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CHAPTER – 1

8.1 Conceptual framework of working capital analysis

Present research dealt with the study of “Analysis of Working Capital of Cement Industry in India”, which are mainly engaged in the production of different types of cement products.

The working capital of a business enterprise can be said that the portion of its total financial resources, which is pit to a variable operative purpose. The facilities that are necessary to carry on the productive activity and represented by fixed asset investment (i.e. non-current assets investment) are to be operated by working capital. Two concepts of working capital now in vogue are found useful in the management of (i) Gross Working Capital and (ii) Net Working Capital. Gross working capital refers to the sum of current assets represented by inventories receivables cash and marketable securities. Net working capital means ‘working capital’ as the net of current assets over current liabilities. The gross working capital concept is useful to get analytical insights into profitability with reference to the management of current assets. The net working capital concept is useful to get analytical insights into profitability with reference to the management of current assets. The net working capital concept emphasizes the aspect of liquidity, drawing attention to the equity and long-term financing portion of current assets which is supposed to serve as a cushion of safety and security to current liabilities. The gross working capital concept emphasizes the use and the net concept the source.

In simple terms, working capital management may be defined as the management of current assets and the sources of their financing. It may also be defined as, Aspect of financial management, which is concerned with the safeguarding and controlling of the firms current assets and the planning for sufficient funds to pay current bills.

Working capital management is concerned with all decisions and acts that influence the size and effectiveness of working capital. It is concerned with the determination of appropriate levels of current assets and their efficient use as well as the choice of the
financing mix for raising the current resources.

The aspects of management of working capital are:

1. Determining the requirements of working capital
2. Financing the requirements of working capital;
3. Efficient utilization of requirements of working capital.

Before discussing the managerial aspects of working capital, it is proposed to present some important theoretical aspects of working capital which serve as a basis for working capital management decisions. For this purpose we make use of the four working capital propositions laid down by E.W. Walker and further elucidated by James C. Van Horne. These propositions are also termed as the principles involving risk that serve as the basis of working capital theory.

**Principle 1:**

If working capital is varied relative to fixed asset investment (also sales,), the amount of risk that a firm assumes is also varied and the opportunity for gain or loss is increased. The more the risk assumed, the greater is the opportunity for gain or loss. The opportunity for gain is increased by return on investment will be greater when there is a low proportion of current assets to total assets and a high proportion of current liabilities to total liabilities. This strategy no doubt will result in low level of working capital and greater insolvency, i.e., the inability to meet its cash obligations. Therefore, the risk involved with various levels of current assets and current liabilities must be evaluated in relation to the profitability associated with those levels.

Risk, profitability trade of, is considered by the management again in determining the appropriate level of liquidity to by holding the fixed assets constant and varying the amount of current assets. Current assets tend to fluctuate with output. Assuming that the firm initially has three current asset alternatives, the relationship between output and current levels appears as shown in the figures. There are two policies, conservative policy and aggressive policy. Under this approach a firm finances its permanent assets and also a part of temporary current assets with long term financing. It relies heavily on long term financing and is less risky so far as which fetch small returns to build up liquidity. Thus it adversely affects the profitability. In the case of aggressive policy profitability is high but the firm has lowest liquidity and correspondingly the greatest risk. Therefore, it should be the goal of management to select the level of current assets that optimizes the firm’s rate of return.
**Principle 2:**

Capital should be invested in each component of working capital as long as the equity position of the firm increases. This principle is based on the concept that each rupee invested in fixed or working capital should contribute to the net worth of the firm.

**Principle 3:**

The type of capital used to finance working capital directly affects the amount of risk that a firm assumes as well as the opportunity for gain or loss and cost of capital. There are two approaches to financing which a firm can adopt, viz., the hedging approach and margin of safety approach. If the firm follows this policy of current assets, while short-term funds are used to finance the temporary or variable portion of current assets.

Under the hedging approach, the firm’s seasonal fund requirements are financed on short-term basis and repaid during seasonal troughs as and when surplus cash is generated. Thus borrowings are resorted to only when they are needed. Under this policy, while profitability will be higher, the risk in terms of funds availability will be greater.

The margin of safety approach involves financing a portion of the firm’s expected seasonal fund requirements on long-term basis. If the expected net cash flows are realized, the debt is repaid during seasonal troughs when funds are not needed. The firm thus reduces the risk of fund availability by employing long-term funds to finance a portion of its seasonal requirements; but the profitability is also reduced on account higher costs associated with the existence of idle funds (long-term) in times of seasonal requirements.

**Principle 4:**

The greater the disparity between the maturities of a firm’s short-term debt instruments and its flow of internally generated funds, the greater the risk and vice versa. Under uncertainty, it is not possible to closely synchronies the schedule of expected net cash flow with the schedule of debt payments. The lag between expected net cash flows and payments on debt (called margin of safety) will depend upon the risk preferences of management. The shorter the maturity schedule of debt, the greater the risk that the firm will be unable to pay the debt, and the longer the maturity schedule of debt in relation to expected net cash flows, the less the risk of inability to pay the debt. However, financing is likely to be maximized by making every effort to tie debt maturities with the cash inflows internally generated funds, since in such a case, there will be not need to hold low yielding liquid assets nor to have more long term financing than is absolutely necessary.
On the whole management has to determine the liquidity of the firm on the basis of the information about risk and opportunity costs of holding liquidity. The degree of liquidity desirable is a function of the probability of insolvency at various levels of liquidity, the opportunity cost of maintaining those levels, and the cost of bankruptcy. The behavior of the management should be influenced not only by the risk and the opportunity costs associated with various levels of liquidity, but also by the cost of bankruptcy. The shareholder’s wealth (value of the firm to the owners).

Now, it is proposed to highlight the managerial aspects of working capital. Which is working capital in its totality and then in terms of each of its components, viz., inventories, receivables and cash.

8.1.1 Concept of working capital:-

There are two concepts of working capital, Gross concept and Net Concept.

Gross working capital refers to a firm’s investment in current assets. Current assets are the assets, which can be converted into cash within an accounting year and includes cash, short-term securities, debtor, B/R and inventories. In other way, it means “Total of current assets i.e. circulating capital.” The concept is also known as quantitative concept. In this concept working capital means “Gross Working Capital.”

The net concept i.e. net working capital concept refers to the difference between current assets and currents liabilities. Current liabilities are those claims of outsiders, which are expected to mature for payment within an accounting year and include creditors, bills payable, and bank overdraft within an accounting expenses. This concept gives the idea regarding sources of financing capital i.e. amount of current assets which would remain if all current liabilities are paid. It can be positive or negative (positive is net working capital and negative is deficit working capital.)

8.1.2 Adequacy of working capital

Adequacy of working capital requires:

1. It permits the carrying of inventories at a level that would enable a business to serve satisfactorily the needs of customers.
2. It enables a company to operate its business more efficiently because there is no delay in obtaining materials etc. because of credit difficulties.
3. It enables a business to withstand periods of depression smoothly i.e. business run efficiently in adverse circumstances.
4. It enables a company to extend credit to its customers.
5. Increasing price may necessitate investment in inventories and fixed assets.
6. There may be unwise dividend policy.
7. The management is not in form to manage credit for further expansion.
8. The current funds may be invested in non-current assets.
9. The management is not in a position to manage funds for meeting debentures on maturity and liabilities timely (as and when required).
10. There may be operating losses.
11. There may be decrease in profit and decrease in retained earnings.
12. To protect the organization from the adverse effect from the shrinkage in current assets.
13. It ensures to a greater extent the maintenances of company’s credit standing and provides for such emergencies as floods strikes etc.

For smoother running of a business, an adequate amount of working capital is very essential. In its absence, fixed assets cannot gainfully be employed. The business should have enough cash to meet its currently maturing obligations. To avoid interruption in production schedule and to maintain sales, a firm requires funds to finance inventories and receivables. The adequacy of cash and other current assets together with their efficient handling virtually determine the survival or demise lifeblood and the controlling nerve center of a business. Inadequate working capital is a business ailment.

If a business maintains adequate amounts of working capital it not only gets rid of the dangers of short working capital but also enjoys a good rating and receives cash discount on its payments. It can pass a period of depression without much difficulty.

8.1.3 Working capital objectives

About management of working capital there are two major implications. The decision should be constant with the objectives and goals of a firm, implementation of those decisions by the lower operating levels. Second, efficient management of one component of working capital cannot be undertaken without simultaneous consideration of other components because of a close interaction amongst it. The characteristic feature of the three basic activities of a manufacturing firm, viz., production, sales and collection, is that they are non-instantaneous and unsynchronized and determine the life span of the components of working capital. The element of uncertainty, when added to this situation. Creates a more intense need for effective working capital management.
There are two important objectives of working capital: profitability and liquidity. Financial management cannot afford to stick to only one of these objectives. There should be a proper balance between the two so that one objective does not suffer at the expense of the other.

8.1.4 Policies

Effective policies are needed to achieve the set objectives. A neat compartmentalization of the working capital policies into those relating to profitability and those relating to liquidity is difficult to attempt because in general these policies have an impact on both profitability and liquidity. But it is necessary to distinguish the policies as between profitability and liquidity objectives keeping in view their major impact.

Some of the policies relating to the profitability objective are: (a) size of current assets to total net assets (b) size of working capital for a given amount of fixed assets investment or sales (risk, return trade off is involved ) (c) Working capital financing mix and (d) working capital use (turnover). Those relating to the liquidity objective are (a) size of cash in working capital (higher cash balances) (b) granting of credit and collection (c) size of net working capital and (d) reducing risk in financing working capital., for example hedging and margin of safety approaches.

8.1.5 Planning

A large number of factors influence the working capital needs of firms. The most important of these are the nature and size of business, manufacturing cycle, business fluctuations, production policy, credit policy, credit availability, growth and expansion activities, profit margin and profit appropriation, price level changes, and operating efficiency. It is in consonance with these factors that the working capital requirements are planned. An effective device for working capital planning is the preparation of working capital forecast, the main objective of which is to secure an effective utilization of the proposed investment therein.

A working capital forecast is prepared to determine the amount of working capital required to finance a particular level of business operations. The exercise involves complicated calculations embracing every aspect of business activities. The items usually taken into consideration are:- costs to be incurred on material, wages and overheads obtained from cost records; duration for which raw materials are to remain in stock before issued for production purposes ; length of the production - sale cycles; period of credit allowed to debtors and period of credit availed from creditors; and time lag involved in the payment of
wages and overhead expenses. The budgetary approach to determining the working capital requirements involves preparations of cash budget which is an integral part of the overall budgetary process in any firm. The information required for each of the items in the cash budget has to be assembled from various functional budgets and supporting schedules. Cash budget may be prepared for any frequency (quarterly, monthly fortnightly, weekly or even daily) depending upon the efficiency of the information system used in the firm and the relevance of the frequency.

8.1.6 Organization for working Capital Management

Normally a separate organizational set-up for management of working capital in business enterprises does not exist. It is vested in the top financial Executive who looks after all the aspects of financial management of the enterprise. As Director of Finance/Financial Adviser/Adviser/ and Chief Accounts Officer, as the case may be, and also concerned with the funds forecasting, laying down suitable policies and procedures; monitoring the levels of cash, receivables and inventory; deciding about the financial mix for working capital; expenditure control by fixing limits to expenditure and deciding about the levels of authorization of expenditure; working capital control, review and preplanning; formulation of guidelines for working capital expenditures; and obtaining bank finance and other funds to need the working capital requirements. Fixation of limits of expenditure and authorization of such expenditure is essential in order to avoid recurrent problems involving ad hoc discrimination between the departments.

8.1.7 Control and Review

There are several techniques of control as regards working capital management. Some of the important techniques are ratio analysis, systems approaches as applied in the case of material management; PERT as applied in the case of operating cycle analysis, mathematical models as applied in determining economic order quantities; safety stocks and order points; discriminate analysis and decision tree approaches as applied in credit granting and collection decisions; and simulation, linear programming and goal programming techniques as applied in cash management decisions.

Some of the important ratios that are applied widely as measures of working capital control by big and small enterprises are briefly explained.
CHAPTER-2:
8.2 PROFILE OF CEMENT INDUSTRY

The cement group of companies in India plays an important role in development of the Indian economy, which is mainly engaged in manufacturing the cement products. Therefore, the brief profile of cement industry is given in this chapter which includes the introduction of cement industry that is classified as primary producers and secondary (down stream) producers, development of cement industry in India, government policy for the industry, current scenario, demand drivers including power, automobiles, and construction, packing and consumer durables, risk factors associated with cement industry, critical success factors, global perspective, recent merger & amalgamations trends and outlook which includes facts and figure about exports, import and production capital of Indian cement industry. In the last the brief introduction of selected units have been given, which included the ownership of the industry, main product, and incorporation of years.

The subject of the present study is “Analysis of Working Capital of Cement Industry in India”, which covers the period of the last nine years from 2000-01 to 2008-09. The study covers the large plants of cement group of companies. The study is based on secondary data published by the cement group of companies in their annual reports and accounts. The main objective of the study is to know the position of cement industry, Trend and liquidity Analysis, Inventory Management and control, Receivable Management, cash management, financial management and control. The chapter covers problems related to cement industry, Relevance of the study, Review of the literature, Statement of problem, Objectives of study, Hypothesis of the study, Universe of the study, Period of the study, Sampling design, Data collection method, Tools and Techniques which included Various statistical measures like mean, standard deviation, regression, index number, have been used and Chi-square trend, have been fitted, have been applied to test the validity of two hypotheses namely (1) Null hypothesis (2) Alternative hypothesis., Outline of research Study, Finally the limitations of present study have been shown.

CHAPTER-3:
8.3 Trend and liquidity Analysis

Trend analysis is used to evaluate the trends and tendencies of events. It is a guide to follow the changes that occur in a business from period to period. Trend analysis reveals the direction of changes or is a guide to the movement of facts and figures revealed while
comparing the financial statements of different period.” A series of financial statements may be analyzed by determining and studying the trend of the data shown in the statement. This method of analysis is one of the direct up words or down words and involves the % relationship that each statement items bears to the same items considering the base year. Trend % relative to the base year emphasis changes in the financial operating data from year to year and makes possible a horizontal study of data. Business is an dynamic process. It is very difficult to find out complete information about the business by way the of analyzing the financial statement. To determine the direction of business, the past data relating to the problems are studied and the trend is determined. The analysis of the trends helps to judge the future tendency of a business.

8.3.1 Meaning of Working Capital:–
A working capital trend analysis indicates the periodically changes in the individual components of working capital like current assets and current liabilities on the basis of any normal year. To analyze the trend in detail, the % of an individual item of current assets (viz. inventories, receivables and cash and bank balances) and current liabilities (viz creditors and provisions etc.) may also be calculated since the trend ratios indicates the trend of the various items of working capital. It is a dynamic study of the behavior of the items with passage of time. “A series of trend ratios shows whether an item has increased or decreased and the rate of increase or decrease does not indicate whether the movement is favourable or unfavorable.”

For the purpose of forming an opinion as to the satisfaction of the trend of a certain item, it is necessary to compare it with the trend of some related items in the working capital statement. In working capital analysis the direction of change over a period of time is of crucial importance. Working capital is one the important fields of financial management. It is, therefore, very necessary for an analyst to make a study about the trend direction of working capital. This analysis will provide a base to whether the practice and prevailing policy of the management with regard to the working capital funds. Further, any one trend by itself is not very important and therefore, an analyst should also make comparison to the related trend. To illustrate an upward trend in working capital, coupled with a downward trend in the cost of sales would usually reflect an unfavorable situation as an up word trend in working capital items such as current assets inventories, accounts receivable, cash and bank balance and other current assets, in concern with a downward trend of current liabilities would usually be viewed favourable. All such conclusions throw light on one or more aspects of the working
capital position and have to be reconciled with those from other aspects.

Trend ratios measure the trend of the various items over a period of time. It shows whether the various items have increased or decreased and the rate of increase or decrease.

8.3.2 Advantages of Trend Analysis:–
1. It furnishes a bird’s eye view of the positions.
2. The parts are presented in comparative forms.
3. The trends are shown vividly.
4. The figures are easier to interpret.
5. There is less possibility for a gross error because the resulting percentages are partially self-audited through comparison with the actual figures.

8.3.3 Disadvantages of Trend Analysis:–
1. The base year may not be normal year.
2. The ratios do not give a comprehensive view of the balance sheet relationship.
3. A change in a ratio can be interpreted only in the light of the change between two variables.

The concept of liquidity within a business is vital to the understanding of financial management as it is the basic criteria to test the short-term financial position of the enterprise. Liquidity may be defined as the ability to realize value in money the real liquid asset. It has two dimensions: - The times required converting the assets into money and risks involved the certainty of the reliable price. Liquidity refers to affirm continuous ability to meet its short-term maturing obligations. Since cash is used to meet a firm’s obligations, emphasis is given on holding large investment in current assets which include cash and ‘near cash’ items like receivables, short-term securities etc. thus, holding relatively large investment in current assets will result in no difficulty in paying the claims of the creditors and others.

According to Muraw Bahadur, “Analysis of liquidity provides the measure of the ability of the enterprise to meet its obligation. It is not sufficient that the final accounts show a profit and the balance sheet a rosy picture of financial health of the enterprise. All this will look meaning less, unless the cash available to meet obligations as and when they mature. The analysis of liquidity should therefore, be taken into consideration, the size of the components of current assets which can be readily converted into cash to meet maturing liability. The size, character and sequence of maturity of liabilities are also of significant importance & deserve due attention.” The term liquid assets are used to describe money and assets that are readily
convertible into money “Liquidity has two dimensions viz. time and risk.”

“The time dimension of liquidity concerns the speed with assets other than cash. The risk dimension raises the question of the degree of certainty about the conversion of inventories, receivable, receivable and other into cash with a little sacrifice in price as possible. It seems that all assets will have a degree of liquidity and assets that comprise cash and near cash items in most liquid assets.” The liquidity of any business results from its ability to generate cash. “The financially sound company is able to build up a reserve of cash in excess of requirement for operation. This surplus of cash is then available for the financing of expansion and for payment of debts and dividends.” The working capital of a business represents the amount of current assets which the enterprise has in excess of the claims of the current creditors and with which, therefore, it is free to work. From the statement it would appear that the greater the amount of working capital, or net current assets, the greater the degree of liquidity of the business, and so it is alleged that the amount of working capital is a measure of liquidity.

The word liquidity was used by the financial accounting standard Board (FASB) The amount of time that is expected to elapses until an asset is realized or otherwise converted into cash or until a liability has been paid”

Liquidity management therefore involves that amount of investment in the group of assets to meet short term maturing obligations-creditors and others. From the point of financing, normally a major portion of the funds required for financing current assets are obtained from long-term sources, equity and for debt, while the rest is met from short-term sources. It goes without saying that if the maturing obligations are met continuously as and when become due, creditors and others will have a feeling of confidence in the financial strength of the firm and it will sustain the credit reputation of the firm and a going firm will accordingly face difficulty in holding a particular level of current assets. But failure to meet such obligations on a continuous basis will affect the reputation, and hence credit worthiness of a firm, which will, in turn, make it more difficult to continue to finance the level of current assets from the short-term sources.

8.3.4 Measurement of liquidity and trends

Current Ratio:

\[ \text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} \]

The ratio is an indicator of the firm’s commitment to meet its short-term liabilities. Current assets mean the assets that will either be used up or converted into cash within a
year’s time or normal operating cycle of the business whichever is longer. Current liabilities means liabilities payable within a year or operating cycle, whichever is longer, out of the existing current assets or by creation of current liabilities. It is an index of the solvency of a concern. An ideal current ratio 2:1. The ratio is considered as a safe margin of solvency due to the fact that if the current assets are reduced to half i.e. one instead of two then also the creditor will be able to get their payments in full. However, a business having seasonal trading activity may show a lower current ratio at certain period of the year.

A very high current ratio is also not desirable since it means less efficient use of funds. It is because a high current ratio means excessive dependent on long-term sources of raising funds. Long-term liabilities are costlier than current liabilities and therefore, this will result in considerably lowering down the profitability of the concern.

The object of ascertaining the ratio is to measure the extent to which payment is to be made in a year. Hence, on the one hand, it is a measure of strength of the working capital positions of a concern and on the other hand it indicates the solvency of the concern.

The current ratio is the index of the concern’s financial stability since it shows the extent of the working capital, which in the amount by which current assets exceeds the current liabilities.

8.3.5 Working capital turnover (Sales/Net working capital)
A close relationship exists between sales and net working capital. With any increase in sales volume, there is a corresponding increase in the working capital. Therefore, a good amount of net working capital may be needed to support the increase in sales. The ratio helps to assess the degree of efficiency in the use of short-term funds for generating sales.

In order to test the efficiency with which working capital is utilized the working capital turnover is calculated. However, a very high turnover of working capital might indicate that the working capital is insufficient for the given volume of business. A very low working capital turnover ratio should clearly be taken to mean that the capital is not sufficient active. A high ratio indicates that management is aggressive in its use of working capital. However, an excessive high ratio indicates poor working capital management may be inadequate at present sales.

8.3.6 Net working capital to current assets (Net working capital/Current liabilities):-
It shows the financing mix that is used for financing the current assets. It also reveals the equity and long term vis-à-vis current liability financed portion of current assets. From the
liquidity angle it throws light on the equity and long-term financed asset cushion for a given amount of current liabilities.

For analyzing trend and liquidity of Cement Industry following ratios have been computed:-

2. Current assets chain indices, trends and chi-square test of significance.
5. Sales to Gross Working Capital (Sales/Gross Working Capital)
7. Gross Working Capital to Total Assets (Gross Working Capital/Total Assets)
10. Average collection period.

**Ratio: Working capital turnover (Sales/Net working capital) Industry average 11.95**

ACL= Fluctuated trend throughout the study period. The ratio is higher and the firm has to maintain it

GSCL=Highly fluctuated trend through study period except in the year of 2007-08.
Liquidity of the company will be affected since in the years of 2001-02, 2004-05, and 2004-05. There is loss and working capital fund are invested in fixed assets and capital work in progress and therefore creditors of the company are increased due to which funds are borrowed for repayment to creditors and result the interest cost will be increased and which adversely affects the liquidity of the firm.

SIL= Fluctuated trend throughout the study period except in the year of 2002-03.
The ratio is decreasing which is not good indicator to firm.

SCL= Fluctuated and negative trend during the study period.
The ratio is less than industry average all the years except in years of 2000-1 and 2003-04 and company should go according to industry average. Company is advised to increased its turnover more or reduce investment in its working capital.

The ratio is very less than industry averages all the years’ company should try to maintain liquidity position.
UCL= Decreasing trend throughout the study period except in the years of 2003-04 and 2005-06.

The ratio is lower through the study period as compared to industry average. Although there is increase in sales but the ratio is decreases due to increase in working capital therefore the company is advised to decrease its investment in working capital reducing investment in loans and advances which is major part in working capital and therefore the ratio is poor but company’s overall performance is very well.

**Current ratio (Current assets/Current liabilities)**

<table>
<thead>
<tr>
<th>Standard ratio 2:1</th>
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ACL= Increasing trend after 20020-03 year of study period.

Less than standard in all the years except in 2002-03. Therefore company is advised to improve it.

GSCL= Decreasing trend throughout the study period.

Less than standard, liquidity of the company will be affected because working capital funds are invested in fixed assets and capital work in process and therefore creditor of the company is increased due to which funds for repayment to creditors and result the interest cost will be increased.

SIL= Increasing trend after 2002-03 years.

Less than standard. Increasing trend due to decrease in current liabilities.

SCL= Decreasing trend up to 2006-07. After this period the trend increased.

Less than standard. Company is advised to maintain it. If there is excess surplus company is advised to repay its loan by reducing the investment in advances for goods due to which profitability of the company will increase and saving interest cost by repaying its loans.

SDCL=Increasing trend throughout the study period.

Less than standard in all the years. Therefore company is advised to improve it.

UCL= Decreasing trend throughout the study period.

Less than standard.

Although there is decrease in sales but the ratio is increase due to decrease in working capital. Therefore the company is advised to increase its investment in working by reducing the loans and advances which is major part of funds invested in working capital and therefore the ratio is on lower side but company’s overall performance is very well.
Liquid ratio (Liquid assets/ current liabilities)  

ACL=  Increasing trend after 2002-03.
Less than standard all the years. So company is suggested to improve it

GSCL=Decreasing trend throughout study period.
Less than standard. In it has decreased due to lower profits or losses. Working capital funds are invested in fixed and capital work in process. Therefore company is advised not to invest its liquid funds on long term assets.

SIL=  Increasing trend up to 2006-07 and then down.
More than standard. In last years it is continuously decrease due to lower profits or losses. Working capital funds are invested in fixed assets and capital work in process. Therefore company is advised not to invest its liquid funds on long term assets.

SCL=  Increasing trend during the study period.
Less than standard all the years. So company is suggested to improve it.

SDCL=Increasing trend during throughout the study period.
Less than standard therefore company is advised to increase the current assets.

UCL = Fluctuated trend throughout the study period.
Less than standard. Company is required to management the working capital properly.

Gross working capital(GWC) to total assets(GWC/Total assets )

Industry average 0.225

ACL= Ratio is less than industry average. So it is significant. The lower ratio means the funds are not blocked and therefore interest cost of company is in control.
GSCL=Ratio is more than industry average so it is insignificant. The higher ratio means the funds are blocked and therefore interest cost of company are in excess. So company is suggested to reduce it to industry average and funds available should be used for repayment of loans.

SIL= The ratio is significant and firm is suggested to maintain it. So that liquidity of the firm will not be affected.
SCL= The ratio is significant and firm is suggested to maintain it. So that liquidity of the firm will not be affected.
SDCL=Ratio is more than industry average so it is insignificant. The higher ratio means the funds are blocked and therefore interest cost of company are in excess. So company should try to reduce the volume of current assets.
UCL= The ratio is significant and firm is suggested to maintain it. So that liquidity of the firm will not be affected.

Sales to gross working capital  
industry average 11.95

ACL= Decreasing trend.

The company average is more than industry average and the firm has to maintain it.

GSCL= Decreasing trend throughout study period.

The ratio is lower throughout the study period as compare to industry average. Although there is increase in sales but the ratio is a decrease due to increase in working capital. Therefore the company is advised to decrease its investment in working capital by reducing investment in loans and advances which is major part of funds invested in working capital and therefore the ratio is poor company’s overall performance is very well.

SIL= Fluctuated trend.

The ratio is increasing which is good indicator to firm.

SCL= Highly fluctuated trend with negative ratio

The company average is less than the industry average. Therefore company is advised to increase its turnover or reduce investment in its working capital.

SDCL= Fluctuated trend.

The ratio is increasing which is good indicator to the firm.

UCL= Decreasing trend.

The ratio is lower throughout the study period as compare to industry average. Although there is increase in sales but the ratio is decrease due to increase working capital. Therefore the company is advised to decrease its investment in working capital by reducing investment in loans and advances which is major part of funds invested in working capital and therefore the ratio is on poor but company’s overall performance is very well.

Net working capital to current liabilities (NWC/Current liabilities) 

Industry average is 0.17

ACL= Increasing trend. The average ratio is more than industry average.

GSCL= Fluctuated trend. The average ratio more than industry average.

SIL= Increasing trend throughout the study period. The average ratio more than industry average. Liquidity position is good
SCL= Deceasing trend throughout the study period. The company is advised to maintain its present level.

SDCL=Increasing trend throughout the study period. Liquidity position is not good.

UCL= Fluctuated trend throughout the study period. Liquidity position is not good. The company is advised to maintain its present level.

CHAPTER-4:

8.4 Inventory management and control

Inventory management is concerned with the determination of the optimal level of investment for each component of inventory and inventory as a whole, the efficient control and review mechanism. Inventory represents a continuum of possible investments. Its different items carry with them different risk to the firm. Financial Manager ties inventory management to the overall objective of the firm. From the profitability point of view, the optimal level of average inventory and the optimal order quantity must be kept lower. Other things remaining constant, it is possible when the opportunity cost of funds invested in inventory is higher. In inventory decisions management has to take into consideration factors like inventory carrying costs, ordering costs, costs of stock-outs, the rate of return on the investment, and the cost of capital. In the case of running enterprisers, the decision in concerned also with additional returns and the net effect on the maximization of the value of the firm. While the technique of marginal analysis is found suitable in taking such decisions, the classification of costs into fixed, variable and relevant is considered essential. The decision to invest further in inventory should be based on consideration of trade between the resulting savings associated with excess investment and the total cost of holding added inventory.

Levels of inventory holding are also influenced by the operational flexibility it offers to the firm. A lower inventory level gives less flexibility while a higher inventory level gives greater flexibility. In evaluating the levels of inventories, management must therefore balance the benefits of economies of production, purchasing and increase production demand against the cost of carrying the additional inventory. Other things remaining constant, the greater the efficiency with which the firm manages inventory the lower the required investment and the greater the owner’s wealth. An important step in inventory management is the determination of investment in each component of inventory, viz, raw materials, work-in-process, finished goods and stores and spares.
8.4.1 Factors influence the level of each component of Inventory:-

A Raw Materials Inventory
1. The volume of safety stock against material shortages that interrupt production.
2. Considerations of economy in purchase.
3. The outlook for future movements in the price of materials.
4. Anticipated volume of usage and consumption.
5. The efficiency of procurement and inventory control functions.
6. The operating costs of carrying the stocks.
7. The costs and availability of funds for investment in inventory.
8. Storage capacity.
9. Re-component cycle.
10. indigenous or foreign
11. The lead-time of supply.
12. Formalities for importing.

B Working-in-process Inventory:-

1. The length of the complete production process.
2. Management policies affecting length of process time.
3. Length of process in runs.
4. Action that speed up the production process, *e.g.*, adding second or third production shifts.
5. Management’s skills in production scheduling and control.
7. Sales expectations.
8. Level of sales and new orders.
9. Price level of raw materials used, wages and other items that enter production cost and the value added in production.
10. Customer requirements.
11. Price level of raw materials used, wages and other items that enter production cost and the value added in production.
12. Customer requirements.
13. Usual period of aging.
C **Finished Goods Inventory:-**
1. The policy of the management to gear the production to meet the firm order in hand.
2. The policy to produce for anticipated orders and stock keeping.
3. Goods required or the purpose of minimum and safety stocks.
4. Sales policies of the firm,
5. need for maintaining stability in production
6. Price fluctuation for the product.
7. Durability, spoilage and obsolescence.
8. Distribution system.
9. Availability of raw material on seasonal basis while customer’s demand spread throughout the year.
10. Storage capacity.

D **Stores and Spares Inventory:-**
1. Nature of the product to be manufactured and its lead-time of manufacture.
2. State of technology involved.
3. Consumption’s patterns
4. Lead time of supply.
5. Indigenous or foreign.
6. Minimum and safety stock and ordering quantities,
7. Capacity utilization.
8. Importing formalities

8.4.2 **Some of the important inventory policies relates to –**
1. Minimum, maximum and optimum stocks;
2. safety stocks, order quantities, order levels and anticipated stocks;
3. waste, scrap spoilage and defective;
4. policies relating to alternative use;
5. policies relating to order filling;

Ratios analysis has a wider application as a measure of inventory control among most manufacturing firms.

<table>
<thead>
<tr>
<th>Ratio</th>
<th>ACL</th>
<th>GSCL</th>
<th>SIL</th>
<th>SCL</th>
<th>SDCL</th>
<th>UCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of inventory</td>
<td>Decreasing trend</td>
<td>Increasing trend throughout the study period.</td>
<td>Decreasing trend throughout the study period.</td>
<td>Fluctuated trend</td>
<td>Fluctuated trend throughout the study period.</td>
<td>Fluctuated trend throughout the study period.</td>
</tr>
</tbody>
</table>
### Conclusion and Suggestions

Decreasing size of inventory shows company’s inefficiency. Company is suggested to increase the size otherwise it affects the production cycle and sales.

### ANOVA Test at 5% Level of Significance

| Size of Raw Material Inventory | Increasing trend throughout the study period. | Fluctuated trend throughout the study period. | In the year of 2000-01 the company shows efficient management of inventory because it is near to the standard. All the years except 2000-01 company shows mismanagement in inventory. Extra inventory is kept in the year 2003-04 and there is lack of inventory management in all years except 2000-01 and 2003-04. The size of inventory is lower than the industry average. | The size of the inventory is more than industry average which shows more efficient in inventory management. | Size of inventory shows less than as compare to standards, it should be between 0.51 to 0.43 but the company shows less percentage in all the years of study and it has to improve it. The production cycle may be affected. |
| Size of the inventory shows approximatly near to standard which is below than standard. Which shows mismanagement in inventory. Extra inventory increases the carrying costs and other costs and it adversely affects the profitability. |

### Size of Raw Material Inventory

| Insignificant | Insignificant | Insignificant |
| Fluctuated trend during the study period. | Increasing trend throughout the study period. | Fluctuated trend throughout the study period. |

### Suggestions

| Industry average 0.80 |
| 0.80 |

Insignificant Size of inventory shows near to standard which is below than standard. Which shows mismanagement in inventory. Extra inventory increases the carrying costs and other costs and it adversely affects the profitability. Extra inventory is kept in the year 2003-04 and there is lack of inventory management in all years except 2000-01 and 2003-04. The size of inventory is lower than the industry average.

Fluctuated trend throughout the study period. As compared to industry average. The size should reduce otherwise carrying cost and overall cost increases and it affect overall.

Try to maintain the present level. As compared to industry average. The size should reduce otherwise carrying cost and overall cost increases.

Try to maintain the present level.
<table>
<thead>
<tr>
<th>ANOVA test at 5% level of significance</th>
<th>overall profitability.</th>
<th>profitability and it affect overall profitability</th>
<th>overall profitability.</th>
<th>profitability and it affect overall profitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of work in progress inventory.</td>
<td>Decreasing trend throughout the study period.</td>
<td>Decreasing trend throughout the study period.</td>
<td>Decreasing trend throughout the study period.</td>
<td>Decreasing trend throughout the study period.</td>
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<tr>
<td>Suggests</td>
<td>As compared to industry average the size should improve otherwise production may be affected.</td>
<td>As compared to industry average the size should improve otherwise production may be affected.</td>
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<td>As compared to industry average the size should improve otherwise production may be affected.</td>
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<tr>
<td>Size of finished goods inventory</td>
<td>Increasing trend up to 2004-05 and then decreasing trend up to last year of study period.</td>
<td>Fluctuating trend up to 2004-05 and then decreasing trend throughout the study period.</td>
<td>Fluctuating trend up to 2004-05 and then decreasing trend throughout the study period.</td>
<td>Fluctuating trend up to 2004-05 and then decreasing trend throughout the study period.</td>
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<tr>
<td>Suggests</td>
<td>Average ratio must be minimum to avoid carrying cost.</td>
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<td>Average ratio must be minimum to avoid carrying cost.</td>
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<tr>
<td>Size of stores and spare parts inventory</td>
<td>Fluctuating trend throughout the study period.</td>
<td>Increasing trend during the research period.</td>
<td>Fluctuating trend throughout the study period.</td>
<td>Fluctuating trend throughout the study period.</td>
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<tr>
<th>Suggestions</th>
<th>Maintains the industry average by controlling on fluctuations.</th>
<th>Try to Maintain the industry average by controlling on fluctuations.</th>
<th>Maintains the industry average by controlling on fluctuations.</th>
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<td>ANOVA test at 5% level of significance</td>
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<tr>
<th>Inventory turnover (Cost of goods sold/Average inventory) Suggestions</th>
<th>Increasing trend up to 2006-07 then after it went down.</th>
<th>Increasing trend during the study period.</th>
<th>Fluctuated trend during the study period.</th>
<th>Fluctuated trend during the study period.</th>
<th>Increasing trend up to 2006-07 then after it went down.</th>
</tr>
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<tr>
<td>ANOVA test at 5% level of Significance</td>
<td>Increasing trend shows efficiency of management. If ratio increases due to lower work in progress and finished goods than company is better performing due to lower stores and spare part inventory and raw material inventory than the firm is not performing better.</td>
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<thead>
<tr>
<th>Raw material holding period</th>
<th>Decreasing trend at lower rate, company is suggested to increase it otherwise production will be affected which affect the profitability.</th>
<th>Decreasing trend at lower rate, company is suggested to increase it otherwise production will be affected which affect the profitability.</th>
<th>Increasing trend average ratio is more than industry average. Therefore company is advised to maintain the present level.</th>
<th>Decreasing trend throughout the study period. Company is suggested to decrease it otherwise production cost and interest cost will be increased.</th>
<th>Fluctuated trend during the study period. Company should maintain its present level.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry average is 27 days</td>
<td>Insignificant</td>
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<td>ANOVA test at 5% level of significance</td>
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<tr>
<td>Finished goods holding period</td>
<td>Decreasing trend throughout the study period. The period should be minimum to increase the profitability so firm is suggested to reduce this period.</td>
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<td>WIP holding period</td>
<td>Fluctuating trend. This period should minimum to decrease the production cost and increase the profitability</td>
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<td>Industry average – 27 Days</td>
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<td>Decreasing trend. This showed satisfactory position of the firm.</td>
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</tbody>
</table>

Finished goods holding period:
- Industry average is 27 days
- ANOVA test at 5% level of significance
- Decreasing trend throughout the study period. The period should be minimum to increase the profitability so firm is suggested to reduce this period.
- Insignificant

Finished goods holding period (365*average stock of stores and spares consumed)
- Industry average is 27 days
- ANOVA test at 5% level of significance
- Decreasing trend throughout the study period. The period should be minimum to increase the profitability so firm is suggested to reduce this period.
- Insignificant

WIP holding period (365*average WIP stock/Cost of manufactured)
- Industry average – 27 Days
- Fluctuating trend. This period should minimum to decrease the production cost and increase the profitability
- Decreasing trend. This showed satisfactory position of the firm.
- Insignificant
ANOVA test at 5% level of significance

| ANOVA test at 5% level of significance | Insignificant | Insignificant | Insignificant | Insignificant |

CHAPTER-5:

8.5 Receivable management

Account receivable is most prominent force of the modern business. It is considered as an essential marketing tool, acting as a bridge for the movement of goods through production and distribution stages to customers finally. A firm grants trade credit to protect its sales from the competition and to attract the potential customers to buy its product at favorable term. When the firm sells its product or services and does not receive cash for it immediately, the firm is said to have granted trade credit to customers. Trade credit thus, creates receivable or book debt, which the firm is expected to collect in the near future. Receivable management or credit management deals with the formulation of credit policy, in terms of liberal or restrictive, concerning credit standard and credit period, the discount offered for early payment and the collection policy and procedures undertaken. It does so in such a way that taken together these policy variables determines an optimal level of investment in receivables where the return on that investment is maximum to the firm. The credit period extended by business firm usually ranges from 15 to 60 days. When goods are sold on credit, finished goods get converted into accounts receivable (trade debtors) in the books of the seller. In the books of the buyer, the obligation arising from credit purchase is represented as accounts payable (trade creditors). “Accounts receivable is the total of all credit extended by a firm to its customer.” Poor management of accounts receivable are: neglect of various overdue accounts, sharp rise in the bad debt expense, and the collection of debts expense and taking the discount by customers even though it has been after the discount date and even after the net date. Since accounts receivable represent a sizable investment on the part of most firms in the case of public enterprises in India it forms 16 to 20 percent of current assets. Efficient management of such accounts can provide considerable saving to the firm.
Factors involving in Receivable management:-

1. The terms of credit granted to customers deemed creditworthy.
2. The policies and practices of the firm in determining which customers are to be granted credit.
3. The paying practices of credit customers.
4. The vigor of the seller’s collection policies and practice.
5. The volume of credit sales.

8.5.1 Credit procedure

For effective management of credit, the firm should lay down clear-cut guidelines and procedures for granting credit to individual customer and collecting the individual accounts. The firm should not follow the policy of treating all customers equal for the purpose of extending credit. The credit evaluation procedure of the individual accounts should involve the following steps:

Credit information :-

In extending credit to the customers, firm would ensure that receivables are collected in full and on the due date. As discussed earlier, investment in receivables involves costs. If the firm fails to collect its receivables, there is a greater loss to the firm-loss of bad debt and cost of investment. Therefore, credit should be granted to those customers who have the ability to make payment on the due date. Collecting credit information involves expenses. The cost of collecting information should, therefore, be less than the potential profitability. In addition to cost, the time required to collect information should also be considered. The decision to grant credit cannot be delayed for long because of the time involved in collection the credit information. Depending on these two factors of time and cost, any or a combination of the following sources may be employed to collect the information.

(a) Financial statement:-

One of the easiest way to obtain information regarding the financial condition and performance of the prospective customer is to scrutinize his financial statements-balance sheet and the profit and loss account.

(b) Bank references :-

Another source of collecting credit information is the bank where the customer maintains his account. The firm should seek to obtain the information through its bank. Alternatively, the customer can be requested to instruct its banker to provide information
required by the firm. Then, the firm can approach the bank. But in India the bankers do not
give very clear answers to the enquiries made by the firm.

(c) **Trade references :-**

The firm can ask the prospective customer to give trade references. The firm may insist to
give the names of such persons or firms with whom the customer has current dealings. It is a
useful source to obtain credit information at no cost. Many times a customer can furnish misleading references. To guard
against this, the honesty and seriousness of the referee should be examined.

(d) **Credit bureau reports :-**

To get comprehensive and correct information, credit bureau organizations which
specialize in providing credit information, are employed in the advanced countries. In India
also there is urgent need for such organizations. To begin with, the various trade associations
and chambers of commerce can be developed to provide the useful credit information to its
members.

(e) **Prices and Yields on Securities :-**

For listed companies, valuable references can be derived from stock market data. Higher
price earning multiple a lower the yield on bank, other thing being equal lower will be the
credit risk.

8.5.2 **Credit investigation**

After having obtained the credit information, the firm will get an idea regarding the
matters which should be further investigated. The factors that affect the extent and nature of
credit investigation are.

(i) New or existing customers.
(ii) Business line, background and the related trade risk of customers.
(iii) Perishable or seasonal product.
(iv) Credit policies and practices of company.

The firm which is up-to-date in credit management can maintain each customer’s credit
file. A regular examination of the customer’s credit file will reveal to the firm the credit
standing of the customer. Credit investigation involves cost. But a credit decision without
adequate investigation can be more expensive in terms of excessive collection costs and
possible bad debt losses. Therefore, credit investigation should be carried so long as the
saving in terms of speedy collections and prevention of bad debt losses resulting from it
exceed its costs.

8.5.3 Credit analysis:-

In the sequence of the credit appraisal, the next step is to conduct the credit analysis of the applicant. The evaluation of the applicant’s financial conditions should be done very carefully. The applicant should be asked to provide the financial statements which will form a basis to analyses the performance and trends of the applicant’s business activities.

8.5.4 Credit limit:-

Once the firm has taken a decision to extend credit to the applicant, the amount and duration of the credit have to be decided. The decision on the magnitude of credit will depend upon the amount of contemplated sale and the customer’s financial strength. The credit line must be reviewed periodically in order to know the development in the account. If the tendencies of slow paying are found, the credit line can be revised downward. At times, a customer may ask for the amount of credit in excess of his credit line. The firm has not only to determine the amount of credit but also the duration of credit. Keeping in view the industry norm, the normal collection period should be determined.

8.5.5 Collection procedures:-

The collection procedures of the firm should be clear-cut and well-administered. The purpose of collections policy should be to speed up the collection of dues. If collections are delayed, alternative arrangement of finance to sustain production and sales will have to be made. The chances of bad debts also increase as the collection is delayed.

<table>
<thead>
<tr>
<th>Ratio</th>
<th>ACL</th>
<th>GSCL</th>
<th>SIL</th>
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<tbody>
<tr>
<td>Size of sundry debtors</td>
<td>decreasing trend</td>
<td>fluctuating trend</td>
<td>increasing trend</td>
<td>increasing trend</td>
<td>decreasing trend</td>
<td>fluctuating trend</td>
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<tr>
<td>Conclusion and suggestion-s</td>
<td>position is good</td>
<td>more than industry average and firm is suggested to reduce it</td>
<td>firm has to maintain present level</td>
<td>more than industry average and firm is suggested to reduce it</td>
<td>position is good</td>
<td>firm has to maintain present level</td>
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<td>Industry average—0.036</td>
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<td>ANOVA test 5% level of significant</td>
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### CHAPTER – 6

#### 8.6 Cash management

One of the most important areas in the day-to-day management of the firms deals with the management of working capital. Which is defined as all the short-term assets used in daily operations. It consists primarily of cash, marketable securities, accounts receivable and inventory. The balances in these accounts can be highly volatile as they respond very quickly to changes in the firm’s operating environment. A highly liquid firm has sufficient cash to pay its bills at all times. An illiquid firm is unable to pay its bills when due.

In a financial sense, the term cash refers to all money items and sources that are immediately available to help in paying firms bills. On the balance sheet, cash assets include

<table>
<thead>
<tr>
<th>Size of loans and advances</th>
<th>Conclusion</th>
<th>Suggestion</th>
<th>Industry Average - 1.70</th>
<th>ANOVA test 5% level of significance</th>
<th>Decreasing trend throughout the study period.</th>
<th>Insignificant</th>
<th>Decreasing trend throughout the study period.</th>
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<td>Insignificant</td>
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</tbody>
</table>

- **Size of loans and advances**: The size of loans and advances has been decreasing throughout the study period. The industry average is significantly lower than the firm’s average, indicating that the firm has better credit management. The ANOVA test at the 5% level of significance is significant, confirming this trend.

- **Conclusion and Suggestions**: The firm has maintained the present level of loans and advances. However, it is recommended to maintain this level to ensure financial stability.

- **Industry Average**: The industry average is 1.70.

- **ANOVA Test**: The ANOVA test at the 5% level of significance is significant, indicating a decreasing trend throughout the study period.

**Insignificant**

- **Decreasing trend**: A decreasing trend has been observed throughout the study period. The average is less than the industry average.

**Collection department is very efficient.**

- **Average is less than industry average**: Average is less than industry average.

- **Collection department is very efficient**: Collection department is very efficient.

**Insignificant**

- **Decreasing trend**: A decreasing trend has been observed during the study period. The average is less than the industry average.

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**Insignificant**

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**Collection department is not efficient.**

- **Average is more than industry average**: Average is more than industry average.

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**Insignificant**

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**Insignificant**

- **Decreasing trend**: A decreasing trend has been observed during the study period. The average is more than the industry average.

**Collection department is not efficient.**

- **Average is less than industry average**: Average is less than industry average.

- **Collection department is not efficient**: Collection department is not efficient.
deposits in financial institutions and cash equivalent in money market funds or marketable securities. All highly liquid short-term securities are treated as cash. Most government and corporate securities are treated as cash because they may be liquidated through a telephone call.

Cash is the most important current asset for the operations of the business. It is the basic input needed to keep the business running on a continuous basis. It is the money, which the firm can disburse immediately without any restriction. The term cash includes coins, currency, cheques held by the firm and balances in its bank accounts.

J.M.Keyens postulated three motives for holding cash viz- transactional motive, precautionary motive, and speculative motive. These can be said to form the basis for cash management in business enterprise. Cash Management is concerned with minimizing unproductive balances, investing temporarily cash advantageously and to making the best possible arrangement to meeting planned and unexpected demand on the firm’s cash. It involves managing of cash flows in and out of the firm i.e. cash flows within the firm and cash balances held by the firm at a point of time. Cash management must be thought of in terms of the overall liquidity needs of the firm, specifically its current assets and liabilities. In order to reduce the influence uncertainties with regard to cash needs and to ensure adequate liquidity, firms have to gauge the need for protective liquidity. The efforts involved for this purpose usually take the form of assessment of the probabilities or odds that each of these will develop within a given period in future, such as 5 years. Assessment of the probabilities and developments creating cash drains will occur at the same time.

Assessment of the likely amount of cash drain that will result if each of the contingencies develops. An important policy decision regarding cash management is: what should be the optimal amount of cash balance to consider the form impact of the following factors:

1. The philosophy of the management regarding liquidity and risk of insolvency.
2. The expected cash inflows and outflows based on the cash budget forecasts encompassing long-range and short-range cash needs.
3. The size of sales in relation to fixed asset investment.
4. The degree of deviation between the expected and actual net cash flows.
5. The maturity structure of the firm’s liabilities.
6. The firm’s ability to borrow at short notice in the event of emergency.
7. Efficient planning and control of cash.
8. The status of the firm’s receivables and inventory
9. The credit position of the firm.
10. The nature of business.

“Cash Management must aim to reduce the required level of cash but minimize the risk of being unable to discharge claims against the company as they arise.” Since cash itself is not an asset capable of causing the profit differential for the firm. “It is desirable that cash balance be minimized as much as possible, the maintenance of adequate cash balances in an obvious requirement if a firm’s solvency is to be maintained cash management consists basically of having a sufficient quantity of cash yet maintaining a balance at lowest figure adequate to meet current obligations.” Moreover, another important function which Cash Management now-a-days seeks to undertake is to maximize its profits by investing the surplus cash in some marketable securities. “The function of Cash Management, one the one hand starts when a customer writes a cheque to pay the firm on its accounts receivables, and on the other hand, ends when a supplier, an employee of the government releases collected funds from the firm on an account payable or accrual.”

There are five major approaches for effective controls are:

1. Exploitation of techniques of cash mobilization to reduce operating requirement of cash.
2. Major efforts to increase the precision and reliability of cash forecasting
3. Maximum efforts to define and quantify the liquidity reserve needs of the firm.
4. The development of explicit alternative source of liquidity.
5. Aggressive search for more productive uses for surplus money assets.

Some important ratios used as measures of cash control are discussed below: Some of the important technique of controlling cash is cash budgeting, ratio analysis, linear programming goal programming, simulation and portfolio management. Ratio analysis is widely in application. Some of the important ratios used as measures of cash control are discussed below:-

1. **Cash turnover** – The ratio explains the speed with which cash is turned over. The higher the turnover, the less the cash balances required for any given level of sales; and other things remaining constant, it implies greater efficiency. The ratio can also be use to establish the cash balances to be held; once the sales forecasts for various periods
have been made, the required cash balance can be calculated, using historical cash turnover figures. However, the ratio shows only what is happening to the cash balance without indicating the imperfections and irregularities, caused in cash flows by the income through sales, which may be partly responsible

2 **Cash as percentage of Current Assets**.-The ration of cash in current assets provides an index of current operations and, used correctly, helps determine the minimum level of cash. Monthly control of cash and its records give some indication of trends. An increasing level of cash in current assets could be caused by a reduction in the credit given by the company’s suppliers or by too high cash balance. The first may be unavoidable; the second is not. The further analysis is required to determine the cause.

<table>
<thead>
<tr>
<th>Ratio</th>
<th>ACL</th>
<th>GSCL</th>
<th>SIL</th>
<th>SCL</th>
<th>SDCL</th>
<th>UCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash as% to total assets (Cash *100/ Total assets)</td>
<td>Decreasing trend throughout the study period.</td>
<td>Decreasing trend</td>
<td>Fluctuating trend.</td>
<td>Increasing trend</td>
<td>Increasing trend</td>
<td>Decreasing trend throughout the study period.</td>
</tr>
<tr>
<td>Conclusions and suggestions</td>
<td>Ratio is equal to industry average. The company is suggested to increase it otherwise company cannot pay its creditors on time.</td>
<td>Average ratio higher than industry average. But company is suggested yet to increase the cash against the total assets.</td>
<td>Ratios are less than average they must be higher than average. Company is suggested to increase it otherwise company cannot pay its creditors on time</td>
<td>Average is more than industry average. The company has very cash position.</td>
<td>Average is more than industry average. The company has very cash position.</td>
<td>Decreasing trend throughout the study period. Average ratio higher than industry average. But company is suggested yet to increase the cash against the total assets</td>
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<tr>
<td>Industry average-0.4</td>
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<tr>
<td>Cash to net working capital conclusions and suggestions</td>
<td>Decreasing trend</td>
<td>Fluctuating trend.</td>
<td>Fluctuating trend.</td>
<td>Decreasing trend.</td>
<td>Increasing trend throughout the study period.</td>
<td>Fluctuating trend.</td>
</tr>
<tr>
<td>Industry average-0.07</td>
<td>Should maintain the present level.</td>
<td>Should go below the industry average.</td>
<td>The result is satisfactory.</td>
<td>Should go for positive result.</td>
<td>Should maintain the present level.</td>
<td>Should go below the industry average</td>
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<tr>
<td>Cash to current assets.</td>
<td>Increasing trend during the study period.</td>
<td>Fluctuating trend</td>
<td>Fluctuating trend</td>
<td>Increasing trend during the study period.</td>
<td>Increasing trend during the study period.</td>
<td>Increasing trend during the study period.</td>
</tr>
</tbody>
</table>
suggestions
Industry average is 21.39

<table>
<thead>
<tr>
<th>Suggestions</th>
<th>Should go according to industry average</th>
<th>Should go according to industry average</th>
<th>Should go according to industry average</th>
<th>The position of is satisfactory</th>
<th>The position of is satisfactory</th>
<th>The position of is satisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash to current liabilities</td>
<td>Increasing trend during the study period. The average of firm is more than the industry average.</td>
<td>Decreasing trend.</td>
<td>Fluctuating trend.</td>
<td>Fluctuating trend.</td>
<td>Fluctuating trend.</td>
<td>Fluctuating trend.</td>
</tr>
<tr>
<td>Industry average 0.28</td>
<td>Should increase to meet the current liabilities.</td>
<td>Ratio is more than industry average.</td>
<td>Ratio is less than industry average.</td>
<td>Ratio is more than industry average.</td>
<td>Ratio is less than industry average.</td>
<td>Ratio is less than industry average.</td>
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Chapter-7

8.7 Financial management of working capital

Financial working capital needs of a business enterprise are a key wherein a finance manager can play an active role. The business concern needs funds to carry on the inventories of raw materials, work-in-process and finished goods to pay of wage bills and factory overheads, to pay taxes and insurance and to provide credit facilities to customers. It may also require funds for seasonal requirements, for advertisements, campaigning and for overhauling of plant and equipment.

8.7.1 Sources of finance

1. Long term internal sources
   a) retained earning
   b) Depreciation provisions
2. Long term external sources
   a) Equity capital
   b) Debentures
   c) Long term loans from financial institutions
3. Short term internal sources
   a) Dividend provisions
   b) Tax provisions
4. Short term external sources
   a) trade credit
b) bank credit

c) commercial paper market

d) public deposit

e) miscellaneous sources (deposit from stockiest and contractors)

8.7.2 Nature of working capital

Working Capital unlike fixed assets is subject to fluctuations. It is influenced by the type, size and length of the operating cycle of a business unit. As a result the amount of working capital varies of a business unit not only in the different industries but also firm to firm. Working capital has two parts permanent and temporary. Permanent working capital refers the minimum level of current assets required all the time for minimum level operations. It consists of minimum inventories investment in raw material, work-in-process, finished goods and receivables obtained in any day of the year. Any excess over the minimum current assets is termed as temporary working capital. It increases or decreases with the change in operational activity. The permanent working capital, like the fixed assets never leaves the business and remains gainfully all the time whereas temporary working capital is occasionally unutilized all the year. However, permanent working capital, as well as temporary working capital continues circulating and changes its shapes from one to another i.e., cash to finished goods, finished goods to receivables, and receivables to cash and so on.

“The concept of permanent working capital and temporary working capital help in determining the quantum of funds to be obtained from different sources of finance. It has been emphasized by financial experts.” The permanent working capital should be financed by long term sources and temporary working capital should be financed by short term sources.

1. Net operating cash flow from operating activities of ACL was showing fluctuated trend throughout the study period. The company is advised to sustain the cash from the operating activities. The net operating cash flow of GSCL showed high fluctuation with an average of Rs. Crores 34.74. The SIL showed Satisfactory result about the Net operating cash flow from operating activities from 2002-03 to 2007-08. The SCL indicated positive trend from 2000-01 to 2007-08. Whereas SDCL manifested downward trend throughout the study period. The UCL showed increasing trend from
2000-01 to 2003-04 and then minus trend in 2004-05 afterward it showed upward trend.

2. Table No. 7.2 showed Net cash inflow/(outflow) from investment activities from 2000-01 to 2008-09. The ACL and GSCL showed negative net cash flow from investing activities which means both firms have invested huge amount in fixed assets. Whereas the SIL and SCL also showed decreasing negative trend with an average of -113.4 and -29.4. And the SDCL and UCL have also manifested bad position of net cash flow from investing activity.

3. Table No. 7.3 showed Net cash inflow/ (outflow) from financing activities from 2000-01 to 2008-09. The ACL showed average cash from financing activities is Rs. -341.95 and GSCL indicated downward trend whereas SIL also showed downward and negative trend through out the study period. SCL indicated high fluctuation with an average of Rs. 8.1 crore. The SDCL and UCL also showed high fluctuations in their trends from 20000-01 to 2008-09.

4. Table No. 7.4 showed Net cash inflow/ (outflow) due to net increase/(decrease) in cash and cash equivalents during the research period. The position of net cash flow was very good in ACL. But the position of net cash flow was not good because it was minus. The cash flow was little positive in SIL whereas cash flow was 0.75 crores in SCL. The cash flow was 9.69 Crores in SDCL. The UCL showed positive cash flow during the research period.

5. Table No. 7.5 showed opening balance of cash flow of cement companies during the research period. The highest cash opening balance was in ACL followed by SCL, SIL, UCL, SCL and SDCL. The opening balance of cash flow of below the industry average of GSCL, SCL UCL and SIL.

6. Closing balance of cash was shown in the Table No. 7.6. The in most of the companies closing balance was positive. The highest closing balance of cash was in ACL, UCL, SIL, GSCL and SCL. Whereas ACL showed Closing balance of cash more than industry average.

8.8 SUGGESTIONS:
For the betterment of the Cement Companies the humble suggestions.
1. To raise the rate of return on capital employed, the companies should try to increase the production so as to get economies of large-scale production.

2. In order to increase the profitability of the companies, it is suggested to control the cost of goods sold and operating expenses.

3. The management should try to adopt cost reduction techniques in their companies to get over this critical situation.

4. The quantum of sales generated should be improved impressively in order better to enjoy better per of the assets and capital employed.

5. For the appropriate utilization of funds, the selected group of cement companies is the capital intensive in nature but the policy of purchase of fixed assets should be carefully planned and reviewed.

6. To reduce power and fuel Cost Company should find out other alternatives.

7. The selected cement units should try to match the amount of working capital with the sales trends. Where there is a deficit of working capital, they should try to build on adequate amount of working capital. In case of an excessive working capital, it should be invested either in trade securities or should be used to repay borrowings.

8. The management should try to utilize their production capacity fully in order to reduce factory overheads and to utilize their fixed assets properly.

9. The burden of interest has produced a deteriorating effect and reduced the percentage of net profit. It is suggested that the companies should try to reduce the interest burden gradually by increasing the owner’s fund.

10. The few companies, which did not follow a definite policy of financing fixed assets, should follow such policy.

11. To strengthen the financial efficiency, long-term funds have to be used to finance core current assets and a part of temporary current assets. It is better if the companies can reduce the over sized short-term loans and advances eliminates the risk arranging finance regularly.

12. The policy of borrowed financing in selected cement group of companies under study was not proper. So the companies should use widely the borrowed funds and should try to reduce the fixed charges burden gradually by decreasing borrowed funds and by enhancing the owner’s fund. For this purpose companies should enlarge their equity share capital by issuing new equity shares.
13. For regular supply of raw materials and the final product infrastructure facilities are required further improvement.

14. Cost accounting and cost audit should be made mandatory for this units and cost sheet along with annual financing statement should be prepared.

15. The public sector enterprises set up in backward areas were not guided by commercial considerations. They were set up to fulfill the aim of balanced regional development.

16. There has been too much of government interference in policy and day-to-day working and decisions. This leads to delays in decision-making. This should be abolished.

17. There is no incentive to the employees to perform better. Also there is no accountability because no one is held responsible for a failure in achieving targets. for this kind of problem responsibility centre should be created

18. Improper planning and delays in implementation of projects lead to rise in their cost. So properly planning should be made.

19. Public sector enterprises have long enjoyed a monopolistic position. Private sector was not allowed entry. This, in the absence of any competition, means that any performance was good performance. Due to absence of competitor there was no incentive to cut down costs or improve the quality of the product.

20. There is overstaffing in public enterprises. The number of persons employed is more than what is required to run the public enterprises efficiently. This increases the cost and reduces profitability of these enterprises.

21. The cement companies should reduce power and fuel consumption by using low as content coal (imported coal), lignite, agro waste product especially ground nut husk, and beggass should be used as coal substitute.

22. To regularize and optimize the use of cash balance proper techniques may be adopted for planning and control of cash. The investments in inventories should be reduced and need to introduce a system of prompt collection of debts.

23. Selected cement companies should properly employ their operating assets and should try to minimize their non-operating expenses.

24. The government should minimize the subsidy and encourage the cement companies to tap capital market.