# WORKING CAPITAL MANAGEMENT

**SIXTH SEM BBA**

**2017 ADMISSION**

# CALICUT UNIVERSITY

# CPA COLLEGE OF GLOBAL STUDIES

**Finance Specialization BACHELOR OF BUSINESS ADMINISTRATION**
**BBVI B15 WORKING CAPITAL MANAGEMENT**
**Time: 5 Hours per week Credits: 4**
**Objectives:**

• To understand the need for and importance of adequate working capital, and,
• To gain in-depth knowledge to manage working capital of SMEs.

**Module I**

Working capital: Concepts, Need for and components of working capital; Kinds of working capital; Determinants of working capital; Estimation of working capital requirements.

**Module II**

Working capital cycle; Working capital theories and approaches; Determining the financial mix; Financing of working capital; Sources of working capital.

**Module III**

Cash management- facets of cash management; Cash conservation; Cash forecasting and budgeting; Managing cash flows; methods of accelerating cash flows; Methods of slowing cash outflows; Cash management models- Baumol Model, Beranetk Model, Miller-Orr Model, Stone Model; Determining optimum cash balances; Investment in marketable securities; Types of marketable securities and criteria for selection of securities for short term investment.

**Module IV**

Receivables management: Determining appropriate receivable policy; Credit selection models; Formulation of suitable credit and collection policies; Collection techniques

**Module V**

Inventory management: Need, objectives and techniques of inventory management. Determining optimum order quantity- EOQ approach; Safety stocks, Selective inventory controls; Role of Finance Manager in inventory management. Valuation of inventory.

References:

1. Bhalla, V.K.: Working Capital Management: Text and Cases, Anmol, Delhi 2001.
2. Chandra, Prasanna: Financial Management, Tata McGraw Hill, New Delhi 2005.

3. Scherr, F.C.: Modern Working Capital Management, Prentice Hall, 1989. 4. Hampton, J.J. and C.L.Wagner: Working Capital Management, John Wiley & Sons, 1989.

## SIXTH SEM BBA

## MODULE-I WORKING CAPITAL

- Working Capital Concept
- Need for and components of Working Capital
- Kinds of Working Capital
- Determinants of Working Capital
- Estimation of Working Capital requirements

### INTRODUCTION

The term working capital is commonly used for the capital required for day-to day working in a business concern, such as for purchasing raw material, for meeting day-to-day expenditure on salaries, wages, rents rates, advertising etc.

### DEFINITION

―The sum of the current assets is the working capital of the business‖ ―J.S.Mill

Working capital is defined as ―the excess of current assets over current liabilities and provisions‖. But as per accounting terminology, it is difference between the inflow and outflow of funds.

Working capital has been described as the ―life blood of any business which is apt because it constitutes a cyclically flowing stream through the business‖

### CONCEPTS OF WORKING CAPITAL

There are two concepts of working capital viz. quantitative and qualitative. Some people also define the two concepts as gross concept and net concept. According

to quantitative concept, the amount of working capital refers to _total of current assets‘. Current assets are considered to be gross working capital in this concept.

**STRUCTURE OF WORKING CAPITAL**

| Current Liabilities | Current Assets |
|---|---|
| Bank Overdraft | Cash and Bank Balance |
| Creditors | Inventories: Raw-Materials Work-in progress Finished Goods |
| Outstanding Expenses | Spare Parts |
| Bills Payable | Accounts Receivables |

| Short-term Loans | Bills Receivables |
|---|---|
| Proposed Dividends | Accrued Income |
| Provision for Taxation, etc | Prepaid Expenses Short-term Investments |

**CIRCULATION OF WORKING CAPITAL**

—The working capital plays the same role in the business as the role of heart in human body. Working capital funds are generated and these funds are circulated in the business.

1. Gross Working Capital: It refers to the firm‘s investment in total current or circulating assets.
2. 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. ii. It is that portion of a firm‘s current assets which is financed by long-term funds

**3.** Permanent Working Capital: This refers to that minimum amount of investment in all current assets which is required at all times to carry out minimum level of business activities.

**Kinds of Working Capital**

a) Concept based working capital

b) Time based working capita

l c) Classification on the basis of financial reports.

**CONCEPT BASED WORKING CAPITAL**

1. Gross Working Capital

   Gross Working Capital: It refers to the firm‘s investment in total current or circulating assets.

2. Net Working Capital

   It is the excess of current assets over current liabilities

3. Negative Working Capital

   This situation occurs when the current liabilities exceed the current assets. It is an indication of crisis to the firm.

**TIME BASED WORKING CAPITAL**

1. Permanent or Fixed Working Capital
   (a) Regular Working Capital
   (b) Reserve Working Capital

2. Temporary or Variable Working Capital

(a) Seasonal Working Capital

(b) Special Working Capital

1. Permanent Working Capital: This refers to that minimum amount of investment in all current assets which is required at all times to carry out minimum level of business activities. In other words, it represents the current assets required on a continuing basis over the entire year. Tandon Committee has referred to this type of working capital as ―Core current assets‖.

2. Temporary Working Capital: The amount of such working capital keeps on fluctuating from time to time on the basis of business activities. In other words, it represents additional current assets required at different times during the operating year. For example, extra inventory has to be maintained to support sales during peak sales period

3.Classification on the basis of financial reports

(i) Cash Working Capital – This is calculated from the information contained in profit and loss account. This concept of working capital has assumed a great significance in recent years as it shows the adequacy of cash flow in business. It is based on ‗Operating Cycle Concept‘.

(ii) Balance Sheet Working Capital – The data for Balance Sheet Working Capital is collected from the balance sheet. On this basis the Working Capital can also be divided in three more types, viz., gross Working Capital, net Working Capital and Working Capital deficit.

**NEEDS OF WORKING CAPITAL**

The adequacy of cash and current assets together with their efficient handling virtually determines the survival or demise of a concern. An enterprise should maintain adequate working capital for its smooth functioning.

**DETERMINANTS OF WORKING CAPITAL**

The factors influencing the working capital decisions of a firm may be classified as two groups, such as internal factors and external factors.

I. Internal Factors

1. Nature and size of the business
2. Firm‘s production cycle
3. Firm‘s credit policy

4. Availability of credit
5. Growth and expansion of business
6. Profit margin and dividend policy
7. Operating efficiency of the firm
8. Co-ordinating activities in firm

II External Factors

1. Business fluctuations
2. Changes in the technology
3. Import policy
4. Infrastructural facilities
5. Taxation policy
6. Environmental policy

## MEASUREMENT OF WORKING CAPITAL

There are 3 methods for assessing the working capital requirement as explained below

a) Percent of Sales Method

Based on the past experience, some percentage of sale may be taken for determining the quantum of working capital

b) Regression Analysis Method

The relationship between sales and working capital and its various components may be plotted on Scatter diagram and the average percentage of past 5 years may be ascertained.

c) Operating Cycle Method

## IMPORTANCE OR ADVANTAGES OF ADEQUATE WORKING CAPITAL

The main advantages of maintaining adequate amount of working capital are as follows:

1. Solvency of the business
2. Goodwil
3. Easy loans
4. Cash discounts
5. Regular supply of raw materials
6. Regular payment of salaries
7. Exploitation of favourable market conditions
8. It Increases profitability of business

## DANGERS OF EXCESSIVE WORKING CAPITAL

1. Excessive Working Capital means ideal funds which earn no profits for the business and hence the business cannot earn a proper rate of return on its investments.
2. When there is a redundant working capital, it may lead to unnecessary purchasing and accumulation of inventories causing more chances of theft, waste and losses.
3. Excessive working capital implies excessive debtors and defective credit policy which may cause higher incidence of bad debts.
4. It may result into overall inefficiency in the organization.
5. Due to low rate of return on investments, the value of shares may also fall.
6. The redundant working capital gives rise to speculative transactions.

## DANGERS OF DEFICIENCY OF WORKING CAPITAL

1. A concern which has inadequate working capital cannot pay its short term liabilities in time. Thus, it will lose its reputation and shall not be able to get good credit facilities.

2. It cannot buy its requirements in bulk and cannot avail of discounts, etc. 3. It becomes difficult for the firm to exploit favourable market conditions and undertake profitable projects due to lack of working capital. 4. The firm

cannot pay day-to-day expenses of its operations and its creates inefficiencies, increases costs and reduces the profits of the business.

5. It becomes impossible to utilize efficiently the fixed assets due to non availability of liquid funds.
6. The rate of return on investments also falls with the shortage of working capital.

## MODULE II

## WORKING CAPITAL CYCLE

Working Capital Cycle is also known as Operating cycle. Operating cycle is the total time gap between the purchase of raw material and the receipt from Debtors. The working capital estimation as per the method of operating cycle, is the most systematic and logical approach

The sum total of these times is called an "Operating cycle" and it consists of the following six steps:

i. Conversion of cash into raw materials.

ii. Conversion of raw materials into work-in-process.

iii. Conversion of work-in-process into finished products. iv. Time for sale of finished goods—cash sales and credit sales.

v. Time for realization from debtors and Bills receivables into cash.

vi. Credit period allowed by creditors for credit purchase of raw materials, inventory and creditors for wages and overheads.

STRUCTURE OF WORKING CAPITAL

The study of structure of working capital is another name for the study of working capital cycle. In other words, it can be said that the study of structure of working capital is the study of the elements of current assets viz. inventory, receivable, cash

and bank balances and other liquid resources like short-term or temporary investments

- Inventory
- Raw material inventories
- Work-in-process inventory
- Finished goods inventory
- Cash and interest-bearing liquid assets

## APPROACHES TO THE WORKING CAPITAL MANAGEMENT

1. Conventional Approach

   This approach aims to ensuring neither idle funds nor shortage of funds

2. Operating cycle approach

Under this approach is determined by the duration of the operating cycle and the operating expenses needed to complete the operating cycles

## THEORIES OF WORKING CAPITAL

1. Operating Cycle theory

According to this theory working capital is required by a firm because there is a cycle between production and sales and receipt of cash

2. System Theory

A Productive can be defined as the means by which inputs are transformed into utility products or services

## WORKING CAPITAL PLANNING AND POLICY

Procurement of required amount of working capital and its effective utilization is the important functions of working capital management

Considerations in the Preparation of Working Capital Financial Plan

1. Availability of adequate funds
2. Minimum cost
3. Balance between profitability
4. Flexibility
5. Optimum use of funds

## APPROACHES TO DETERMINING WORKING CAPITAL MIX

It is crucial what should be the mix of short term funds and long term for the purpose of financing the working capital

1. Hedging approach

According to this approach the expected life of an asset matched with the period of source of finance with which the asset is financed

2. Conservative approach

A conservative strategy suggests not to take any risk in the working capital management and to carry high levels of current assets in relation to sales

3. Aggressive approach

Under this approach ,the firm relies more on short term sources than on long term sources to finance its current asset

## SOURCES OF WORKING CAPITAL

## FINANCING TEMPORARY OR VARIABLE WORKING CAPITAL

A. Transactionary Sources
   1. Trade credit
   2. Accrued expenses
   3. Defered income
   4. Depreciation

B. Short Term Sources
   1. Commercial paper

Commercial paper represents short-term unsecured promissory notes issued by firms which enjoy a fairly high credit rating. Generally, large firms with considerable financial strength are able to issue commercial paper

2. Borrowings from commercial banks

a. Cash credit
b. Loans
c. Overdrafts
d. Purchasing and discounting bills
e. Letter of credit

3. Public deposits
4. Factoring

Factoring, as a fund based financial service, provides resources to finance receivables as well as facilitates the collection of receivables. It is another method of raising short-term finance through account receivable credit offered by commercial banks and factors. A commercial bank may provide finance by discounting the bills or invoices of its customers

## FINANCING OF FIXED OR PERMANENT WORKING CAPITAL

1. Equity shares
2. Preference shares
3. Retained earnings
4. Debentures

# MODULE-III

# CASH MANAGEMENT

## CASH MANAGEMENT

Cash management is one of the key areas of working capital management. Cash is the most liquid current assets

## SIGNIFICANCE

1. Cash planning

2. Management of cash flows
3. Maintaining optimum cash balance
4. Investment of excess cash

**MOTIVES**

a. Transactions motive
b. b. Precautionary motive
c. Speculative motive
d. Compensation motive

**Objectives**

The basic objectives of cash management are

(i) to make the payments when they become due and

(ii) to minimize the cash balances

1. Meeting the payments schedule
2. Minimising funds committed to cash balances

**THE STRATEGIES FOR CASH MANAGEMENT**

I) Projection of cash flows and planning
II) Determining optimal level of cash holding in the company

a) Inventory model (Economic Order Quantity) to cash management

b) Stochastic model

c) Probability model

d)The BAT Model

III. Strategy for economizing cash

# MODULE IV

# RECEIVABLES MANAGEMENT

The goal of receivables management is to maximize the value of the firm by achieving a tradeoff between risk and profitability. For this purpose, a finance manager has

## COSTS OF MAINTAINING RECEIVABLES

1. Capital costs
2. Administrative costs
3. Collection costs
4. Defaulting costs

## BENEFITS OF MAINTAINING RECEIVABLES

1. Increase in Sales
2. Increase in Profits
3. Extra Profit

## FACTORS AFFECTING THE SIZE OF RECEIVABLES

1. Level of sales
2. Credit policies
3. Terms of trade

## CREDIT PERIOD

The term credit period refers to the time duration for which credit is extended to the customers. It is generally expressed in terms of "Net days".

## CASH DISCOUNT

The terms of cash discount indicate the rate of discount as well as the period for which the discount has been offered

## OPTIMUM SIZE OF RECEIVABLES

The optimum investment in receivables will be at a level where there is a trade-off between costs and profitability.

## DETERMINANTS OF CREDIT POLICY

1. Level of credit sales required to optimize the profit.

2. Credit period i.e. duration of credit, whether it may be 15 days or 30 or 45 days etc.

3. Cash discount, discount period and seasonal offers.

4. Grant of credit——size and age of receivables

5. Profits.

6. Market and economic conditions.

7. Collection policy.

8. Paying habits of customers.

9. Billing efficiency, record-keeping etc.

## OPTIMUM CREDIT POLICY

(i) Credit Standards,
(ii) Credit Terms, and
(iii) Collection Procedures

## CREDIT EVALUATION OF CUSTOMER

i. Gathering credit information of the customer through
ii. Credit analysis
iii. Credit decision
iv. Credit limit
v. Collection procedure

## MODULE V

## INVENTORY MANAGEMENT

A good inventory management is important to the successful operations of most organizations, unfortunately the importance of inventory is not always appreciated by top management. This may be due to a failure to recognize the link between inventories and achievement of organizational goals or due to ignorance of the impact that inventories can have on costs and profits.

## TECHNIQUES OF INVENTORY CONTROL

1. . ECONOMIC ORDERING QUANTITY (EOQ)
2. CLASSIFICATION AND CODIFICSATION OF MATERIALS 3. STOCK LEVELS
4. SAFETY STOCK
5. INVENTORY TURN OVER RATIO
6. ABC ANALYSIS
7. VED BANALYSIS
8. AGING SCHEDULE OF INVENTORIES
9. PERPETUAL INVENTORY SYSTEM
10. JIT INVENTORY SYSTEM

## EOQ

It is important to note that only the correct quantity of materials is to be purchased. For this purpose, the factors such as maximum level, minimum level, danger level, re-ordering level, and quantity already on order, quantity reserved, availability of funds, quantity discount, and interest on capital, average consumption and availability of storage accommodation are to be kept in view.

## CLASSIFICATION AND CODIFICSATION OF MATERIALS

For efficient storage ,proper classification and codification of materials is necessary .It refers to grouping of materials according to their nature is suitable categories

**STOCK LEVELS**

a. Maximum Stock Level - The maximum stock level is that quantity above which stocks should not normally be allowed to exceed

Formula Maximum Level = Re-order level—(Minimum consumption) × (Minimum lead times) + Reordering quantity

b. Minimum Stock Level - The minimum stock level is that quantity below which stocks should not normally be allowed to fall. If stocks go below this level, there will be danger of stoppage of production due to shortage of supplies.

Formula Minimum Level = Re-order level – (Average usage × Average lead time)

c. Re-order Level - This is the point fixed between the maximum and minimum stock levels and at this time, it is essential to initiate purchase action for fresh supplies of the material.

Formula Re-order level = Maximum usage X Maximum lead time or Minimum level + Consumption during lead time.

d. Danger Level - This is the level below the minimum stock level. When the stock reaches this level, immediate action is needed for replenishment of stock. As the normal lead time is not available, regular purchase procedure cannot be adopted resulting in higher purchase cost.

**SAFETY STOCK**

A safety stock is an addition supply of inventory that is carried all the time to be used when normal stocks run out

INVENTORY TURN OVER RATIO

Inventory Turnover Ratio i) Inventory Turnover Ratio: Cost of goods sold / average total inventories. The higher the ratio, more the efficiency of the firm

**ABC ANALYSIS**

ABC Analysis for Inventory Control: ABC analysis is a method of material control according to value. The basic principle is that high value items are more closely controlled than the low value items.

**VED ANALYSIS**

The V.E.D. classification is applicable mainly to the spare parts. Spares are classified as vital (V), essential (E) and desirable (D). Vital class spares have to be stocked adequately to ensure the operations of the plant but some risk can be taken in the case of 'E' class spares. Stocking of desirable spares can even be done away with if the lead time for their procurement is low.

**AGING SCHEDULE OF INVENTORIES**

It shows the age of inventories which inventories are lying in stock together with the percentage of each inventory of total inventory

**PERPETUAL INVENTORY SYSTEM**

The Institute of Cost and Management Accountants, London defines the perpetual inventory system as "A system of records maintained by the controlling department, which reflects physical movements of stocks and their current balance."

**JIT INVENTORY SYSTEM**

Normally, inventory costs are high and controlling inventory is complex because of uncertainties in supply, dispatching, transportation etc. Lack of coordination between suppliers and ordering firms is causing severe irregularities, ultimately the firm ends-up in inventory problems. Toyota Motors has first time

suggested just – in – time approach in 1950s. This means the material will reach the points of production process directly form the suppliers as per the time schedule. It is possible in the case of companies with respective process