CHAPTER – I

THEORETICAL BACKGROUND

INTRODUCTION

Capital is the predominant factor of production. The modern business houses need huge amount of capital. Capital is also needed to meet the working capital requirements of a business enterprise. The capital requirements of a business can be broadly classified into two main categories. They are :

i) Fixed Capital Requirement.

ii) Working Capital Requirement.

Type of Capital : i) Fixed Capital.

ii) Working Capital

i) Fixed Capital :

Fixed capital means the capital which is meant for meeting the permanent or long term needs of the business. The investment in fixed capital are quite heavy and to be made immediately, but the return will be available only after a period of time.

In the words of Hoagland, "Fixed Capital is comparatively easily defined to include land, building, machinery and other assets having a relatively permanent existence".

ii) Working Capital :

The term "Working Capital" originated at a time when most industries were closely related to agriculture processors would buy crops in the fall, process them, sell the finished product, and end up just before the next harvest with relatively low inventories. Bank loans with maximum maturities of one year were used to finance both the purchase and processing costs, and these loan were retired with the proceeds from the sale of the finished goods.

As the economy became less oriented toward agriculture, the production and financing cycles of "typical" business changed. Although seasonal pattern of business till existed.

MEANING OF WORKING CAPITAL :

Working capital is that portion of the total capital, which required for daily working of the business. It is the capital with which the business carried out's it's daily operations.

The term 'working capital' stands for that part of total capital which is required for financing the current or working needs of a business enterprise. It is the finance required for day-to-day working in a business concern. Such as purchase of raw material or finished goods, payment of expenses like salary, wages, freight, rent etc. and carrying out production for investment in stock and stores, receivable (i.e. bills, promissory notes, debtors etc.), marketable securities and cash on hand or at bank etc, from the working capital of the business. Working capital is also knows as revolving or circulating capital because capital in all the forms mentioned above is changed in the ordinary course of business from one form to another i.e. Cash in converted into inventories or stock of goods, later the goods are sold.

Sale of goods created debtors and bills receivable and finally they are turned into cash. The circulating capital start with cash and ultimately results in cash.

CONCEPTS OF WORKING CAPITAL : -

The concept of working capital has been a matter of great controversy among the financial wizards and it is viewed differently by them. There are two concepts of working capital :

i) Grass working Capital.

ii) Net Working Capital

These two concepts would not be regarded as mutually exclusive. Each of the two concepts has it's relevance in specific situation.

i) Gross Working Capital:

When the term 'working capital' is used to denote the total Current Assets, it is stated as 'Gross Working Capital', Current assets means assets which can be converted into cash within a year and includes cash, short-term securities, debtors, bill receivable, stock etc.

The gross working capital concept focuses alteration on two aspects of Current Assets Management viz.

(a) Optimum investment in current assets and

(b) Financing of assets

Optimum investment refers to the investments in the working capital should be just and adequate. In other words, it should not be more or less than reasonable. Thus, the gross concept of working capital is the nature of quantitative definition that to uses attention on the levels of current assets for a given business activity.

This concept has the following advantages.

i) Financial managers are profoundly concerned with current assets.

ii) It gives a correct idea about the amount of the working capital at the right time.

iii) It enable the firm to realize the greatest return on it's investment.

iv) It enables the management to plan and control funds maximize the return on investment.

ii) Net Working Capital :

The term 'Net Working Capital' has been defined in two different ways :

(i) It is the excess of Current Assets over Current Liabilities. This is, as a matter of fact, the most commonly accepted definition. Some people define it as only the difference between Current Assets and Current Liabilities.

(ii) It is that portion of a firm's current assets which is financed by long-term funds.

The excess of current assets over current liabilities is generally using the concept. Current Liabilities refers to the claims of outsiders which are expected to mature for payment within a year and include creditors for goods supplied, bills payable, short term loans from banks and other financial institutions, bank overdraft etc.

The net concept of working capital:

(i) Indicates the liquidity position of the firm and

(ii) Suggest the extent to which working capital needs may be financed by permanent source of fund. This concept covers the issue of judicious mix of long term and short term for financing current assets. The current assets should always be more than the current liabilities. So as to provide a buffer for meeting obligation within the operating cycle of the business.

Net working capital may be positive or negative. A Positive Net working capital occurs when current assets are more than current liabilities, while Negative Net working capital arises when current liabilities are more than the current assets.

The concept of net working capital can be put in the following equation :

(Net Working capital = Current Assets – Current Liabilities).

Table 1.1 showing difference between GWC & NWC

Sr.No.	GWC	NWC
1	Gross working capital = total current assets only	NWC = CA – CL.
2	Every increase in borrowing will increase the glass corking capital under net concept, no change in working capital	Increase in Bank loan cannot increase Net working capital retained profit, sale FA will increase Net Working Capital.

3	Gross concept gives only quantitative information about the company Finance – total circulating assets	Net concept gives quantitative information about company finance indicating its net liquidity
4	It is concept popular in financial	It is in accounting system
5	It cannot reveal the true financial position of a Company	It reveal true financial position of a Company

GWC= Gross Working Capital

NWC= Net Working Capital

CA = Current Assets

CL= Current Liabilities

DEFINITIONS OF WORKING CAPITAL :

i) "Working Capital means current Assets "

- Mead, Mallet and Field.

ii) "The sum of the current assets is the working capital of business"

- J. S. Mill.

iii) "Any acquisition of funds which increased the current assets increases working capital, for they are one and the same"

- Bonneville.

iv) "Working capital is the excess of current assets over current liabilities".

Husband and Dockery.

v) "Working capital refers to a firm's investment in short term assets – cash, short term Securities, accounts receivable and inventories"

- Weston and Brigham.

vi) "Working capital is the amount of funds necessary to cover the cost of operating the enterprises.

- Shubin.

vii) "Circulating capital means current assets of a company that are changed in the ordinary course of business from one form into another as for example, from cash to inventories to receivable and receivable into Cash" - Gerstenberg.

viii) "Working capital is descriptive of that capital which is not fixed. But the more common use of the working capital is to consider it as the difference between the book value of the current assets and the current liabilities. - Hoagland.

TYPES OF WORKING CAPITAL

ON THE BASIS OF THE TIME OF TIME PERIOD :

On the basis of time or periodicity of requirement, working capital can be divided into two categories:

1) Permanent Working Capital :

Permanent working capital is that minimum amount of working capital, which is required to be kept always on hand to carry out the business activities. In other words it represents the current assets required on a continuing basis over the entire year. In the absence of this minimum amount, the circulation of the capital will be blocked. This may lead to risk of insolvency or liquidation. Tondon committee has referred to this type of working capital as a core current assets.

The following are the characteristics of this type of working capital :

(1) Amount of permanent working capital remains in the business in one form or another. This is particularly from the point of view of financing. The supplier of such working capital should not expect it's return during the life time of the firm.

(2) It also grows with the size of the business. In other words greater the size of the business greater is the amount of such working capital and vice-versa.

The permanent working capital may be sub-divided in to :

(i) Regular Working Capital and

(ii) Reserve margin or cushion working capital.

(i) Regular permanent working capital refers to the minimum amount of fund required to keep up the circulation of the capital from cash to inventories, from inventories to receivables and from receivables again to cash. This concludes sufficient minimum bank balance needed to discount all bills, maintain adequate supply of raw material etc.

(ii) Reserve margin or cushion permanent working capital is the excess over the needs or over regular working capital should be kept in reserve to meet contingencies arising at any time in future. Such contingencies includes rising prices, business depression, special operation etc.

Permanent working capital is permanently needed for the business and therefore it should be financed out of long term fund.

(2) TEMPORARY OR VARIABLE WORKING:

Temporary working capital, also knows as fluctuating working capital or variable working capital, keeps on changing from time to time depending upon the changes in production and sales. In other words, it represents additional current assets required at different times during the operating year. For example, extra inventory of finished goods or raw materials has to be maintained to support sales during peak periods and the investments in receivable may also increase during such peak periods. On the other hand, investment in raw materials work in progress and finished goods and receivable will decrease during slack periods. Thus, the extra working capital needed to support the changing production and sales activities is called temporary working capital..

Suppliers of temporary working capital can expect its return during the off season when it is not required by the firm.

Therefore, temporary working capital is generally financed from short term sources of finance such as bank credit.

Temporary working capital may be sub-divided into two categories. :

(i) Seasonal temporary working capital and

(ii) Special temporary working capital.

The working capital required to meet the seasonal requirements of the business is referred as Seasonal Working capital. Temporary working capital on the other hand, working capital required for financing special operations such as extensive marketing campaign, experiments with product or methods or production, carrying on special jobs etc. is knows as Special temporary working capital.

The diagrams given below illustrates the difference between permanent and temporary working capital. In diagram A shows, permanent working capital is fixed over a period of time, while temporary working capital is fluctuating. In diagram B, the permanent working capital is enclosing over a period of time with increase in level of business activity.

This happens in case of a growing company. Hence, the permanent W.C. line is not horizontal with the base lien as in diagram A.

Diagram A.

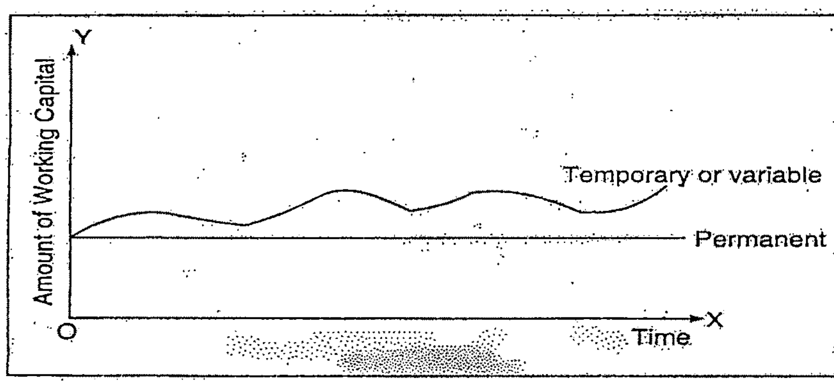
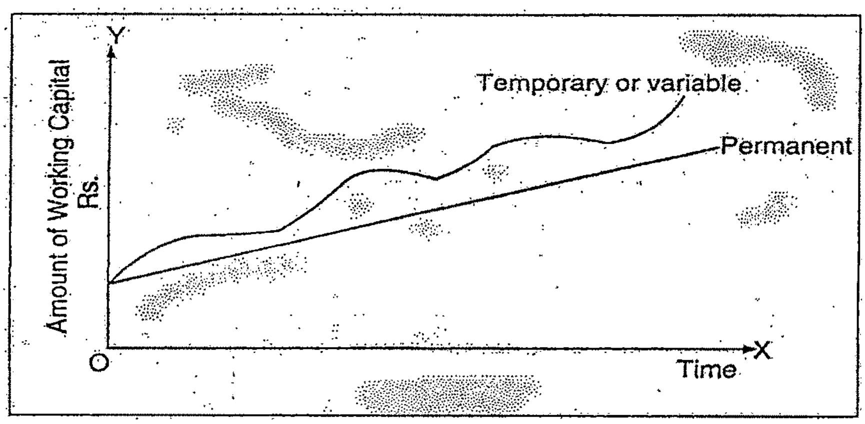


Diagram B.



SIGNIFICANCE OF WORKING CAPITAL :-

Working capital is the life – blood of business and nerves centre for all business activities. It is also regard as the heart of business. Just as sufficient supply and constant flow, circulation of blood is essential for any alive being to survive, sufficient and constant supply of working capital is necessary to survive the business. If the fixed assets in the business are to be utilized to their fullest capacity and the business operations are to result in maximum profitability, adequate and constant flow of working capital is necessary. In the absence of adequate and timely supply of working capital, the factory cannot carry out its regular operations like purchase of raw material stores, goods, etc. payment of routine expenses like, transportation charges, salaries, wages, commission, interest, rent etc. and this in turn will keep the fixed assets idle, however costly and up to date they may be. It means the price paid for purchase of fixed assets will not be an investment, out it will be a wasteful expenditure, working capital feeds the machine and keep them running.

Moreover, the existence of working capital is not only a must for the business, but it must also be in sufficient quantity. Inadequate or even redundant working capital is dangerous for the health of the business. It is said "While inadequate working capital is dangerous, redundant working capital is a criminal waste".

NEED FOR WORKING CAPITAL :

Maximization of profit is the basic objective of a profit oriented business. Financial management seeks to help in the attainment of this aim and to maximize both earning per share and share holders wealth. Sound financial management requires that firm should maintain, all times, sufficient funds to meet its obligation as and when they arise. The firm needs working capital to carry out the program of production and sale of its product, depending on its production cycle. Funds will normally be required by it for the following purposes.

1 To buy and stock necessary quantities of raw materials and stores.

2 To meet all expenses incidental to production.

3 To carry the necessary quantities of finished goods till they are sold,

4 To carry the receivable, if sales are on credit basis and

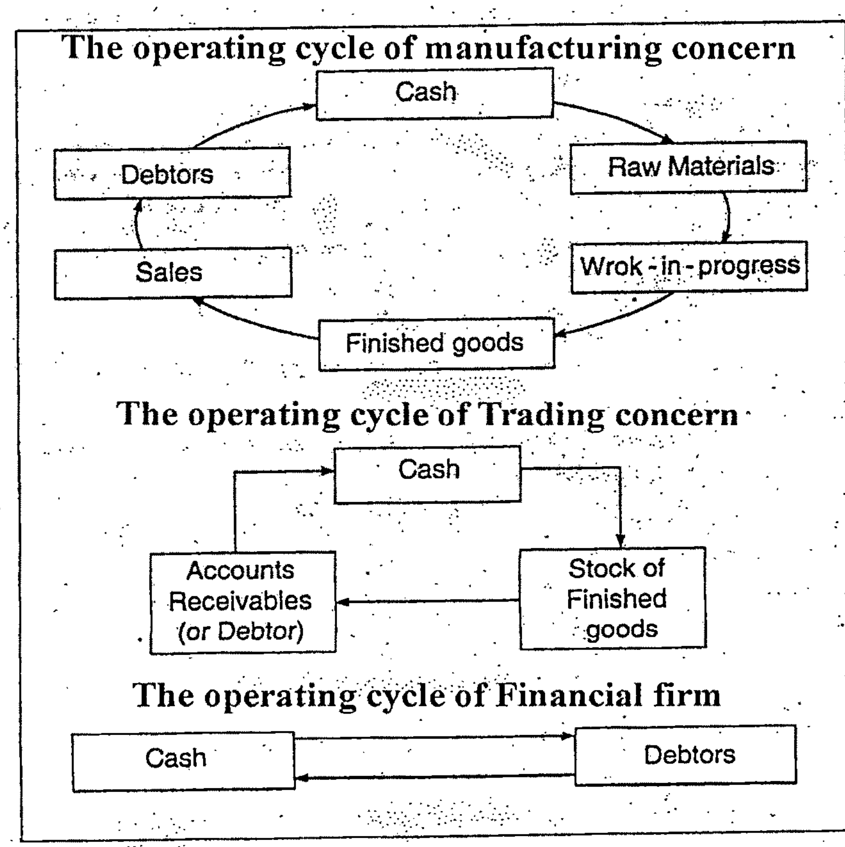
5 To make advance payment for goods and services.

Thus, the business is required to maintain an adequate amount of working capital, so as to carry on these productive and distributive activities smoothly.

OPERATING CYCLE OR WORKING CAPITAL CYCLE :

Working Capital cycle indicates the length of time between a firm's paying for raw materials entering into finished stock and receiving cash on the sale of such finished stock. There will be a complete cycle when cash gets converted into raw materials, work in progress, finished goods, debtors and finally again cash. This time is called working capital cycle. Every business requires funds for two purposes viz., for investing in fixed assets and for investing in Current Assets (i.e. working capital). Funds required for investing in Current Assets such as inventories, debtors, bills, etc. keep on changing shape and volume, for example, a business has some cash in the beginning. It may use this cash balance for making payment to the suppliers of raw materials for payment of wages and salaries and to meet overhead costs. These costs viz. cost of raw material, cost of labour and other overhead costs together would generate work-in-progress which will be converted into finished goods, on the completion of the production process. On the sale of these goods, they get converted into debtors or bill and promotes i.e., account receivables and when the debtors pay, the business will get cash. This cash will again be utilized for financing raw materials, work in progress, labour, overhead cost etc., to produce finished goods, which when sold, will be converted into debts, which will be finally converted into cash.

THE OPERATING CYCLES SHOWN IN THE FOLLOWING CHART.



CYCLICAL VARIATION

Due to the following factors arise the cyclical variation

1) Changes in production technology
2) Changes in the market demands at a time
3) Entry in the new market to the gap between demand & supply which is purely temporary in that market
4) Scarcity of material
5) Changes in the payment structure of salaries & wages due to agreement with union
6) Increase in the price of operating expenditure
7) Unexpected competition
8) Launching new advertisement campaigns.

DETERMINENTS OF WORKING CAPITAL :

A business enterprises should maintain a satisfactory level of working capital. The working capital should be neither inadequate nor excessive. 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 (such as inventory receivables, cash etc.) are to be properly balanced. The factors influencing the level of working capital needs for a firm can be categorized into two groups viz. internal and external factors.

(a) **Internal factors.**

(1) **Nature of Business :** The nature of business influences the working capital requirements of a concern to a grate extent. Public utilities like railways, electricity companies etc. need vary little working capital partly because of the 'cash nature' of their business and partly because of selling their services instead of products. No funds of blocked in receivable and inventories. On the contrary, trading concerns also need very little fixed assets. But they require large amount of working capital because of time lag involved in conversion of raw materials into finished products and finally into cash.

(2) **Size of Business:** a concern carrying on its activities on small scale needs less working capital compared to a concern carrying on its activities on a large scale. Hence the size and scale of business has direct impact on the working capital requirements.

(3) **Production policy :** A firm following uniform production policy throughout the year irrespective of seasonal variations in the market will have large inventories.

(4) **Credit Policy:** Firm which allow liberal credit to the customers will have large receivables and will require more working capital. On the other hand the firm which follow tight credit policy and have aggressive collection of accounts will require less working capital as the funds locked in receivables will be realized soon for further uses. Thus credit policy of the firm influences the working capital requirement.

(5) **Terms of Purchase and Sale:** period of credit availed from the suppliers and the period of credit granted to the customers will influence the working capital needs of the business. If the period of credit allowed by the suppliers is greater than the one given to customers the firm will require lesser working capital. One the other hand, if the period of credit allowed by the suppliers is lesser than that given to customer the firm will need more working capital as it will have to finance customers' credit out of its own resources. The length of the period of credit secured from the suppliers and given to the customers depends upon the prevailing trade practices & degree of competition involved in the line.

(6) **Growth and Expenses of Business :** Every business concern tends to grow & diversify over period of time and with the increase in its size and scale of operation the working capital requirements increase in a natural way.

(7) **Profit Margin and Dividend policy :** A high profit margin reduces the working capital requirement of the business as it contributes towards the working capital pool. It become the source of working capital. But the distribution of high proportion of profits in the from of cash dividend drains the cash resources and reduces the working capital in a significant manner. Where profit margin is high and management follows conservative dividend policy and ploughs back a bulk of profit in the business, the company's working capital position will be sound.

(8) **Access to Money Market :** A firm with readily available credit from banks and from trade suppliers on liberal terms will be able to get on with lower working capital than the firms without such facilities. Hence access to money market & trade credit affects the working capital requirements of business.

(9) **Depreciation policy :** depreciation at higher rate reduces the divisible profit and checks the outflow of cash (i.e. working capital) by way of dividend. Thus it improves the working capital position. Lower depreciation policy on the other hand reduces the working capital.

(10) **Co-ordination of Activities in business :** A perfect co-ordination of the production and distribution activities will result in lower working capital requirements. In absence of such co-ordination the working capital requirements will increase.

(11) **Operating Efficiency :** Higher operating efficiency minimizes the expenses & the costs and releases greater funds for working capital. A lower operating efficiency on the contrary results in higher casts and more pressure on working capital.

(12) **Rapidity of turn over :** There is a high degree of correlation between the speed of turn over and amount of working capital. A firm with high rate of turn over needs lower amount of working capital. For example, a grocery firm which has a high rate of turn over releases more fond as compared to a business of a jewelry shop or shop of electrical appliances.

IMPORTANCE OR ADVANTAGES OF ADEQUATE WORKING CAPITAL

Working capital is the life-blood and nerve center of every business. Just as circulation of blood is essential in the human body for maintaining life working capital is very essential for maintaining the smooth running of a business. No business can run successfully without adequate amount of working capital. The following are the advantages of maintaining adequate working capital in the business.

1. **Goodwill :** adequate working capital enables the business concern to make prompt payments to the creditors and thereby helps in creating and maintaining goodwill.
2. **Solvency of the Business Concern :** Adequate working capital helps in maintaining solvency of the business concern by providing uninterrupted flow of production.
3. **Easy loans :** If the business concern has adequate or sufficient working capital, high solvency and good credit and standing, it can get loans from banks and other financial institutions on easy and favourable terms.
4. **Regular and Prompt Supply :** Sufficient working capital enables the business concern to get its supplies of raw materials etc. regularly and promptly from its suppliers and to undertake continuous production.

5. **Cash Discounts :** Sufficient working capital enables a business concern to avail of cash discount on the purchase payments and thereby reduces costs.

6. **Regular Payment of salaries, Wages etc. :** if the business concern has sufficient working capital, it can make regular payments of salaries, wages and other day-to-day business expenses and this will raise the morale of its employees, increases their efficiency, reduces wastages and costs and thereby enhances production and profits.

7. **Ability to face Crisis or Depression :** If the business concern has adequate working capital, it will be able to face any business crisis or depression.

8. **exploitation of Favourable Market Conditions :** Business concerns which have adequate working capital are able to exploit favourable market conditions, as for example, purchasing all the requirements in bulk when prices are lower and by holding large stocks till prices rise sufficiently higher.

9. **High Morale :** Sufficient working capital creates an environment of high morale security, self – confidence, and self – respect for the business concern and improves its efficiency.

10. **Quick settle :** If the business concern has sufficient working capital, it will be able to pay quickly regularly any kind of payments such as dividend, interest, refund of investment etc.

(b) **External factors :**

(1) **Trade Cycle :** The general economic conditions prevailing in the economy also affect the working capital requirements of the business. During inflation (or economic prosperity) the general demand for goods and services tend to shout up as a result production & trade increase, requiring more working capital. On the contrary, if the economy is caught in recession, the demand for goods & services is lowered, reducing the working capital need for the business.

(2) **Technology Development :** The technological developments in the production line have their effect on the working capital requirement of the business. If the business house adopts new production technology, it may speed up the production process, minimize the wage bill & cut down working capital requirements.

(3) **Seasonal fluctuations :** seasonal nature of business affect the working capital requirements. For example umbrella, rain suits, woolen clothes are produced throughout the year and sold during specific seasons. Similarly sugar, fruit pulp, etc. are produced during few moths of the year and sold throughout the year. Such industries have to hold large inventory throughout. Hence they need more working capital compared to non seasonal industries.

(4) **Transport & Communication System :** If the means of transport & communication are inadequate the industries have to stock their

requirements. Hence they need more working capital which would otherwise not be needed if the transport & communication system are well developed.

(5) **Taxation policy :** The progressive or regressive taxation of the government imposes heavy tax burden on business enterprises and leaves very little profit for reinvestment on business. As a result working capital requirement increases. On the contrary if liberal tax policy is followed the burden on working capital is reduced.

Source of Working capital

Permanent or Fixed Working capital

- Share
- Debentures
- Public deposit
- Ploughing back of Profit
- Ploughing back of Profits
- Loans from Commercial
- Banks & other financial
- Institutions.

Temporary of variable working Capital

- Trade Creditors.
- Installment credit
- Commercial Banks
- Factoring.
- Customer Advances
- Indigenous Bankers
- Commercial Paper.
- Accrued Expenses.
- Deferred Incomes.

CONSEQUENCES OF INADEQUATE WORKING CAPITAL :

Consequences or effects of inadequate working capital can be summarized as under :

(i) It leads to shortage of raw material, which in turn results in non-utilization of full production capacity of the business concern.

(ii) Because of shortage of cash raw materials cannot be purchased in bulk quantities. This result in non-getting sufficient trade discount, in paying heavy Transport charges and other incidental charges. Similarly, loss of cash discount due to non-payment of bills of suppliers within the time limit laid down.

(iii) The management cannot avail of attractive credit opportunities due to lack of working capital funds.

(iv) The concern cannot take the advantage of favourable and profitable market due to shortage of funds.

(v) Higher rates of interest are to be given, if funds are to be borrowed. This results in fall of profits.

(vi) Govt. due cannot be paid timely.

(vii) Sales are reduced as the concern is not in a position to extend credit facilities to customers.

(viii) Wages of workers and salaries of staff members cannot be paid in time.

The terms current assets refers to assets which in the normal course of business get converted into cash without immunization in value over a short period, usually not exceeding one year.

Current liabilities are those liabilities which at the inception are required to be paid in short period, normally a year.

ELEMENTS OF WORKING CAPITAL

There are two elements of working capital

i. Current Assets

ii. Current Liabilities

Current Assets	Current Liabilities
Cash in hand	Sundry Creditors
Cash at bank	Bills Payable
Bank Balance	Bank Over Draft
Sundry debtors	Outstanding expenses
Treasury Bills	provision for income tax proposed
Prepaid expenses	dividend
Temporary investment of surplus	unclaimed dividend
fund in marketable securities	Accrued expenses such as accrued
Inventories R/m, W/p, F/q	taxes, accrued salaries, accrued
Advance an material purchase	interest short tax bank loan .
Current assets are those assets	
which can be converted into cash	
within one year	

Planning of working capital

The successful planning of working capital involves :

1) Preparation of budgeted trading, Profit & Loss account. This show the required quantum of purchase, production sales & other expenses.
2) Preparation of budgeted B/s. This shows components of assets & Liabilities This day more imp an gross & net working capital
3) Prepare of cash budget.

Cash budget is a detailed estimate for some fitter period of time of cash in total all success, cash disbursement for all purpose & the resultant cash balance

Major function of cash budget

1) determination of minimum cash balance
2) Ensuring effective borrowings
3) Profitable investment of excess cash
4) Enable acceleration of cash flow.

PROFORMA OF A TRADING CONCERN:

Statement of working capital Requirement

Items		Amount Rs
Current Assets		
i) cash		....
ii) debtors or receivables (for ...... months sales)		....
iii) stock (For ....months sales)		....
iv) advance payments, if any.		....
v) Others		....
		....
Less : current liability		
i) creditors (For .... months purchases)	....	
ii) time-lag in payments of expenses	....	
Outstanding Expenses, if any.		....
		....
ADD : provision or margin for Contingencies		....
Net Working capital Required		....

Proforma of a manufacturing concern :

Statement of working capital requirements

Items		Amount Rs.
Current Assets		
i) stock of Raw materials		....
ii) Work-in-process (For.....months)		....
a)Raw Materials	....	
b)direct Labour	....	
c)Overheads	....	
iii) Stock of finished Goods		
(For...... months sales)		....
a)Raw Materials	....	
b)direct Labour	....	
c)Overheads	....	
iv) Sundry Debtors or receivable (for .... Month sales)		....
v) Payments in advance, if any.		....
vi) Balance in Cash (required to meet day-to-day expenses)		....
vii) Any other items (if any).		....
		....
Lees : Current liabilities		
i) Creditors (for .... Months purchase of raw materials)	....	
ii) Time lag in payments of expenses (outstanding expenses .... Months)	....	
iii) Others , IF any		
		....
Working capital (current assets – current liabilities)		....
Add: provision/ margin for contingencies		
Net working capital required		....

CONTROL OF WORKING CAPITAL

Working capital is the life blood of business and nerve-center for all business activities. It is also regard as the heart of business and has great importance for the smooth running of the business . A study of the causes of changes in the uses and sources of working capital is essential in order to find out whether the working capital is serving the purpose for which it has been raised.

The following techniques are used for controlling working capital

A) RATIO ANALYSIS

The term ratio refers "one number expressed in terms of another". Ratio is a mathematical expression of the relationship between two or more numbers. Ratio analysis serves as an aid to management in the analysis and interpretation of financial statement. The needs for Ratio analysis are as follows.

1) To diagnose the financial health of business concern.
2) To establish relationship between various related items of financial statements.
3) To control cost for improving profitability of the firm.
4) To measure efficiency of an organisation.
5) To facilitate inter firm comparison.

The most important ratio for determining the trend of working capital in the firms over periods of year are as follows

1) Current Ratio : The current ratio measures the ability of the company to pay off its short term debts. It reveals how efficiently a firm can meet any sudden demand from the short term funds to meet any emergency payment.

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

2) Acid Test Ratio : Acid test ratio is better test of financial strength than the current ratio. An acid test ratio of 1:1indicates better solvent position of a firm

$$\text{Acid test Ratio} = \frac{\text{Liquid assets}}{\text{Current liability}}$$

3) Super Quick Ratio : It is most vigorous measure of liquidity position of a firm. It discloses real liquidity position of a firm

$$\text{Super quick Ratio} = \frac{\text{Cash}}{\text{Current liability}}$$

4) Inventory turnover Ratio : This ratio indicates whether investment in inventory is efficiently used or not. It signifies the liquidity of inventory. A higher ratio indicates brisk in sales.

$$\text{Inventory turnover Ratio} = \frac{\text{Sales}}{\text{Average Inventory}}$$

5) Debtors Turnover Ratio : Sales to account receivables Ratio indicates the efficiency of the staff entrusted with collection of book debts.

$$\text{Debtors turnover Ratio} = \frac{\text{Sales}}{\text{Receivable}}$$

6) **Average Collection Period Ratio** : The ratio indicates the extend to which debts have been collected in time. It measure the quality of debtors since it measures the rapidity or slowness with which the money is collected from them.

$$\text{Average collection period ratio} = \frac{\text{Months in a year}}{\text{Debtors turnover Ratio}}$$

7) **Creditors Turn Over Ratio** :This ratio indicates the speed with which the payment for purchases are made to the creditors.

$$\text{Creditors turn over ratio} = \frac{\text{Purchases}}{\text{Payables}}$$

8) **Average Payable Period Ratio** : The ratio gives the average credit period enjoyed from the creditors. The low debts payment period signify that creditors are paid promptly.

$$\text{Average payable Period Ratio} = \frac{\text{Months in a year}}{\text{Creditors turn over ratio}}$$

9) **Working Capital Turn Over Ratio :** This ratio indicates whether or not working capital has been effectively utilized in making sales . Higher ratio indicates higher operating efficiency of a firm.

$$\text{Working capital turn over ratio} = \frac{\text{Sales}}{\text{Working capital}}$$

10) **Gross Profit To Working Capital Ratio** = This ratio depicts the extend to which working capital contribute towards making gross profits.

$$\text{Gross profit to working capital Ratio} = \frac{\text{Gross profit}}{\text{working capital}}$$

B) FUNDS FLOWS ANALYSIS OF WORKING CAPITAL:

Funds flow analysis is the study of the sources of funds and the application of these funds in the business. This analysis indicates how the funds have been raised and how they have been employed in the business. By the use of this analysis, changes in the working capital between two dates can be easily analyzed by studying the changes in each type of current assets and current liabilities as well as the sources from which the working capital has been procured.

3) BUDGETARY ANALYSIS :

Efficient working capital management is concerned with the careful estimate of the future requirements and the formulation of plans to meet them. For this purpose, working capital budget as a part of the total budgeting process is prepared therein the future long term and short term working capital requirement as well as the sources to finance them. The aim of preparing budget is to secure the proper utilisation of the investment. At the end of budget period, the budgeted figers and the actual figures can be compared and studied using different ratio standards. The utilisation of the investment can be studied by the rate of turnover as measured against sales or cost of goods. The analysis is found desirable to define the relationship and establish separate standards for each component of working capital. Such analysis provides the necessary information for any volume of business.

It may be concluded that the working capital analysis is necessary for effective working capital management has to keep a close watch on the changes in different ratio and funds-flow position in order to initiate necessary corrective actions effectively and speedily.

WORKING CAPITAL POLICY :

Two important issues in working capital policy are :

- What should be the level of investment in current assets ?
- What mix of long-term financing and short-term financing should the firm employ to support current assets ?

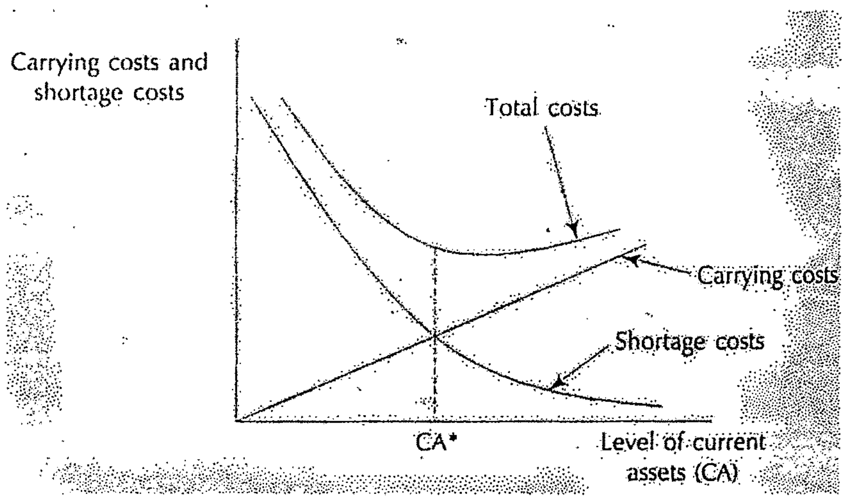
Level of Current Assets

Under a flexible policy (also referred to as a 'conservative policy'), the investment in current assets is high. This means that the firm maintains a huge balance of cash and marketable securities, carries large amounts of inventories, and grants generous terms of credit to customers, which leads to a high level of debtors. Under a restrictive policy (also referred to as an 'aggressive policy'), the investment in current assets is low. This means that the firm keeps a small balance of cash and marketable securities, manages with small amounts of inventories, and offers stiff terms of credit, which leads to a low level of debtors.

What are the consequences of flexible and restrictive policies? Very broadly, a flexible policy results in fewer production stoppages (on account of inventory shortages), ensures quick deliveries to customers, and stimulates sales because liberal credit is granted to customers. Of course, these benefits come at the cost of higher investment in current assets. A restrictive current assets policy, on the other hand, may lead to frequent production stoppages, delayed deliveries to customers, and loss of sales. These are the costs that the firm may have to bear to keep its investment in current assets low.

Determining the optimal level of current assets involves a trade off between costs that rise with current assets and costs that fall with current assets. The former are referred to as carrying costs and the latter as shortage costs. Carrying costs are mainly in the nature of the cost of financing a higher level of current assets. Shortage costs are mainly in the form of disruption in production schedule, loss of sales, and loss of customer goodwill. Below shows graphically how these costs behave in relation to the level of current assets. The optimal level of current assets is denoted by Current Assets, as the costs (the sum of carrying costs and shortage costs) are minimized at that level. Often the total cost curve is fairly flat around the optimal level. Hence, it may be difficult to precisely identify the optimal level. You must be satisfied if the level of current assets is in a range close to the optimal point.

Exhibit 16.3 Carrying Cost and Shortage Costs



CA=CURRENT ASSETS

Current Assets Financing Policy

After establishing the level of current assets, the firm must determiner how these should be financed. What mix of long-term capital and short-term debt should the firm employ to support its current assets ?

Graphically below depicts how total assets-and hence the capital requirements-change over time for a growing firm. For the sake of simplicity, assets are divided into two classes, viz. **fixed assets** and **current assets.** Fixed assets are assumed to grow at a constant rate which reflects the secular rate of growth in sales. Current assets, too, are expected to display the same long-term rate of growth; however, they exhibit substantial variation around the trend line, thanks to seasonal (or even cyclical) patterns in sales and /or purchases.

The investment in current assets may be broken into two parts: **permanent current assets and temporary current assets.** The former represents what the firm requires even at the bottom of its sales cycle; the latter reflects a variable component that moves in line with seasonal fluctuations.

Several strategies are available to a firm for financing its capital requirements. Three strategies are illustrated by lines A, B, and C in graphically below.

Strategy A: Long-term financing is used to meet fixed asset Requirements as well as peak working capital requirement. When the working capital requirement is less than its peak level, the surplus is invested in liquid assets (cash and marketable securities).

Strategy B: Long-term financing is used to meet fixed assets requirement, permanent working capital requirements, during seasonal upswings, short-term financing is used; during seasonal downswings, surplus is invested in liquid assets.

Strategy C: Long-term financing is used to meet fixed asset requirement and permanent working capital requirement. Short-term financing is used to meet fluctuating working capital requirement.

Capital Requirements and Their Financing