

## Module - 1

FINANCIAL MANAGEMENT

VII Sem Mech

PACE, Mangaluru

### INTRODUCTION :-

Finance is the lifeblood of any enterprise. Financial management is imperative for efficient utilization and generation of monetary resources and funds. This subject deals with fundamental books and records of accounts with financial analysis.

### Book Keeping:-

Book keeping is the recording, on a day-to-day basis, of the financial transactions and information pertaining to a business. It ensures that records of the individual financial transactions are correct, up-to-date and comprehensive. Systematic recording of financial aspects of business transactions in appropriate books of account.

### System of book keeping:-

Book keeping is the art of recording a business transactions in a regular and systematic manner. This recording of transactions may be done according to any of the following two systems.

### Single entry system:-

As incomplete double entry system can be termed as a single entry system. According to Kohler, "It is a system of book-keeping in which as a rule only records of cash and personal accounts are maintained, it is always incomplete double entry, varying with circumstances. This system has been developed by some business houses, who for their convenience keep only some essential records. Since all records are not kept, the system is not reliable and can be used only by small firms.

### Double entry system:-

Double entry system of book keeping is a system of recording business transactions where each transaction affects at least two accounts and requires an equal debit and

credit. This system follows the dual aspect of accounting concept.

Difference b/w double entry system and single entry system:-

- ① Recording of transactions:- In case of double entry system, the dual aspect concept is completely followed while recording business transactions. In case of single entry system, the dual aspect is not followed for all transactions.
- ② Maintenance of books:- In case of double entry system various subsidiary books such as sales book, purchases book, returns book, cash book etc are maintained. In case of single entry system, no subsidiary books except a cash book is maintained.
- ③ Maintenance of books of account:- In case of double entry system all major accounts real, personal and nominal are maintained. However, in case of single entry system, only personal accounts are maintained.
- ④ Preparation of trial balance:- In case of double entry system, trial balance is prepared to check arithmetical accuracy of the books of account. In case of single entry system, trial balance cannot be prepared. Hence, it is not possible to check the accuracy of books of account.
- ⑤ Accuracy of profits and financial position:- In case of double entry system, trading and profit & loss account gives the true profit of business, while balance sheet shows the true and fair financial position of the business. In case of single entry system only a rough estimate of profit or loss can be made. The statement of affairs prepared in single entry system also does not show the true financial position of the business.

**Objectives of book keeping:**

**Book keeping** is the systematic recording of financial aspects of business transactions in appropriate books of account.

1. The main **objective of book-keeping** is to **keep** a complete and accurate **record** of all the financial transactions in a systematic orderly and logical manner.
2. To ascertain the net results of the business for a particular trading period.
3. To know the progress of the business from year to year.
4. To know the exact financial position of the business as on particular date.
5. To have a valuable information for legal and tax purposes.
6. It keeps permanent records of financial transactions as and when they arise in systematic order.
7. Book keeping helps to prepare different statements to summarize, present and interpret the final information contained in the routine records.

**Importance or Advantages of Book Keeping:**

The importance or advantages of book keeping are as follows:

1. **Maintaining permanent records:** Book keeping maintains permanent records of all financial transactions that take place in business. So, it can provide financial information and data to various users.
2. **Helpful in ascertaining profit or loss:** Book keeping keeps complete records of business transactions. Thus, profit or loss of business transaction can be easily ascertained.
3. **Knowledge of financial position:** Book keeping keeps the books of different business assets and liabilities in systematic manner. So, owners can always know about the financial position of business concern.
4. **Helpful in detection and prevention of errors and frauds:** Book keeping records all the business transactions scientifically and systematically which enable to detect errors and frauds that have already taken place. It also helps to take steps to prevent their recurrences.

**Types of Accounts:**

1. **Personal account:** These are the accounts of the party's with whom the business is carried on. For example: X account, Bank account.
2. **Real or Asset account:** These are the accounts of the assets or the properties with which the business is carried on. These are the accounts of all the assets and liabilities of the organization. We do not close these accounts at the end of the accounting year and appear in the Balance Sheet. Thus, we carry forward the balances of these accounts to the next accounting year. For example: Machinery account, furniture account, cash account etc.
3. **Nominal Account:** These are the expenses and losses which a concern incurs and the incomes and gains which a concern earns in the course of business. These are temporary accounts and thus we need to transfer their balances to Trading and Profit and Loss A/c at the end of the accounting year. Therefore, these accounts have no balance to be carried forward next year as they are closed. For example, Salary account, Rent account.

**Rules to be followed while debiting and crediting the various accounts:**

- > Personal account: Debit the receiver, credit the giver.
- > Real account: Debit what all comes in, credit what all goes out.
- > Nominal account: Debit the expenses and losses, credit the incomes and gains.

**FINANCIAL MANAGEMENT  
JOURNAL:**

VII Sem Mech

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A journal is a chronological (arranged in order of time) record of business transactions. A journal entry is the recording of a business transaction in the journal. A journal entry shows all the effects of a business transaction as expressed in debit(s) and credit(s) and may include an explanation of the transaction.

A journal is a book of prime entry as transaction is entered in a journal before it is entered in ledger accounts.

Specimen of journal:

Date	Particulars	LF NO.	Dr.Rs	Cr. Rs
Jan 1 2010	Cash A/c            dr To capital A/c (Being cash introduced in the business by proprietor)		***	***

**LEDGER:**

A ledger is a book which contains various accounts. As the transactions are recorded in the journal in the order of the date, the transactions of similar nature may be found on different pages of a journal. In the ledger the transactions of similar nature are grouped together in one place in the form of an account through the process called posting. Ledger is a book of secondary entry, as it is prepared after journal book.

Specimen of Ledger:

**CASH ACCOUNT**

Date	Particulars	J.F. No	Amount	Date	Particulars	J.F. No	Amount
Jan 1 2010	To Capital A/c		***	Jan 31	By Balance c/d		***
Feb 1 2010	To balance b/d		***				

**CAPITAL ACCOUNT**

Date	Particulars	J.F. No	Amount	Date	Particulars	J.F. No	Amount
Jan 31	To Balance c/d		***	Jan 1	By cash A/c		***
				Feb 1 2010	By balance b/d		

### Difference between Journal and Ledger:-

1. Journal is a subsidiary book. It is also called a book of original entry or first entry.  
Ledger is the principal book also known as a book of second entry.
2. Journal is a chronological record of day-to-day business transactions while a ledger is an analytical record of these transactions.
3. Journal entries are supported by narrations to help in properly understanding the entries. Ledger entries are supported by narrations.
4. Recording of transactions in the journal is called journalizing. Recording of transactions in the ledger is called posting.
5. Journal is only an original record, but not a permanent record.  
The ledger is a permanent record of various transactions.
6. The unit of entries in the Journal is a transaction.  
The unit of entries in the ledger is an account.
7. As legal evidence, journal has greater weight. A ledger does not have greater weight as a legal evidence.
8. Journal does not provide full information about a person, an asset, an expense or an income.  
Ledger provides full information about a person, an asset, an expense or an income.

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**FINAL ACCOUNTS:  
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Final Accounts gives an idea about the profitability and financial position of a business to its management, owners, and other interested parties. On the basis of the Trial balance, an accountant prepares the final accounts or financial statement for the particular period of time. It is a combination of the following statement:

Trading account, Profit and Loss account and Balance Sheet together are called final accounts.

**1. Trading Account:**

Trading or Manufacturing account is prepared to find out the gross profit of the business for the particular accounting period. It is calculated by comparing the net sale with the cost of goods sold (COGS).

Gross Profit/Loss = Net Sale - COGS

Net Sale = Total Sale (Cash sale + Credit Sale) - Sale Returned/Returned Inward

Cost of Goods Sold = Opening Stock + Net Purchase + Direct Expenses - Closing Stock

Opening stock = Stock we have in hand at the start of the accounting year.

Net Purchase = Total Purchase (Cash + Credit) - Purchase returned/Returned outward

Direct Expenses = All expenses which are directly related to purchasing of goods and converting them into saleable condition.

Closing stock = Stock we have in hand at the end of the accounting year.

**The format of Trading Account:-**

Name of Business  
Trading Account for the year ended .....

Particulars	Amounts	Particulars	Amounts
To Opening Stock	XXX	By Sale	XXX
To Purchase	XXX	Less:- Return	XX
Less:- Return	XX		XXX
To Direct Expenses	XX	By Profit/Loss a/c (Balancing Figure represent Gross Loss)	XXX
To Profit/Loss a/c (Balancing Figure represent Gross Profit)	XXX		
	XXXX		XXXX

Trading Account Format -Example

**2 Profit and loss account: -**

Profit and loss account or Income statement is prepared to find out the Net Profit/loss of the business for the particular accounting period. It is calculated by comparing the Gross Profit/Loss with indirect income and expenses.

Net Profit/Loss = Gross Profit/Loss + Indirect Income – Indirect Expenses

- **Indirect Income** = Other incomes which are earned from other than the main operation of the business.
- **Indirect Expense** = All business expenses other than direct expenses.

The format of Profit and Loss Account:-

**Name of Business**  
**Profit/Loss Account for the year ended .....**

Particulars	Amounts	Particulars	Amounts
To Trading a/c (Gross Loss)	XXX	To Trading a/c (Gross Profit)	XXX
To Office and Administration Expenses:	XXX	By Indirect Income	XXX
To Selling and Distribution Expenses:	XXX	By Other Gains	XXX
To Financial and Other Expenses:			
To Capital A/c (Balancing Figure represent Net Profit)	XXX	By Capital A/c (Balancing Figure represent Net Loss)	XXX
	XXXX		XXXX

**3. Balance Sheet –**

The Balance sheet is the statement showing the position of the assets and liabilities of the business in a particular accounting period. The value of assets showing which we can realize from the market and the value of Liabilities shows which we have to pay in future. It is the basis on the following account equation.

**Assets = Capital + Liabilities**

The format of the Balance Sheet: –

**Balance Sheet of \_\_\_\_\_**  
**as on 31st March \_\_\_\_\_**

Liabilities	Amounts	Assets	Amounts
Capital	XXX	Fixed Assets	XXX
Add: Net Profit	XX	Current Assets	XXX
Less: Net Loss	XX	Ficticius Assets	XXX
Less: Drawing	XX		
	XXX		
Fixed Liabilities	XXX		
Current Liabilities	XXX		
	XXXX		XXXX



Assets:-

Assets refers to properties owned by a concern and debts (i.e., amounts) due to a concern from other parties.

Assets of a concern may be divided into the following classes:-

1. Current, circulating, floating or fluctuating assets.
2. Liquid or quick assets.
3. Fixed assets.
4. Wasting assets.
5. Intangible assets.
6. Fictitious assets.

Current Assets:-

Current assets refers to cash and temporarily held assets (i.e., assets meant for conversion into cash within a short period of time, say, one year). These assets undergo changes frequently. Example of current assets are cash in hand, cash at bank, bills receivable, sundry debtors, closing stock, etc.

Liquid assets:-

Liquid assets are those current assets which are either in the form of cash or which can be converted into cash quickly without much loss. Examples are cash in hand, cash at bank, bills receivable, sundry debtors, temporary investments etc.

Wasting assets:-

Wasting assets are those fixed assets which are exhausted & lost through use. Example are mines and quarries.

Fixed assets:-

Fixed assets are those assets which are relatively permanent in nature and held for use in the business and not for sale. Examples are land and buildings, plant and machinery, vehicles furniture etc. It may be noted that fixed assets are collectively known as 'Block'.

### ⑤ Intangible assets:-

Intangible assets are those fixed assets which have no physical existence (i.e., cannot be seen and touched), but their possession yields some benefits to the possessor. Examples of intangible assets are goodwill, patents, copy rights and trade marks.

### ⑥ Fictitious assets:-

These assets are fictitious or unreal, as they are not represented by any tangible or concrete property. Example of fictitious assets are advertising suspense (i.e., heavy advertising expenses not written off, but carried forward to the subsequent period, preliminary expenses etc.

### Liabilities:-

Liabilities refers to amounts owned by a business to other parties, either for the purchase of goods on credit or for the purchase of assets on credit or for the loans borrowed or for the services received on credit.

Liabilities of a concern may be divided into the following categories:-

#### ① Current or short term liabilities:-

Current liabilities are those liabilities which are required to be repaid within a short period of one year out of current assets. Examples of current liabilities are bills payable, sundry creditors, bank overdraft, short term loans borrowed, outstanding expenses, income received in advance etc.

#### ② Fixed liabilities:-

Fixed liabilities are those liabilities which will be repaid after a long period of time. Deposits accepted from others and loans borrowed from others for long period are fixed liabilities.

Assets:-

Assets refers to properties owned by a concern and debts (i.e., amounts) due to a concern from other parties.

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Fixed assets are those assets which are relatively permanent in nature and held for use in the business and not for sale. Examples are land and buildings, plant and machinery, vehicles furniture etc. It may be noted that fixed assets are collectively known as 'Block'.

## Difference b/w profit and loss Account and Balance sheet.

The main differences are as follows:-

### Profit & Loss Account:-

1. A profit and loss account is an account.
2. A profit and loss account is an account of expenses and incomes.
3. A profit & loss account contains nominal accounts or revenue items, i.e., revenue payments or expenses and revenue receipts or incomes.
4. A profit & loss account is prepared for a particular period, usually, a year. So, it includes transactions which have occurred during a year.
5. Profit and loss account has a balance, which may be net profit or net loss.

6. A profit and loss account is prepared before the preparation of the balance sheet.

7. In a profit and loss account debit items i.e., expenses, are entered on left hand side, and credit items i.e., incomes, are

### Balance sheet:-

1. A balance sheet is not an account. It is only a statement.

2. A balance sheet is a statement of assets and liabilities.

3. A balance sheet contains capital items i.e., capital expenditure or assets and capital receipts or liabilities.

4. A balance sheet is prepared as on particular date. So, it contains the balances of assets, and liabilities as on the last date of the year.

5. A balance sheet does not have a balance. Both the sides of the balance sheet are always equal.

6. A balance sheet is prepared after the preparation of the profit and loss account.

7. In a balance sheet, generally debit items, i.e., assets are entered on the right hand side and credit items i.e., liabilities, are

entered on the right-hand side entered on the left hand side

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## 3.5 ■ TAXES

Taxes are often a major cash outflow for a firm. The magnitude of the tax burden is determined by the tax code, which is often amended. If the rules of taxation seem somewhat odd to you, remember that the tax code is significantly influenced by political forces. Hence it may not always make economic sense.

Taxes may be divided into two broad categories: direct taxes and indirect taxes. A tax is referred to as a direct tax if the impact and incidence of the tax is on the same person. Income tax, wealth tax, and gift tax are examples of direct taxes. A tax is regarded as an indirect tax if the impact and incidence of the tax is on different persons (the impact is on one person but through the process of shifting the incidence is on another). Excise duty, sales tax, and customs duty are the three important indirect taxes.

### Corporate Income Tax

A company's taxable income is determined after taking into account its revenues, expenses, and deductions on account of various incentives and reliefs. The taxable income is subject to a tax rate of 30 percent for domestic companies and 40 percent for foreign companies.

**Depreciation** Depreciation is charged on blocks of assets which represent a group of assets, within the broad class of assets such as buildings, plant, machinery, and furniture, for which a common rate of depreciation is applicable. Depreciation is calculated by applying the prescribed rate (which varies between 5 percent and 100 percent) on the written down value (WDV) of the entire block. When an asset is sold the amount realised from the sale of such asset (after deducting expense on sales) will simply be deducted from the WDV of that block. If the amount realised is greater than the WDV of the block, the difference will be treated as a short term capital gain. In a case where all the assets in the block are disposed off and there is still a balance in the account of the block, such amount will be treated as short term capital loss.

It may be noted that when any asset is acquired and put to use during the previous year for a period less than 180 days then depreciation will be allowed only to the extent of 50 percent of the prescribed rate for that asset in the year of acquisition.

**Interest Expense versus Dividend Payment** While interest on borrowings is a tax-deductible expense, meaning that it can be deducted before determining the taxable income, dividend on share capital (equity as well as preference) is not a tax-deductible payment.

**Dividend Income** When a domestic company receives dividend from another domestic company, it is allowed a deduction of an amount equal to the amount of dividend received from another company that it distributes to its shareholders.

**Unabsorbed Business Loss and Depreciation** Unabsorbed business loss (other than speculation business loss) of any year can be carried forward and set off against income under the head of business of subsequent years. Such carry forward can be done for eight subsequent years from the year in which the loss was computed. Unabsorbed depreciation can be carried forward and set off against the income from any other head of subsequent years without any limitation as to the number of years.

**Exemptions and Deductions** A variety of exemptions and deductions are granted under the Income Tax Act. The important ones are: exemption of profits and gains from the export of articles or things or software from a unit established in a Free Trade Zone; exemption of profits and gains from the export of articles or things or computer software from a 100 percent exported oriented unit; deduction in respect of profits and gains from a new industrial undertaking; deduction in respect of profits from an industrial undertaking established in an industrially backward state.

**Minimum Alternate Tax** If the income tax payable on the total income of a company, as computed under the Income Tax Act, is less than 10.0 percent of its book profit, the tax payable shall be deemed to be 10.0 percent of such book profit. That is every company has to pay at least 10.0 percent of the book profit as tax. Book profit means the net profit shown in the profit and loss account prepared for company law purposes, subject to certain adjustments.

**Advance Tax** Advance tax is payable on the current income of the company in four instalments during the financial year. Specifically, companies are required to pay 15 percent of their estimated tax liability by June 15, 45 percent by September 15, 75 percent by December 15, and 100 percent by March 15.

## Individual Income Tax

Individuals pay taxes on salaries, investment income, and other incomes. The salient features of individual taxation are described below briefly.

**Progressive Tax Structure** Tax rates on individual income are progressive, implying that the higher the income, the larger the percentage paid in taxes. For the assessment year 2008-2009, the individual tax rates are as follows:

Income Tax Rate AY 2019-20 | FY 2018-19 – Individuals less than 60 years

Income Range	Tax Rate
Up to Rs. 2,50,000	0%
Rs. 2,50,000 to Rs. 5,00,000	5%
Rs. 5,00,000 to Rs. 10,00,000	20%
Above Rs. 10,00,000	30%

**Interest and Dividend Income** Subject to certain exemptions and deductions, interest received by an individual from bank deposits, company debentures, government securities, and so on is added to other income for tax purposes. Likewise, dividend received by an individual from companies and mutual funds, subject to certain exemptions, is added to other income for tax purposes.

**Capital Gains** Assets such as shares, debentures, and real estate are called capital assets. If you buy a capital asset and later sell it at a price greater than your cost, the gain is called a capital gain; if you sell it at a loss, it is called a capital loss.

Capital gains are classified as long-term and short-term, depending on the period of holding of the capital asset. If the asset is held for more than 12 months in the case of listed shares and securities (or more than 36 months in the case of other assets), the gain is treated as a long-term capital gain; otherwise the gain is treated as a short-term capital gain.

Long-term capital gains, after the benefit of indexation, are taxed at a flat rate of 20 percent. However, long-term capital gains arising from the sale of equity shares or units of an equity-oriented mutual fund are exempt from tax, provided the transaction is chargeable to securities transaction tax. Short-term capital gains from the sale of equity shares and units of an equity-oriented mutual fund are taxed at 10 percent provided the transaction is chargeable to security transaction tax. Other short-term capital gains are taxed at the rate applicable to the assessee.

## Wealth Tax:

Wealth tax is a tax on a person's assets, on his or her net worth. It is not a tax on income, but rather on an individual's wealth. Wealth tax is a tax levied on personal capital, the things you own, your possessions, including cash, bank accounts, cars, airplanes, homes, bonds, shares, jewelry, expensive works of art, patents, copyrights, antiques, etc.

Wealth tax is imposed on the richer section of the society. The intention of doing so is to bring parity amongst the taxpayers. However, wealth tax was abolished in the budget of 2015 (effective FY 2015-16) as the cost incurred for recovering taxes was more than the benefit is derived. Abolishing the wealth tax also simplified the tax structure.

## Gift Tax:

A *gift tax* is a federal *tax* applied to an individual giving anything of value to another person. For something to be considered a *gift*, the receiving party cannot pay the giver full value for the *gift*, but may pay an amount less than its full value. It is the giver of the *gift* who is required to pay the *gift tax*.

Gifts up to Rs. 50,000 per annum are exempt from tax in India. In addition, gifts from specific relatives like parents, spouse and siblings are also exempt from tax. Gifts in other cases are taxable. Tax on gifts in India falls under the purview of the Income Tax Act as there is no specific gift tax after the Gift Tax Act, 1958 was repealed in 1998.

## Indirect Taxes

The three most important indirect taxes are the excise duty, the sales tax and the custom duty and other indirect taxes are Value Added Tax (VAT), service tax

**Central Excise Duty** The principal source of revenue for the central government, the central excise represents a levy on the goods manufactured in the country. Central excise duties are governed by the Central Excise Act, Central Excise Tariff Act, and Central Excise Rules.

Central Excise duty is an indirect tax levied on those goods which are manufactured in India and are meant for home consumption. The taxable event is 'manufacture' and the liability of central excise duty arises as soon as the goods are manufactured. It is a tax on manufacturing, which is paid by a manufacturer, who passes its incidence on to the customers.



**Sales Tax** A major source of revenue for state governments, sales tax is leviable on “sale of goods.” The Constitution of India has laid down that taxes on the sales or purchases of goods, other than newspapers, will come under the jurisdiction of the state governments. Hence every state has its own general sales tax law. The Constitution, however, imposes a restriction on the tax to be levied by the states on the sale or purchase outside the respective states (or in the course of import or export of goods). For this purpose, the Central Sales Tax was enacted by the Parliament.

Sales tax is an indirect *tax* imposed on selling and purchasing of goods within *India* is referred to as *Sales Tax*. It is an additional amount paid over and above the base value of the product being purchased. This *tax*, usually imposed on the seller by the government, enables the seller to recover the *tax* from the purchaser.

**Customs Duty** Customs duty is an important indirect tax levied by the central government on the import of goods into India or the export of goods out of India. The rates of customs duty applicable to various goods are specified under the Customs Tariff Act 1975. This is based on a system of classification, derived from the international convention of ‘harmonised commodity description’ and ‘coding system’ which is quite rational.

The levy and the rate of *customs duty in India* are governed by the Customs Act 1962 and the *Customs Tariff Act 1975*. Customs duties are computed on a specific or ad valorem basis. In other words, it is calculated on the value of goods. Such value is determined as per the rules laid down in the Customs Valuation (Determination of Value of Imported Goods) Rules, 2007.

### Value added tax:

The value added tax was introduced as an indirect tax into the Indian taxation system from 1<sup>st</sup> April 2005.

The existing general sales tax laws were replaced with new value added tax acts. VAT is a tax, which is charged on the “Increase in Value” of goods and services at each stage of production of circulation.

#### Rate of tax:

Schedule ‘A’- Essential Commodities (Tax free) - Nil

Schedule ‘B’-Gold, Silver, Precious stones, and pearls etc. - 1%

Schedule ‘C’-Declared goods and other specified goods – 4%. Other goods w.e.f 1/5/10 - 5%

Schedule ‘D’-Foreign Liquor, Country liquor, Motor spirits, etc- At specified rates

Schedule ‘F’-All other goods (not covered by A to D)- 12.5%

### Service Tax:

Service Tax was a tax that was levied by the Central Government of India on the services provided by service providers. This indirect tax came into being under the Finance Act, 1994. It was set at 15% for transactions that occurred on or after 01 June, 2016. The tax was to be paid to the government in order to enjoy different services that were received

from service providers. In that case, the tax was paid by service providers, but recovered from service receivers who purchased or received the taxable services.

The service tax in India was imposed under Section 65 of the Finance Act, 1994. With the roll-out of the budget of 1994, it came into effect from July 1, 1994; the services that were included under the service tax were increased gradually from 1994. They were extended to incorporate services provided by air-conditioned restaurants, lodging (both long and short term), guest houses etc.

Mrs. Anitha Kamath

## FORMS OF BUSINESS ORGNISATION:

All firms face the basic problems of capital budgeting, capital structure, dividend policy, working capital management, and financial control. However these issues tend to be more complex for companies than for other forms of organisation.

**Sole Proprietorship** A sole proprietorship firm is a business owned by a single person. This is the simplest form of business, subject to minimal regulation. You can set up a sole proprietorship firm by obtaining a license, if the same is required for the business you want to engage in, and throwing open your doors. Thanks to its simplicity, most businesses begin as sole proprietorship firms. No wonder there are more sole proprietorships than any other form of organisation.

From a legal and tax point of view, a sole proprietorship firm has no separate status apart from its owner. The owner realises all the profits and bears all the losses. The owner indeed has unlimited personal liability for the debts of the business. By the same token, there is no distinction between business and personal income and all business income is taxed as personal income. A variant of sole proprietorship is a **One Person Company** which allows a single individual to operate a corporate entity with limited liability protection.

The equity capital of a sole proprietorship is limited to the personal wealth of the owner. Hence such firms often cannot grow beyond a point for want of capital.

Advantages:

- **Ease of formation.** The main **advantage of sole proprietorship** is that it can easily be formed by any person by undertaken any legal business for earning profit.
- **Sole authority and sole claim on profit.** The owner of the business has complete authority to deal with the affairs of business. He prepares the plain, invest his money, supervise the business and enjoy the profit. The owner of the business receives full profit earned from the business.
- **Flexible management.** The sole proprietor make prompt decision, in carrying out policies, changes the methods of production, reducing or increasing the prices, of the commodities, delegating responsibilities etc.
- **Credit standing.** The owner of the business enjoys an excellent credit rating among the creditors.
- **Legal status.** As the sole proprietor and the business have one personality. Therefore, all the assets, liabilities, profits and losses on the part of owner.

**Disadvantages:**

- **Burden of unlimited liability.** The main **disadvantage of sole proprietorship** is the burden of unlimited liability. In case the claims of the creditors against the business exceeded, then the personal property of the owner are taken to pay business debts.

- **Limited managerial ability.** In this type of business, the proprietor has to rely their own skill and managerial experience, which leads the owner to enable to perform all the duties and functions of management efficiently, limits the size of business according to the his capacity.
- **Unsuitable for a developing business.** In sole trading ship the business grows up, it is very difficult to owner to meet the requirements of expansion business.

**Partnership** A partnership firm is a business owned by two or more persons. It may be viewed as an extension of sole proprietorship. The partners bear the risks and reap the rewards of the business.

Generally, a partnership comes into being with the execution of a partnership deed that specifies, *inter alia*, the capital contributions, shares, rights, duties, and obligations of the partners. In India, partnerships are governed by the Partnership Act, 1932. This legislation regulates the relationship between the partners *inter se* as well as between the partners and the parties dealing with the partnership firm.

A partnership firm is a distinct legal and tax entity. It can pay interest and remuneration to the partners and claim the same as tax-deductible expenses. Of course, these incomes are taxable in the hands of the partners. The tax rate applicable to the net profit of the partnership firm is presently 30 percent.

### Limited Liability Partnership (LLP):

Recently a new form of business organisation called Limited Liability Partnership (LLP) was introduced in India. Its distinctive feature is that it is a partnership firm wherein the liability of some or all the partners is limited. An LLP must have at a minimum two partners and at least one of them should be an Indian resident.

Features of LLP:

- The LLP has Separate Legal Entity i.e. the LLP and the partners are distinct from each other.
- Minimum of two partners are required to form a LLP. However, there is no limit on the maximum number of partners.
- No requirement of minimum capital contribution

**Cooperative Society:** A cooperative society may be defined as “a society which has as its objective the promotion of economic interests of its members in accordance with cooperative principles”.

The Cooperative Societies can be defined as an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.

The members of the cooperative society are its owners. The management of the cooperative society is vested in the hands of the management committee elected by the members.

The advantages of a cooperative organisation are as follows: (a) It can be formed easily. (b) The liability of the members is limited. (c) Grants and financial assistance are provided by the government to cooperative organisations.

The disadvantages of a cooperative organisation are as follows: (a) Cooperatives' ability to attract talent is limited. (b) Members do not have an incentive to provide capital because the dividend rate is low and the principle of 'one member, one vote' is followed. (c) Often, influential members may exploit the cooperative society for personal gains.

**Company** A company is collectively owned by the shareholders who entrust the task of management to their elected representatives called the directors. The salient features of a company are as follows:

- The company is a distinct legal "person", separate from its owners, the shareholders. It can own assets, incur liabilities, enter into contracts, sue and be sued in its name. In India, a company is formed under The Companies Act, 2013, a central legislation.
- There are two basic requirements for registering a company: (i) The proposed name of the company must be approved by the Registrar of Companies (ROC) of the state in which the company plans to have its registered office. (ii) The Memorandum of Association (which defines the constitution of the company, the objective, and the scope of activities of the business) and the Articles of Association (which specify the rules and regulations for internal governance) have to conform to the provisions of the Companies Act and have to be approved by the ROC.
- The liability of the shareholders of a company is limited to the share capital subscribed to by them. Once this amount is fully paid up, they have no further obligation.
- A company must pay taxes on its profits. Moreover, shareholders of the company are liable to pay taxes on the dividend received by them.<sup>1</sup> So, in effect, there is double taxation.
- Setting up and managing a company is more complicated than setting up and managing other forms of organisation because companies are governed by the The Companies Act 2013, a very elaborate and comprehensive piece of legislation.

A company may be a private limited company or public limited company. The key differences are as follows:

- ✓ A public company is a company which is owned and traded publicly. A private company is a company which is owned and traded privately.
- ✓ A **private company** is a closely held one and requires at least two or more persons (shareholders), for its formation. On the other hand, a **public company** is owned and traded publicly. It requires 7 or more persons (shareholders) for its set up.
- ✓ A public limited company invites members of public to subscribe to its shares, whereas a private limited company cannot do so.
- ✓ A public limited company permits free transfer of shares whereas a private limited company usually imposes restrictions on such transfers.

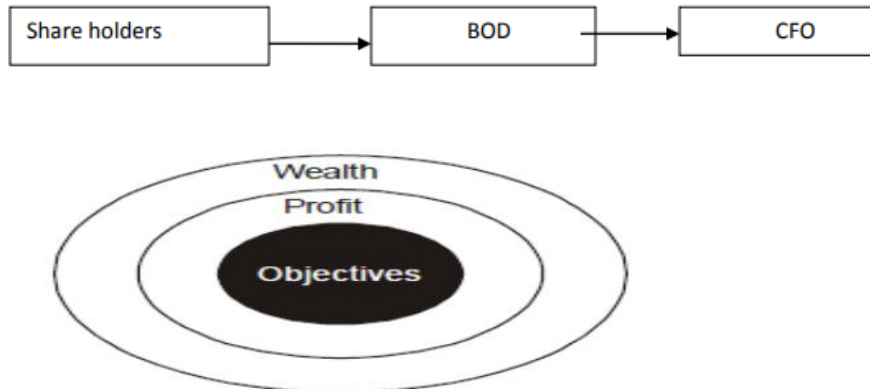
## FINANCE FUNCTION

### GOALS (OBJECTIVES) OF FINANCE FUNCTION:

Effective procurement and efficient use of finance lead to proper utilization of the finance by the business concern. It is the essential part of the financial manager. Hence, the financial manager must determine the

basic objectives of the financial management. Objectives of Financial Management may be broadly divided into two parts such as:

1. Profit maximization 2. Wealth maximization



1. Profit Maximization Main aim of any kind of economic activity is earning profit. A business concern is also functioning mainly for the purpose of earning profit. Profit is the measuring techniques to understand the business efficiency of the concern. Profit maximization is also the traditional and narrow approach, which aims at, maximizes the profit of the concern.

2. Wealth Maximization Wealth maximization is one of the modern approaches, which involves latest innovations and improvements in the field of the business concern. The term wealth means shareholder wealth or the wealth of the persons those who are involved in the business concern. Wealth maximization is also known as value maximization or net present worth maximization. This objective is an universally accepted concept in the field of business.

#### SOURCES OF FINANCE:

Sources of finance mean the ways for mobilizing various terms of finance to the industrial concern. Sources of finance state that, how the companies are mobilizing finance for their requirements. The companies belong to the existing or the new which need sum amount of finance to meet the long-term and short-term requirements such as purchasing of fixed assets, construction of office building, purchase of raw materials and day-to-day expenses. Sources of finance may be classified under various categories according to the following important heads:

According to source of Finance

External- Shares, Debentures, Public Deposit, loans etc.

Internal- Retained Earnings, Profit Surplus ploughing back of profits, depreciation fund etc

#### EXTERNAL SOURCES:

OWNERSHIP SECURITIES the ownership securities also called as capital stock is commonly called as shares. Shares are the most Universal method of raising finance for the business concern. Ownership capital consists of the following types of securities.

- Equity Shares
- Preference Shares
- No par stock
- Deferred Shares

### EQUITY SHARES:

Equity Shares also known as ordinary shares, which means, other than preference shares. Equity shareholders are the real owners of the company. They have a control over the management of the company. Equity shareholders are eligible to get dividend if the company earns profit.

### PREFERENCE SHARES:

The parts of corporate securities are called as preference shares. It is the shares, which have preferential right to get dividend and get back the initial investment at the time of winding up of the company. Preference shareholders are eligible to get fixed rate of dividend and they do not have voting rights. It means a preference shareholder enjoys two rights over equity shareholders :(a) right to receive fixed rate of dividend and (b) right to return of capital.

Preference shares may be classified into the following major types:

- Cumulative preference shares
- Non-cumulative preference shares
- Redeemable preference shares
- Irredeemable Preference Shares
- Participating Preference Shares
- Non-Participating Preference Shares
  
- Convertible Preference Shares
- Non-convertible Preference Shares

### DEFERRED SHARES:

Deferred shares also called as founder shares because these shares were normally issued to founders. The shareholders have a preferential right to get dividend before the preference shares and equity shares. According to Companies Act 1956 no public limited company or which is a subsidiary of a public company can issue deferred shares.

### NO PAR SHARES:

When the shares are having no face value, it is said to be no par shares. The company issues this kind of shares which is divided into a number of specific shares without any specific denomination.

### DEBENTURES:

Debenture is a document issued by the company. It is a certificate issued by the company under its seal acknowledging a debt. Debentures are the loans taken by the company. It is a certificate or letter issued by the company under its common seal acknowledging the receipt of loan. A debenture holder is the creditor of the company.

#### **Types of Debentures:**

- Unsecured debentures
- Secured debentures
- Redeemable debentures
- Irredeemable debentures
- Convertible debentures

### INTERNAL SOURCES:

#### **RETAINED EARNINGS:**

Retained earnings are another method of internal sources of finance. Actually is not a method of raising finance, but it is called as accumulation of profits by a company for its expansion and diversification

activities. Retained earnings are called under different names such as; self-finance, inter finance, and plugging back of profits. According to the Companies Act 1956 certain percentage, as prescribed by the central government (not exceeding 10%) of the net profits after tax of a financial year have to be compulsorily transferred to reserve by a company before declaring dividends for the year.

*Mrs. Anitha Kamath*



## Module → 2. WORKING CAPITAL MANAGEMENT

### Introduction:-

The modern organisation incurs a huge amount of expenses for its daily operation. Some of the expenses are basic and traditional like cost of material, labour and other usual overheads. Many new expenses have cropped up recently like telephone expenses, broadband services, and network maintenance, maintenance of computer and other IT systems, fee-based services of banks etc. The capital needed for meeting these expenses is called working capital.

Working capital management is the way a company manages the relationship between assets and liabilities in the short term.

In simple terms, working capital management is how a company runs its money for day to day operations as well as any immediate debt obligations. When managing working capital, the company has to manage accounts receivable, accounts payable, inventory, and cash.

The goal of working capital management is to have adequate cash flow of continued operations and have the most productive usage of resources.

### Concepts of working capital:-

There are 4 concepts of working capital - Gross, net, permanent, and temporary or fluctuating working capital.

#### 1) Gross working capital:-

It refers to the firm's investment in current assets. Current assets are the assets which can be converted into cash within an accounting year and include cash, accounts receivable (debtors), inventory, prepaid expenses and accrued income. The total of these current assets represents Gross working capital.

#### 2) Net working capital:-

It refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders which are expected to mature for payment within an accounting year and include creditors (accounts payable), bills payable, outstanding expenses, & bank overdraft etc.

Net working capital can be positive or negative. A positive net working capital will arise when current assets exceed current liabilities.

A negative net working capital occurs when current liabilities are in excess of current assets.

Net working capital = current assets - current liabilities.

3) Permanent working capital :- It is the working capital needed throughout the year and also from one year to another. It finances the normal activity of the firm. It is advisable to finance such working capital out of long-term sources of finance.

4) Temporary & fluctuating working capital :-

A sudden increase in the activity may call for more working capital temporarily. This may be due to seasonality in demand, getting unexpected orders, temporary rise in the price of raw material, a temporary rise in wages bill due to overtime work etc.

Factors affecting (determining) the size of working capital :-

The size of working capital of a firm depends upon a myriad of factors. The importance of factors also changes for a firm over time.

Therefore an analysis of relevant factors should be made in order to determine total investment in working capital.

1) Nature of business :-

Working capital requirements of a firm are basically influenced by the nature of its business. Trading and financial firms have a very small investment in fixed assets, but require a large sum of money to be invested in working capital.

→ Heavy industries like steel industry, cement industry etc (Raw material & labour) → Need huge working capital  
→ Public utilities like railway, airway, electricity producing & distributions etc (labour) → Need huge working capital.

2) Market and demand conditions :-

The working capital needs of a firm are related to its sales. Sales depend on demand conditions. Large number of firms experience seasonal and cyclical fluctuations in the demand for their products and services. These business variations affect the working capital requirement, specially the temporary working capital requirement of the firm.

When there is an upward swing in the economy, sales will increase correspondingly, the firm's investment in inventories and debtors will also increase. Under the boom period, additional investment in fixed assets may be made by some firms to increase their productive capacity. This act of firms will require further addition of working capital.

3) Length of operating cycle: The size of working capital varies directly with the length of operating cycle. In case of longer operating cycle like shipbuilding, aircraft manufacturing, construction of dams, executing turnkey projects, large investment is there in work in progress, and hence large working capital is needed.

4) Level of automation: Higher level of automation in the industry reduces the labour force. Hence, lesser size of working capital is needed. Lower level of automation requires a larger labour force, larger payment of wages, and thus larger working capital.

5) Credit policy: The credit policy of the firm affects the working capital by influencing the level of debtors. The credit terms to be granted to customers may depend upon the norms of the industry to which the firm belongs. But a firm has the flexibility of shaping its credit policy within the constraint of the industry norms of practice. Companies that sell the goods only on cash basis need minimum working capital. When credit sale is allowed, the length of period of credit allowed determines the size of working capital. Longer the period, more will be the size of working capital.

6) Prices of inputs: If costly inputs like diamonds, gold and platinum are used as in the case of watch-manufacturing, jewellery industry etc. working capital needed is large.

7) Operating efficiency: The operating efficiency of the firm relates to the optimum utilization of all its resources at minimum costs. The efficiency in controlling operating costs and utilizing fixed and current assets leads to operating efficiency. Better utilization of resources improves profitability and thus, helps in releasing the pressure on working capital.

8) Price level changes: The increasing shifts in price level make the functions

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Changes in the price level also require an increase in requirements of working capital. Raising prices necessitate the use of more funds for maintaining an existing level of activity. For the same level of current assets, higher cash outlays are required. The effect of rising prices is that a higher amount of working capital is needed -

9) Depreciation Policy:- Depreciation policy also exerts an influence on the quantum of working capital. Depreciation charges do not involve any cash outflows. The effect of depreciation policy on working capital is therefore, indirect.

10) Level of taxes:- The first appropriation out of profits is payment or provision for tax. The amount of taxes to be paid is determined by the prevailing tax regulations. The management has no discretion in this respect. Very often, taxes have to be paid in advance on the basis of the profits of the preceding year. Tax liability in, in a sense, are short term liability payable in cash. An adequate provision for tax payments is, therefore, an important aspect of working capital planning.

### Need for working capital:-

The need for working capital (gross) or current assets cannot be overemphasised. Given the objective of financial decision making to maximize the shareholders wealth, it is necessary to generate sufficient profits. The extent to which profits can be earned will naturally depend, among other things i.e., upon the magnitude of sales. A successful sales programme is necessary for earning profits by any business enterprise.

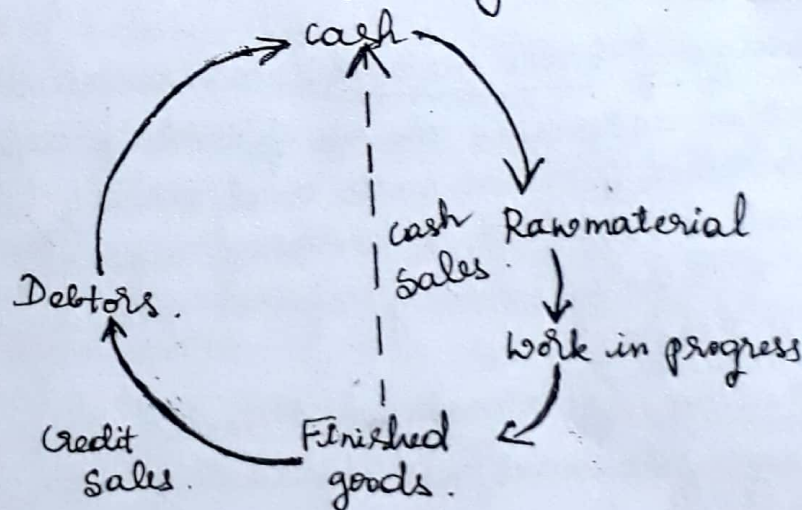
However, sales do not convert into cash instantly, there is invariably a time-lag between the sale of goods and the receipt of cash. There is, therefore a need for working capital in the form of current assets to deal with the problem arising out of the lack of immediate realisation of cash against goods sold. Therefore, sufficient working capital is necessary to sustain sales activity. Technically, this is referred to as the 'operating' or 'cash' cycle.

The operating cycle is said to be at the heart of the need for working capital. The continuing flow from cash into raw material, raw material into work-in-process, work-in-process into finished goods, finished goods into debtors and debtors into cash.

There are four components for an operating cycle of a manufacturing firm.

- A) Raw material conversion period (RMCP): It is the length of the period needed to buy (purchase) raw material and convert raw material into work-in-progress (WIP).
- B) Work-In-Progress (WIP) conversion period: It is the length of the period required to convert work-in-progress into finished goods.
- C) Finished goods conversion period (FGCP): It is the period needed for selling the finished goods to the customers (debtors). The total of the above three periods is called inventory conversion period.
- D) Book debts (Debtors) conversion period: It is the period needed for collecting cash from debtors.

Figure 1 operating cycle



If it were possible to complete the sequences instantaneously, there would be no need for current assets (working capital). But since it is not possible, the firm is forced to have current assets. Since cash inflows and outflows do not match, firm have to necessarily keep cash or invest in short-term liquid securities.

so that they will be in a position to meet obligations when they become due.

Similarly, firms must have adequate inventory to guard against the possibility of not being able to meet demand for their products. Adequate inventory, therefore, provides a cushion against being out of stock. If firms have to be competitive, they must sell goods to their customers on credit which necessitates the holding of accounts receivable.

It is in these ways that an adequate level of working capital is absolutely necessary for smooth sales activity which, in turn, enhances the owner's wealth.

### Methods for estimating working capital requirement:-

There are three methods of estimating working capital requirement.

I. Components of working capital method:- Under this, every component of current assets and current liabilities will be estimated. The total of current assets will yield gross working capital. When current liabilities are subtracted, net working capital is arrived at.

II. Percentage of sales method:- As sales determine production & production determine the size of working capital, a relation is established between sales and working capital. For eg, 10% of the sale is required for working capital. If the estimated sale is ₹. 2 crore, working capital needed is ₹ 20 lakhs i.e., 10% of ₹ 2 crore.

III. Operating cycle method:- Under this method, gross operating cycle and net operating cycle are calculated.

Step 1 A) RMCP

B) WIPCP.

C) FGCP.

D) BDCP.

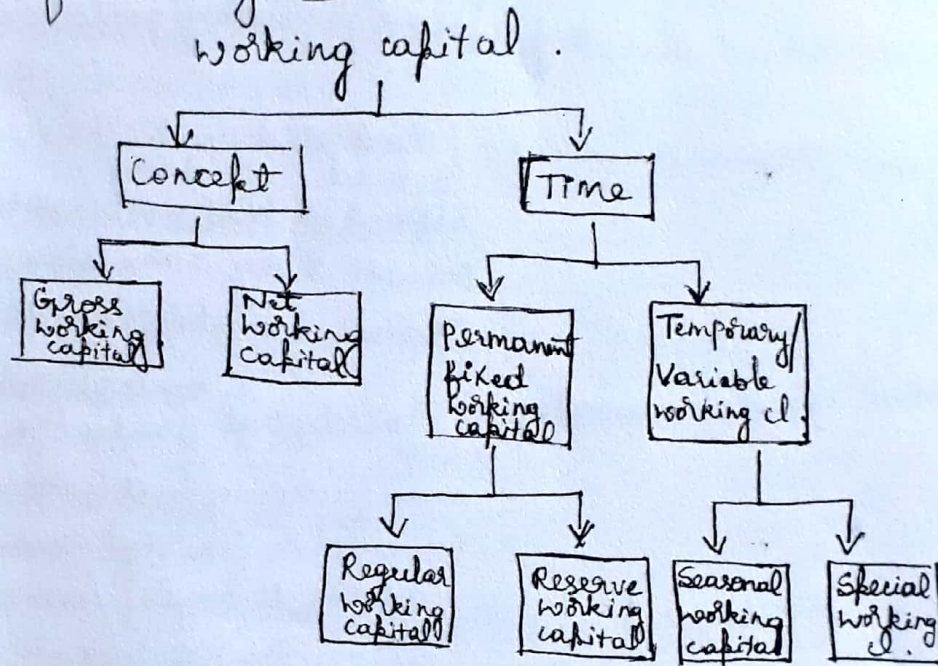
Gross operating cycle.

$$\rightarrow \text{Payment deferral period} = \frac{\text{Creditors}}{\text{Credit purchases/day}}$$

Step 2 No. of net operating cycle in a year =  $\frac{365}{\text{Net operating cycle}}$

Step 3 Working capital required =  $\frac{\text{Cost of sales}}{\text{No of net operating cycles in a year}}$

Types of working capital:-



On the basis of balance sheet - i.e., Gross working and net working capital and another is based on time.

(Already explanation for Gross working and net working is given) Refer 1st page.

(1) Permanent working capital:- It refers to a certain minimum level of current assets which is essential for the firm to carry its business irrespective of its level of operation. permanent working capital is that source of fund which is invested in acquiring a minimum fixed level of inventory irrespective of level of operation -

(i) Regular working capital. } classification.

(ii) Reserve working capital. }

(2) variable / temporary working capital:- is that requirement of fund which is over and above the fixed minimum working capi

## Determination of working capital.

The two components of WC are CA and CL. The computation of CA & CL are summarized below.

### Computation of different items of current assets:-

$$\rightarrow \text{Raw materials inventory} = \left[ \text{Budgeted production in (units)} \times \text{cost of raw materials (₹) per unit} \times \text{Avg inventory holding period (months or days)} \right] / 12 \text{ months (365 days)}$$

$$\rightarrow \text{Work-in-process inventory} = \left[ \text{Budgeted production (in units)} \times \text{Estimated WIP cost (excluding depreciation) per unit} \times \text{Avg time span of working process inventory (months or days)} \right] / 12 \text{ months (365 days)}$$

$$\rightarrow \text{Finished goods inventory} = \left[ \text{Budgeted production (units)} \times \text{manufacturing cost (excluding depreciation) per unit} \times \text{finished goods holding period (months or days)} \right] / 12 \text{ months (365 days)}$$

$$\rightarrow \text{Debtors} = \left[ \text{Budgeted credit sales (units)} \times \text{cost of sales (excluding depreciation) per unit} \times \text{Avg debt collection period (months or days)} \right] / 12 \text{ months (365 days)}$$

$\rightarrow$  cash and Bank balances = cash requirements are to be determined on some reasonable basis.

### Computation of different items of current liabilities:-

$$\rightarrow \text{Trade creditors} = \left[ \text{Budgeted yearly production (units)} \times \text{Raw material requirement per unit} \times \text{credit period allowed by creditors (months or days)} \right] / 12 \text{ months (365 days)}$$

$$\rightarrow \text{Direct wages} = \left[ \text{Budgeted yearly production (units)} \times \text{Direct labour cost per unit} \times \text{Average time-lag in payment of wages (months or days)} \right] / 12 \text{ months (365)}$$

Note:- The avg credit period for the payment of wages is approximately half-a-month in the case of monthly wage payment.



Overheads (other than depreciation and amortisation) =  $\left[ \frac{\text{Budgeted yearly products in units} \times \text{overhead cost per unit} \times \text{Avg time lag in paym of overheads (months or days)}}{12} \right]$

(365)

### Determination of working capital (WC):-

#### (A) Estimation of current assets (CA):-

Minimum desired cash and bank balances.

Add Inventories.

- Raw material
- work-in-process
- Finished goods

Debtors.\*

Expenses paid in advance (Prepaid).

Total.

#### (B) Estimation of current liabilities (CL).

Creditors for materials.\*\*

Creditors for expenses.

- wages.
- manufacturing overheads.
- selling overheads.

Total.

#### (C) Net working capital (NWC) (A) - (B)

Add: Margin for contingency.

NWC capital

\* If payment is received in advance, the item would be listed under CL

\*\* If advance payment is to be made to creditors, the item would appear under CA. The same would be the treatment for advance payment of wages and overheads.

## LONG TERM FINANCING

### Long term financing:

#### **Definition:**

Funding obtained for a time frame exceeding one year in duration. When a business borrows from a bank using long-term finance methods, it expects to pay back the loan over more than a one year period. For example, this might include making payments on a 20 year mortgage. Another long-term finance example would be issuing stock.

#### **Financial markets:**

Financial markets perform a crucial function in the financial system as facilitating organisation. Unlike financial intermediaries, they are not a source of funds but are a link and provide a forum in which suppliers of funds and demanders of loans/investments can transact business directly. While the loans and investments of financial intermediaries are made without the direct knowledge of the suppliers of funds (i.e., investors), suppliers in the financial markets know where their funds are being lent/invested. The two key financial markets are the money market and the capital market.

#### **Concept of capital market:**

The capital market is a market for financial investments that are direct or indirect claims to capital. The capital market comprises the complex of institutions and mechanism through which intermediate term funds and long term funds are pooled and made available to business, government and individuals.

It is a market for long term funds. The capital market is a place where the suppliers and users of capital meet to share one another's views, and where a balance is sought to be achieved among diverse market participants. The backbone of the capital market is formed by the various securities exchanges that provide a forum for equity (equity market) and debt (debt market) transactions.

#### **Importance of capital market:**

The capital market plays a dominant role in the development of a country. The importance of capital market is as follows:

- a) The Capital market facilitates mobilization of savings of individuals and pools them into reservoir of capital which can be used for the economic development of a country.
- b) An efficient capital market is essential for raising capital by the corporate sector of the economy and for the protection of the interest of investors in corporate securities.
- c) It encourages the investor who invests in financial assets/ financial securities instead of physical assets.
- d) It gives a productive direction to the savings generated in the economy. It encourages the saving habit among the people.

#### **Classification of capital Market:**

The capital market has two interdependent and inseparable segments, the primary market and stock (secondary market).

##### **I. Primary Market:**

The primary market provides the channel for sale of new securities. The issuer of securities sells the securities in the primary market to raise funds for investment and/ or to discharge. In other words,

the market wherein resources are mobilised by companies through issue of new securities is called the primary market. These resources are required for new projects as well as for existing projects with a view to expansion, modernisation, diversification and upgradation.

The primary market is of great significance to the economy of a country. It is through the primary market that funds flow for productive purposes from investors to entrepreneurs.

***The issue of securities by companies can take place in any of the following methods:-***

- a. Initial public offer (securities issued for the first time to the public by the company; In the IPO's or initial public offerings by the established companies, securities are sold to the public- all individuals and institutional investors.
- b. Further issue of capital;
- c. Rights issue to the existing shareholder (on their renunciation, the shares can be sold by the company to others also);
- d. Offer of securities under reservation/ firm allotment basis to; (i) foreign partners and collaborators, (ii) mutual funds (iii) merchant bankers (iv) banks and institutions (v) non resident Indians and overseas corporate bodies (vi) Employees.
- e. Offer to public
- f. Bonus Issue.

***II. Secondary Market:***

Secondary market refers to a market where securities are traded after being initially offered to the public in the primary market and/or listed on the Stock Exchange. Here the securities (shares, debentures, bonds, bills etc) are bought and sold by the investors. Majority of the trading is done in the secondary market. Secondary market comprises of equity markets and the debt markets.

In secondary market securities are not directly issued by the company to investors. The securities are sold by existing investors to other investors. Sometimes the investor is in need of cash and another investor wants to buy the shares of the company as he could not get directly from company. Then both the investors can meet in secondary market and exchange securities for cash through intermediary called broker.

The secondary market for a variety of assets can vary from loans to stocks, from fragmented to centralized, and from illiquid to very liquid. The major stock exchanges are the most visible example of liquid secondary markets - in this case, for stocks of publicly traded companies. Exchanges such as the New York Stock Exchange, London Stock Exchange, and Nasdaq provide a centralized, liquid secondary market for investors who own stocks that trade on those exchanges.

***Concept of Money market:***

The money market is created by a financial relationship between suppliers and demanders of short term funds which have maturities of one year or less. It exists because investors (i.e., individuals, business entities, government and financial institutions) have temporarily idle funds that they wish to place in some type of liquid asset or short term interest-earning instrument. At the same time other entities/organisations find themselves in need of seasonal temporary financing. The money market brings together these suppliers and demanders of short term liquid funds.

***Money Market Instruments:***

In this market, only those financial instruments are traded which are immediate substitutes for money, which includes:

- a) **Call/Notice Money:** When the money raised or borrowed on demand for a very short term which ranges from one day to 14 days, then it may be called as notice money, and when it exceeds 14 days it is termed as call money.
- b) **Treasury Bills:** These are short term, negotiable financial assets issued by the central bank, on behalf of the government, for overcoming liquidity shortfalls.
- c) **Commercial paper** is an unsecured, short-term debt instrument, promissory notes issued by a corporation, typically for the financing of accounts payable and inventories and meeting short-term liabilities. Maturities on commercial paper rarely range longer than 270 days.
- d) **Certificate of Deposit:** It is an unsecured, negotiable financial instrument which a bank and financial institution issues to individuals, corporation, trust, funds etc. at a discount on its face value and its maturity vary from 15 days to one year
- e) **Commercial Bills:** A commercial bill is a negotiable, self-liquidating instrument that is less risky in nature. When goods are bought on credit, these bills improve the liability to make payment at the specified date.

### Money market Versus capital market (Difference between money market and capital market):

The distinction between the money market and the capital market can be summarized below

Points	Money Market	Capital Market
1. Duration	Provides fund for a period less than one year	Provides funds for a period exceeding one year
2. Nature	Funds are provided to satisfy working capital requirements	Funds are provided for satisfying the long term investment requirements
3. Instruments Traded	Instruments such as Bills of exchange, Treasury bills, commercial bills etc. are traded	Instruments such as shares, debentures, bonds, etc, are traded.
4. Major Institution found	Central bank and commercial banks play dominant roles in the market.	Insurance companies and development companies play important roles.
5. Availability in secondary market	The instrument traded in this market generally do not have secondary market as the investor will hold them till their maturity	The instrument traded in this market has secondary market.
6. Place of market	There is no formal market place. They mostly take place over the phone	They have formal market, namely stock market
7. Role of brokers	Brokers do not play any role in money market	The transaction can take place only through the brokers.
8. Location	There is no fixed geographical location	Located at specified places.

### Debentures:

Debenture is a documents evidencing a debt or acknowledging it. A debenture is a long term promissory note for raising loan capital. The promises to pay interest and principal as stipulated. Debenture includes debenture stock, bonds and any other securities of a company, whether constituting a charge on the assets of the company or not. The purchaser of debentures are called debenture holders. An alternative form of debenture in India is a bond. Mostly public sector companies in India issue bonds.

***Types of debentures:***

Debentures may be straight debentures or convertible debentures. A convertible debenture is one which can be converted, fully or partly, into shares after a specified period of time. Thus on the basis of convertibility, debentures may be classified into three categories.

**a) Convertible debentures:**

A convertible debenture is a debenture that can be changed into specified number of ordinary shares, at the option of the owner. A company is, in fact, issuing equity shares in future whenever it offers convertible debentures.

**b) Non- convertible debentures (unsecured bonds):**

NCD's are pure debentures without a feature of conversion. They are repayable on maturity. The investor is entitled for interest plus repayment of principal. The Industrial Credit and Investment Corporation of India (ICICI) issued debentures for Rs.200 crores, fully non-convertible bonds of RS.1,000 each, at 16 percent rate of interest , payable half yearly. The maturity period was 5 years. However, the investors had the option to be repaid to him fully or partly, the principal after 3 years, after giving due notice to ICICI.

**c) Fully convertible debentures:**

FCDs are converted into shares as per the terms of the issue, with regard to the price and time of conversion. The pure FCDs carry interest rates, generally less than the interest rates on NCDs since they have the attraction feature of being converted into equity shares.

**d)Partly convertible debentures:**

A number of debentures issued by companies in India have two parts: a convertible part and a non-convertible part. Such debentures are known as partly-convertible debentures (PCDs). The investor has the advantages of both convertible and non-convertible debenture blended into single debenture.

***Preference shares:***

Preference shares are often considered to be a hybrid security since it has many features of both ordinary shares and debenture. It is similar to ordinary share in that (a) the non- payment of dividends does not force the company to insolvency, (b) dividends are not deductible for tax purposes, and (c) in some cases, it has no fixed maturity date. On the other hand, it is similar to debenture in that (a) dividend rate is fixed, (b) Preference shareholders do not share in the residual incomes (c) they usually do not have voting rights.

Preference shares are those shares which carry the preferential rights in terms of the following:

- Receiving the dividends
- Receiving back the principal amount

***Features of preference shares:***

Preference shares has several features.

1. **Claims in income and assets:** Preference share is a senior security as compared to an ordinary share. It has a prior claim on the company's income in the sense that the company must first pay preference dividend before paying ordinary dividend. It also has a prior claim on the company's assets and claim is honoured after that of a debenture and before that of a ordinary shares in the event of liquidation

**2. Fixed dividend:**

The dividend rate is fixed in the case of a preference share, and preference dividends are not tax deductible. The preference dividend rate is expressed as a percentage of the par value. The amount of preference dividend will thus be equal to the dividend rate multiplied by the par value.

**3. Cumulative dividends:**

Most preference shares in India carry a cumulative dividend feature, requiring that all past unpaid preference dividend are to be paid before any ordinary dividends are paid. This feature is a protective device for preference shareholders.

**4. Redemption:**

Theoretically, both redeemable and perpetual (irredeemable) preference shares can be issued. Perpetual or irredeemable preference shares does not have a maturity date. Redeemable preference shares has a specified maturity.

**5. Sinking fund:**

Like in the case of debentures, a sinking fund provision may be created to redeem preference share. The money set aside for this purpose may be used either to purchase preference share in the open market or to buy-back (call) the preference share.

**6. Voting rights:**

Preference shareholders may, in some cases, have participation feature which entitles the preference shareholders to participate in extraordinary profit earned by the company. This means that a Preference shareholder may get dividend amount in excess of the fixed dividend.

7. **Voting rights:** Preference shareholders ordinarily do not have any voting rights. They may be entitled to contingent or conditional voting rights.

***Types of preference shares:***

***a) Cumulative and Non cumulative preference shares:***

The holders of the cumulative preference shares are entitled to receive the arrears of dividends if any for the previous periods, before the profits are distributed among the equity shareholders.

On the other hand, the shareholders of Non cumulative preference shares do not enjoy this advantage. If the dividend is not paid for any year, then that dividend will not accumulate and the non cumulative preference shareholders will not get the dividend for that year.

***b) Redeemable preference shares:***

Subject to the terms and conditions of the issue as well as to the fulfilment of the legal requirements as laid down in Section 80 of the companies act, these shares are repaid (redeemed) within the life time of the company.

**c) Participating and Non participating preference shares:**

In addition to the fixed rate of dividend the participating preference shareholders are also entitled to receive a share at an agreed ratio (as agreed between equity shareholders and themselves) in any surplus profit remaining after distributing dividends among the equity shareholders.

On the other hand, the Non participating preference shareholders do not enjoy this benefit. They will get their dividends at a fixed rate.

**d) Convertible and Non convertible preference shares:**

According to the terms of the issue these shareholders will have the right to get their shares converted into equity shares.

On the other hand, the shares which do not have this feature of conversion are known as non convertible preference shares.

## **Equity shares or ordinary shares:**

Ordinary shares represent the ownership position in a company. The holders of ordinary shares or equity, called shareholders (or stockholders in USA), are the legal owners of the company. Ordinary shares are the sources of permanent capital; since they do not have a maturity date. For the capital contributed by purchasing ordinary shares, the shareholders are entitled for dividends. The amount or rate of dividends is not fixed.

### **Features of equity shares:**

- 1. Claim on income:** Ordinary shareholders have a residual ownership claim. They have a claim to the residual income, which is, earnings available for ordinary shareholders, after paying expenses, interest charges, taxes and preference dividend, if any. This income may be split into two parts: dividends and retained earnings.

- 2. Claim on Assets:**

Ordinary shareholders also have a residual claim on the company's assets in the case of liquidation. Liquidation can occur on account of business failure or sale of business. Out of the realized value of assets, first the claims of debt-holders and then preference shareholders are satisfied, and the remaining balance, if any, is paid to ordinary shareholders.

- 3. Voting rights:**

Ordinary shareholders are required to vote on a number of important matters. The most significant proposals include: election of directors and change in the memorandum of association. For example, If company wants to change its authorised share capital or objectives of business, it requires ordinary shareholders approval.

- 4. Limited liability:**

Ordinary shareholders are the true owners of the company, but their liability is limited to the amount of their investment in shares. The limited liability feature of ordinary share encourages otherwise unwilling investors to invest their funds in the company.

## Debt market:

The capital market comprises of equities market and debt market. Debt Market is the market where fixed income securities of various types and features are issued and traded. Such securities are usually issued by various types of agencies like, Central and State Governments, Municipal Corporations, Government entities, Commercial entities like Financial Institutions, Banks, Public Sector Units, Public Ltd. Companies etc.

Debt market is a market for the issuance, trading and settlement in fixed income securities of various types. The debt market is any market situation where trading debt instruments takes place. Examples of debt instrument include mortgages, promissory notes, bonds and Certificates of deposit. A debt market establishes a structured environment where these types of debt can be traded with ease between interested parties.

The debt markets often goes by other names, based on the type of debt instruments that are traded. In the event that the market deals mainly with the trading of municipal and corporate bond issues, the debt market may be known as a bond market. If mortgages and notes are the main focus of the trading, the debt market may be known as a credit market. When fixed rates are connected with the debt instruments, the market may be known as a fixed income market.

The various advantages of debt instruments are:

- Fixed and periodic receipts like interests
- Capital is preserved
- Mostly secured
- Can be risk free if invested in government bonds
- Lower volatility in comparison to equity market.

## Credit rating of debt instruments:

The fund requirement of the companies has increased in recent years. The investors will be interested in the credit worthiness of the companies in terms of the determination of their financial strengths and weaknesses. Generally equity shares are not considered in the credit rating as risk associated with them cannot be measured. But when the companies wish to issue bonds or debentures or any other debt instruments such instruments should be rated to assess the capacity of the companies to service the debt. Among the instruments, the debt instruments, bonds, debentures (which are not converted into equity shares within 18 months) and preference shares are to be rated.

### Factors considered while rating:

While rating a company's instruments a detailed analysis of the company, observation of the company's records and a detailed discussion with company's officials will be undertaken before the rate is decided. The process involved the following analysis.

- ❖ **Analysis of the business:** The Company's industry risk, marketing risk will be analysed.
- ❖ **Financial analysis:** Under this the rating agency observes the accounting policies and practices that the company follows. It will find out earning per share (EPS), profitability ratio, current ratio etc.
- ❖ **Analysis of the management:** In this rating agency will collect the details about the promoters, the managing body, their experience and qualification etc, in order to determine the quality of the management



- ❖ **Analysis of the external environment of the company:** Credit rating agency will find out the regulatory framework of the financial system, the extent of regulation and deregulation, the reactions of the competitors etc.

### Credit rating agencies in India:

Credit rating is nothing but the determination of the strength and weaknesses of the borrower by an expert agency that rates the borrower. Credit rating agency charges fee for its financial advisory service. When the rating agency rates the companies it can give the following grades.

**AAA-** indicating the highest degree of safety

**AA-** indicating lower degree of safety

**A-** Indicating more risk

**B-** Indicating that company's ability to service the debt is only a marginal

**C-** Indicating that company is not in a position to do the debt service and is highly risky.

In India there are agencies such as CRISIL, ICRA, CARE, FITCH India Ltd. The companies which are issuing the debts not maturing within 18 months should have their credit rating and should communicate the rating to the public.

- I. **CRISIL (The credit rating and Information Services of India Ltd.):** It was established in the year 1988 by the collective efforts of ICCI, UTI, LIC, SBI and ADB with other financial institutions. This agency took initiative voluntarily to rate the debts of Indian companies so that the investors are guided and protected. The following are some of the ratings for debentures given by CRISIL.

Rating	Implications
Triple A-(AAA)	Highest Safety
Double A-(AA)	High Safety
Single A-(A)	Adequate Safety
Triple B-(BBB)	Moderate Safety

- II. **ICRA (Investment and Credit Rating Agency):** It was established on January 16, 1991 by the Industrial finance Corporation of India. It was established as a public ltd. Company with a share capital of Rs.10 crores.

Long term funds including debentures/ bonds /preference shares rating.

Rating	Implications
LAAA	Highest Safety
LAA	High safety
LA	Adequate safety
LBBB	Moderate Safety

- III. **CARE (Credit Analysis and Research Limited)-** It was promoted in 1993. It was the result of the combined efforts of investment companies, banks and finance companies. It undertakes credit rating of all types of debt and related obligations.
- IV. **FITCH India Ltd-** It is another credit rating agency established in India as a subsidiary of a foreign company based in India.

**INVESTMENT DECISIONS (CAPITAL BUDGETING)****INTRODUCTION:**

The word Capital refers to be the total investment of a company of firm in money, tangible and intangible assets. Whereas budgeting defined by the "Rowland and William" it may be said to be the art of building budgets. Budgets are a blue print of a plan and action expressed in quantities and manners. Investment decision is the process of making investment decisions in capital expenditure. A capital expenditure may be defined as an expenditure the benefits of which are expected to be received over period of time exceeding one year. **The examples of capital expenditure:**

1. Purchase of fixed assets such as land and building, plant and machinery, good will, etc.
2. The expenditure relating to addition, expansion, improvement and alteration to the fixed assets.
3. The replacement of fixed assets.
4. Research and development project.

**DEFINITION:**

"Capital budgeting consists in planning development of available capital for the purpose of maximizing the long term profitability of the concern" – Lynch

"Capital budgeting is long term planning for making and financing proposed capital outlays." - Charles T Horngreen

**NEED AND IMPORTANCE OF CAPITAL BUDGETING:**

1. **Huge investments:** Capital budgeting requires huge investments of funds, but the available funds are limited, therefore the firm before investing projects, plan are control its capital expenditure.
2. **Long-term:** Capital expenditure is long-term in nature or permanent in nature. Therefore financial risks involved in the investment decision are more. If higher risks are involved, it needs careful planning of capital budgeting.
3. **Irreversible:** The capital investment decisions are irreversible, are not changed back. Once the decision is taken for purchasing a permanent asset, it is very difficult to dispose of those assets without involving huge losses.
4. **Long-term effect:** Capital budgeting not only reduces the cost but also increases the revenue in long-term and will bring significant changes in the profit of the company by avoiding over or more investment or under investment

**INVESTMENT DECISIONS /CAPITAL BUDGETING PROCESS:**

Investment decision is a complex process which may be divided into the following phases.

- a) Identification of potential investment opportunities
- b) Assembling of proposed investment
- c) Decision making
- d) Preparation of capital budget and appropriations
- e) Implementation
- f) Performance review

**a) Identification of potential investment opportunities:**

Investment decision process begins with the identification of potential investment opportunities. Typically, the planning body (it may be an individual or a committee organized formally or informally) develops estimates of future sales which serve as the basis for setting production targets. This information, in turn, is helpful in identifying required investments in plant and equipment, research and development, distribution and so on.

**b) Assembling of Investment proposals:**

Investment proposals identified by the production department and other departments are usually submitted in a standardized capital investment proposal form. Generally, most of the proposals, before they reach the capital budgeting committee or somebody who assembles them, are routed through several persons. The purpose of routing a proposal through several persons is primarily to ensure that the proposal is viewed from different angles.

**c) Decision making:**

A system of rupee gateways usually characterizes capital investment decision making. Under this system, executives are vested with the power to okay investment proposals upto certain limits. For example, in one company the plant superintendent can okay investment outlays upto RS.2, 00,000, the works manager upto Rs.5, 00,000.

**d) Implementation:**

Translating an investment proposal into a concrete project is a complex, time consuming and risk-fraught task. Delays in implementation, which are common, can lead to substantial cost- overruns.

**e) Performance Review:**

Performance review or post completion audit is a feedback device. It is a means for comparing actual performance with projected performance. It may be conducted, most appropriately, when the operations of the project have stabilized.

**FACTORS AFFECTING CAPITAL BUDGETING OR INVESTMENT DECISIONS:**

**1) Availability of funds:** It is one of the factors affecting capital budgeting or investment decisions. If a firm has more funds, it can think of investing in all or many projects. But generally, funds at the disposal of a firm would be limited.

**2) Amount of capital investment:** In case of firm has unlimited funds for investment it can accept all capital investment proposals which give a rate of return higher than the minimum acceptable or cut-off rate. However, most firms have limited funds and therefore capital rationing has to be imposed. In such an event a firm can take only such project or projects which are within its means. In order to determine which project should be taken up on this basis, the project should be arranged in an ascending order according to the amount of capital investment required as shown below:

S.No	Project	Description	Required investment
1.	101	Purchase of new plant	Rs.1,00,000
2.	102	Expansion of the existing plant	Rs.1,30,000
3.	103	Purchase of new sales office	Rs.1,50,000
4.	104	Introduction of a new product line	Rs.2,00,000

**3) Immediate need for the project:**

Capital budgeting is also influenced by the immediate need for the project. For instance, if a project is urgently needed, it has to be thought of immediately.

**4) Capital return or payback:**

The payback of project also would influence capital budgeting. If a project helps a firm to get back its investment as early as possible, it will be considered worthwhile. On the other hand, if the payback or capital return of a project is such that it will not help the firm to get back its investment quickly, it may not be undertaken.

**5) Accounting practices of a firm:**

Standard accounting practices have an impact on the amount of profitability of a project. Different accounting practices give different results as regards the earnings or profitability of a concern. So, accounting practices also have to be taken into consideration in the process of capital budgeting.

**6) Working capital needs of the project:**

The working capital needs of a project also will influence capital budgeting. If a project involves more additional working capital, it may not be chosen for implementation and vice versa.

**7) Market conditions:**

Market conditions can have a significant impact on a company's capital structure condition. Suppose a firm needs to borrow funds for a new plant. If the market is struggling, meaning investors are limiting companies access to capital because of market concerns, the interest rate to borrow may be higher than a company would want to pay. In that situation, it may be prudent for a company to wait until market conditions return to a more normal condition.

**8) Earning of the Project:**

The earnings from the project also would affect capital budgeting. Generally if the earning of a project is quite good, i.e., more than the cut-off rate, naturally, that project would be taken for implementation. On the other hand if earning of a project is low, then, it may be rejected.

**TYPES OF INVESTMENT DECISIONS:**

**1) Inventory investment:**

Inventory investment involves investment in raw materials, work-in-progress and finished stock. In contrast to fixed investment, inventories are constantly being 'turned over' as the production cycle repeats itself, with raw materials being purchased, converted first into work in progress, then into finished goods, and then finally being sold.

The level of inventory investment made by a firm will depend upon its forecasts about future demand and its resulting output plans, and the amount of stock it needs to allow for delivery delay on raw materials and production delays in serving customers with appropriate buffer stocks to cover unforeseen contingencies. Frequently firms find that actual levels of demand is less than expected and firms find that stocks of unsold goods buildup (unintended inventory investment); or that demand exceeds expectations so that stocks run down (unintended inventory disinvestment). The cost of inventory investment includes order and delivery and obsolescence of stock and interest charges on funds invested in stock. Firms seek to minimize these costs by establishing economic order quantities and optimum stockholding levels.

**2) Strategic investment decision:**

Strategic investment decision making involves the process of identifying, evaluating, and selecting among projects that are likely to have a significant impact on the organizations competitive advantage. More specifically, the decision will influence what the organisation does (i.e., the set of product and

service attributes that define its offerings), where it does it(i.e., the structural characteristic that determine the scope and geographical dispersion of its operations), and/or how it does it(i.e., the set of operating processes and work practices it uses).The strategic investment decision process is arguably one of senior managements greatestchallenges.

In strategic investment decision, the firm makes investment decisions in order to strengthen its market power. The return on such investment will not be immediate.

### **3) Ownership Investments:**

They are the most volatile and profitable class of investment. Ownership investments are the types of investments where you own an asset or acompany which can generate earnings. In this category belong shares (stocks) real estate, and running your own business.

Stocks are shares of ownership in a company. Also called equities, these enable you to share in the profits of the company. When the company performs well, other investors will want to buy shares. This demand will increase the share price and give you profits if you decide to sell your shares. On the other end of the spectrum, if the company suffers losses, the value of your stock also goes down. If you decide to sell your stocks for fear that the stock price will plummet further, you end up losing money. Take note, however, that your "losses" do not become actual losses unless you realize those by selling your stock at a losing price. The stock market has its ups and downs and many investors have found that by riding out the rough periods, stocks that once performed poorly eventually rebound.

Real estate is also another kind of ownership investment. These are the other houses, lots, apartments, or other dwellings you acquire to rent or resell. Generally, your primary residence also appreciates in value over time but since this is fulfilling your basic need for shelter, it would not be a good idea to count it as an investment. Besides, the 2008 housing crisis showcased how a mortgage meltdown could devalue your home.

Running your own business is the third type of ownership investment. When you invest money and time in making your business grow, you are going to reap the benefits and rewards when it starts giving you profits. Your business can be a product or service that people want or need. Bill Gates and the late Steve Jobs gave the world products that made lives more convenient and in the process, amassing wealth for themselves.

### **4) Cash equivalent investment:**

Cash equivalents serve as one of the most important health indicators of a company's financial system. Analysts can also estimate whether it is good to invest in a particular company through its ability to generate cash and cash equivalents since it reflects how a company is able to pay its bills throughout a short period of time. Companies with large amounts of cash and cash equivalents are primary targets of bigger companies who are planning to acquire smaller companies.

Cash equivalents are the total value of cash on hand that includes items that are similar to cash; cash and cash equivalents must be current assets. A company's combined cash or cash equivalents are always shown on the top line of the balance sheet since these assets are the most liquid assets. Along with stocks and bonds, cash and cash equivalents make up the three main asset classes in finance.

### **5) Lending Investment:**

Lending investments are those where you act as the lender. That is, you lend your money in exchange for interest which will be paid to you sometime in the future. Your regular savings account, certificates of deposit, and bonds are considered lending investments.

When you put money in bank, you're essentially lending your money to them so that they can use it- to give loans to individuals and businesses, for example in return, they will be paying you interest. Although the risk factor is very low, the problem with putting your money on the bank is that the interest rate is negligible. Most of the time, what the bank will pay you in interest will just get overtaken by inflation and taxes. So even if you have faithfully saved your money in the bank for a year, the interest won't be enough for you to realize your dreams of wealth and a comfortable retirement.

## **DISINVESTMENT:**

### **INTRODUCTION:**

Since the 1950s, governments in many developing countries, including India, relied on the public sector to accelerate development and achieve a more equitable regional dispersal of industries. In several countries, the public sector attained "commanding heights" of the economy.

From the late 1970s, however, serious concerns have been raised about the effectiveness and efficiency of public enterprises. As a result, a number of countries have taken steps in the direction of privatisation which essentially involves transfer of ownership (generally represented by equity shares), partial or total, of public enterprises from the government to individuals and non-government institutions. It may also be referred to as "people-isation" or "de-govermentalisation" or "marketisation".

### **MEANING:**

Disinvestment refers to the dilution of government's stake in a public enterprise. It is the dilution of government's stake in the transfer of management and control of the enterprise partly to private sector. Thus if the government transfers 51 percent or more shares of public enterprise to the private shareholders then this dilution would transfer the majority of decision making power of the government to private sector. If less than 50 percent government's shareholding is transferred then effective control would remain in the hands of government and in that case the enterprise is not said to be privatized.

In order to raise resources and encourage wide public participation, a part of the government shareholding in the public sector would be offered to private sector, mutual funds, financial institutions and general public. Thus the concept of disinvestment implies ploughing back the resources from the invested units by way of selling the holdings. In other words, disinvestment typically refers to sale from the government, partly or fully, of government owned enterprise. There are two approaches to disinvestment programme.

- i. According to first approach Government sells its equity holding in Public enterprises (PE's) to public or private parties, financial institutions and mutual funds etc.
- ii. According to second approach when Public enterprises (PE's) are generally directed by the government to issue their equity shares to the public.

### **RATIONALE FOR DISINVESTMENT (PRIVATISATION):**

The privatization programmes of various countries have been motivated primarily by one or more of the following objectives.

**❖ Improved Efficiency:**

It is generally argued that the private sector has a comparative advantage over the public sector in terms of efficiency. The right to profit in the private sector provides a strong incentive to be efficient. Owners-managers will strive for higher productivity and lower costs, as these get translated into extra profits.

***The principal sources of efficiency gains are as follows:***

**• Autonomy:**

Distanced from political interference and bureaucratic control, the enterprise enjoys greater autonomy. This means more flexibility in investment, financing and operating decisions.

**• Accountability:**

Private shareholders tend to be more demanding. Hence the management has to assume higher responsibility for performance.

**• Employee pride:**

Typically, as part of privatization, Employees too acquire a stake in ownership. This leads to a greater identification with the enterprise and stronger commitment to excel.

**❖ Generation of resources:**

Government in most of the countries (both developed as well as developing countries) is struggling to keep budgetary deficits within reasonable limits. Privatisation seems to be very convenient way of raising resources for reducing fiscal deficits.

**❖ Promotion of popular capitalism:** Privatisation invariably broadens the base of equity shareholders and promotes popular capitalism. Apart from the contribution it makes to the Deepening of the capital market; it can be politically very appealing.

**DISINVESTMENT METHODS:**

In order to achieve the various objectives and goals of disinvestment three methods have been formulated and implemented. These include:

**1) Public Offer:**

Offering shares of public sector enterprises at a fixed price through a general prospectus, the offer is made to the general public through the medium of recognized market intermediaries.

Initially equity was offered to retail investors through domestic public issues. This was followed by issuance of the Global Depository Receipts (GDRs) to tap the overseas market.

**2) Cross holding:** A holding company is a company or firm that owns other companies outstanding stock. It usually refers to a company which does not produce goods or services itself; rather its only purpose owns shares of other companies.

In the case of cross holding, the government would simply sell part of its share of one Public sector units (PSU) to one or more PSU's.

**3) Sale of equity:**

Sale of equity through auction of share amongst pre-determined clientele, whose number can be large. The reserve price for the PSE's equity can be determined with the assistance of merchant bankers.

Mrs. Anitha Kamath, Dept of Mech Engg



## RATIO ANALYSIS

### INTRODUCTION:

Financial statements aim at providing financial information about a business enterprise to meet the information needs of the decision-makers. Financial statements prepared by a business enterprise in the corporate sector are published and are available to the decision-makers. These statements provide financial data which require analysis, comparison and interpretation for taking decision by the external as well as internal users of accounting information. This act is termed as financial statement analysis.

Ratios analysis is one of the widely used techniques of financial statement analysis. It can be used to compare the risk and return relationships of firms of different sizes.

### MEANING OF RATIO ANALYSIS/ ACCOUNTING RATIO:

Accounting ratios are an important tool of financial statements analysis. A ratio is a mathematical number calculated as a reference to relationship of two or more numbers and can be expressed as a fraction, proportion, percentage and a number of times. When the number is calculated by referring to two accounting numbers derived from the financial statements, it is termed as financial ratio.

### DEFINITION:

Ratio analysis is defined as “the systematic use of ratio to interpret the financial statements so that the strengths and weaknesses of a firm as well as its historical performance and current financial condition can be determined”.

### RATIONALE:

The rationale of ratio analysis lies in the fact that it makes related information comparable. A single figure by itself has no meaning but when expressed in terms of a related figure, it yields significant inferences. For instance, the fact that the net profits of a firm amount to, say, ₹10 lakh throws no light on its adequacy or otherwise. The figure of net profit has to be considered in relation to other variables. How does it stand in relation to sales? What does it represent by way of return on total assets used or total capital employed? If, therefore, net profits are shown in terms of their relationship with items such as sales, assets, capital employed, equity capital and so on, meaningful conclusions can be drawn regarding their adequacy. To carry the above example further, assuming the capital employed to be ₹50 lakh and ₹100 lakh, the net profits are 20 per cent

and 10 per cent respectively. Ratio analysis, thus, as a quantitative tool, enables analysts to draw quantitative answers to questions such as: Are the net profits adequate? Are the assets being used efficiently? Is the firm solvent? Can the firm meet its current obligations and so on?

#### **OBJECTIVES OF RATIO ANALYSIS:**

Ratio analysis is indispensable part of interpretation of results revealed by the financial statements. It provides users with crucial financial information and points out the areas which require investigation. Ratio analysis is a technique which involves regrouping of data by application of arithmetical relationships, though its interpretation is a complex matter. It requires a fine understanding of the way and the rules used for preparing financial statements. Once done effectively, it provides a lot of information which helps the analyst:

1. To know the areas of the business which need more attention?
2. To know about the potential areas which, can be improved with the effort in the desired direction
3. To provide a deeper analysis of the profitability, liquidity, solvency and efficiency levels in the business
4. To provide information for making cross-sectional analysis by comparing the performance with the best industry standards and
5. To provide information derived from financial statements useful for making projections and estimates for the future.

#### **IMPORTANCE OF RATIO ANALYSIS:**

As a tool of financial management, ratios are of crucial significance. The importance of ratio analysis lies in the fact that it presents facts on a comparative basis and enables the drawing of inferences regarding the performance of a firm. Ratio analysis is relevant in assessing the performance of a firm in respect of the following aspects: (i) liquidity position, (ii) long-term solvency, (iii) operating efficiency, (iv) overall profitability, (v) inter-firm comparison, and (vi) trend analysis.

##### **1. Liquidity position:**

With the help of ratio analysis conclusions can be drawn regarding the liquidity position of a firm. The liquidity position of a firm would be satisfactory if it is able to meet its current obligations when they become due. A firm can be said to have the ability to meet its short-term liabilities if it has sufficient liquid funds

to pay the interest on its short-maturing debt usually within a year as well as to repay the principal. This ability is reflected in the liquidity ratios of a firm. The liquidity ratios are particularly useful in credit analysis by banks and other suppliers of short-term loans.

### 2. Long-term Solvency:

**Ratio** analysis is equally useful for assessing the long-term **financial** viability of a firm. This aspect of the **financial** position of a borrower is of concern to the long-term creditors, security analysts and the present and potential owners of a business. The long-term solvency is measured by the leverage/capital structure and **profitability** ratios which focus on earning power and operating efficiency.

### 3. Operating Efficiency:

From the viewpoint of management usefulness of the ratio analysis, is that it throws light on the degree of efficiency in the management and utilization of its assets. The various activity ratios measure this kind of operating efficiency.

### 4. Overall profitability:

Unlike the outside parties which are interested in one aspect of the **financial** position of a firm, the management is constantly concerned about the overall profitability of the enterprise. That is, they are concerned about the ability of the firm to meet its short-term as well as long-term obligations to its creditors, to ensure a reasonable return to its owners and secure optimum utilisation of the assets of the firm. This is possible if an integrated view is taken and all the ratios are considered together.

### 5. Inter firm comparison:

Ratio analysis not only throws light on the financial position of a firm but also serves as a stepping stone to remedial measures. This made possible due to inter firm comparison and comparison with industry averages. A single figure of a particular ratio is meaningless unless it is related to some standard or norm. One of the popular techniques is to compare the ratios of a firm with the industry average.

**6. Trend Analysis:**

Finally, **ratio** analysis enables a firm to take the time dimension into account. In other words, whether the **financial** position of a firm is improving or deteriorating over the years. This is made possible by the use of trend analysis. The significance of a trend analysis of ratios lies in the fact that the analysts can know the direction of movement, that is, whether the movement is favourable or unfavourable. For example, the **ratio** may be low as compared to the norm but

**7. SWOT analysis:**

Ratios help a great deal in explaining the changes occurring in the business. The information of change helps the management a great deal in understanding the current threats and opportunities and allows business to do its own SWOT (Strength, Weakness-Opportunity-Threat) analysis.

**LIMITATIONS OF RATIO ANALYSIS:**

Ratio analysis is a widely used tool of financial analysis. Yet, it suffers from various limitations.

**1. Difficulty in comparison:**

One serious limitation of **ratio** analysis arises out of the difficulty associated with their comparability. One technique that is employed is interfirm comparison. But such comparisons are vitiated by different procedures adopted by various firms. The differences may relate to:

- Differences in the basis of inventory valuation (e.g. last in first out, first in first out, average cost and cost);
- Different depreciation methods (i.e. straight line vs written down basis);
- Estimated working life of assets, particularly of plant and equipment;
- Amortisation of intangible assets like goodwill, patents and so on;

**2. Limitations of Accounting Data:**

Accounting data give an unwarranted impression of precision and finality. In fact, accounting data “reflect a combination of recorded facts, accounting conventions and personal judgements which affect them materially. For example, profit of the business is not a precise and final figure. It is merely an opinion of the accountant based on application of accounting policies. Thus, the financial statements may not reveal the true state of affairs of the enterprises and so the ratios will also not give the true picture.

**3. Ignores Price-level Changes:**

The financial accounting is based on stable money measurement principle. It implicitly assumes that price level changes are either non-existent or minimal. But the truth is otherwise. We are normally living in inflationary economies where the power of money declines constantly. A

change in the price-level makes analysis of financial statement of different accounting years meaningless because accounting records ignore changes in value of money.

#### 4. Ignore Qualitative or Non-monetary Aspects:

Accounting provides information about quantitative (or monetary) aspects of business. Hence, the ratios also reflect only the monetary aspects, ignoring completely the non-monetary (qualitative) factors.

#### 5. Forecasting:

Forecasting of future trends based only on historical analysis is not feasible. Proper forecasting requires consideration of non-financial factors as well.

#### 6. Conceptual Diversity:

Yet another factor which influences the usefulness of ratios is that there is difference of opinion regarding the various concepts used to compute the ratios. There is always room for diversity of opinion as to what constitutes shareholders' equity, debt, assets, profit and so on. Different firms may use these terms in different senses or the same firm may use them to mean different things at different times.

Reliance on a single **ratio** for a particular purpose may not be a conclusive indicator. For instance, the current **ratio** alone is not an adequate measure of short-term **financial** strength; it should be supplemented by the acid-test **ratio**, debtors turnover **ratio** and inventory turnover **ratio** to have a real insight into the liquidity aspect.

#### TYPES OF RATIOS:

Based on the purpose for which a ratio is computed, classified into:

1. Liquidity Ratios: To meet its commitments, business needs liquid funds. The ability of the business to pay the amount due to stakeholders as and when it is due is known as liquidity, and the ratios calculated to measure it are known as 'Liquidity Ratios'. These are essentially short-term in nature.

Liquidity ratios classified into two categories:

##### a. Current Ratio:

Current ratio is the proportion of current assets to current liabilities. It is expressed as follows:

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

or

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

Current assets include current investments, inventories, trade receivables (debtors and bills receivables), cash and cash equivalents, short-term loans and advances and other current assets such as prepaid expenses, advance tax and accrued income, etc. Current liabilities include short-

term borrowings, trade payables (creditors and bills payables), other current liabilities and short-term provisions.

**b. Quick Ratio:**

It is the ratio of quick (or liquid) asset to current liabilities. It is expressed as

**Quick ratio = Quick Assets: Current Liabilities or**

Quick ratio = Quick Assets / Current Liabilities

The quick assets are defined as those assets which are quickly convertible into cash. While calculating quick assets we exclude the inventories at the end and other current assets such as prepaid expenses, advance tax, etc., from the current assets.

**2. Solvency Ratios:** The persons who have advanced money to the business on long-term basis are interested in safety of their periodic payment of interest as well as the repayment of principal amount at the end of the loan period. Solvency of business is determined by its ability to meet its contractual obligations towards stakeholders, particularly towards external stakeholders, and the ratios calculated to measure solvency position are known as 'Solvency Ratios'. These are essentially long-term in nature.

- a) Debt-Equity Ratio
- b) Debt to Capital Employed Ratio
- c) Proprietary Ratio
- d) Total Assets to Debt Ratio
- e) Interest Coverage Ratio.

**a) Debt-Equity Ratio:** Debt-Equity Ratio measures the relationship between long-term debt and equity. If debt component of the total long-term funds employed is small, outsiders feel more secure. From security point of view, capital structure with less debt and more equity is considered favourable as it reduces the chances of bankruptcy. Normally, it is considered to be safe if debt equity ratio is 2 : 1. However, it may vary from industry to industry. It is computed as follows:

**Debt-Equity Ratio = Long term Debts / Shareholders' Funds**

Where,

Shareholders' Funds (Equity) = Share capital + Reserves and Surplus + Money received against share warrants

Share Capital = Equity share capital + Preference share capital

or

Shareholders' Funds (Equity) = Non-current assets + Working capital – Non-current liabilities

Working Capital = Current Assets – Current Liabilities

**b) Debt to Capital Employed Ratio:**

The Debt to capital employed ratio refers to the ratio of long-term debt to the total of external and internal funds (capital employed or net assets). It is computed as follows:

**Debt to Capital Employed Ratio = Long-term Debt/Capital Employed (or Net Assets)**

**c) Proprietary Ratio:**

Proprietary ratio expresses relationship of proprietor's (shareholders) funds to net assets and is calculated as follows:

**Proprietary Ratio = Shareholders funds/Capital employed (or net assets)**

d) Total Assets to Debt Ratio:

This ratio measures the extent of the coverage of long-term debts by assets. It is calculated as

**Total assets to Debt Ratio = Total assets/Long-term debts**

e) **Interest Coverage Ratio:** It is a ratio which deals with the servicing of interest on loan. It is a measure of security of interest payable on long-term debts. It expresses the relationship between profits available for payment of interest and the amount of interest payable. It is calculated as follows:

**Interest Coverage Ratio = Net Profit before Interest and Tax/Interest on long-term debt**

f) **Activity (or Turnover) Ratio:**

These ratios indicate the speed at which, activities of the business are being performed. The activity ratios express the number of times assets employed, or, for that matter, any constituent of assets, is turned into sales during an accounting period.

The important activity ratios calculated under this category are

- i. Inventory Turnover
- ii. Trade receivable Turnover (Debtors turnover ratio)
- iii. Trade payable Turnover
- iv. Investment (Net assets) Turnover
- v. Fixed assets Turnover
- vi. Working capital Turnover

i) **Inventory Turnover Ratio:** It determines the number of times inventory is converted into revenue from operations during the accounting period under consideration. It expresses the relationship between the cost of revenue from operations and average inventory. The formula for its calculation is as follows:

**Inventory Turnover Ratio = Cost of Revenue from Operations / Average Inventory**

Where, average inventory refers to arithmetic average of opening and closing inventory, and the cost of revenue from operations means revenue from operations less gross profit.

ii) **Trade Receivables Turnover Ratio (Debtors turnover ratio):**

It expresses the relationship between credit revenue from operations and trade receivable. It is calculated as follows :

**Trade Receivable Turnover ratio = Net Credit Revenue from Operations/Average Trade Receivable**

Where, **Average Trade Receivable = (Opening Debtors and Bills Receivable + Closing Debtors and Bills Receivable)/2**

It needs to be noted that debtors should be taken before making any provision for doubtful debts

iii) **Trade Payable Turnover Ratio:**

Trade payables turnover ratio indicates the pattern of payment of trade payable. As trade payable arise on account of credit purchases, it expresses relationship between credit purchases and trade payable. It is calculated as follows:

**Trade Payables Turnover ratio = Net Credit purchases/ Average trade payable**

Where, **Average Trade Payable** = (Opening Creditors and Bills Payable + Closing Creditors and Bills Payable)/2

**Average Payment Period = No. of days/month in a year Trade Payables Turnover Ratio**

**iv) Net Assets or Capital Employed Turnover Ratio:**

It reflects relationship between revenue from operations and net assets (capital employed) in the business. Higher turnover means better activity and profitability. It is calculated as follows:

**Net Assets or Capital Employed Turnover ratio = Revenue from Operation/ Capital Employed**

**v) Fixed Assets Turnover Ratio:** It is computed as follows:

**Fixed asset turnover Ratio = Net Revenue from Operation /Net Fixed Assets**

**vi) Working Capital Turnover Ratio:** It is calculated as follows :

**Working Capital Turnover Ratio = Net Revenue from Operation Working Capital**

**3. Activity (or Turnover) Ratios:** This refers to the ratios that are calculated for measuring the efficiency of operations of business based on effective utilisation of resources. Hence, these are also known as 'Efficiency Ratios'.

**4. Profitability Ratios:** It refers to the analysis of profits in relation to revenue from operations or funds (or assets) employed in the business and the ratios calculated to meet this objective are known as 'Profitability Ratios'. In other words, profitability ratios are calculated to analyse the earning capacity of the business which is the outcome of utilisation of resources employed in the business.

The various ratios which are commonly used to analyse the profitability of the business are:

- i. Gross profit ratio
- ii. Operating ratio
- iii. Net profit ratio
- iv. Return on Investment (ROI) or Return on Capital Employed (ROCE)

**i) Gross Profit Ratio:** Gross profit ratio as a percentage of revenue from operations is computed to have an idea about gross margin. It is computed as follows:

**Gross Profit Ratio = Gross Profit/Net Revenue of Operations × 100**

**ii) Operating Ratio** It is computed to analyse cost of operation in relation to revenue from operations. It is calculated as follows:

**Operating Ratio = (Cost of Revenue from Operations + Operating Expenses)/ Net Revenue from Operations × 100**

**Operating expenses** include office expenses, administrative expenses, selling expenses, distribution expenses, depreciation and employee benefit expenses etc.



**Cost of operation** is determined by excluding non-operating incomes and expenses such as loss on sale of assets, interest paid, dividend received, loss by fire, speculation gain and so on.

**iii) Net Profit Ratio:** Net profit ratio is based on all inclusive concept of profit. It relates revenue from operations to net profit after operational as well as non-operational expenses and incomes. It is calculated as under:

$$\text{Net Profit Ratio} = \frac{\text{Net profit}}{\text{Revenue from Operations}} \times 100$$

Generally, net profit refers to profit after tax (PAT).

**iv) Return on Capital Employed or Investment:**

It explains the overall utilisation of funds by a business enterprise. Capital employed means the long-term funds employed in the business and includes shareholders' funds, debentures and long-term loans. Alternatively, capital employed may be taken as the total of non-current assets and working capital. Profit refers to the Profit Before Interest and Tax (PBIT) for computation of this ratio. Thus, it is computed as follows:

$$\text{Return on Investment (or Capital Employed)} = \frac{\text{Profit before Interest and Tax}}{\text{Capital Employed}} \times 100$$

Cost accounting has primarily developed to meet the needs of management. Profit and Loss Account and Balance Sheet are presented to management by the financial accountant. But modern management needs much more detailed information than supplied by these financial statements. Cost accounting provides detailed cost information to various levels of management for efficient performance of their functions. The information supplied by cost accounting acts as a tool of management for making optimum use of scarce resources and ultimately adding to the profitability of business.

The Chartered Institute of Management Accountants (CIMA) of UK has defined costing as, “the techniques and processes of ascertaining costs”.

### OBJECTIVES AND FUNCTIONS OF COSTING (COST ACCOUNTING):

The main objectives of cost accounting are as follows:

- 1. Ascertainment of cost:** This is the primary objective of cost accounting. In other words, the basic objective of cost accounting is to ascertain the cost of products and services. For cost ascertainment different techniques and systems of costing are used in different industries.
- 2. Control and reduction of cost:** Cost accounting aims at improving efficiency by controlling and reducing cost. This objective is becoming increasingly important because of growing competition.
- 3. Guide to business policy:** Cost accounting aims at serving the needs of management in conducting the business with utmost efficiency. Cost data provide guidelines for various managerial decisions like make or buy, selling below cost, utilization of idle plant capacity, introduction of a new product, etc
- 4. Determination of selling price:** Cost accounting provides cost information on the basis of which selling prices of products or services may be fixed. In periods of depression, cost accounting guides in deciding the extent to which the selling prices may be reduced to meet the situation.
- 5. Measuring and improving performance:** Cost accounting measures efficiency by classifying and analysing cost data and then suggests various steps in improving performance so that profitability is increased.

### CLASSIFICATION OF COSTS:

Classification is the process of grouping costs according to their common characteristics. There are various ways of classifying costs as given below. Each classification serves a different purpose.

#### 1. Classification into Direct and Indirect Costs:

Costs are classified into direct costs and indirect costs on the basis of their identifiability with cost units or jobs or processes or cost centres.

- ❖ **Direct costs:** These are those costs which are incurred for and conveniently identified with a particular cost unit, process or department. Cost of raw materials used and wages of machine operator are common examples of direct costs. To be specific, cost of steel used in manufacturing a machine can be conveniently ascertained. It is, therefore, a direct cost.
- ❖ **Indirect costs:** These are general costs and are incurred for the benefit of a number of cost units, processes or departments. These costs cannot be conveniently identified with a particular cost unit or cost centre. Depreciation of machinery, insurance, lighting, power, rent, managerial salaries, materials used in repairs, etc., are common examples of indirect costs.

#### 2. Classification into Fixed and Variable Costs:

Costs behave differently when level of production rises or falls. Certain costs change in sympathy with production level while other costs remain unchanged. As such on the basis of behaviour or variability, costs are classified into fixed, variable and semi-variable.

- (i) **Fixed costs:** These costs remain constant in ‘total’ amount over a wide range of activity for a specified period of time; i.e., these do not increase or decrease when the volume of production changes. For example, building rent, managerial salaries remain constant and do not change with change in output level and thus are fixed costs. But fixed cost ‘per unit’ decreases when volume of production increases and vice versa.

For example, if total fixed cost is Rs. 10,000 per month, per unit fixed cost will be as follows:

<i>Total fixed cost (a)</i>	<i>No. of units produced (b)</i>	<i>Fixed cost per unit (a ÷ b)</i>
₹ 10,000	1	₹ 10,000
₹ 10,000	2	₹ 5,000
₹ 10,000	10	₹ 1,000
₹ 10,000	100	₹ 100
₹ 10,000	1,000	₹ 10

**(ii) Variable costs:** These costs tend to vary in direct proportion to the volume of output. In other words, when volume of output increases, total variable cost also increases, and vice versa, when volume of output decreases, total variable cost also decreases. But, the variable cost per unit remains fixed.

**(iii) Semi-variable or semi-fixed costs (Mixed costs):** These costs include both a fixed and a variable component; i.e., these are partly fixed and partly variable. A semi-variable cost has often a fixed element which will not fall at any level of output.

### 3. Classification into Controllable and Non-controllable Cost:

From the point of view of controllability, costs are classified into controllable costs and non-controllable costs.

□ **Controllable costs:** These are the costs which may be directly regulated at a given level of management authority. Variable costs are generally controllable by department heads. For example, cost of raw material may be controlled by purchasing in larger quantities.

□ **Non-controllable costs:** These are those costs which cannot be influenced by the action of a specified member of an enterprise. For example, it is very difficult to control costs like factory rent, managerial salaries, etc.

### 4. Classification into Historical Costs and Pre-determined Costs:

On the basis of time of computation, costs are classified into historical costs and pre-determined costs.

❖ **Historical costs:** These are past costs which are ascertained after these have been incurred. Historical costs are thus nothing but actual costs. These costs are not available until after the completion of the manufacturing operations.

❖ **Pre-determined costs:** These are future costs which are ascertained in advance of production on the basis of a specification of all the factors affecting cost. These costs are extensively used for the purpose of planning and control.

### 5. Classification into Normal and Abnormal Costs:

❖ **Normal cost** may be defined as cost which is normally incurred on expected lines at a given level of output. This cost is a part of cost of production.

❖ **Abnormal cost** is that which is not normally incurred at a given level of output. Such cost is over and above the normal cost and is not treated as a part of the cost of production. It is charged to costing Profit and Loss Account.

### 6. CLASSIFICATION OF COSTS FOR DECISION MAKING:

There are certain costs which are specially computed for use by the management for the purpose of decision-making. These costs may not be recorded in the books of account.

#### i) Sunk Cost (Past Cost):

A sunk cost is a cost that has already been incurred and that cannot be changed by any decision made now or in the future. Such costs are not relevant for decision-making about the future. To illustrate the concept of such cost, assume that a firm has just paid Rs.1,00,000 for a special purpose machine. Since the cost outlay has been made, Rs.1,00,000 investment in the machine is a sunk cost.

**ii) Differential (or Incremental) Costs:** This cost may be regarded as the difference in total cost resulting from a contemplated change. In other words, differential cost is the increase or decrease in total cost that result from an alternative course of action. It is ascertained by subtracting the cost of one alternative from the cost of another alternative. The alternative choice may arise because of change in method of production, in sales volume, change in product mix, make or buy decisions, take or refuse decision, etc.

**iii) Marginal Cost:** Marginal cost is the additional cost of producing one additional unit. Marginal cost is the same thing as variable cost. Marginal costing (or variable costing) is a technique of charging only variable costs to products. Inventory is also

valued at variable cost only. Fixed cost is treated as period cost and written off in Profit and Loss Account of the period. Marginal costing is also a very important analytical and decision-making tool in the hands of management.

**iv) Imputed Costs (Notional cost):**

These are hypothetical costs which are specially computed outside the accounting system for the purpose of decision-making. Interest on capital invested is a common type of imputed cost. As interest on capital is usually not included in cost, it is considered necessary to take it into account when deciding about the alternative capital investment projects.

**v) Opportunity Cost:**

An opportunity cost may be defined as the potential benefit that is lost or sacrificed when the selection of one course of action makes it necessary to give up competing course of action. In other words, an opportunity cost is the sacrifice involved in accepting an alternative under consideration. For example, a company has deposited Rs.1 lakh in bank at 10% p. a. interest. Now, it is considering a proposal to invest this amount in debentures where the yield is 12% p. a. If the company decides to invest in debentures, it will have to forego bank interest of Rs.10,000 p. a., which is the opportunity cost.

**vi) Replacement Cost:** This is the cost at which there could be purchased an asset identical to that which is being replaced. In simple words, replacement cost is the current market cost of replacing an asset. When the management considers the replacement of an asset, it has to keep in mind its replacement cost and not the cost at which it was purchased earlier.

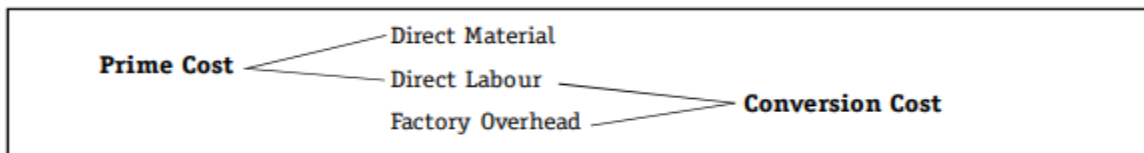
**vii) Out-of-pocket Cost (Explicit Cost and Implicit Cost):**

There are certain costs which require cash payment to be made (such as wages, rent) whereas many costs do not require cash outlay (such as depreciation). Out-of-pocket costs, also known as explicit costs, are those costs that involve cash outlays or require the utilisation of current resources. Examples of out-of-pocket costs are wages, material cost, insurance, power cost, etc.

**viii) Future Cost:** No decision can change what has already happened. The past is history and decisions made now can affect only what will happen in the future. Thus, the only relevant costs for decision-making are predetermined or future costs. But it is the historical costs which generally provide a basis for computing future costs.

**ix) Conversion Cost:**

It is the total cost of converting a raw material into finished product. This term is used to denote the sum of direct labour and factory overhead costs in the production of a product.



It should be noted that labour cost is a part of prime cost as well as conversion cost.

**MEANING OF PROCESS COSTING:**

There are certain articles the manufacture of which involves two or more processes (i.e., stages of manufacture). In the case of such articles, it is desirable to find out their costs, not only on their completion, but also at each process of manufacture. For this purpose, the costs are accumulated or collected for each process separately for a period of time.

The method of costing under which costs are accumulated for each process separately is known as process costing (also known as continuous costing and average costing). Process costing is also known as continuous costing because industries which adopt process costing undertake production of goods on a continuous basis.

**Definition:**

According to the Institute of Cost and Management Accountants (ICMA), London, "Process costing is that form of operation costing which applies where standardized goods are produced".

**Characteristics of process costing:**

Process costing has certain characteristics of its own. They are as follows:

1. The production goods is continuous, except where the plant is shut down for repairs, until final product is obtained.
2. The final product is the result of two or two more processes or operations.
3. Each process or operation is distinct or is predetermined.
4. As the finished product is the result of two or more processes, the finished product of one process becomes the raw material for the succeeding or the next process until completion.
5. The product is standardized. That is, all the units produced in a process are identical and indistinguishable from one another.

**Industries where process costing is adopted:** Process costing is the most widely adopted method of costing

**It is adopted in industries:**

- Where production is continuous and on large scale
- Where products are homogeneous or identical
- Where goods pass through two or more distinct processes for completion
- Where production function and products are standardized.
- It is generally, adopted in the following industries: Iron and steel industry, Automobile industry, Cement industry, Chemical industry, Fertilizer industry, Paper industry, Plastic and rubber industry, Sugar industry, Textile industry, Milk dairies, Flour milling industry, Timber industry, Glass industry etc.

### 3.0 PROCEDURE OF PROCESS COSTING

<b>Distinct Processes</b>	All production activities are classified into distinct and well-defined processes.
<b>Classification of Cost</b>	All costs are classified by processes.
<b>Separate Account</b>	A separate account is opened for each process.
<b>Items of Debit Side</b>	Each Process Account is debited with — (a) Cost of Materials used in that process (b) Cost of labour incurred in that process (c) Direct expenses incurred in that process (d) Overheads charged to that process on some pre-determined basis. (e) Cost of Rectification of Normal Defectives (f) Cost of Abnormal Gain (if any arises in that process)
<b>Items of Credit side</b>	Each Process Account is credited with — (a) Scrap value of Normal Loss (if any) occurs in that process. (b) Cost of Abnormal loss (if any occurs in that process)

<b>Equivalent Production Units</b>	For incomplete physical units in progress at the end of a period, equivalent production units (i.e. Notional quantity of completed units substituted for an actual quantity of incomplete units) are calculated on the basis of percentage estimate of degree of completion. For example, if 200 units are in progress and it is estimated that they are complete only to the extent of 20%, then 200 incomplete units are considered as equivalent to 40 completed units.
<b>How to Calculate Average Cost Per Unit</b>	An average cost per unit produced in each process is ascertained as follows: $\text{Average Cost per unit} = \frac{\text{Total Cost} - \text{Scrap Value of Normal Loss (if any)}}{\text{Input} - \text{Units of Normal Loss (if any)}}$
<b>How to Transfer the Cost of Output?</b>	The cost of output of each process may be transferred <i>either</i> directly to next Process Account <i>or</i> to a Process Stock Account from where it will be transferred to the next process as and when required.

**Difference between Job costing and process costing:**

Job costing and process costing differ from each other in several respects. The main differences between job costing and process costing are:

- a) Job costing generally, adopted by concerns producing goods or doing jobs against specific orders of customers and not for stock and realizing sale. On the other hand process costing is adopted by concerns for stocking purpose.
- b) Job costing is applied to industries where the production is of non-repetitive type. But process costing is adopted in industries where the production or manufacturing is of repetitive type.
- c) In the case of job costing, each job is independent, and so different job can be carried out and cost is calculated simultaneously. But in case of process costing each subsequent process is dependent on the previous process and so, all the processes cannot be carried out and costed simultaneously.
- d) Under job costing, cost is ascertained for the job as a whole, whereas under process costing, cost is ascertained for each process or stage of manufacture.
- e) In the case of job costing, there is no transfer of costs from one job to another. But in case of process costing, costs are transferred from one process to another process.
- f) In the case of job costing, costs are accumulated for each job. Whereas in the case of process costing, costs are accumulated for each process for a period.
- g) Job costing involves less capital investment, whereas process costing involves more capital investment.
- h) Because of the diverse nature of jobs, cost control is more difficult under job costing. On the other hand, because of homogenous and continuous production, cost control is easier under process costing.
- i) In the case of job costing, each job can be identified. On the other hand, in the case of process costing, since the production is continuous flow, individual identity of the product is lost.
- j) In case of job costing cost centre is a 'job' and in job order costing cost centre is a 'process'.

**JOB COSTING (JOB ORDER COSTING):**

Job order costing refers to a costing system that determines the production cost of individual orders/jobs. Under this system, costs are assigned to, and accumulated for, each job. Such a system of accumulation is related to the flow of production in which a firm has to work on a job in pursuance of an order received from a customer.

The essence of job costing is that as all jobs/ orders are not necessarily alike, they do not pass through the same manufacturing process. In other words, since each job requires varying amounts of materials and labour and different levels of skills or attention, the cost of one job would differ from another. Thus, the cost should be recorded separately for each job. Therefore, the job-order costing system traces costs with individual production orders/jobs.

**Definition:**

According to CIMA, London defines Job costing as "that form of specific order costing which applies where work is undertaken according to customer's specifications".

**Basic features of job costing:**

- a) Each job is treated as a cost unit.
- b) All costs are accumulated and ascertained for each job.
- c) Each job is unique
- d) Each job is executed as per customer's specifications.
- e) A separate Job cost sheet or job card is used for each job and is assigned a certain number by which the job is identified.

**It is adopted in following industries (Applications):**

Auto-repair shops, Automobile industries, printing shops, Hospitals, Foundries, machine shops, ship building industries, Public accounting firms, furniture making firms, tool shops, etc.

**Job cost sheet specimen:****JOB COST SHEET**

Customer name	_____		Job No.	_____					
and address	_____		Date started	_____					
Description	_____		Date promised	_____					
Quantity	_____		Date finished	_____					
			Special remarks, if any	_____					
	<i>Materials</i>			<i>Labour</i>		<i>Overheads</i>			
	Quantity	Rate	Amount	Hours	Rate	Amount	Hours	Rate	Amount
Department 1	_____								
Department 2	_____								
Department 3	_____								
Cost Summary	<i>Materials</i>			<i>Labour</i>		<i>Overheads</i>		<i>Total</i>	
								<i>Actual</i> <i>Estimate</i>	
Department 1	_____								
Department 2	_____								
Department 3	_____								
Job order price	_____								
Profit (Loss)	_____								
Discrepancies between actual and estimated costs are explained below:									
	1. _____								
	2. _____								
	3. _____								

**ABSORPTION COSTING:**

Absorption Costing is a conventional technique of ascertaining cost. It is the practice of charging all costs, both variable and fixed to operations, processes or products and is also known as 'Full Costing Technique.' In this technique of costing, cost is made up of direct costs plus overhead costs absorbed on some suitable basis. Here, cost per unit remains the same only when the level of output remains the same for some duration.

The change in the cost per unit with a change in the level of output in Absorption Costing Technique poses a problem to the management in taking managerial decisions. Absorption Costing is useful if there is only one product; when there is no inventory and overhead recovery rate is based on normal capacity instead of actual level of activity.

It is the oldest and widely used system of cost accounting. It is also known as cost plus costing, where a fixed percentage is added to total cost to cover profit.

**MARGINAL COSTING (VARIABLE COSTING):**

The marginal cost of a product –is its variable cost. This normally includes direct labour, direct material, direct expenses and the variable part of overheads. Marginal Costing is a costing method in which only variable costs are accumulated and cost per unit is ascertained.

**According to CIMA Terminology,** Marginal Costing is defined as the “Ascertainment of marginal costs and the effect on profit of changes in volume or type of output by differentiating between Fixed Costs and Variable Costs.”

Marginal costing may be defined as the technique of presenting cost data wherein variable costs and fixed costs are shown separately for managerial decision-making. It should be clearly understood that marginal costing is not a method of costing like process costing or job costing. Rather, it is simply a method or technique of the analysis of cost information for the guidance of management which tries to find out an effect on profit due to changes in the volume of output.

**Features of Marginal costing:**

- The elements of cost are differentiated between fixed costs and variable costs.
- Only the variable or marginal cost is considered while calculating product costs.
- Stock of finished products and work-in-progress are valued at variable cost.

- Contribution is the difference between sales and marginal cost.
- Fixed costs do not find place in the product cost.
- Prices are based on marginal cost plus contribution.

### Distinction between Absorption costing and Marginal (Variable) Costing:

The difference between these two methods is as follows:

<b>Basis of Distinction</b>	<b>Absorption Costing</b>	<b>Marginal Costing</b>
1. Segregation of costs.	Under <b>absorption costing</b> , costs are never classified into fixed <b>and</b> variable.	Costs must be classified into fixed <b>and</b> variable under this technique.
2. Treatment of fixed-production overheads.	Fixed-production overheads are included in the cost per unit.	Fixed-production overheads are not included in the calculation of cost per units.
3. Valuation of stocks.	Stocks are valued at total cost (variable + fixed).	Stocks are valued only at variable costs.
4. <b>Absorption</b> of certain costs.	Variable portion of administration, selling, distribution research <b>and</b> development costs will be absorbed in this technique.	Variable portion of administration, selling, distribution research <b>and</b> development costs are treated as capable of being absorbed by production.
5. Ascertainment of profit.	Profit is ascertained by computing the <b>difference between the sales and</b> costs of goods sold.	Profit is ascertained by computing the contribution <b>and</b> then deducting the total fixed expenses, where contribution = sales – variable cost.
6. Change in inventories <b>and</b> their effect on profit:		
(a) Increase in inventory	(a) If inventories increase, this method will show more profit.	a) If inventories increase, this method will reveal lesser profit than <b>absorption costing</b> .
(b) Decrease in inventory	(b) If inventories decrease, less profits will be shown under this method.	b) If inventories decrease, this method will show more profit than <b>absorption costing</b> .
7. Arbitrary apportionment of fixed costs <b>and</b> its effect.	Fixed costs are apportioned arbitrarily. Due to this, under- or overabsorption of overheads will result. Adjustments for recovery of such under- or overabsorption have to be made.	No such arbitrary apportionment of fixed costs arises under this technique. As such there is no resulting of under- or overabsorption of overheads <b>and</b> the question of adjustments for recovery does not arise here.

### CONCEPTS OF STANDARD COST AND STANDARD COSTING:

#### STANDARD COST:

Standard costs are called pre-determined costs. The different standards regarding all the elements of costs, i.e., material, labor and overheads, are determined on the basis of historical cost and many other factors. These factors are cautiously studied before determining the standards. The standard committee will generally consist of production manager, purchase manager, personal manager, and other functional heads. It is possible that the standard cost decided by the manager could be idle, normal or expected. The idle standard cost may refer to an estimate of the cost under perfect competition.

#### STANDARD COSTING:

Standard costing is a perfect system of controlling the costs and measuring efficiency and its development. It is a technique of cost reduction and cost control. It helps to provide valuable guidance in several management functions such as formulating policies, determining price level, etc. The essence of standard costing is to set objectives and targets to achieve them, to compare the actual costs with these targets.



**Steps in Standard Costing:**

- ❖ **Set the standard cost:**
  - A standard quantity is predetermined and standard price per unit is estimated.
  - Budgeted cost is calculated by using standard cost.
- ❖ **Record the actual cost:**
  - Calculate actual quantity and cost incurred giving full details.
- ❖ **Variance Analysis:**
  - Comparison of the actual cost with the budgeted cost.
  - The cost variance is used in controlling cost.
  - Take suitable corrective action.
  - Fix responsibilities to ensure compliance
  - Create effective control system.
  - Resetting the budget, if required.

**ADVANTAGES OF STANDARD COSTING:**

- 1. Proper Planning:** It helps to apply the principle of "Management by exception". That is, the management need not worry over those activities which proceed in tandem plans. It is only on the issues of exceptions that they have to concentrate.
- 2. Efficient Cost Control:** Standard Costing is a tool for the management to gain reduction in the cost and control over it. Under this technique, differences are analyzed and responsibilities are determined.
- 3. Comparison of Forecasting and Outcome:** A target of efficiency is set for the employees and the cost consciousness is stimulated. Since the process of standard costing allow an appraisal to be made of personnel, machines and method of working, current inefficiencies come to the notice and get eliminated.
- 4. Inventory Control:** Standard costing facilitates inventory control and simplifies inventory valuations. This ensures uniform pricing of stocks in the form of raw materials, work-in-progress and finished goods.
- 5. Helps Formulate Policies:** This technique is a valuable aid to the management in determining prices and formulating production policies. Standard costing equips cost estimates while planning the production of new products.
- 6. Helpful in Budgeting:** Budgets are prepared on the basis of standard costing. Standards which are set up with respect of materials, labor and overheads are helpful in preparing various budgets. For example, flexible budget, sales budget, etc.
- 7. Eliminates Wastage:** Through fixing standard, certain waste such as material wastage, idle time, lost machine hours, etc. are reduced.

**LIMITATIONS OF STANDARD COSTING:**

- 1. Costly System:** Because the Standard Costing requires highly skillful and competent personnel, it becomes a costly system too. For the same experts are paid high remuneration.
- 2. Difficulties in Fixation of Standard:** It is always difficult to determine precise standard costs in a given situation which will coincide with actual cost when operations are over. Standard cost are determined partly by the past experience and partly by the cost projections based on advanced statistical techniques. Thus, uncertainties revolve around standards.
- 3. Unsuitable for Non-standardised Products:** Standard costing is expensive and unsuitable for job manufacturing industries as they manufacture non standardized products such as catering, tailoring, printing, etc
- 4. Constraint for Service Industry:** Standard costing is applied for planning and controlling manufacturing costs. Thus, it cannot be applied in a service industry.
- 5. Difficulties for Small Industries:** Establishment of standards and their implementation involve initial high costs. Standards have to be revised and new standards be fixed involving larger costs. Thus, small firms find it expensive to operate standard costing system. This system is not fit for each type of industries.
- 6. Discouragement for Workers:** Sometimes the employees and workers are discouraged when the standards are fixed at a high level. The unreal high standards may adverse by effect the morale of workers rather than working as an incentive for better efficiency.

**Sample of Standard Cost Card / Sheet Format****Standard cost card/Sheet**

No.....

Date of setting standard.....

Product.....

Elements of Cost	Quantity	Amount Rs.	Standard Cost
1)Direct material:			
Material X	10 units	5.00	50.00
Material Y	20 units	10.00	200.00
	30 units		250.00
Less: Normal wastage @10%	5 units	Scrap unit	50.00
<b>Normal Output</b>	<b>25 units</b>		<b>200.00</b>
2) Direct Labour	10 hours	2.00	20.00
3) Overheads			
- Variable	10 hours	1.00	10.00
- Fixed	10 hours	2.00	20.00
<b>Total Cost</b>			<b>250.00</b>
<b>Add: Profit 10% on cost</b>			<b>25.00</b>
<b>Sales price</b>			<b>275.00</b>

**MEANING OF ANALYSIS OF VARIANCE:**

Variance means the deviation of the actual cost or actual sales from the standard cost or profit or sales. Calculation of variances is the main object of standard costing. This calculation shows that whether costs are under controlled or not. A variance may be favourable or adverse.

**Definition:**

I.C.M.A. London defines variance analysis as, "The process of computing the amount of variance and isolate the causes of variances between actual and standard".

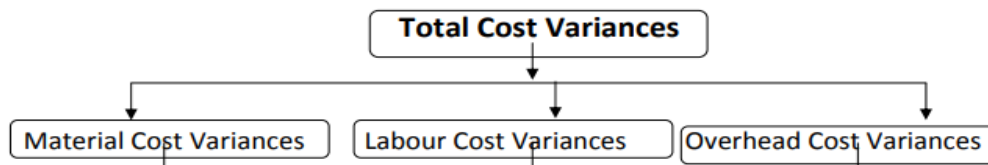
When actual cost is less than standard cost, it is known as 'Favourable Variance'. On the other hand, where the actual cost is more than standard cost, it is known as 'Unfavourable Variance' or 'Adverse'.

A controllable variance is when a variance is treated as the responsibility of a person with the result that his or her degree of efficiency can be reflected in size. When a variance arises due to some unforeseen factors, it is known as uncontrollable variance. The management should look more carefully at controllable variance, for it is these variances that require examination and possible corrective measures. The uncontrollable variances may be ignored.

**CLASSIFICATION OF VARIANCE ANALYSIS:**

Though different types of variances such as controllable variance, uncontrollable variance, favourable variance and unfavourable variance can be calculated, their use may not be much useful. Variance calculated on the basis of different elements of cost. They are as follows:

Total Cost Variance is a difference between the standard cost value of the output achieved in a period and the total cost incurred.

**1. Material Variances (MV):**

These variances include Material Cost Variances, Material Price Variances, Material Usage Variances, Material Mix Variances and Material Yield Variances.

❖ **Material Cost Variances (MCV):** It is the difference between the standard cost of material specified for the output achieved and the actual cost of direct materials used.

$$\text{MCV} = (\text{Std. Quantity} \times \text{Std. Price}) - (\text{Actual Quantity} \times \text{Actual Price}) \quad (\text{SQ} \times \text{SP}) - (\text{AQ} \times \text{AP})$$

❖ **Material Price Variances (MPV):** It is that portion of the material cost variance which is due to the difference between the standard price specified and the actual price paid.

$$\text{MPV} = \text{Actual Quantity} (\text{Std. Price} - \text{Actual Price}) \quad \text{AQ} (\text{SP} - \text{AP}) \quad \text{Where, Price} = \text{Rate}$$

❖ **Material Usage Variances (MUV):** Material usage variance is a part of Direct Material Cost Variance. MUV is determined by difference found between the standard quantity and the use of actual quantity. Later, the difference found is multiplied by the standard price.

$$\text{MUV} = \text{Standard Price} (\text{Std. Quantity} - \text{Actual Quantity}) \quad \text{SP} (\text{SQ} - \text{AQ})$$

❖ **Material Mix Variances (MMV):** It is that portion of direct material usage variance which is the difference between the actual quantities of elements used in a mixture at a standard price and the total quantity of elements used at the weighted average price per unit of element as shown by the standard cost sheet.

$$\text{MMV} = \text{Standard Price} (\text{Std. Mix} - \text{Actual Mix}) \quad \text{SP} (\text{SM} - \text{AM}) \quad \text{SM} = \frac{\text{Total weight of actual quantity}}{\text{Std. Quantity}} \times \text{Total weight of standard quantity}$$

❖ **Material Yield Variances (MYV):** This is "that portion of the direct materials usage variances which is due to the difference between standard yield specified and the actual yield obtained.

$$\text{MYV} = \text{Standard Yield Price} (\text{Std. Yield} - \text{Actual Yield}) \quad \text{SYP} (\text{SY} - \text{AY}) \quad \text{SYP} = \frac{\text{Total standard Cost}}{\text{Net Standard Output}}$$

*(Note: When the actual weight of quantity and the standard weight of quantity differ from each other, this formula is used to find new quantity)*

**2. Labour Variances (LV):** Labour variances occur because of the difference in actual rates and standard rates of labour and the variation in actual time taken by labours and the standard time allotted to them for doing a job. These variances include Labour Cost Variances, Labour Rate Variances, Labour Time or Efficiency Variances, Labour Idle Time Variances, Labour Mix Variances.

(i) **Labour Cost Variances (LCV):** This is the difference between the standard direct labour cost and the actual direct labour cost incurred for the production achieved.

$$\text{LCV} = (\text{Std. Time} \times \text{Std. Rate}) - (\text{Actual Time} \times \text{Actual Rate}) \quad (\text{ST} \times \text{SR}) - (\text{AT} \times \text{AR}) \quad (2)$$

ii) **Labour Rate Variances (LRV):** This is that portion of the labour cost variance which is due to the difference between the standard rate specified and the actual rate paid.

$$\text{LRV} = \text{Actual Time} (\text{Std. Rate} - \text{Actual Rate}) \quad \text{AT} (\text{SR} - \text{AR}) \quad \text{Note: Actual Time} = \text{Actual Hours, Std. Rate} = \text{Std. Wage Rate}$$

iii) **Labour Time (Efficiency) Variances: (LTV/LEV):** It is defined as the difference between the standard hours (Time) for the actual production achieved and the hours actually worked, valued at the standard labour rate.

$$\text{LTV} = \text{Standard Rate} (\text{Std. Time} - \text{Actual Time}) \quad \text{SR} (\text{ST} - \text{AT})$$

iv) **Idle Time Variance (ITV):** ITV comes up because of idle time of workers on account of abnormal causes. The wages paid for the time during which the workers remained idle due to causes like strikes, breakdown on plant, etc. are treated as idle time variances.

$$\text{ITV} = \text{Idle Time} \times \text{Standard Rate} \quad \text{IT} \times \text{SR}$$

v) **Labour Mix Variance / Gang Composition Variance (LMV):** It occurs only when more than one grade of workers is employed and the composition of actual grade of workers differs from those specified.  $\text{Std. Time} \times (\text{Revised Std. Time} - \text{Actual Time})$   
 $\text{ST} \times (\text{RST} - \text{AT})$

**3. Overhead Variances (OV):** Overhead is the aggregate of indirect materials, indirect labour and indirect expenses. Analysis of overhead variances is different from that of direct material and direct labour variances.

The overhead variances include fixed overhead variances and variable overhead variances. Moreover, further analysis of overhead variances is also possible according as the available source information. It is significant to know at the beginning that the overhead variance is not anything but under or over- absorption of the overhead

(a) **Variable Overhead Cost Variance (VCOV):** VCOV is the difference between the standard variable overhead cost for production and the actual variable cost incurred during the period.

$$\text{VCOV} = (\text{Std. hours for actual Output} \times \text{Std. variable overhead rate}) - \text{Actual overhead cost} \quad \text{Absorbed V. O.} - \text{Actual V. O.}$$

b) **Fixed Overhead Cost Variances (FOCV):** FOCV is the difference between standard fixed overhead cost for actual output and actual fixed overhead.

$$\text{FOCV} = (\text{Std. hours for actual output} \times \text{Std. F. O. Rate}) - \text{Actual F. O.} \quad (\text{Absorbed Overhead} - \text{Actual Overhead})$$

# Module-5 BUDGETING & BUDGETARY CONTROL

## MEANING OF BUDGET:-

A budget is a detailed plan of operations for some specific future period. It is an estimate prepared in advance of the period to which it applies.

The Chartered Institute of Management Accountants, London, defines a budget as "a financial and/or quantitative statement prepared prior to a defined period of time of the policy to be pursued during that period for the purpose of attaining a given objective".

## Meaning of Control:-

Control means "some sort of systematic effort to compare current performance to a predetermined plan or objective, presumably in order to take any remedial action required".

## Meaning of Budgetary Control:-

The Chartered Institute of Management Accountants, London, defines budgetary control as "the establishment of budget relating to the responsibilities of executives to the requirements of a policy, and the continuous comparison of actual with budgeted results, either to secure by individual action the objective of that policy or to provide a basis for its revision".

Thus, budgetary control involves the following:-

- (a) Establishment of budgets.
- (b) Continuous comparison of actual with budgets for achievement of targets and placing the responsibility for failure to achieve the budget figures.
- (c) Revision of budgets in the light of changed circumstances.

## Budgetary control as a Management tool:-

Budgetary control has become an essential tool of management for controlling costs and maximising profits. It may be conceived as one of the supreme examples of rationality in

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management.

It is a useful management tool for comparing the current performance with pre-planned performance with a view to attaining equilibrium between ends and means, output and effort. It corrects the deviation from preplanned path through the media of observation, research planning, control and decision-making and thus helps in performance of future activities in an orderly way. It uncovers uneconomies in operations, weaknesses in the organization structure and minimize wasteful spending.

### Advantages of Budgetary control:-

Budgetary control is advantageous to the management. They are as follows:- (Additional points)

- ① Brings economy in working:- It brings efficiency and economy in the working of the business enterprise. The budget is an impersonal policeman that maintains ordered effort and brings about efficiency in results.
- ② Decrease in production costs:- Seasonal variations in production can be reduced by developing new "fill in" products. This results in decreasing the cost of production by increasing volume of output.
- ③ Acts as a safety signal:- It acts as a safety signal for the management. It shows when to proceed cautiously and when manufacturing or merchandising expansion can be safely undertaken.
- ④ Optimum mix:- It helps management in obtaining the most profitable combination of different factors of production. This results in a more economical use of capital.

### Disadvantages of budgeting and budgetary control:-

- ① Opposition against the spirit of budgeting:- (For additional points refer page No 74) There will be always active and passive resistance to the budgetary control as it points to efficiency and inefficiency of individuals. The opposition is also due to human nature - the tendency to resist change.

\* Chris Argyris has, in his study of "Human problems with budget," has pointed out the following reasons for the a high degree of negative reaction against budgeting on the part of the front line managers.

a) Budgets are evaluation of instruments. They tend to set goals against which the people are measured hence they naturally are complained about.

b) Budgets are thought of as pressure devices.

③ Budgeting and changing economy:-

The preparation of a budget which gives a realistic position of the firm's affairs under inflationary pressure and changing government policies is really difficult. Thus, the accurate position of the business cannot be estimated.

④ Time factor:- Accuracy in budgeting comes through experience. Management must not expect too much during the development period.

⑤ Not a substitute for management:- Budget is only a management tool. It cannot substitute management. Besides that no budgetary programme can be successful unless adequate arrangements are made for supervision and administration.

⑥ Co-operation required:- The success of the budgetary control depends upon willing co-operation and team work. Budget officer must get co-operation from all departmental managers.

In spite of these limitations, it can safely be said the technique of budgetary control is a must for each business enterprise. It leaves sufficient time for the top management for formulation of overall policy and planning.

## D. Objectives of Budgeting:-

1. To forecast the future and plan to avoid the loss, but more positively to maximise profit.
2. To bring out the coordination between the different functions of an enterprise.
3. To motivate the related departments and persons for achieving the desired goal.

## Advantages (Budgeting)

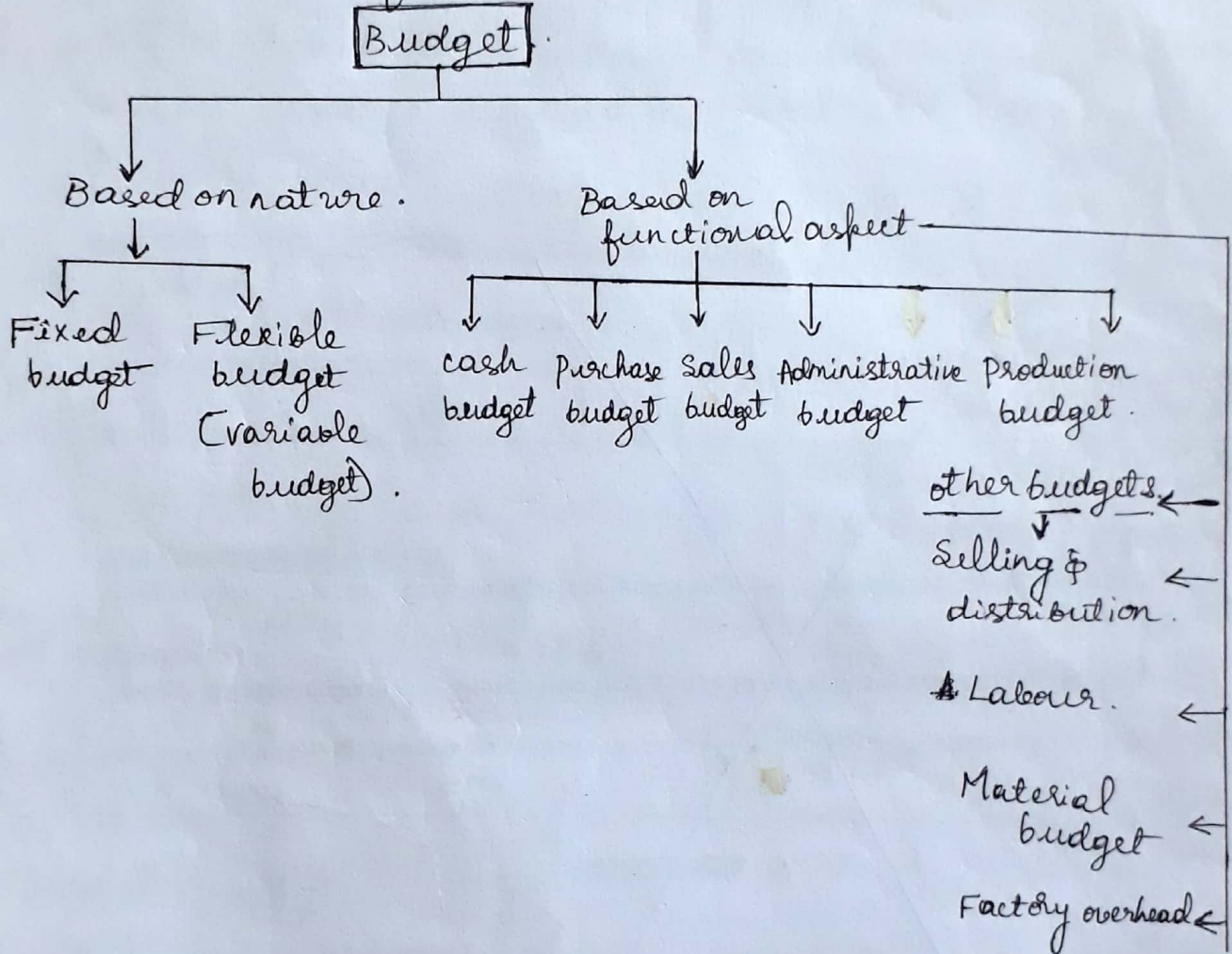
1. Budgeting leads to the maximum utilisation of the resources with a view to ensure maximum returns.
2. Planning ensures input from all sides - top management, executives, staff and labour.
3. Firm's responsibility towards stockholders is available in a concrete manner.
4. Improves overall efficiency of operations.
5. It reflects firm's policy, plans and action taken to reach the target.
6. Budgeting leads to a coordination and have the understanding between different functions of the organisation.
7. Budgeting enlists the support and active participation of the top management.
8. Everyone knows what is expected and what steps are to be taken to correct deviations.
9. It provides management with a guide of daily activities and helps in determining performance and efficiency of each department and to take necessary action.

## Disadvantages (Budgeting)

1. The installation of budgeting system is an elaborate process and takes time.
2. Budgeting is not an exact science. It is only, a certain amount of judgement.

- 3 - Goals of company and budget could be in conflict .  
 4. unrealistic targets which are unachievable could lower morale and motivate generation of excuses rather than solutions .

Classification of budget:-



Fixed budget:-

- > A fixed budget mainly contains a single plan or sales volume and other fixed costs .
- > It plans and controls certain fixed type of expenditures like research projects, schools, hospitals etc .

Sample fixed budget  
 Fixed budget

For the year ending.....

	Hours .		Budget to capacity	Total cost	Details schedule No
	capacity	budgeted			
1. Factory .	xxx	xxx	x x	xxx	—
2. Selling and distribution	xxx	xxx	x x	xxx	—



## 2) variable budget (flexible budget):-

- A variable or flexible budget makes provision for changes during the budgeting period.
- It also makes provision in advance for variations in production and expenditures in accordance with sales volume.
- A flexible budget is used by firms which face uncertainties namely, customer demand, material shortage, labour disputes etc.

### variable budget

For the year ending.....

Rate/unit (RS).	Volume of output.		
	1000 units.	1500 units.	2000 units.
1. Direct material → 10.	10000	15000	20000.
2. Direct labour → 05	5000	7500	10000.
3. Variable overhead → 03.	3000	4500	6000
Total.	18000	27000	36000

## 3. Cash budget:-

- It is an estimate of receipts and payments for each month or for a particular budgeted period.
- It ensures sufficient cash is available to meet daily requirements and other emergencies.
- A cash budget also reveals expected shortage of cash or expected surplus of cash for necessary action.

## 4. Purchase budget:-

- A purchase budget is prepared based on details of raw material and estimated cost of material.
- It is helpful in making purchase plans according to established inventory procedures.

7

cash budget Specimen  
cash budget for the period.

Particulars.	Jan.	Feb.	Mar.	April.
(a) <u>opening balance</u> .				
(b) <u>Receipts</u> :- cash sales credit sales (Debtors) Sales of assets. other receipts.				
<u>Total (a + b)</u>				
(c) <u>payments</u> :- Purchases (creditors) overheads. wages. Sales commission. other payments.				
<u>Total</u>				
Balance c/d $[(a+b) - c]$				

X, Y Z company  
Purchase budget (Specimen)

period From ---  
To ---

	Material X		Material Y.	
	Production requirements (units)	Estimated cost (Rs).	Production requirements (units)	Estimated cost.
Jan				
Feb.				
March				
2nd qtr.				
3rd qtr.				
4th qtr.				
<u>Total</u>				

## Sales budget:-

- A selling and distribution budget is prepared based on selling and distribution quantities recorded in the sales budget.
- A sales budget makes an estimation of quantity of products that will be sold and corresponding revenue that will be received during budgeted period say 1, 2, 3 or 5 years.
- When the company plans to introduce a new product, preparing a budget becomes very difficult because it is not simple to estimate customer's demand.
- A sales budget is prepared by a group comprising of head office personnel and top executives based on the past experience, judgement and opinions. In addition information is also collected from sales persons, sales supervisors and sales executives from all regions.

## Administrative budget:-

- The administrative budget represents the estimated expenditure of administration i.e., expenditure in framing the policies, controlling the business operations etc. Since most of the expenses on administration are fixed in nature, this budget is there easy to prepare in comparison with the other functional budget.

## Production budget:-

- This budget is prepared after the preparation of sales budget to determine the quantity of goods which should be produced to meet the budgeted sales.
- It is expressed in physical terms such as.
  - Ⓐ units of output
  - Ⓑ Labour hours
  - Ⓒ Material requirement
- The production budget is prepared by the production manager and is submitted to the budget committee for its approval.

①

ABC Company.  
PRODUCTION BUDGET.

For the year ending.....

	units of output						
	1st Quarter			2nd Quarter	3rd Qtr	4th Qtr	
	Jan	Feb	March				
1. Department - X - Product A							
2. Department - Y - Product B							
3. Department - Z - Product C							
Total X + Y + Z (Rs.)							

Selling and distribution budget:-

- Selling and distribution budget is the forecast of the cost relating to the selling and distribution of the product for the budget period.
- It is related to the sales budget and is prepared by the sales manager with the help of advertising manager, distribution manager, sales office manager and the accountant.
- However, the selling and distribution cost budget may be prepared on the elements of cost which are:-
  - Ⓐ Direct selling expenses → Eg → Salary, commission, expenses of salesmen etc.
  - Ⓑ Distribution expenses:- Eg:- Rent, rates, wages, insurance etc of the warehouse.
  - Ⓒ Cost of the sales office expenses → Eg:- salaries, rent, lighting of the sales office etc.
  - Ⓓ publicity expenses.

Labour budget:-

- This indicates the requirement of a direct labour for a given level of production to be shown in the production budget.
- The various types and grades of labour required for purpose are ascertained on the basis of labour hours and estimate the rate of wages per hour.
- The total direct labour cost can be estimated by multiplying the total labour hours consumed by the rate

② of wages per hour.

### Material budget:-

- Direct materials budget is prepared after computing production requirements by preparing a production budget
- Direct materials budget or materials budgeting details the raw materials that must be purchased to fulfill the production requirements and to provide for adequate inventories.

### Material Budget

Particulars.	Material A	Material B
Requirement of materials (units)	X X X	X X X
<u>Add</u> : closing balance	X X X	X X X
	X X X	X X X
<u>Less</u> : opening balance.	X X X	X X X
<u>Actual Qty. purchased</u>	X X X	X X X

### Budgeting exercise (Process/procedure):-

- ① Formulation of a budget committee involving chief executive as the chairman of the committee, a budget officer (senior accounting staff) and representatives of sales, production purchases and works departments. This committee will take up the job of budget preparation.
- ② Committee then creates standard budget forms on which production plans, estimated income and costs may be inserted for each section or department of the business concern.
- ③ Committee then gets the reports for the past years from accounts section which contains a comparison of production cost, income and expenses of each departments in detail.
- ④ Committee then asks each functional executive to prepare and forecast for his department. Thus, the production manager

prepares production forecast, the sales manager, sales forecast etc. after due consultation with immediate supervisors, foreman, workmen etc.

5. Committee then makes an analysis of general business and market conditions with the help of statistical department or data supplied by private forecasting agencies and government and trade reports etc.

6. The budget officer presents departmental budget before the committee and distribute it back to respective departments regarding any suggestions/corrections etc.

7. The committee makes use of these forecast data to formulate general policies and plans for the budget period.

8. The committee then consults the functional or departmental executives to reduce general policies of the concern to departmental plans.

9. Finally actual departmental budgets are prepared and followed as a standard of performance during the budget period.

### Master budget :-

→ A master budget is a set of interconnected budgets of sales, production costs, purchases, incomes etc and it also includes proforma financial statements.

→ A budget is a plan of future financial transactions.

→ A master budget serves as planning and control tool to the management since they can plan the business activities during the period on the basis of master budget.

### Preparation of budget or Types of budgets (Master budget)

A master budget normally consists of three types of budgets

(12)

- (i) Operating budgets
- (ii) Financial budgets.

→ The master budget is a comprehensive financial plan made up of various individual, departmental and activity budgets for the year.

→ The master budget is usually prepared for a one year period corresponding to the company's fiscal year. When the functional budgets have been completed, the budget committee will prepare a Master budget for the target of the concern.

(i) Operating budget:- which outlines the income-generating physical activities of a firm (Sales, production, purchasing, debtors collection and finished goods inventories).

→ The outcome of the operating budgets is a proforma (budgeted) income statement.

→ The first part of the master budget is the operating budget.

→ Operating decisions are included in the operating budgets of an organization.

→ The components of the operating budgets include the following:- sales budget, production budget, direct materials, purchases budget, direct labour budget, overhead budget, marketing expenses budget, administrative expense budget and so on.

(ii) Financial budget:- which outlines the expected inflows and outflows of cash and financial position and results of operations.

→ The financial budgets are the second part of the master budget.

→ It incorporates financial decisions of an organization.

→ The financial budget usually include the cash budget, the budgeted balance sheet, the budgeted statement of cash flows, and the budget for capital expenditures.

Difference between fixed budget and flexible budget:-

Fixed budget

- ① It does not change with the volume of activity.
- ② All costs are related to one level of activity only.
- ③ Ascertainment of cost is not possible in fixed assets.
- ④ It is rigid budget and drawn on the assumption that conditions would remain constant.
- ⑤ costs are not classified according to their variability, i.e., fixed, variable and semi-variable.
- ⑥ It has a limited application for cost control.

Flexible budget

- ① It will change on the basis of volume of cost.
- ② costs are analysed by behaviour and variable costs are allowed as per activity attained.
- ③ cost can be easily ascertained at different levels of activity.
- ④ It is designed to change according to the changed ~~in the~~ conditions.
- ⑤ costs are classified according to the nature of their variability.
- ⑥ It has more application and can be used as a tool for effective cost control.

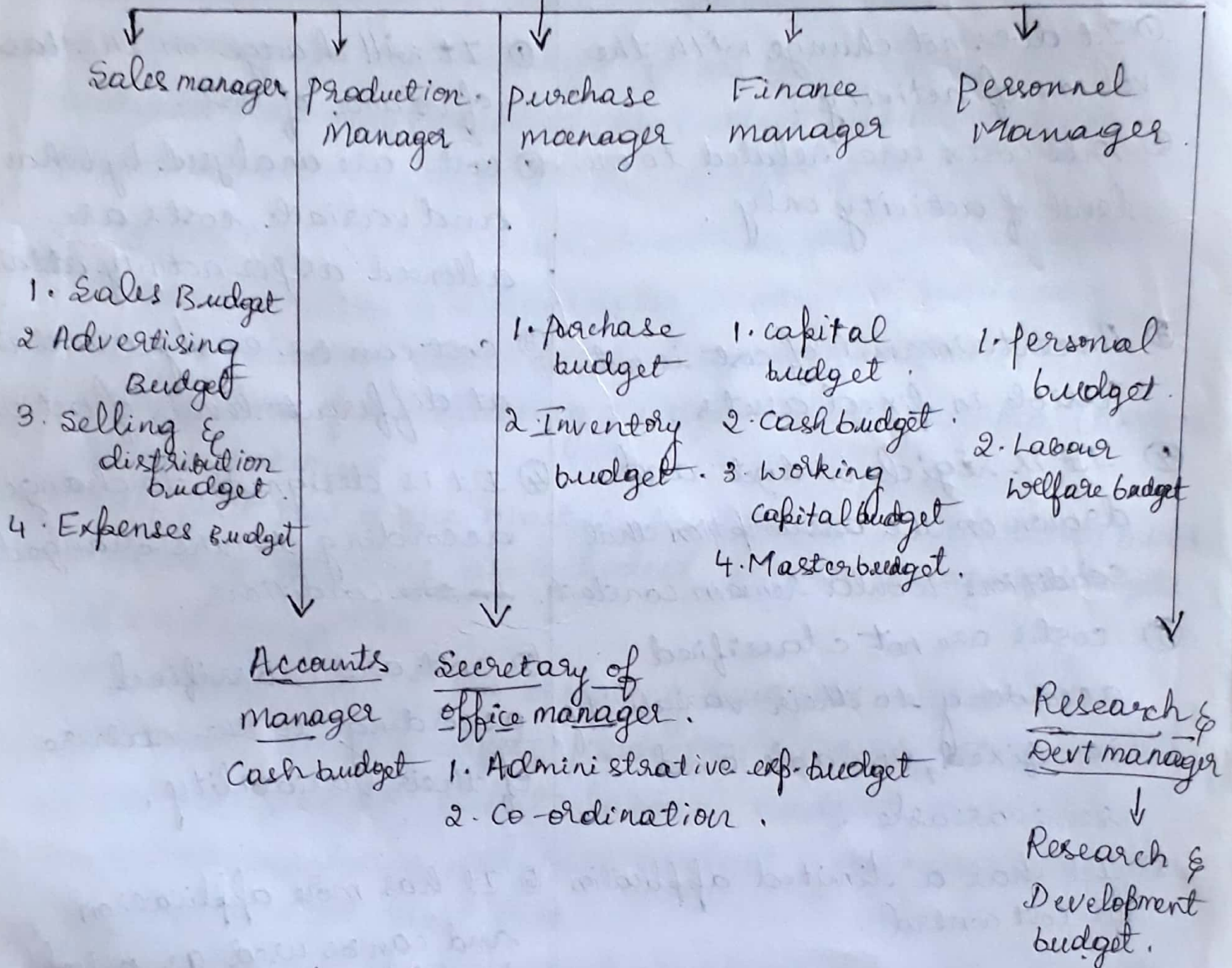


# Organisation for budgetary control:

Managing Director

Budget Committee

Budget officer



Organisation chart:- For the purpose of effective budgetary control, it is imperative on the part of each entity to have definite "plan of organisation".

→ This plan of organisation is embodied in the organisation chart.

→ The organisation chart explaining clearly the position of each executive's authority and responsibility of the firm.

→ All the functional heads are entrusted with the responsibility of ensuring proper implementation of their respective departmental budgets.

→ An organisation chart for budgetary control is given showing clearly the type of budgets to be prepared by the functional heads.

### Budget committee:

→ A budget committee comprising of the managing director, the production manager, sales manager and accountant.

→ The main objectives of this committee is to agree on all departmental budgets, normal standard hours and allocations.

→ In small concerns, the budget officer may co-ordinate the work for preparation and implementation of budgets.

→ In large, scale concern a budget committee is setup for preparation of budgets and execution of budgetary control.

### Budget officer:

→ Budget officer is usually some senior member of the accounting staff who controls the budgetary process.

→ He does not prepare the budget himself, but facilitates and co-ordinates the budgeting activity.

→ He assists in individual departmental heads and the budget committee, and ensures that their decisions are communicated to the appropriate people.