open general License (OGL), only import of natural rubber from Sri Lanka is eligible under OGL. Crossplytyres have been used in India for several decades. In these tyres, the ply cords run across each other or diagonally to the outer surface of the tyre. Rayon and nylon tyre cords are used as the reinforcing medium. These tyres can be retreaded twice during their lifetime and are hence preferred by Indian transport operators who normally overload their trucks. A vehicle with the normal carrying capacity of around 12 tonnes is usually loaded with double the capacity. Moreover, one also has to contend with the bad suspensions and bad road conditions. No wonder, 95 per cent of the tyres used in India are crossplies. Radial tyres have their cords running radially from bead at 90 degrees angle to the rim or along the outer surface of the tyre. The reinforcing mediums used in these tyres are polyester, nylon, fibreglass and steel. Hence, these tyres are 20 per cent more expensive than the crossplies. But they have a longer life and provide lower fuel consumption. The unhealthy condition of the Indian roads has resulted in radial tyres accounting for only 5 per cent of the tyre industry as against a global trend of 60 per cent. With two-thirds of the capacity of all major tyre manufacturers being reserved for radials, this is a real cause for concern.

4.2-HISTORY:

The origin of the Indian Tyre Industry dates back to 1926 when Dunlop Rubber Limited set up the first tyre company in West Bengal. MRF followed suit in 1946. Since then, the Indian tyre industry has grown rapidly. Transportation industry and tyre industry go hand in hand as the two are interdependent. Transportation industry has experienced 10% growth rate year after year with an absolute level of 870 billion ton freight. With an extensive road network of 3.2 million km, road accounts for over 85% of all freight movement in India. The tyre industry has witnessed a CAGR of 8.3% over the last decade mainly fuelled by the strong growth in the domestic auto industry. Though the replacement market has driven the industry growth for long time, the OEM market has seen a robust growth over the last couple of years. The industry is highly capital intensive, as it requires around Rs4bn to setup a radial tyre plant with a capacity of 1.5mn tyres and around Rs1.5-2bn for a cross ply tyre plant of a capacity to manufacture 1.5mn tyres. The profitability of the industry has high correlation with the prices of key raw materials such as rubber and crude oil as they account for more than 70% of the total costs. The raw material to sales ratio in the industry is around 65%. The industry has high entry barriers because of its capital-intensive nature and low operating margins. With demand increasing at a steady pace, the industry is expected to go through a consolidation phase. The industry is dominated by four players viz MRF, Apollo Tyres, JK Industries and Ceat and enjoys more than 77% of the total market share. The fortunes of the industry are linked to the trend in the domestic auto industry, retreading, trend in road transportation and spending on road infrastructure. The companies have lined up further expansion plans to meet the increasing demand.

Name	Sales Revenue in US Dollars	Rank
Bridgestone	29.8 billions	I
Michelin Tyre	28.4 billions	II
Good-Year	21.0 billions	III
Continental Tyres	12.8 billions	IV

Source: Plimsoll tyre manufactures' analysis.2016

The Indian tyre industry is expected to clock a tonnage growth of 9-10 per cent over the next five years, according to a study by Credit Analysis and Research Limited (CARE), a noted rating firm that offers a wide range of rating and grading services across sectors. While the truck and buses tyres are set to register a CAGR (compounded annual growth rate) of 8 per cent, the LCV (light Commercial vehicles) tyres are poised for a CAGR of 14 per cent. According to the CARE study, the growth in the Indian tyre industry will be fuelled by the expansion plans of the automobile companies, government's focus on development of road infrastructure and sourcing of auto parts by the global Original Equipment Manufacturers (OEMs). However, the tyre industry has to grapple with raw material price volatility, rupee appreciation and cheap Chinese imports. The tyre industry in India recorded a CAGR of 9.69 per cent during 2011-16. The size of the industry was estimated at Rs 25000 crore in 2016-17 with a total production of 971 lakh units of tyres. The study points out that on the export front, the Indian tyre companies need to explore newer markets as the existing market for bias truck tyre which accounts for about 45 per cent of the total export volume is nearing saturation. This apart, with rationalization catching up in the foreign markets, the Indian tyre companies need to graduate to radial tyres so as to protect their share in the export market. At present, radicalization of tyres is low in India except for the car tyre market where 95 per cent of the tyres is radicalized while cross ply tyres is preferred in all other categories. Cross ply tyres are preferred owing to poor road conditions, overloading in trucks, higher cost of radialtyres and poor awareness among the tyre users in the country. The CARE report observes that though the tyre technology in India has witnessed several development ts with continuous innovation, the domestic tyre manufacturers still lag behind their global counterparts in terms of product differentiation. Globaltyre makers offer a wide change of products like tyres with pressure warning systems, run flat tyres, eco-friendly tyres and energy efficient tyres.

Brief Statistics of Indian Tyre Industry

Financial Year 2016-17	
Turnover of Indian Tyre Industry	Rs. 43,000 Crores
Tyre production (tonnage)	15 lakh M.T.
Tyre production – all categories (nos.)	1254 Lakh
Tyre export from India (value) :	Rs. 4209 crores
Industry concentration	10 Large tyre companies account for over 95% of total tyre production.
Radialisation level - current (as a % of total tyre production)	Passenger Car tyres: 98% Light Commercial Vehicles: 20% Heavy Vehicles (Truck & Bus): 18%

The current market status of India's automotive industry is as under

1. The Indian automotive market is one of the most competitive markets with low manufacturing costs, which makes it an attractive assembly base for foreign automobile manufacturers.
2. India is the second fastest growing automobile market in the world after China.
3. The large population growth of more than 20 million a year and the rising living standards are two important indicators that logically lead to an increasing demand for automobiles in India.
4. The Indian car industry is witnessing a shift from two wheelers to cars, due to the rising availability of low-cost cars and the car becoming a status symbol.
5. Based on the overall production of cars in the country, the Indian automotive industry is

now the sixth largest in the world between South Korea (5th) and Brazil (7th). India is the fourth largest in the Asian region after China, Japan, and South Korea, in that order.

6. Car brands like Jaguar have an advantage when they are produced in India, since they become less expensive to sell. Imported cars are very expensive to acquire in India, due to the many import licenses and tariffs that lead to higher prices of imported cars.

7. Cars comprise the major segment in the Indian automotive industry with a growth rate of more than 19 percent annually.

4.3 MAJOR PLAYERS IN INDUSTRY

1) MRF

MRF is the market leader among tyre manufacturers in India, with a 24% share in terms of revenues. Its leadership position, coupled with its strong brand recall and high quality, MRF commands the pricemaker status. MRF has a strong presence in the T&B segment, the largest segment of the tyre industry, and commands around 19% market share in the segment. It is the leader in the two/ three-wheeler segment (including motorcycles) and tractor front tyres, and holds second place in the passenger cars and tractor - rear tyres. Exports account for around 12% of the gross sales in MRF. The Company has a distribution network of 2,500 outlets within India and exports to over 65 countries worldwide.

2) Apollo-Tyres

Apollo Tyres is the second largest player in the Indian tyre industry, with a market share of 22%, in terms of revenues, and the largest player in the T&B segment, with around 22% market share and 82% of its product mix coming from this segment. It also enjoys a strong brand recall. ATL derives 80% of its revenues from the replacement market, where the EBITDA margins are higher; hence, at operating

levels, Apollo Tyres has better margins compared to those of its peers. ATL is a strong player in the domestic market, with just 2% of sales coming from exports. Apollo's recent foray into the relatively fast growing passenger radial market is probably the only major positive feature. However, the competitive pressure and a late entry into the segment would pressurize profitability, at least in the near term. From an investment perspective, investors could look for opportunities to exit from Apollo and the tyre sector.

3) JK-INDUSTRIES

JK Tyre & Industries Ltd. is the flagship company under the umbrella of JK Organization. JK Industries has a 17% market share, in terms of revenue, making it the third largest player in the industry. The Company ranks first in the MHCV and Passenger Car tyre segments, with 79% and 7% of its product mix coming from these segments, respectively. Exports account for approximately 17% of its gross sales. The advent of JK Organization on the industrial landscape of India almost synchronizes with the beginning of an era of industrial awareness - an endeavor for self-reliance and the setting up of a dynamic Indian industry. This was back in the middle of the 19th century. And the rest that followed is history.

4) CEAT

CEAT has a 14% market share, in terms of revenues, and is an average player across categories. 68% of its product mix comes from the MHCV segment. Its leading brands in the T&B segment are Lug XL, Mile XL and Rib XL, Secura in two-wheelers and Formula-1 in passenger radials. In terms of profitability, CEAT has lower margins compared to its peers, in spite of deriving 60% of its revenues from the replacement market. The oldest company of the RPG Enterprises, CEAT Tyres was established in 1958. Today, we are one of India's leading tyre

manufacturers, with an annual turnover of Rs 1,952 crores (US \$434 million). Our solid brand equity has empowered us to establish a strong presence in both, domestic and international markets. Our tyres, tubes and flaps are renowned for their superior quality and durability, and are recognized as being “born tough”

5) GOODYEAR INDIA

Goodyear India, with presence across the globe, has a market share of 6% in the Indian Tyre industry, in terms of revenues. It has a significant market share in the tractor tyres segment, with 22% share in tractor - front tyres and a 30% share in tractor - rear tyres. It derives 45% of the product mix from the MHCV segment and 31% from the tractor tyres segment.

4.4 Tyre Retreading

As per ATMA, (2015-16) report, in the manufacture of a new tyre, approximately 75%-80% of the manufacturing cost is incurred in tyre body and remaining 20% -25% in the tread, the portion of the tyre which meets the road surface. Hence, by applying a new tread over the body of the worn tyre, a fresh lease of life is given to the tyre, at a cost which is less than 50% of the price of a new tyre. This process is termed as 'tyre retreading'. However, the body of the used tyre must have some desirable level of characteristics to enable retreading.

Retreading cannot be done if the tyre has already been over used to the extent that the fabric is exposed/ damaged. Retreading can be done more than once.

The present all India pattern, by type of retreading, is as follows:

Pre-cured - 50%, Conventional 50%.

Retreading is primarily done in the truck and bus tyre segment. On an average a truck/ bus tyre is retreaded 1.5 times. At present only 3-4 large companies are in the organized sector of

tyre retreading .Organized sector is classified as that comprising of companies which operate through the franchisee route.

4.4.1 Retreading process

1.Collection of Casings:

Worn tires are collected to select suitable casings for tyre retread.

2. Initial Inspection:

Each tire received in a retread plant is subjected to a rigorous visual inspection. Inspectors are assisted by the use of non-destructive sophisticated inspection equipment .

3. Buffing After inspection:

The tyre's old tread is mechanically removed on high speed buffers. Today's buffers are extremely accurate and will remove the proper amount of old rubber while turning the tyre to an exact specified diameter and radius

4. Section Repairs & Skiving

With advances in state-of-the-art repair materials and repair methods, many of these tyres can be routinely repaired and in most cases can be retreaded when the original tread is worn off. The repair station is where any surface injury is treated using effective material and tools for grinding and patching.

5. Cementing and Filling

Even in small injuries it is critical that the injury is cleaned and filled. If this is not done, severe rust, separation and steel cable looseness could take tyre out of service. The injury should be inspected, and then cleaned out with a carbide cutter. After cementing the injury, a vulcanizing rubber stem should be applied to "fill" the injury. This would create a permanent repair that maximizes tyre life.

6. Building – Tread Rubber

In the pre-cure system, the tread rubber has already been vulcanized with the new tread pattern design. The buffed tyre needs a thin layer of cushion gum to be wrapped around its crown area. The pre-cured tread rubber is then applied with the building machine. This is called the building process.

7.

a) Enveloping & Rim Mounting or the built tyres are then mounted with envelopes and rims to prepare them for curing.

b) Double Envelope System

For enveloping, tyres are first fitted an outer envelope at the envelope-mounting table before the inner envelope is fitted into them. The enveloped tyres are then vacuumed out for preparation prior to curing. Modern plants have their casings hoisted by monorail systems..

8. Curing by Chamber

The tyre is then placed in a curing chamber and the pre-cured tread becomes adhered to the tyre through a vulcanizing process. The monorail & hook system increases productivity by cutting down on chances of casings contamination and allows for faster loading and unloading of tyres. This increases your work place safety and productivity.

9. Final Inspection & Painting

The retreaded tyre is subjected to a final inspection. This inspection insures that only tyres that meet industry quality standards are allowed to leave the retread plant. All retreaded tyres are encouraged to be returned with the sidewalls painted using a light coat of black tyre paint.

4.5 SWOC Analysis

STRENGTHS

- GROWTH OF AUTOMOBILE INDUSTRY
- CHEAPER RAW MATERIAL

WEAKNESS

- LACK OF TECHNOLOGY
- NUMBER OF PLAYERS

OPPORTUNITIES

- GROWING AUTOMOBILE INDUSTRY
- GROWING OEM DEMAND

CHALLENGES

- RISE IN PRICE OF NATURAL RUBBER
- CHEAPER IMPORTS

Locational Map – Tyre Plants (ATMA Member Companies)



● **apollo**

- Limda, Gujarat
- Perambra, Kerala
- Kalamessery, Kerala
- Orgadam, Tamilnadu



- Balasore, Orissa



- Dhar, Madhya Pradesh
- Pune, Maharashtra



- Mumbai, Maharashtra
- Halol, Gujarat
- Ambarnath, Maharashtra
- Nasik, Maharashtra
- Nagpur, Maharashtra



- Modipuram, Uttar Pradesh



- Ballabgarh, Haryana
- Aurangabad, Maharashtra



- Kankroli, Rajasthan
- Banmore, Madhya Pradesh
- Mysore (2), Karnataka
- Sriperumbudur, Tamil Nadu
- Haridwar, Uttarakhand



- SIPCOT Thiruvallur, Tamil Nadu



- Chennai, Tamil Nadu
- Arkonam, Tamil Nadu
- Trichy, Tamil Nadu
- Puducherry
- Medak, Telangana
- Ponda, Goa
- Kottayam, Kerala



- Rudrapur, Uttarakhand
- Madurai, Tamil Nadu



- Bahadurgarh, Haryana

4.6 Company Profile

V.A.TREADS is one of the franchisee of MRF Pretreads located at Wise Park at Kanjikkode in Palakkad District. It is a partnership firm owned by two brothers Anurup K and Anuragh K. The primary business of the firm is retreading of tyres.

The business opportunity of tyre retreading is tapped by V.A.Treads in sight of the BEML (Bharath Earth Movers Limited) a miniratna company under Ministry of Defense situated near to the firm where a number of trucks are coming in for the activities in BEML.

The firm is located in Wise Park in the highway of Palakkad-Coimbatore where interstate Lorries are passing by also known as New Industries Development Area (NIDA) where BEML, PepsiCo, Prince TMT Steels etc. are situated.



Kanjikkode, which is famous for industrial undertakings of both Central and State Governments is also has a large number of trucks where tyre retreading is a major concern.

MRF Tyres supply the raw materials and machineries and has a separate division named as “MRF Pretreads” for the operations.

V.A. Treads has five employees excluding two office staff, one driver and security each. The two partners carry out the management of the firm.

ANALYSIS AND INTERPRETATION

CHAPTER 5

ANALYSIS AND INTERPRETATION

Ratio Analysis:

Liquidity Ratios:

Liquidity Ratios are used to measure the liquidity position or short term financial position of a firm. These ratios are used to assess the short term debt paying ability of a firm. These ratios are highly useful to creditors and commercial banks that provide short term credit.

Current Ratio-

Current ratio is the most conventional ratio to analyze working capital position of the firm. Current ratio of 2:1 is considered satisfactory but it also depends upon industry's nature, place and custom. It is much more useful for inter-firm comparison of liquidity. Ratio provides a margin of safety to creditors.

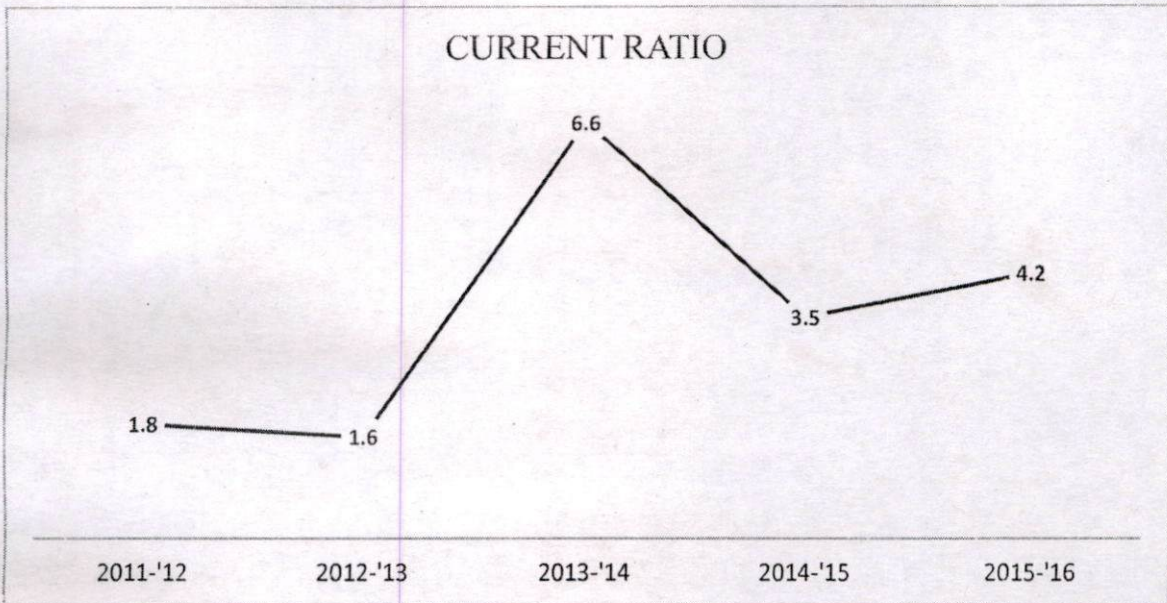
$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Table 5.1 Current Ratio for the period of five years

Years	Current Asset	Current Liabilities	Current Ratio
2011-'12	360434.9	199178.23	1.8
2012-'13	439670.13	268958.55	1.6
2013-'14	996097.6	151232.62	6.6
2014-'15	559893	158143.2	3.5
2015-'16	555083.1	133534.1	4.2

Source: compiled from annual reports of the company

Fig: 5.1 Current Ratio for the period of five years.



Interpretation:

The objective of computing Current ratio is to measure the ability of a firm to pay off its obligations in time. It is used for analyzing the liquidity position or short term financial position of the firm.

The higher the Current ratio, the greater the firm's ability to meet short term debts. A very high current ratio indicates that too much of money is blocked in current assets, too much cash is idle and too much money is blocked in stocks. A very low current ratio indicates that the firm will find it difficult to pay off its debts.

In the initial years, the current ratio was below the minimum level of 2:1 depicting 1.8:1 and 1.6:1 in the years 2011-12 and 2012-13 respectively. But later on from 2013-14, the current ratio depicted for over six, which means too much money is blocked in current assets. It later on declined in 2014-15 and 2015-16 to 3.5 and then rose to 4.2.

It is seen that the satisfactory level of current ratio is not maintained in any of the years. Either it is below the satisfactory level or it is over the satisfactory level.

65

Quick Ratio / Acid Test Ratio / Liquid Ratio

Quick ratio is a more rigorous test of liquidity than the current ratio. The quick ratio may be defined as the relationship between quick or liquid assets to current or liquid liabilities. It depicts the immediate liquid position of the concern.

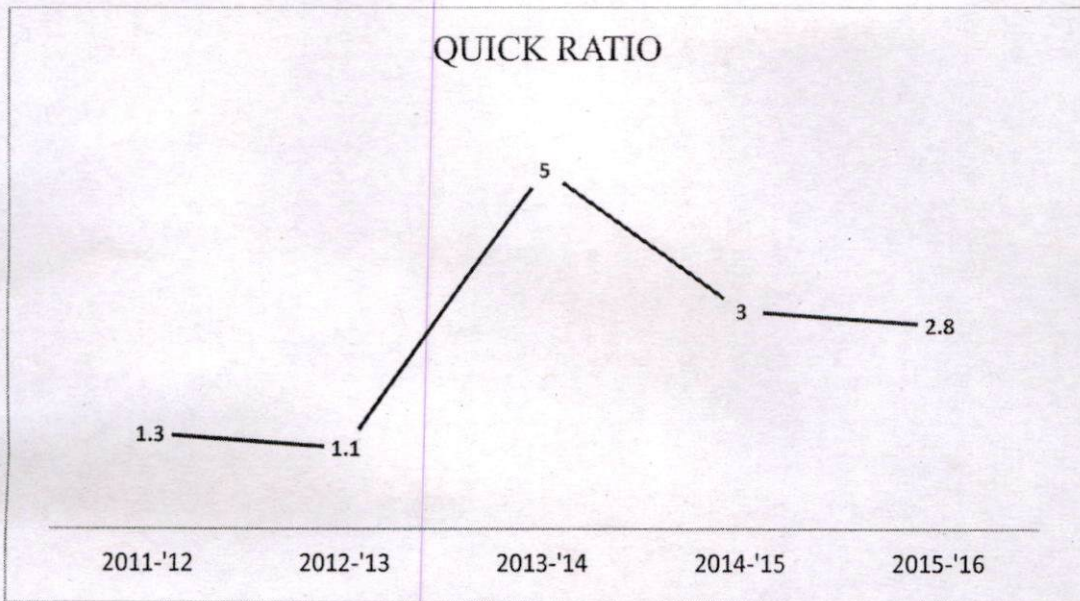
$$\text{Quick ratio} = \frac{\text{Quick / liquid Assets}}{\text{Current / liquid Liabilities}}$$

Table:5.2 Quick Ratio for the period of five years.

Years	Quick Asset	Current Liabilities	Quick Ratio
2011-'12	254824.9	199178.23	1.3
2012-'13	304533.13	268958.55	1.1
2013-'14	762547.6	151232.62	5.0
2014-'15	479893	158143.2	3.0
2015-'16	374411.8	133534.1	2.8

Source: compiled from annual reports of the company

Fig: 5.2 Quick Ratio for the period of five years



Interpretation:

Quick ratio used in combination with current ratio can be a very good test of liquidity. If the current ratio is 2:1 and quick ratio is 1:1, the liquidity position may be considered satisfactory. If the current ratio is higher than 2:1, but quick ratio is less than 1:1, it indicates excess inventory . The interpretation will depend upon size, nature of business, velocity of the turnover of stock etc.

A quick ratio of 1:1 is considered satisfactory or ideal. It means that the liquid assets are just equal to quick/current liabilities. If the quick ratio is 1:1 or more than 1:1, the financial position of the firm is said to be good. It indicates that the firm has quick assets that are sufficient to pay off short term obligations.

Here in this situation, the firm has quick ratio of more than 1:1 in all the five financial years. It continues to grow from 1.3:1 in 2011-12 to 5:1 in 2013-14 and then slowly declined to 3:1 in 2014-15 and to 2.8:1 in 2015-16. So, we can realize the firm has sufficient quick assets to pay off its short term obligations in time.

Absolute Liquidity Ratio

The absolute liquidity ratio is obtained by dividing cash and marketable securities by current liabilities. It is also called cash position ratio. When liquidity is highly restricted in terms of cash equivalents this ratio should be calculated. The ideal absolute ratio is taken as 0.5 times.

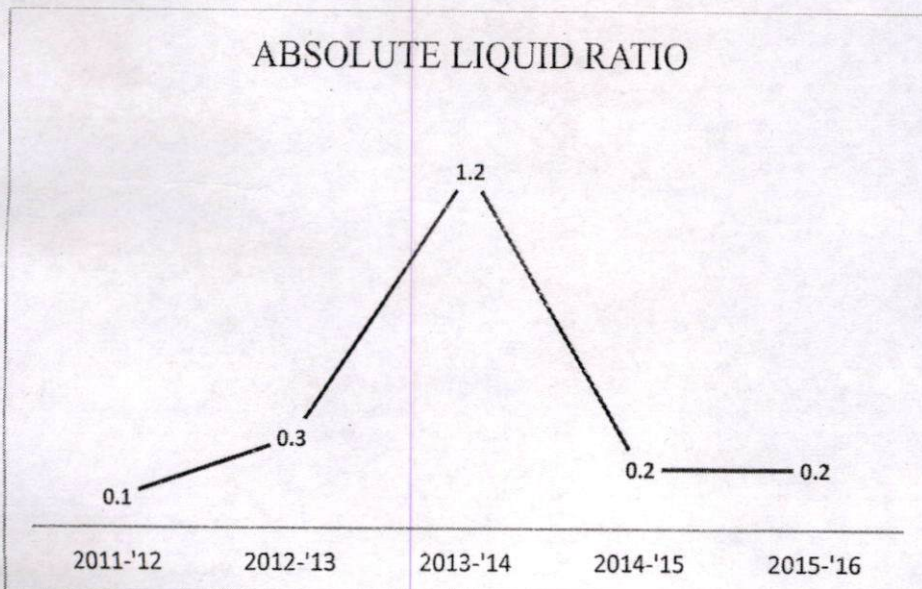
$$\text{Absolute Liquidity Ratio} = \frac{\text{Cash} + \text{Marketable Securities}}{\text{Current Liabilities}}$$

Table: 5.3 Absolute liquidity Ratio for the period of five years

Years	Cash /Marketable securities	Current Liabilities	Absolute Liquid Ratio
2011-'12	13767.54	199178.23	0.1
2012-'13	77013.77	268958.55	0.3
2013-'14	177388.24	151232.62	1.2
2014-'15	34593.63	158143.2	0.2
2015-'16	29251	133534.1	0.2

Source: compiled from annual reports of the company

Fig:5.3 Absolute liquid Ratio for the period of five years.



Intrepretation:

The reason of computing absolute liquid ratio is to eliminate accounts receivables from the list of liquid assets because there may be some doubt about their quick collection. This ratio is useful only when used in conjunction with current ratio and quick ratio. An absolute liquid ratio of 0.5:1 is considered ideal for most of the companies.

In this case, all the years except 2013-14, the absolute liquid ratio is less than 0.5. However, in the year 2013-14, the ratio becomes 1.2 for the first time.

This ratio is not much in use. This is because maintaining 50% of the value of the current liabilities in cash and bank balance is not advisable.

Net Working Capital Ratio

This ratio shows the liquidity of the firm. High amount of working capital increases the liquidity of the firm and the low net working capital decrease the liquidity position. It is calculated by dividing the net working capital by net asset.

$$\text{Net Working Capital Ratio} = \frac{\text{Net Working Capital}}{\text{Net Assets}}$$

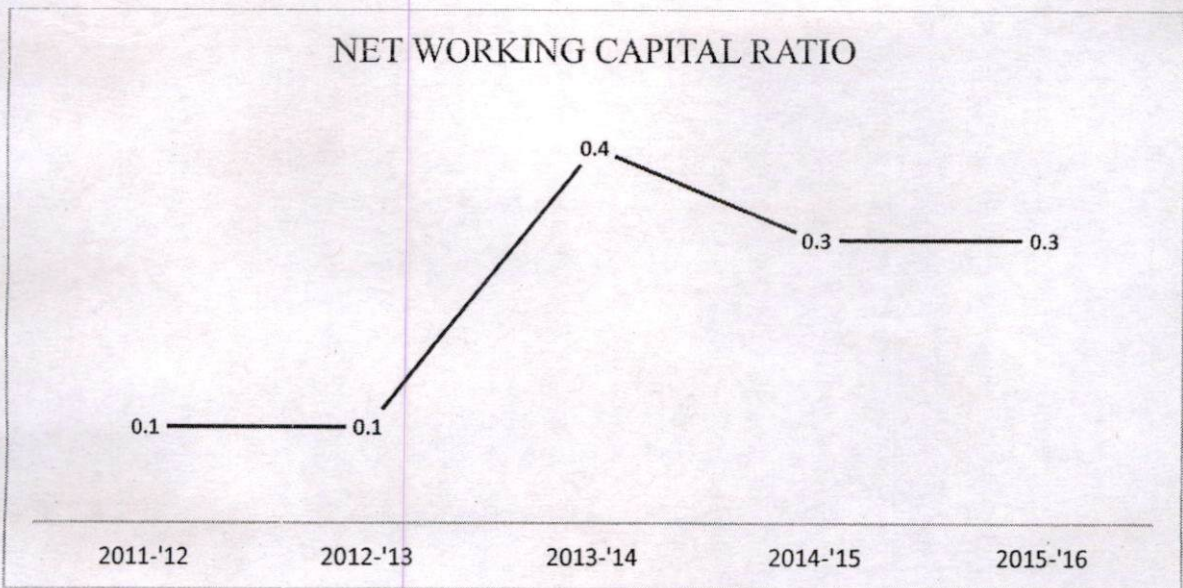


Table 5.4 : Net Working Capital Ratio

Years	Net Working Capital	Total Assets	Net Working Capital Ratio
2011-'12	161256.67	1237199.39	0.1
2012-'13	170711.58	1313990.62	0.1
2013-'14	844864.98	1918039.85	0.4
2014-'15	401749.8	1447569.49	0.3
2015-'16	421548.9	1281036.73	0.3

Source: compiled from annual reports of the company

Fig : 5.4 Net Working Capital Ratio



Interpretation:

In the first two years, the working capital ratio remains the same as 0.1 in both 2011-12 as well as 2012-13. Later on in 2013-14, it showed a slight increase to 0.4 which is the highest among the five financial years. In the year 2014-15 and 2015-16, it again remained constant in 0.3.

Current Asset to Working Capital Ratio

The ratio shows the relationship between current asset and working capital. In this very high and low ratio is not good, because that shows more working capital or less working capital is contained in the current assets.

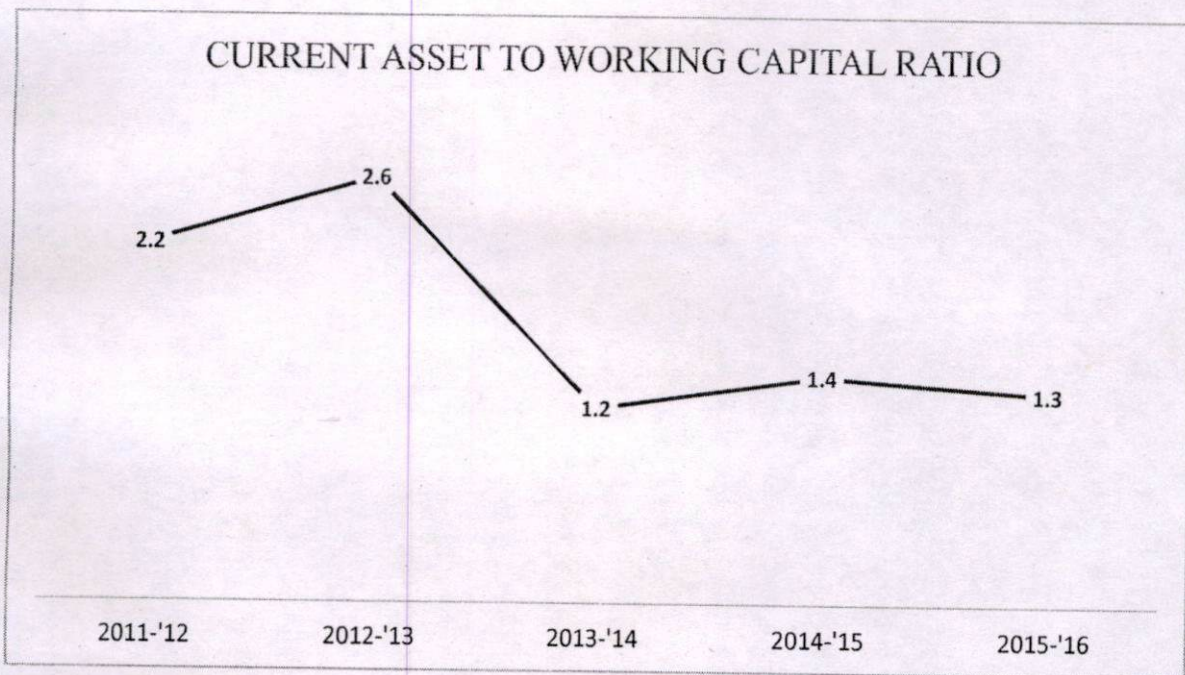
$$\text{Current Asset to Working Capital Ratio} = \frac{\text{Current Assets}}{\text{Net working capital}}$$

Table: 5.5 Current Asset to Working Capital Ratio

Years	Net Working Capital	Current Asset	Current Asset to Working Capital ratio
2011-'12	161256.67	360424.9	2.2
2012-'13	170711.58	439670.13	2.6
2013-'14	844864.98	996097.6	1.2
2014-'15	401749.8	559893	1.4
2015-'16	421548.9	555083.1	1.3

Source: compiled from annual reports of the company

Fig 5.5 Current Asset to Working Capital Ratio.



Interpretation:

The analysis revealed that in 2011-12 and in 2012-13, the current asset to working capital ratio is 2.2 and 2.6 respectively. It later declined to 1.2 in 2013-14 and has been in stable rate since then.

Current Liability to Working Capital Ratio

The ratio shows the relationship between the current liabilities to net working capital. In this, very high and low ratio is not a good sign, because it shows more working capital or less working capital is contained in the current liabilities

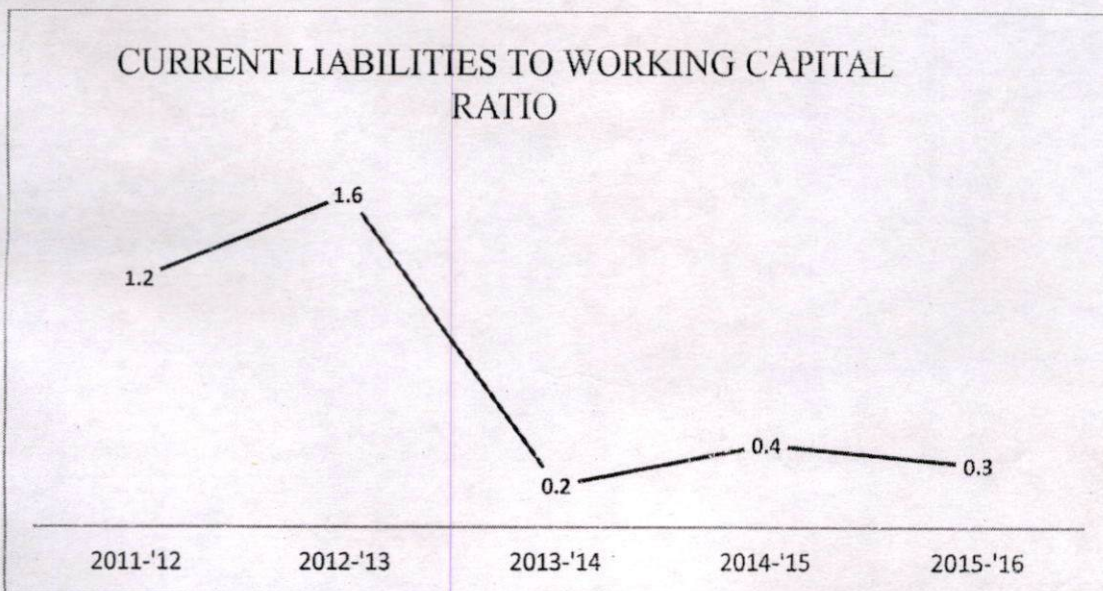
$$\text{Current Liability to Working Capital Ratio} = \frac{\text{Current Liabilities}}{\text{Net working capital}}$$

Table: 5.6 Current Liability to Working Capital Ratio

Years	Net Working Capital	Current Liabilities	Current Liabilities to Working Capital ratio
2011-'12	161256.67	199178.23	1.2
2012-'13	170711.58	268958.55	1.6
2013-'14	844864.98	151232.62	0.2
2014-'15	401749.8	158143.2	0.4
2015-'16	421548.9	133534.1	0.3

Source: compiled from annual reports of the company

Fig : 5.6 Current Liabilities to Working Capital Ratio



Interpretation:

The ratio indicates a satisfactory position during the years 2011-12 and 2012-13. The ratio 1.2 and 1.6 times shows that the company has more amount of working capital than its current liabilities. Later on the ratio begins to fall to less than one. In the year 2013-14, depicts the lowest ever ratio with 0.2:1 and had a slight increase in the progressing years.

Current Asset to Fixed Asset

The level of current asset can be measured by relating current asset to fixed assets. Higher current asset to fixed asset ratio indicate a conservative current asset policy whereas lower ratio indicates an aggressive current asset policy.

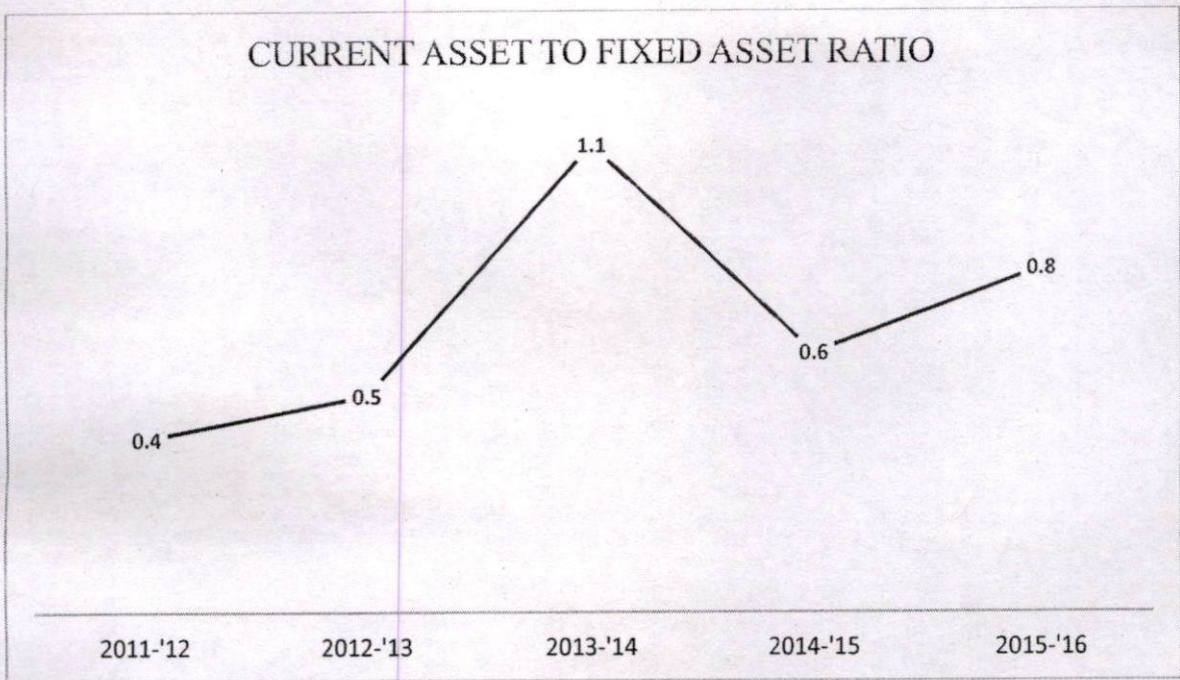
$$\text{Current Asset to Fixed Assets} = \frac{\text{Current Assets}}{\text{Fixed Assets}}$$

Table: 5.7 Current Asset to Fixed Asset Ratio

Years	Current Asset	Fixed Asset	Current Asset to Fixed Asset Ratio
2011-'12	360434.9	878764.49	0.4
2012-'13	439670.13	874320.49	0.5
2013-'14	996094.6	921942.25	1.1
2014-'15	559893	887676.49	0.6
2015-'16	555083.1	725953.63	0.8

Source: compiled from annual reports of the company

Fig: 5.7 Current Asset to Fixed Asset Ratio



Interpretation:

The current assets to fixed assets ratio measures how many current assets are bought or utilized through fixed assets. There's no specific agreed ratio on this. It measures the proportion between the current assets and fixed assets the company acquires. The highest ratio is recorded in 2013-14. In 2011-12 it is recorded as 0.4 and 0.5 in 2012-13. The later part of 2014-15 and 2015-16 the ratio is recorded as 0.6 and 0.8 respectively.

Activity Ratios :

Activity ratios show how effectively a firm uses its available resources or assets. These ratios indicate efficiency in asset management. These are also known as efficiency ratios or performance ratios or assets utilization ratios.

Inventory Turnover Ratio:-

Inventory turnover ratio is the ratio, which indicates the number of times the stock is turned over i.e., sold during the year. This measures the efficiency of the sales and stock levels of a company. A high ratio means high sales, fast stock turnover and a low stock level. A low stock turnover ratio means the business is slowing down or with a high stock level.

$$\text{Inventory Turnover Ratio} = \frac{\text{Net Sales}}{\text{Closing Inventory}}$$

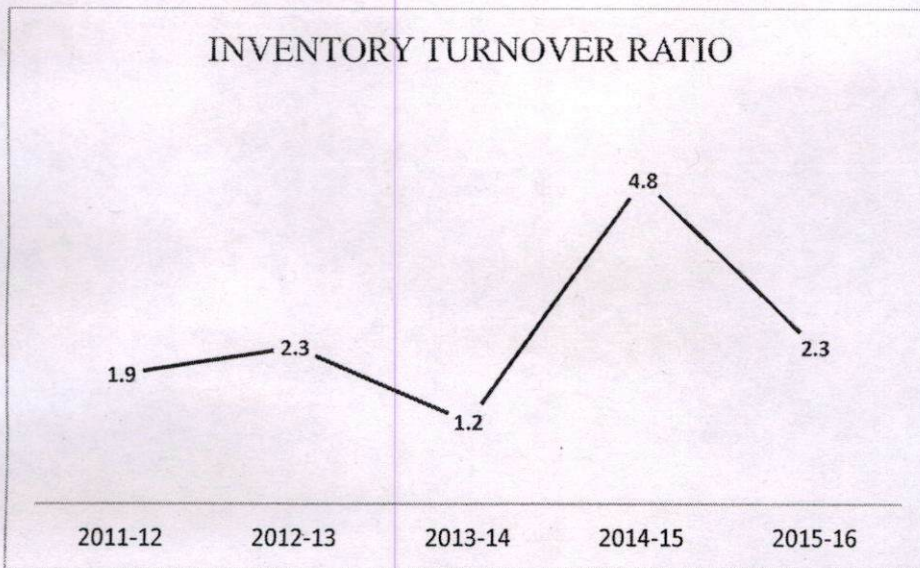
$$\text{Inventory Conversion Period} = \frac{365}{\text{Inventory Turnover Ratio}}$$

Table: 5.8 Inventory Turnover Ratio

Year	Net Sales	Closing inventory	Inventory Turnover ratio	Conversion Period
2011-'12	195420	105610	1.9 times	192
2012-'13	313212	135137	2.3 times	158
2013-'14	278942	233550	1.2 times	304
2014-'15	384960	80000	4.8 times	76
2015-'16	423456	180671	2.3 times	158

Source: compiled from annual reports of the company

Fig: 5.8 Inventory Turnover Ratio



Interpretation:

A high turnover ratio indicates that inventory is sold fast. It is an indication of good inventory management. On the other hand, low inventory turnover ratio reflects over investment in inventories, accumulation of huge stock, dull business etc. This ratio measures the liquidity of the inventory.

Here 2014-15 depicts the highest ever Inventory turnover ratio as well as conversion period as 4.8 as inventory ratio and 76 days.

In 2013-14, the company recorded lowest inventory turnover and conversion period of 300 days. The company has to increase its sales by liberalizing its credit policy to maintain high inventory turnover ratio or low conversion period.

Debtors / Accounts Receivables Turnover Ratio:-

Debtor's turnover ratio indicates the speed of debt collection of the firm. This ratio computes the number of times debtors (receivables) has been turned over during the particular period.

$$\text{Debtors Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Debtors}}$$

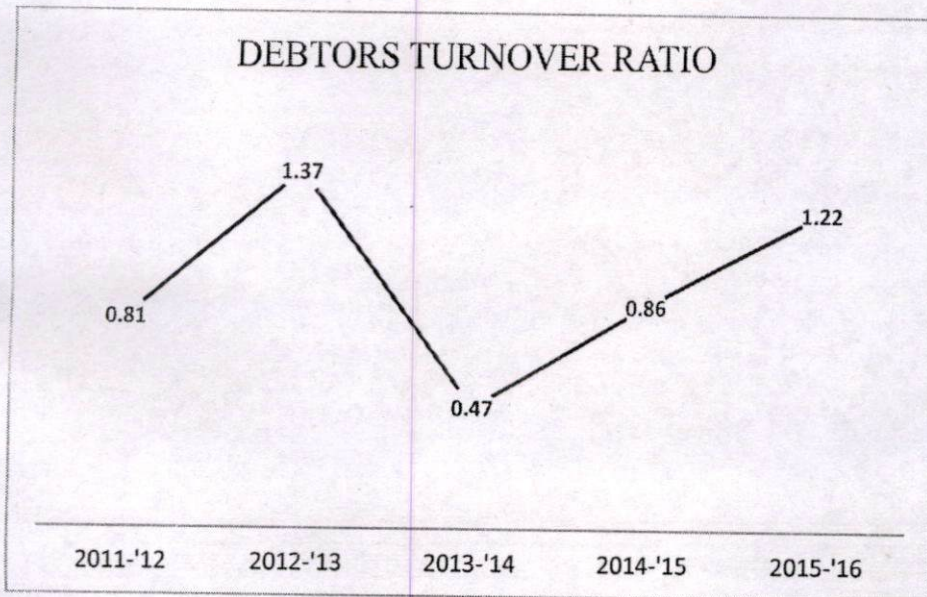
$$\text{Debtors Collection Period} = \frac{365}{\text{Debtors Turnover Ratio}}$$

Table 5.9 Debtors Turnover Ratio and Collection Period

Year	Net Sales	Average Debtors	Debtors Turnover Ratio	Collection Period
2011-'12	195420	241057.36	0.81	450
2012-'13	313212	227519.36	1.37	265
2013-'14	278942	585159.36	0.47	765
2014-'15	384960	445299.36	0.86	422
2015-'16	423456	345160.75	1.22	297

Source: compiled from annual reports of the company

Fig: 5.9 Debtors Turnover Ratio



Interpretation:

A higher debtors turnover ratio (or shorter collection period) shows the efficiency in collection from debtors i.e., debtors are collected more promptly. On the other hand, a lower turnover ratio (or longer collection period) indicates inefficiency of management in collecting debtors i.e., payments by debtors are delayed.

It looks like the firm does not possess an efficient debt collection period. It takes almost a year to realize the debtor's payments, which is not at all desirable, any scenario. Only twice in five years, the firm has recorded the ratio to over one.

The firm really need to work on the strategies to realize the debtors as a whole.

Creditors Turnover Ratio

Creditors' turnover ratio is the ratio between net credit purchase and the amount of sundry creditors. It implies the credit period enjoyed by the firm in paying creditors. It is computed by using the following formula.

$$\text{Creditors Turnover Ratio} = \frac{\text{Net Credit Purchase}}{\text{Sundry Creditors}}$$

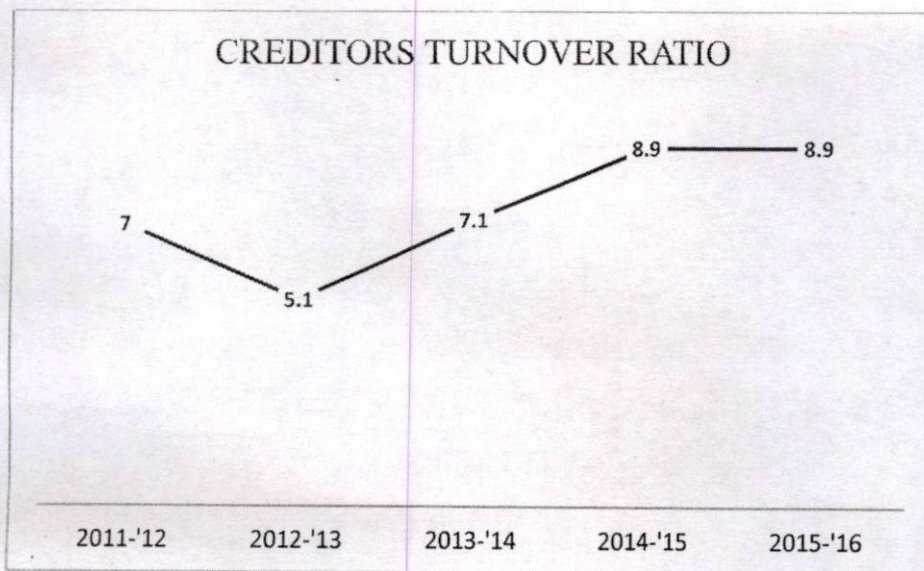
$$\text{Average payment period} = \frac{365}{\text{Creditors Turnover Ratio}}$$

Table: 5.10 Creditors Turnover Ratio and Payment Period

Year	Net Purchases	Average Creditors	Creditors Turnover Ratio	Payment Period
2011-'12	116910	16735	7.0	52
2012-'13	177786	34921	5.1	72
2013-'14	188968	26497	7.1	51
2014-'15	236057	26589	8.9	41
2015-'16	271466	30578	8.9	41

Source: compiled from annual reports of the company

Fig: 5.10 Creditors Turnover Ratio



Interpretation:

If the firm enjoys a higher turnover ratio, i.e., (lower credit period), it means early payment to creditors and firm is not taking the full advantage of credit allowed by creditors. If the turnover ratio is, lower (i.e., longer credit period), it means the payments to creditors are delayed. Thus, the creditors turnover ratio is useful to the firm and the creditors.

In 2011-12, the Creditors turnover ratio is seven that means the creditors are paid seven times in the year on an average. Alternatively, the credit enjoyed by the company is just 52 days.

The year 2013-14 recorded the highest ever payment period of 7.1 times the year. It later on worsened in 2014-15 and 2015-16 making the ratio to 8.9 and the payment of 41 days in both occasions.

It is convinced that the firm is making full advantage of the credit period donated by creditors.

Working Capital Turn over Ratio

Working capital of a concern is directly related to sales. Working capital turnover ratio indicates the velocity of the utilization of net working capital. This ratio indicates the number of times the working capital is turned over in the course of a year, which

means the efficiency with which the working capital is being used by a firm. It is calculated by dividing sales by net working capital.

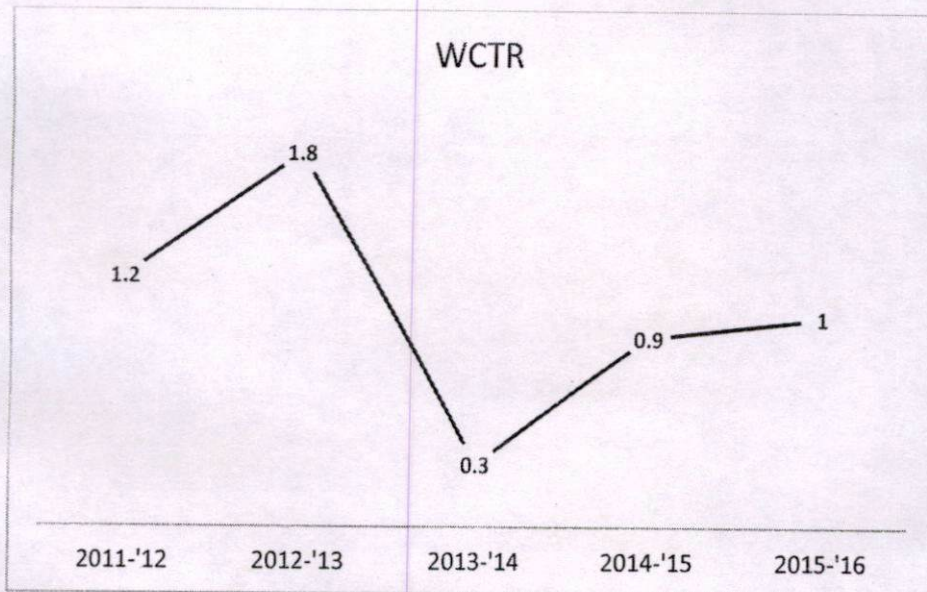
$$\text{Working Capital Turnover Ratio} = \frac{\text{Sales}}{\text{Net working capital}}$$

Table 5.11: Working Capital Turnover Ratio

Year	Net Sales	Net Working Capital	WCTR
2011-'12	195420	161256.67	1.2
2012-'13	313212	170711.58	1.83
2013-'14	278942	844864.98	0.33
2014-'15	384960	401749.75	0.95
2015-'16	423456	421548.9	1.0

Source: compiled from annual reports of the company

Fig 5.11: Working Capital Turnover Ratio



Interpretation:

Generally, higher the ratio the better is the utilization of working capital. This means a lower investment in working capital has generated more volume of sales. However, a very high ratio

indicates overtrading. This means there is inadequacy of working capital to support the increasing volume of sales. A low ratio indicates under trading i.e., working capital is not effectively utilized in generating sales.

The standard ratio is 7 or 8 times. But the firm hasn't even recorded even 2 times in any of the years. The highest ratio recorded is in 2012-13 which is 1.83. And the lowest ratio is recorded in 2013-14 which showed 0.33 .It can be concluded that the firm is not capable to utilize its available working capital..

PROFITABILITY RATIOS

Net Profit Ratio

Net profit ratio is also called as the net profit to sales. The profit margin is indicative of the management's ability to operate the business. This ratio is used to measure the overall profitability and hence it is very useful to proprietors. It is determined by dividing the net income after tax to the net sales for the period. This is an index of efficiency and profitability of the business.

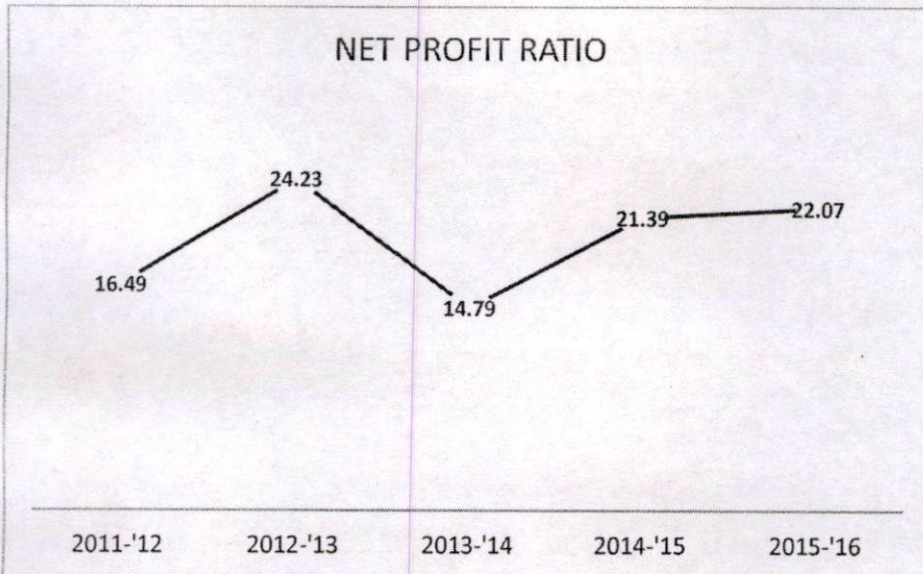
$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net sales}} * 100$$

Table 5.12 Net Profit Ratio

Year	Net Profit	Net Sales	Net Profit Ratio
2011-'12	32231	195420	16.49
2012-'13	75894	313212	24.23
2013-'14	41256	278942	14.79
2014-'15	82354	384960	21.39
2015-'16	93457	423456	22.07

Source: compiled from annual reports of the company

Fig 5.12 Net Profit Ratio



Interpretation:

The ideal Net Profit ratio is 5% to 10%. However, in order to understand the real ability of management to earn profit, this ratio should be used along with working capital turnover ratio. N/P ratio indicates efficiency as well as profitability of a business. It determines returns to the owners. This ratio indicates how much sales is left after meeting all expenses.

Higher the ratio better is the profitability. This means higher returns to shareholders.

In this case, the Net Profit ratio is greater than ten at all times. In 2011-12, it recorded 16.45, which it went to increase in 2012-13 with 24.23. It later on decreased to 14.79 but it is progressed to 21 and to 22 in 2014-15 and 2015-16 respectively. It can be revealed that the firm is a profit making organization and has been showing the sound profitability.

Gross Profit Ratio

This is the ratio of gross profit to net sales. It is usually expressed as percentage. It is computed as follows:

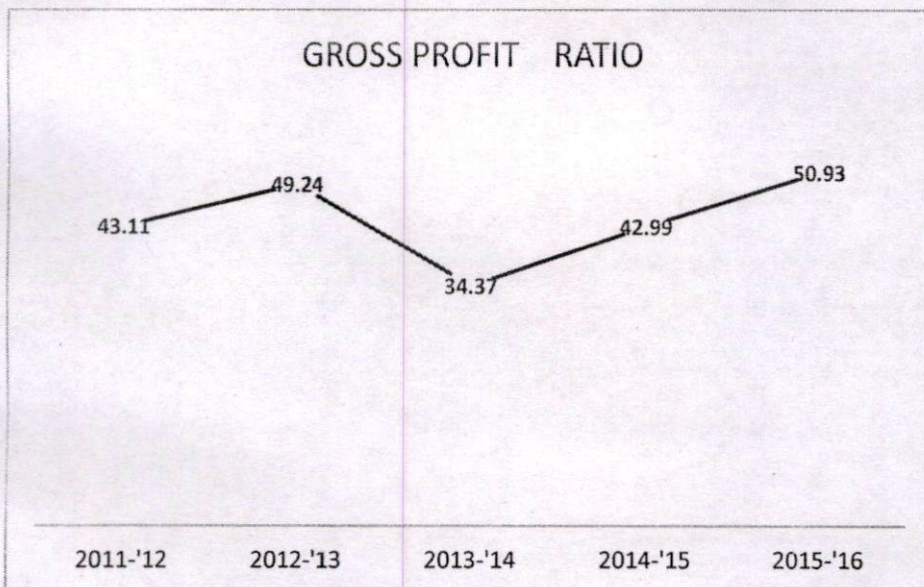
$$\text{Gross Profit Ratio} = \frac{\text{Gross profit}}{\text{Net Sales}} \times 100$$

Table: 5.13 Gross Profit Ratio

Year	Gross Profit	Net Sales	Gross Profit Ratio
2011-'12	84236	195420	43.11
2012-'13	154219	313212	49.24
2013-'14	95873	278942	34.37
2014-'15	165496	384960	42.99
2015-'16	215648	423456	50.93

Source: compiled from annual reports of the company

Fig 5.13 Gross Profit Ratio



Interpretation:

The main objective of computing this ratio is to determine the efficiency in trading or production activity. It also helps in determining the selling price.

The ideal ratio is 20% to 25%. G/P ratio indicates the efficiency of production or trading operations.

The high the G/P ratio is the sign of efficient production or purchase management. On the other hand, low G/P ratio is a danger signal.

Here in 2011-2012, the G/P ratio is more than 43% and it climbed to 49% in 2012-13. In 2013-14, it recorded 34%, which is the lowest since 2011-12. It later on progressed to 42% in 2014-15 and 50% in 2015-16. It can be concluded that for every 100 rupees of sale the firm is earning profit of more than 40 in all the five years and the cost of goods was 60 on average.

COMPARATIVE BALANCE SHEET

The analysis of comparative balance sheet is a study of the assets and liabilities and trend of the business operation on different dates. The change in balance sheet item reflects the conduct of a business. The changes can be seen by comparing the balance sheet in the beginning and at the end.

In this taking two years balance sheet and then compare the new year with that of old, taking each item in the balance sheet for comparison after find out the amount increase or decrease next procedure is that taking first year as base year and dividing the value increase/decrease with that of base year, through doing this we got the percentage value which help an analyst to take various decision very simply looking in to these percentage value.

Advantages

- The comparative balance sheet depicts the position of firm in different dates also the extent of the increase or decrease between these dates.
- The comparative balance sheet shows the position of the firm as well as it makes out travels over a period.
- Comparative balance sheet highlights the change as well as the position whereas in single balance sheet only position.

Table 5.14 Comparative Balance sheet of 2011-12

Particulars	2011	2012	Increase/Decrease	Percentage of increase/decrease
Liabilities				
Partner's Capital A/c	720040.7	762881.62	42840.92	5.9
Unsecured Loan	562497	313070	-249427	-44.3
Secured Loan	836087.54	424402.54	-411685	-49.2
Current Liabilities & Provisions				
Sundry Creditors	104947.24	97422.23	-7525.01	-7.2
Provisions	53196	101756	48560	91.3
Total Liabilities	2276768.5	1699532.39	-577236.09	-25.4
Assets				
Fixed Assets	887676.49	878764.49	-8912	-1.0
Current Assets	676292.07	820767.9	144475.83	21.4
Total Assets	1563968.6	1699532.39	135563.83	8.7

Interpretation:

- The partner's capital has increased by 5.9 % as the partners has brought in additional capital.
- Unsecured loan has decreased by 44.3%. That means the firm has paid the loan amount in 2012-13.
- Secured loan had reduced by 49.2% because of loan repayment, which ultimately helped in bringing down the total liabilities by 25.4%.
- There was small decrease in fixed assets because of depreciation written down.
- Current Assets has increased by 21.4%.

Table 5.15 Comparative Balance Sheet 2012-13

Particulars	2012	2013	Increase/Decrease	Percentage of increase/decrease
Liabilities				
Partner's Capital A/c	762881.62	163696.69	-599184.93	-78.5
Unsecured Loan	313070	819854	506784	161.9
Secured Loan	424402.54	898626.54	474224	111.7
Current Liabilities & Provisions				
Sundry Creditors	97422.23	105614.62	8192.39	8.4
Provisions	101756	45618	-56138	-55.2
Total Liabilities	1699532.4	2033409.85	333877.46	19.6
Assets				
Fixed Assets	878764.49	921942.25	43177.76	4.9
Current Assets	820767.9	1111467.6	290699.7	35.4
Total Assets	1699532.4	2033409.85	333877.46	19.6

Interpretation:

- The partner's capital account shows a steep decline of 78.5%, which is the result of drawings or further investments.
- Both secured and unsecured loan shows increase by 111 % and 161% respectively.
- Sundry Creditors has increased by 8.4%.
- Fixed assets has increased by 4.9%, which means further machineries has been installed during the year.
- Current assets has increased by over 35%.

Table 5.16 Comparative Balance Sheet 2013-14

Particulars	2013	2014	Increase/Decrease	Percentage of increase/decrease
Liabilities				
Partner's Capital A/c	163696.69	166646.69	2950	1.8
unsecured Loan	819854	819854	0	0.0
Secured Loan	898626.54	898626.54	0	0.0
Current Liabilities & Provisions				
Sundry Creditors	105614.62	105614.62	0	0.0
Provisions	45618	45618	0	0.0
Total Liabilities	2033409.9	2036359.85	2950	0.1
Assets				
Fixed Assets	921942.25	921948.25	6	0.0
Current Assets	1111467.6	1114417.6	2950	0.3
Total Assets	2033409.9	2036365.85	2956	0.1

Interpretation:

- The year 2013-14 and 2014-15 shows almost no change in liabilities and assets.
- Only Partner’s capital account shows a mere 1.8% increase.
- Another notable change were increased with current asset with 0.3%.

Table 5.17: Comparative balance sheet 2014-2015

Particulars	2014	2015	Increase/Decrease	Percentage of increase/decrease
Liabilities				
Partner's Capital A/c	166646.69	480465.53	313818.84	188.3
unsecured Loan	819854	310653	-509201	-62.1
Secured Loan	898626.54	545231.54	-353395	-39.3
Current Liabilities & Provisions				
Sundry Creditors	105614.62	102811.55	-2803.07	-2.7
Provisions	45618	166147	120529	264.2
Total Liabilities	2036359.9	1605308.62	-431051.23	-21.2
Assets				
Fixed Assets	921948.25	874320.49	-47627.76	-5.2
Current Assets	1114417.6	790988.13	-323429.47	-29.0
Total Assets	2036365.9	1665308.62	-371057.23	-18.2

Interpretation:

- The partner's capital account shows a steep increase of 188% between two balance sheet years as the partners has introduced additional capital.
- Secured and unsecured loan has been reduced by 39 % and 62 % respectively owing to repayments.
- Provisions has been increased by 264% which means additional provisons have been included.
- There has been a reduction in the fixed assets of 5 % because there has been a sale in the fixed assets during the period.
- Current assets have been decreased by 29%.

Trend Analysis

Trend analysis is the process of comparing business data over time to identify any consistent results or trends. We can then develop a strategy to respond to these trends in line with your business goals.

Trend analysis helps you understand how your business has performed and predict where current business operations and practices will take you. Done well, it will give you ideas about how you might change things to move your business in the right direction.

We can use trend analysis to help improve your business by:

- identifying areas where your business is performing well so you can duplicate success
- identifying areas where your business is underperforming
- providing evidence to inform your decision making.

We can analyse general tendencies in each item of the financial statements based on the data of the base year is called trend analysis. Under this technique, information for a number of years is taken up and one year (usually first year) is taken as the base year. Each item of the base year is taken as and on that basis the percentage for other years are calculated. Trend analysis helps in understanding the direction in which the organization is moving. The trend percentages are generally computed for major items in the percentage.

During the analysis phase, trend percentage analysis technique is used .

Steps in computation of Trend Ratios

The following steps are involved in the computation of trend ratios

1. Select a base year. Generally, the first year is taken as base year.
2. Take the figures of the base year.
3. Calculate trend percentage in relation to base year. Each year's figure is divided by the base year's figure. If the amount of the same item in the other statement is more than that in the base statement, the trend percentage would be more than 100% and if the amount is less than the base amount, the trend percentage would be less than 100%.

Table 5.18: Position of Current Asset

Year	Current Asset	Growth Index (%)
2011-12	360434.9	100
2012-13	439670.13	121
2013-14	996097.52	276
2014-15	559893.07	155
2015-16	555086.05	154

Interpretation:

- The Current assets shows an increasing trend right from 2012-13 which is extending to 2015-16.
- In 2013-14, the growth index was more than 200%. The firm has more liquidity in that period. Later in it shows the trend of more than 150 percent.

Table 5.19: Position of Current Liabilities

Year	Current Liabilities	Growth Index (%)
2011-12	199178.23	100
2012-13	268958.55	135
2013-14	151232.62	75
2014-15	158143.24	79
2015-16	133534.13	67

Interpretation:

- The current liabilities increased by to 135% in 2012-13.
- After 2012-13, the current liabilities shows a decreasing trend recording 75%, 79% and 67% in 2013-14, 2014-15 and 2015-16 respectively. It was mainly due to the repayment of short term debt obligations.

Table 5.20. Position of Working Capital

Year	Net Working Capital	Growth Index (%)
2011-12	161256.67	100
2012-13	170711.58	105
2013-14	844864.98	523
2014-15	401749.75	249
2015-16	421548.90	261

Interpretation:

- The working capital has been showing increasing trend throughout the five years.
- In 2013-14, it shows the trend of over 500 % from the base year.
- Later on, it declined to 249 % and has a slight increase by 261 % in 2015-16.
- The working capital has been piling up on all the years.

Statement of Changes in Working Capital

The net working capital of a firm is the amount by which current asset exceeds current liabilities. The magnitude of working capital is a measure of safety that exists for the protection of creditors and other short term fund providers. Any transaction that results in an increase in working capital is a source of working capital and any transaction that causes its decrease in application of working capital. Some transaction nearly changes the form of working capital without altering the amount of working capital as such; clearly such item neither constitutes a source nor use of working capital. The following are the statement of changes in working capital for the last six years:

Net working capital=Current asset- Current liability

Based on some rules the schedule of changes in working capital has to prepared.

- An increase in current asset, increase in working capital.
- A decrease in current asset, decrease in working capital.
- An increase in current liabilities, decrease in working capital.
- A decrease in current liability, increase in working capital

The various sources and the utilization of working capital are shown, by preparing schedule of changes in working capital

Table 5.21 Statement of Changes in Working Capital 2011-2012

Particulars	2011	2012	Changes in Working Capital	
			Increase	Decrease
Current Assets				
Sundry Debtors	241057.36	227519.36		-13538
Inventory	105610	135137	29527	
Cash in Hand	5374.08	1615.08		-3759
Cash at Bank	8393.46	75398.69	67005.23	
Total (a)	360434.9	439670.13		
Current Liabilities				
Sundry Creditors	97422.23	102811.55		5389.32
Provisions	101756	166147		64391
Total (b)	199178.23	268958.55		
Working Capital (a-b)	161256.67	170711.58		
Increase in WC	9454.91			9454.91
Total	170711.58	170711.58	96532.23	96532.23

Interpretation:

- There has been a decrease in the sundry debtors as the debtors were realized during the period.
- Cash in hand is decreased as cash at bank has increased as the firm has paid off their creditors and paid to bank as well.
- There has been an increase in working capital of 9454 in total.

Table 5.22 Statement of Changes in Working Capital 2012-2013

Particulars	2012	2013	Changes in Working Capital	
			Increase	Decrease
Current Assets				
Sundry Debtors	227519.36	585159.36	357640	
Inventory	135137	233550	98413	
Cash in Hand	1615.08	33941.08	32326	
Cash at Bank	75398.69	143447.16	68048.47	
Total (a)	439670.13	996097.6		
Current Liabilities				
Sundry Creditors	102811.55	105614.62		2803.07
Provisions	166147	45618	120529	
Total (b)	268958.55	151232.62		
Working Capital (a-b)	170711.58	844864.98		
Increase in WC	674153.4			674150.4
Total	844864.98	844864.98	676956.47	676953.47

Interpretation:

- Sundry Debtors has increased by more than three lakhs.
- There has been an increase in stock in hand.
- Cash in hand and Cash at bank shows an increase.
- There was a slight decrease in sundry creditors.
- Provisions has decreased by one lakh.
- The working capital shows an increase as a whole.

Table 5.23 Statement of Changes in Working Capital 2013-2014

Particulars	2013	2014	Changes in Working Capital	
			Increase	Decrease
Current Assets				
Sundry Debtors	585159.36	445299.36		139860
Inventory	233550	80000		153550
Cash in Hand	33941.08	25015.08		8926
Cash at Bank	143447.16	9578.63		133868.53
Total (a)	996097.6	559893.07		
Current Liabilities				
Sundry Creditors	105614.62	104947.24	667.38	
Provisions	45618	53196		7578
Total (b)	151232.62	158143.24		6910.62
Working Capital (a-b)	844864.98	401749.83		
Decrease in WC		443115.15	450025.77	
Total	844864.98	844864.98	450693.15	450693.15

Interpretation:

- The current assets shows a decreasing stream.
- Debtors, Inventory, Cash in hand and cash at bank shows a considerable reduction.
- Only sundry creditors has been decreased but provisions has increased.
- Because of this, the working capital has been decreased in 2014 when compared to 2013.

Table 5.24 Statement of Changes in Working Capital 2014-2015

Particulars	2014	2015	Changes in Working Capital	
			Increase	Decrease
Current Assets				
Sundry Debtors	445299.36	345160.75		100138.61
Inventory	80000	180671.31	100671.31	
Cash in Hand	25015.08	22526		2489.08
Cash at Bank	9578.63	6728		2850.63
Total (a)	559893.07	555086.06		
Current Liabilities				
Sundry Creditors	104947.24	98275.13	6672.11	
Provisions	53196	35259	17937	
Total (b)	158143.24	133534.13		
Working Capital (a-b)	401749.83	421551.93		
Increase in WC	19802.1			19802.1
Total	421551.93	421551.93	125280.42	125280.42

Interpretation:

- Sundry Debtors shows a decrease of around one lakh owing to the payments made by debtors.
- Inventories shows an increase.
- Cash in hand and cash at bank shows a decline as well.
- Sundry Creditors shows a decline as cash is paid to the creditors.
- Provisions also records a decline.

SUMMARY OF FINDINGS AND CONCLUSION

CHAPTER 6

SUMMARY OF FINDINGS AND CONCLUSION

Working capital management refers to a company's managerial accounting strategy designed to monitor and utilize the two components of working capital, current assets and current liabilities, to ensure the most financially efficient operation of the company. The primary purpose of working capital management is to make sure the company always maintains sufficient cash flow to meet its short-term operating costs and short-term debt obligations..

The study entitled ‘ A study on Working Capital Management of V.A.Treads, Palakkad’ is conducted to know whether the working capital management of V.A.Treads is efficient or not with help of balance sheet and profit & loss account for the year 2011-2016 by using relevant accounting ratios. The present study was taken with the following objectives:

Primary Objective:

- To analyze the effectiveness of Working Capital Management of V.A.Treads

Secondary Objective:

- To ascertain the liquidity position of the firm.
- To estimate the long term and short term solvency issues of the company.

The study throws light on various aspects such as the firm's working capital efficiency, financial performance, liquidity and solvency. A study on short-term solvency of the company helps in determining the financial strengths and weaknesses of the firm. The firm wants to know the improvements they can make, especially in the area of working capital efficiency, financial performance, liquidity, solvency and reducing the operating expenses.

The above objectives were ascertained by using suitable ratio analysis, comparative balance sheet, Position of Current assets, Current liabilities and Working Capital and trend analysis.

SUMMARY OF MAJOR FINDINGS:-

Following are the major findings of the study:-

- Organization's financial division is functioning very systematic and maintains the record properly.
- It was seen that the satisfactory level of current ratio is not maintained in any of the years. Either it is below the satisfactory level or it is over the satisfactory level.
- The firm has quick ratio of more than 1:1 in all the five financial years. It continues to grow from 1.3:1 in 2011-12 to 5:1 in 2013-14 and then slowly declined to 3:1 in 2014-15 and to 2.8:1 in 2015-16. So, we can realize the firm has sufficient quick assets to pay off its short term obligations in time.
- In this case, all the years except 2013-14, the absolute liquid ratio is less than 0.5. However, in the year 2013-14, the ratio becomes 1.2 for the first time. The ideal ratio is 0.5:1. That is 50% of current liability should be maintained in cash. It is not advisable at all.
- In the first two years, the working capital ratio remains the same as 0.1 in both 2011-12 as well as 2012-13. Later on in 2013-14, it showed a slight increase to 0.4 which is the highest among the five financial years. In the year 2014-15 and 2015-16, it again remained constant in 0.3.
- The analysis revealed that in 2011-12 and in 2012-13, the current asset to working capital ratio is 2.2 and 2.6 respectively. It later declined to 1.2 in 2013-14 and has been in stable rate since then .
- The ratio indicates a satisfactory position during the years 2011-12 and 2012-13. The ratio 1.2 and 1.6 times shows that the company has more amount of working capital than its current liabilities. Later on the ratio begins to fall to less than one. In the year 2013-14, depicts the lowest ever ratio with 0.2:1 and had a slight increase in the progressing years
- There's no specific agreed ratio on Current asset to fixed asset ratio,.it measures the proportion between the current assets and fixed assets the company acquires. The highest ratios is recorded in 2013-14. In 2011-12 its recorded as 0.4 and 0.5 in 2012-13. The later part of 2014-15 and 2015-16 the ratio is recorded as 0.6 and 0.8 respectively.
- In the case of inventory turnover ratio, in 2014-15 depicts the highest ever Inventory

turnover ratio as well as conversion period as 4.8 as inventory ratio and 76 days. In 2013-14, the company recorded lowest inventory turnover and conversion period of 300 days. The company has to increase its sales by liberalizing its credit policy to maintain high inventory turnover ratio or low conversion period.

- It looks like the firm does not possess an efficient debt collection period. It takes almost a year to realize the debtor's payments, which is not at all desirable, any scenario. Only twice in five years, the firm has recorded the ratio to over one.
- In 2011-12, the Creditors turnover ratio is seven that means the creditors are paid seven times in the year on an average. Alternatively, the credit enjoyed by the company is just 52 days.
- The year 2013-14 recorded the highest ever payment period of 7.1 times the year. It later on worsened in 2014-15 and 2015-16 making the ratio to 8.9 and the payment of 41 days in both occasions.
- It is convinced that the firm is not making full advantage of the credit period donated by creditors.
- In the case of working capital turnover ratio, The standard ratio is 7 or 8 times. But the firm hasn't even recorded even 2 times in any of the years. The highest ratio recorded is in 2012-13 which is 1.83. And the lowest ratio is recorded in 2013-14 which showed 0.33 .It can be concluded that the firm is not capable to utilize its available working capital..
- In analyzing the comparative balance sheet, in most of the years, current assets has been increasing.
- The Current assets shows an increasing trend right from 2012-13 which is extending to 2015-16.
- In 2013-14, the growth index of current assets were more than 200%. The firm has more liquidity in that period. Later in it shows the trend of more than 150 percent.
- The current liabilities increased by to 135% in 2012-13.
- After 2012-13, the current liabilities shows a decreasing trend recording 75%, 79% and 67% in 2013-14,2014-15 and 2015-16 respectively.
- The working capital has been showing increasing trend throughout the five years
- In 2013-14, it shows the trend of over 500 % from the base year.
- Later on, it declined to 249 % and has a slight increase by 261 % in 2015-16.

Suggestions

- The company has to keep an eye on current ratio. The optimum current ratio is not maintained in any of the years. It was either over or under optimum ratio.
- The firm has healthy quick ratio hence we can realize the firm has sufficient quick assets to pay off its short term obligations in time.
- It looks like the firm does not possess an efficient debt collection period. It takes almost a year to realize the debtor's payments, which is not at all desirable, any scenario. The firm has to establish a sound debt collection mechanism.
- The company has to increase its sales by liberalizing its credit policy to maintain high inventory turnover ratio or low conversion period.
- The company has to make full advantage of the credit period donated by creditors.
- The firm must ensure that the available working capital is utilized efficiently and effectively.
- The firm must ensure the current assets are not piling up abnormally.

Conclusion

The tyre retreading is of great possibilities in this increasing number of trucks and lorries. The operations to run smoothly, the firm needs enough working capital. The available working capital should be managed wisely and effectively in order to utilize the best out of it. The firm should be capable of managing the working capital requirements. V.A. Treads has well planned accounting methodology and has been maintaining proper books of accounts.

The study on Working Capital Management with special reference to V.A.Treads, Palakkad throws light on the efficiency of the management of the firm in working capital requirements. . The firm maintains proper books of accounts. The firm was unable to maintain current ratio. But the firm was able to pay off its short term debt obligations which is evident from the quick ratio. Overall the firm was not able to manage the working capital in the best way.

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