

PRODUCTION PLANNING AND CONTROL

Unit Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Production Management
- 1.3 Production Planning and Control
- 1.4 Steps in production planning and control
- 1.5 Production system
- 1.6 Productivity
- 1.7 Summary
- 1.8 Exercise

1.0 OBJECTIVES

After studying the unit the students will be able to:

- Know the concept of production planning and control.
- Understand the definition and objectives of production planning and control.
- Study the various steps in production planning and control.
- Explain the production system and its types.
- Evaluate the term productivity and the factors influencing productivity.

1.1 INTRODUCTION

Production is a process of combining various material inputs and immaterial inputs (plans, know-how) to make something for consumption (output). It is the act of creating output, a good or service that has value and contributes to the utility of individuals. Since the primary purpose of economic activity is to produce utility for individuals, we count as production during a period of all activity that either creates utility during the period or which increases the ability of the society to create utility in the future.

Production is the center of the entire business organization. Production planning and control functions look after the complete manufacturing activity. In the management of any task planning and control are the two basic and interrelated and managerial functions. Planning is a pre-operation activity while control is the post-operation function and involves initiating production comparing it with standard, finding out the variation if any, and taking necessary corrective measures.

1.2 PRODUCTION MANAGEMENT

1.2.1 Meaning

Production is the first and primary function of management because unless goods are produced, they can not be marketed. Production management includes planning, organizing, staffing, directing, and controlling the activities of the production function. It involves taking all the decisions which are required to be taken for producing goods or services according to specifications at the right time and costs.

1.2.2 The objective of the Production Management

So the objective of production management is to produce goods and services of the right quality and quantity at the right time and right manufacturing cost.

1. Right quality

Product quality is a relative term. The objective of production management is to produce goods of the quality which is required by the customers. The right quality is not necessarily the best.

2. Right Quantity

The quantity of production should be decided after forecasting the demand for the product. The decision on the size of production should be the right decision to avoid both excess or deficit production.

3. Right Time

The goods should be produced and supplied when they are required by the customers.

4. Right manufacturing cost

The cost of manufacturing is decided before actually producing the product. This cost can be considered as a standard or pre-established cost. An attempt should be made to produce the product at this standard cost.

1.2.3 Scope of production management

The scope of production management involves taking various decisions related to the production activities. These decisions are of two types.

A. Strategic decisions

These decisions are taken for deciding the product and production system and time taken for Production.

The strategic level decisions are

1) New Product Identification and Design

Constant changes take place in consumer likes & dislikes tastes, expectations. The organization may require introducing a new product or innovating or modernizing the existing one to meet the changing needs and demands of the consumers so identifying and designing the new product is the strategic decision of production management.

2) Process Design / Layout and Planning

It involves taking decisions as regards the use of the appropriate technology for conversion of raw materials into products and planning of the process of production which can include deciding process design, determining the work stations, and the flow of work.

3) Deciding Location for the production process

Deciding the location for the manufacturing unit is a very crucial one. It is taken after considering factors like the supply of raw materials, nearness to market, availability of transportation facilities, and labor, climatic conditions, and so on.

4) Design of Material Handling System

Material handling systems should be such as to minimize the cost and time and labour involved in material handling. The material handling system is decided after considering various factors such as the distance between the work stations, intensity of flow or traffic and shape and nature of materials to be handled.

5) Capacity Planning

Deciding the size of production should be done after considering various factors such as demand forecasting, availability of resources, Government regulations, economies of large scale, and so on.

B. Operating decisions

These decisions are short-term and are acquired to be taken for a smooth production process.

The operational level decisions are

1) Production Planning

It relates to taking production-related decisions on day to day basis such as allocation of work among the workers, repairs, and maintenance of machinery, fixing quotas and targets for the workers, and so on.

2) Production Control

The use of production control techniques aims at finding out whether the activities are carried out as per the plan. It involves comparing actual output with the standard output and if the actual output is less than the standard output, then measures are taken to increase the output.

3) The other activities

The other activities include inventory control, repairs, and maintenance and replacement of machinery, cost reduction and cost control, time and motion study providing proper working conditions, and so on.

1.3 PRODUCTION PLANNING AND CONTROL

1.3.1 Definitions

According to Alford and Breatty, "production planning and control comprise the planning, routing, scheduling, dispatching and follow up functions in the production process so organized that movements of material are directed and co-ordinate as to the quantity, quality, time and place".

Production planning and controlling are concerned with planning and controlling production activities. The following are the main objectives of production planning and control.

1.3.2 Objectives of Production Planning and Control

a) Continuous flow of production

Production planning and control facilitate continuous production as per the production plan. This is possible as all operations are planned properly and also well in advance. Since all the machines are put to maximum use, there is regular production. This helps to provide a regular supply of goods to the customers.

b) Optimum utilisation of plant capacity

Proper production planning and control ensure effective utilization of plant capacity. All the resources i.e. men, materials, machines, etc. are put to maximum use. This results in reduced cost and higher returns to the organization.

c) Estimate of resources

Production planning and control help to estimate required resources. Production is planned according to the sales forecast. Based on this forecast proper quantity and quality of resources are decided. Thus, it avoids excess or shortage of resources.

d) Minimising wastages

Because of the proper inventory of raw materials, there is proper material handling. This helps in minimizing wastages of raw material. Also because of effective control, there is the production of quality goods. This results in minimum rejects. Thus, proper production planning and control result in minimum wastage.

e) Teamwork

Proper production planning facilitates teamwork among various departments. The production department works in close cooperation with other departments such as purchase, marketing, finance, etc.

f) Achieve goals

The objective of production planning and control is to achieve the goals of the firm quickly. The resources of the organization are scarce so it is necessary to plan properly as it will facilitate the achievement of goals. Production goals are generally qualified which facilitates achievement.

g) Improvement in labour productivity

There is maximum utilization of manpower. If requires training is provided to the labour. Benefits of profitable operations are passed on to the workers in the form of increased wages and incentives. Workers are motivated to perform the best. This increases labour productivity.

h) Efficient service to customers

As there is a regular flow of production, it is possible to fix delivery dates as production proceeds in time. Therefore, the company can supply the goods in the market on time. This brings goodwill and customer satisfaction.

i) Facilitates quality improvement

Proper production planning and control facilitate quality improvement as necessary checks are undertaken at regular intervals. Quality can be upgraded through training sessions, suggestions, schemes, quality circles, etc.

j) Better work environment

Proper production planning and control provide a better work environment by providing better working conditions, proper working hours, leaves and holidays, increased wages and incentives, etc.

1.3.3 Importance of Production Planning and Control

Production Planning and control is the managerial function which includes deciding various issues related to the production process such as the use of the human resource, raw materials, machines working conditions, training

to workers, supervision, fixing of targets, etc. It is the technique to plan every step in a long series of the production process.

Importance of Production Planning and Control can be given with the help of the following points -

1) Better service to customers

It helps in providing better services to customers in terms of a better quality of goods at reasonable prices and timely delivery of goods. It helps in improving customer relations.

2) It helps in a smoother, timely, and efficient production process and helps in maintaining necessary stock levels.

3) It facilitates effective use of resources such as labour, machinery & equipment, raw materials and thereby reducing the cost of production and requirement of working capital.

4) Improvement in the morale of the workers

Efficient production planning & control helps the workers to do their jobs efficiently. It improves job satisfaction and thereby the morale of the workers.

5) Image of the organization

A proper system of production planning and control helps in smooth production operations in an organization. It helps in the timely delivery of standard quality goods and improving customer satisfaction. Improved customer satisfaction results in increased sales, increased profits, and ultimately good public image of the organization.

6) Coordinates departmental activities

Proper production planning and control help in coordinating the activities of the production dept with other departments such as finance, marketing, human resource departments.

7) Helps to face competition

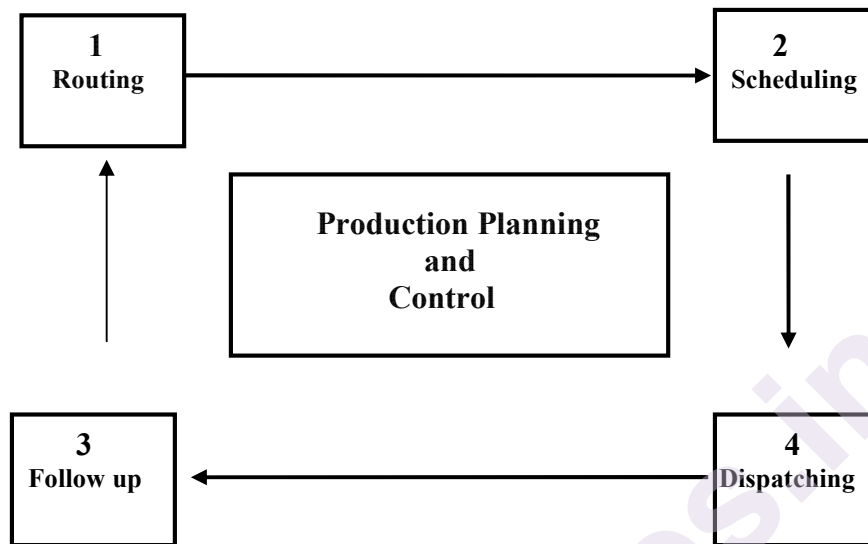
With improved performance of production dept, the organization can improve marketing performance and thereby can face market competition effectively.

8) Provides better work environment

Production planning and control help in providing better work conditions to the workers to improve their efficiency such as proper lighting, ventilation, canteen facility, safety measures and so on.

1.4 STEPS IN PRODUCTION PLANNING AND CONTROL

The production department has to follow the following steps in respect of production planning and control. These steps are shown in the following diagram.



1. ROUTING

a) Meaning

Routing is the first step in production planning and control. It involves the selection of the path of work and the sequence of operations for the completion of the production process in an orderly manner.

b) Objective

The basic objective of routing is to move the work through a variety of combinations of machines capable of performing the operations required. It determines the best and the cheapest sequence of operations.

c) Procedure

1. Determining what to make and what to purchase.
2. Determining the material required.
3. Determining the manufacturing operations and their sequences.
4. Determining scrap factor.
5. Preparation of production control forms.
6. Determining lot sizes.
7. Preparation of route sheets.

2. SCHEDULING:

a) Meaning

Schedule means a plan for carrying out a task. It includes a list of intended events and times. Scheduling refers to deciding the starting and the finishing date and time of each operation in the manufacturing process. It involves the preparation of time table of production activities. Scheduling aims at achieving the required output with a minimum of delay and disturbance in the production process.

b) Objective

The main objective of scheduling is to ensure the completion of each operation or activity on time. Scheduling ensures continuity in the production process.

c) Procedure

1. Preparation of timetable.
2. Listing out all production activities.
3. Finalizing a list of all production activities.
4. Determining starting time of every activity.
5. Determining the finishing time of every activity.
6. Availability of plant capacity, number of operators, and materials required.

3. DISPATCHING

a) Meaning

Dispatching is concerned with the execution of the production plan. It is based on the route sheets and schedule sheets. Production orders are issued to the factory or department and instructions are issued to execute the planned production. Dispatching is the action element of production planning and control.

b) Objective

The purpose of dispatching orders and instructions is to see that the machine operators understand what is expected of them and that they do not right things at the right time and complete the production on time.

c) Procedure

1. Arranging machines and tools in a proper manner.
2. Procuring raw materials as per the requirement.
3. Assigning work to the machine operators and others.

4. Issuing orders and instructions to the workers.
5. Maintaining a proper record of the start time and finish time of each operation.
6. Dispatching procedure may be centralized or decentralized.
7. Expediting work as per original plan.
8. Control of the progress of all operations.

4. FOLLOW-UP

a) Meaning

Follow-up refers to the monitoring of actual performance. It helps in taking the necessary corrective measures to obtain the right quality and quantity of production.

b) Objective

The basic objective of follow-up is monitoring actual work in the production process and to introduce remedial measures.

c) Procedure

1. Measuring actual production.
2. Comparing actual production with planned targets.
3. Finding out causes of deviations, if any.
4. Listing out various corrective measures to correct deviations.
5. Studying or analyzing the corrective measures.
6. Selecting the best corrective measures.
7. Implementation of corrective measures.
8. Review of corrective measures.

1.5 PRODUCTION SYSTEM

1.5.1 Concept

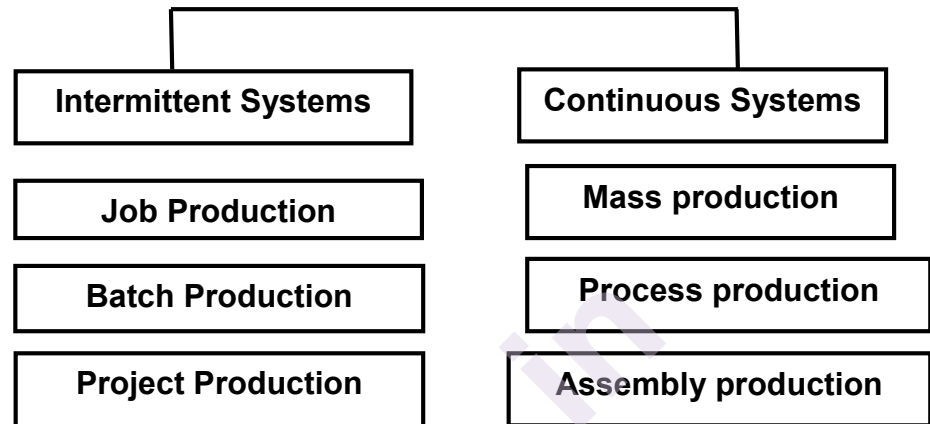
Production is a process by which goods and services are produced for consumption. A typical production system comprises three main components i.e. inputs, conversion process, and output. A combination of various production operations employed to produce goods and services is known as a production system. A production system is a group of subsystems. Each sub-system performs a distinct function.

According to Buffa and Sarin, a production system may be defined as "the means by which we transform resource inputs to create useful goods and services as outputs".

1.5.2 Types of Production Systems

The production systems can be broadly divided into two groups:

Types of Production System



1. INTERMITTENT SYSTEMS

In this system, goods are manufactured to supply the customers as per their orders. In this case, there is an intermittent flow of materials.

a) Job production

In jobbing production, one or few units of a product are produced to the consumer's requirement within the given date. The price is fixed before the contract. Here, the manufacturer accepts and executes customer's orders e.g. printing of visiting cards, calendars, diaries, key chains, etc.

b) Batch production

Batch production is the production of several identical units according to specific orders or based on demand forecasts. The items are produced in batches or lots. There exists more standardization and generally, there are repeat orders. Products are demanded in fairly large quantities e.g. manufacturing of medicines, chemicals, lubricants, etc.

c) Project production

In project production, a single assignment of complex nature is undertaken for completion within the given period and within the estimated expenditure. For example, construction of the building, roads, dams, shipbuilding, etc.

2. CONTINUOUS SYSTEM

Continuous production is a method used to manufacture, produce, or process materials without interruption. Here, goods are produced

constantly as per demand forecast. Goods are produced on a large scale for stocking and selling. They are not produced on consumer's order. The inputs and outputs are standardized along with the production process and sequence.

a) Mass production

In mass production, items are produced on a large scale and are stocked in warehouses till they are demanded in the market. The items are manufactured with the help of a single operation or a series of operations. Examples of mass production systems include the manufacture of toothpaste, soaps, dairy products, textile units, etc.

b) Process production System

In-process production system, a single product type is produced and stocked in warehouses till it is demanded in the market. The flexibility of such a plant is almost zero as only one product can be produced. Examples of process production systems include steel, cement, paper, sugar, electronic items, toys, etc.

c) Assembly production

Assembly production system developed in the automobile industry in the USA. A manufacturing unit prefers to use an assembly line as it helps to improve the efficiency of production. Production cost comes down due to the use of flow production methods. Assembly line production system is convenient when a limited variety of similar products is to be manufactured on a mass scale or in large batches continuously. The assembly production system is employed in the manufacturing of automobiles, radios, T.V., and other electronic products.

Check Your Progress

1. Define the following terms:
 - a. Production Planning and Control
 - b. Routing
 - c. Scheduling
 - d. Dispatching
 - e. Follow up
 - f. Intermittent Systems
 - g. Continuous system
2. Enlist the objectives of Production Planning and Control.
3. Draw the chart showing the steps of Production Planning and Control.
4. Give the examples of the following production systems:
 - a. Job Production
 - b. Batch production
 - c. Project production
 - d. Mass production
 - e. Assembly production

1.6 PRODUCTIVITY

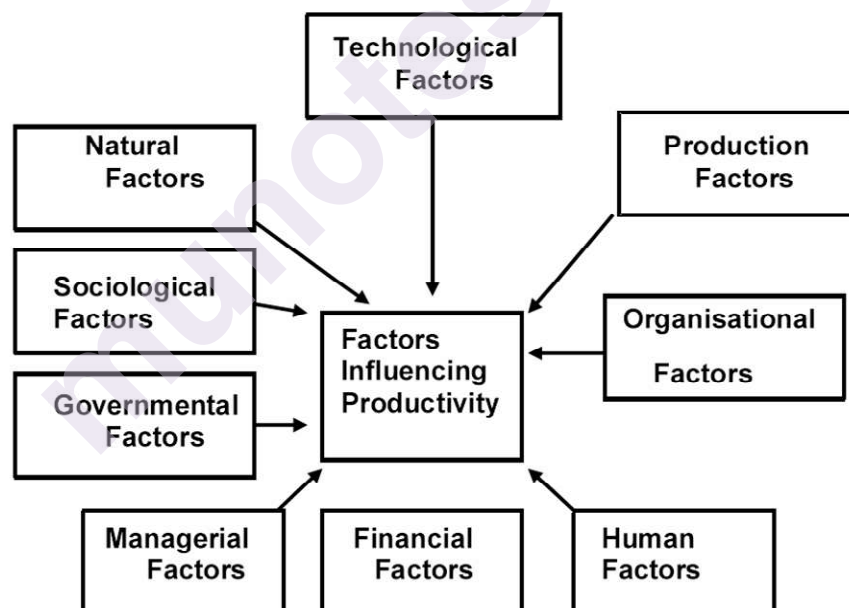
Productivity is the ratio of output to inputs. It refers to the volume of output produced from a given volume of inputs or resources. It is the amount of output per unit of input. Productivity reflects the amount of product created by one unit of a factor of production over a specific period. Productivity expresses the relationship between the outputs from a system and the inputs which go in its creation. Productivity can be found out by the following formula

$$\text{Productivity} = \frac{\text{Output}}{\text{Input}}$$

According to Peter Drucker, "productivity means that the balance between all factors of production that will give the greatest output for the smallest effort".

1.6.1 Factors Influencing Productivity

The factors influencing productivity is shown in the following diagram:



The factors influencing productivity are explained below:

a) Technological factors

The technological factor is the most important. It includes proper location, layout, and size of the plant and machinery, the correct design of machines and equipment, research and development, automation, and computerization, etc. If the organization uses the latest technology then its productivity will be high.

b) Production factors

The production of all departments should be properly planned, coordinated, and controlled. The right quantity and quality of raw materials should be used for production. The production process should be simplified and standardized. All this will increase productivity.

c) Organisational factors

A simple type of organization should be used. The Authority and responsibility of each individual and department should be clearly defined. The line and staff relationships should also be clearly defined. So, conflicts between line and staff should be avoided. There should be a division of labour and specialization as far as possible. All this will increase productivity.

d) Human factors

The right men should be selected for the right posts. They should be given proper training and development. They should be provided with very good working conditions and working environment. They should be properly motivated by financial, non-financial, and positive incentives; Incentive wage policies should be introduced. Job security should be given. Workers should be given importance. There should be proper transfer, promotion demotions, and other personnel policies. All this will increase the productivity of the organization.

e) Financial factors

Finance is the lifeblood of modern business. There should be proper control over both fixed and working capital. There should be proper financial planning. Capital expenditure should be properly controlled. Both over and under capitalization should be avoided. The management should see that they get proper returns on the capital which is invested in the business. If the finance is managed properly the productivity of the organization will increase.

f) Managerial Factors

The management should be scientific, professional, enlightened, future-oriented sincere, and competent. They should possess organizational capacity, imagination, judgment, and willingness to take a risk. They should make optimum use of the available resources to get maximum output at the lowest cost.

They should use the recent techniques of management and production. They should develop better relations with the employees and the trade unions. They should encourage the employees to give suggestions. They should provide a very good working environment and they should motivate the employees to increase their productivity. Efficient management is the most significant factor in increasing productivity and decreasing cost.

g) Governmental factors

The management should have a piece of proper knowledge about the government rules and regulations. They should also maintain good relations with the government monetary facilities, tax concessions for research and development activities, subsidies, facilities for technology transfer, etc. should be provided by the government. Government has to provide encouragement and facilities to make the productivity movement popular in the country.

h) Sociological factors

Productivity also depends on sociological factors such as the attitude and behavior of investors, customers, suppliers, etc. The attitude of workers and society towards new inventions, social values of the society, community differences, caste, race, and religion, etc.

i) Natural factors

Productivity also depends on natural factors such as geographic locations, climatic conditions availability of different kinds of natural resources, etc.

1.6.2 Measures for improving Productivity

Improving productivity is essential for earning more profits and being competitive in the business. Productivity in manufacturing is the result of efficient employees, proper tools, equipment and machinery, and processes so the management has to look into these areas for improving productivity. For this, the following measures can be suggested:

1. Study and analysis of the existing system

The management has to identify study and analyze the weak areas as for as the employees, technology, and processes are concerned.

2. Improvement in the production process

The production process can be improved by making proper utilization of resources such as workers, technology, materials, floor space and time available, and so on.

3. Providing training to workers

Training has to be provided to workers from time to time to enhance their skills knowledge and attitudes with proper training, the workers can do their jobs efficiently and can get job satisfaction.

4. The setting of realistic targets

To improve worker efficiency it's important to set realistic, clearly defined objectives. It improves the sense of responsibility and loyalty and job satisfaction of the workers.

5. Use of modern technology

In mechanical production, it is important to update technology, to improve productivity and competitiveness in an ever-changing business environment.

6. Repairs and maintenance

Tools, equipment, and machinery are required to be repaired and maintained periodically to maintain a smooth flow of the production process and to ensure industrial safety.

7. Optimum utilization of resources

The managers have to ensure the proper use of resources such as manpower, money, material, and machinery. Wastage or misuse of any kind should be avoided.

8. To encourage team spirit

The manpower should develop proper coordination and communication among the workers so that they work as a team towards the achievement of common goals and targets.

1.7 SUMMARY

From the above discussion, it is clear that production management is one of the important aspects of management, especially in a manufacturing organization. It is also clear that production planning and control are used in manufacturing organizations. It covers the objectives and steps of production planning and control. We also understood the types of production systems and the concept of productivity. As well as how the different factors are influencing productivity.

1.8 EXERCISE

Multiple Choice Questions

- _____ is a process of combining various material inputs and immaterial inputs
a) **Production** b) Finance c) Selling d) Departmentation
- Unless goods are _____, they cannot be marketed
a) **Produced** b) Sold c) Purchased d) Advertised
- _____ decisions are taken for deciding the product and production system and time taken for Production
a) **Strategic** b) Operating c) Non-Operating d) Non-Strategic
- _____ decisions are short-term and are acquire to be taken fore smooth production process
a) Strategic b) **Operating** c) Non-Operating d) Non-Strategic

5. Production Planning and control is the managerial function that includes deciding various issues related to the _____ process
a) **Production** b) Finance c) Selling d) Departmentation
6. _____ Is the first step in Production Planning & Control
a) Scheduling b) Followup c) Dispatching d) **Routing**
7. _____ Is the first step in Production Planning & Control
a) Scheduling b) Followup c) **Dispatching** d) Routing
8. A combination of various production operations employed to produce goods and services is known as a _____
a) **Production System** b) Purchase System c) Selling System d) Marketing System
9. _____ is a Intermittent system in types of Production system
a) Mass Production b) Process Production c) **Job Production** d) Assembly Production
10. _____ is a Intermittent system in types of Production system
a) Mass Production b) Process Production c) **Batch Production** d) Assembly Production
11. _____ is a Continuous system in types of Production system
a) **Mass Production** b) Job Production c) Batch Production d) Project Production
12. _____ is a Continuous system in types of Production system
a) **Process Production** b) Job Production c) Batch Production d) Project Production
13. Productivity is the ratio of output to _____
a) **Input** b) Output c) Production d) None of the above
14. _____ reflects the amount of product created by one unit of a factor of production over a specific period.
a) Elasticity b) Selling activity c) **Productivity** d) None of the above
15. _____ expresses the relationship between the outputs from a system and the inputs.
a) Elasticity b) Selling activity c) **Productivity** d) None of the above

Theory Questions

- a) Explain the objectives of production planning and control.
- b) Discuss the steps in production planning and control.
- c) What are the different types of production systems? Explain it.
- d) What is productivity? Discuss the factors influencing productivity.
- e) Explain the types of intermittent systems.
- f) Explain the meaning and scope of production management.

- g) Explain the Measures to be taken for improving Productivity.
- h) Discuss the types of continuous systems.
- i) Write short notes
 - a. Production planning and control
 - b. Production system
 - c. Productivity
 - d. Objectives of the production management
 - e. Strategic decisions
 - f. Operating decisions
 - g. Importance of Production Planning and control
- j) Explain the terms
 - a. Operating decisions
 - b. Strategic decisions



INVENTORY CONTROL

Unit Structure

2.0 Objectives

2.1 Introduction

2.2 Meaning and Objectives of Inventory Control

2.3 Techniques of Inventory Control

2.4 Methods/Types of Inventory Control System

2.5 Scientific Inventory Control System

2.6 Summary

2.7 Exercise

2.0 OBJECTIVES

After studying the unit the students will be able to-

- Understand the concept of Inventory Control.
- Define the meaning of Inventory Control.
- Know the objectives of Inventory Control.
- Make the students aware of the techniques of Inventory Control.
- Elaborate methods/types of Inventory Control System.

2.1 INTRODUCTION

Inventory control is very important in product or service-oriented business. It is necessary to have the right quantity of material. Overstocking as well as under stocking is bad. While overstocking can lead to the blockage of funds, under stocking can lead to a shortage of supply and may even result in the stoppage of production. In the end, it may result in improper service to the customer and have an adverse effect on the goodwill of the organization.

Production managers are responsible for controlling the costs of operations. Inventory cost includes amount invested in raw materials, supplies, work in process, and finished goods. High investment can increase operating costs and decrease production efficiency.

Inventory control is necessary as actual performance may not conform to planned performance due to changing environmental variables. Inventory control includes location, stores, and recording of inventories. It supplies these inventories to the different departments whenever required. It keeps

a record of each item of inventory. It gives quick and quality service to all the departments. It not only maintains inventories at the lowest costs but also avoids overstocking and under stocking of materials.

2.2 MEANING AND OBJECTIVES OF INVENTORY CONTROL

"Inventory control is the process whereby the investment in materials and parts carried in stocks is regulated within the pre-determined limits set as per the inventory policy established by the management".

2.2.1 OBJECTIVES:

The main objectives of inventory control are as follows,

a) Protection of Stores:

Inventory control is directed towards protecting stores against theft, unauthorized use, and wastage. This can be done by making it difficult for employees to gain unauthorized possession of materials.

b) Better service to customers:

If the company maintains a proper inventory of raw materials, then it can deliver its products in time. So, it can deliver the finished goods to the customers in time. Similarly, if the company has a proper inventory of finished goods then it can satisfy the additional demand of the customer.

c) Continuity of production operations:

Proper inventory control helps to maintain continuity of production operations. This is because it maintains a smooth flow of raw materials. So, there are no shortages of raw materials.

d) Better returns on investment:

Shareholder's wealth can be maximized and a better return on their investment is possible if the inventory is at an optimum level. Inventory control ensures the proper use of limited funds.

e) Buffer to reduce uncertainty:

There can be an irregular supply of raw materials due to transportation problems or even due to natural causes. In such a scenario there arises a need to have a buffer stock to protect against such vagaries. Buffer stock may be even sometimes necessary to meet the unexpected surge in demand.

f) Ensures continuity of supply:

Inventory control explains when to order and how much to order. It ensures continuity of supply of uniform quality of goods at the lowest cost. It is possible to calculate fluctuations in the supply of new materials and take preventive steps to build the inventories.

g) Useful during peak season:

Some companies adopt a strategy of producing during the slack season when the cost of production is less. This excess stock can be effectively sold at a higher price during peak season, The reduced cost during the slack season more than offsets the cost of maintaining inventory.

h) Avoid duplication in ordering:

Inventory control avoids duplication in the ordering of stock. This is done by having a separate purchase department. This department will do all the purchasing for the organization. No other department is allowed to do purchasing.

i) Focus on Inventory:

In a production unit, inventory control focuses on materials control because the main concentration is on the physical product. In the service sector, the focus is on service which is consumed promptly. The main concentration is more on the supply of service and less on materials. For example banks, transport companies, educational institutions, etc.

j) Avoid wastage:

Inventory control helps to maintain a check on the loss of materials due to carelessness or pilferage. If there is no proper inventory control, then there are more chances of carelessness and pilferage by the employees, especially in the store-keeping departments.

2.3 TECHNIQUES OF INVENTORY CONTROL

There are several techniques of inventory control. Some of the commonly used techniques are as follows.

a) ABC Analysis:

ABC (Always Better Control) analysis is a basic technique of inventory control. This technique can be used for all aspects of materials management such as verification of bills, purchasing, receiving, inspection, store-keeping, issue of stores, inventory control, etc. ABC analysis classifies all the items in the inventory into three groups i.e. A group, B group, and C group

A group of items has a high value although their number may be low. B group of items are in between with average value and number. C group of items has very low value but their number may be more.

ABC analysis provides a basis for selective inventory to a small number of items which account for most of its inventory costs. So, it can concentrate on controlling these items, on the other hand, low cost, and high volume items need not be closely controlled.

b) Economic Order Quantity (EOQ):

In Economic order Quantity, the fixed order quantity of materials is ordered when the stock on hand reaches the re-order point. The re-order point is the inventory level at which the stock should be re-ordered for the smooth flow of production.

c) Just-in-Time (JIT):

The Just-in-Time technique was started by a Japanese company. Here the company does not have a warehouse and it does not maintain any inventories at any stage of production. The exact quantities of materials are purchased at the right time at each stage of production. A truck delivers raw materials at one gate at the same time truck will take finished goods from another gate to the market.

This system can't be used by all companies for all materials. However, in India, Maruti Udyog Ltd, and Food specialist Ltd have successfully used the JIT technique.

d) CARDEX system:

In the Cardex system, cards are vertically arranged in a tray and kept in cabinets. Posting in this card may be done manually. However, nowadays computers are taking over the place of manual posting. The cards are known as 'stock control cards' are of different types, sizes, and colors. The cards indicate the position of stock which includes stock of items ordered, stock items received from suppliers, stock of items issued, the balance of stock, etc.

e) The maximum-minimum system:

It refers to the maximum, minimum quantity of inventory. Maximum inventory is that quantity which the company must keep in stock, when the stock reaches its minimum quantity, an order is placed to bring the stock up to the maximum level.

f) Two-Bin system:

Here the materials are kept in two bins. The first bin is locked and kept as reserve stock. The second bin is kept open, materials are used from the second bin for the production process. When the material from this bin is over, an order is placed for purchasing more materials. Then the first bin is opened and the materials are used from this bin.

g) MAPICS (Manufacturing Accounting and Production Information Control System):

MAPICS is a computerized common data-based system for manufacturing information and control. In simple words, entire data relating to manufacturing i.e. the inventory required, the production schedule, type of stock, the cost involved, etc. are stored in the computer. Control over stock

becomes easy as any information relating to stock level is readily available.

In this system, there are various modules for control. Modules can be relating to product data management, material requirements planning, inventory management, and so on.

h) Inventory turnover ratio (ITR):

This technique of inventory control uses accounting ratios such as Inventory Turnover Ratio. This technique establishes the relationship between average inventory and cost of inventory consumed or sold during a fixed period. The following formula is used to calculate the inventory turnover ratio.

$$\text{ITR} = \frac{\text{Cost of goods consumed or sold during the year}}{\text{Average inventory during the year}}$$

When consumption is made between current years inventory ratio with those of past years, it will reveal information such as obsolete, fast-moving items, and slow-moving items.

Check Your Progress

1. Enlist the objectives of Inventory Control.
2. Define the following terms.
 - a. Inventory control
 - b. EOQc.JIT
 - d. Cardex System
 - e. ABC analyses
 - f. MAPICS
 - g. ITR

2.4 METHODS/TYPES OF INVENTORY CONTROL SYSTEM

While designing an inventory control system, three questions are taken into account namely: -

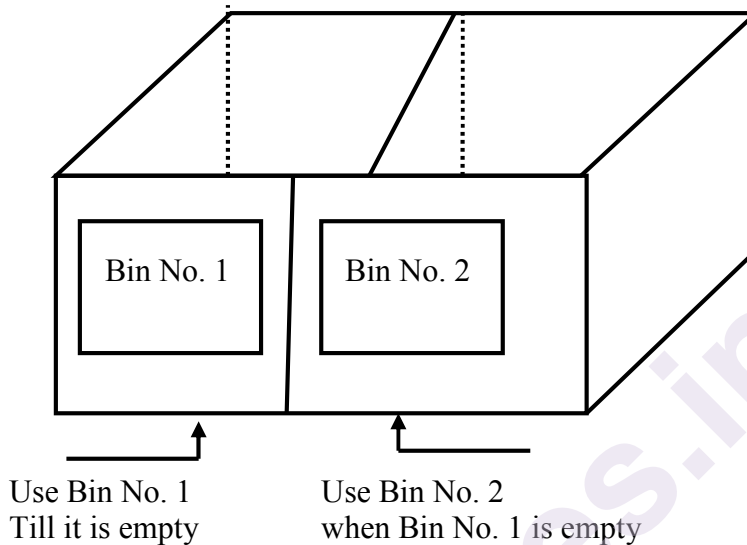
- 1) How often the assessment of stock should be made?
- 2) When should the replenishment order be placed?
- 3) What should be the size of the order?

The following are the methods/types of the inventory control system.

a) The two-bin system:

The two-bin system is one of the oldest systems of inventory control. It provides an answer to two questions i.e. 1) when the order should be placed? 2) How much quantity should be ordered?

This system is illustrated as follows:



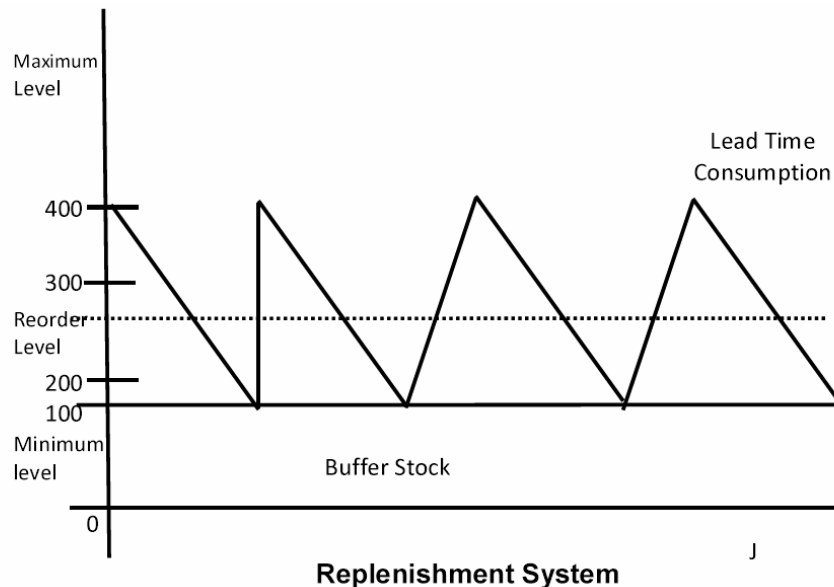
In this system, two bins are used and the stock is divided into two bins. The first one is used for satisfying current demand and the second one is used during the replenishment period. The second bin is used only when the first bin is empty and the replenishment order is placed. When the replenishment order is received, first the second bin is filled and then the balance is put in the first bin.

b) Open-access Bin System:

Open-access Bin System, the operators access the material directly without maintaining any records. This saves their time which can be used productively for the production purpose. It is the organization several such open access bins are used, a store vehicle can move around these bins at fixed intervals to replenish the stock. In this method, the quantity replenished is assumed to be the quantity consumed.

c) Re-order Level System:

In this system, the maximum level and minimum level are fixed. Here re-ordering is done after a period of review and order or re-order is placed when the quantity reaches a certain level. The following graph shows a typical stock replenishment system.



The above diagram represents an average rate of consumption of 100 units per month. The supplies are purchased once in three months (300 units). The minimum level/Buffer stock is maintained at 100 units i.e. equivalent to one month's consumption. The lead time, in this case, is 45 days. This means that when the stocks reach a level equal to 45 days consumption above the minimum level, a replenishment order is placed. The re-order level is at 250 units. The maximum stock held is 400 units.

In reality, it is not necessary that the consumption curve may be as smooth as illustrated above. To assess the consumption level it is necessary to take into account the sales forecast and experience to arrive at a monthly consumption pattern.

The above system is also referred to as a maximum-minimum reorder system or fixed quantity system.

d) Fixed Time system:

In this method, instead of considering the stock level, the time factor is taken into account. Here, orders are placed at regular intervals of time say 15th of March, June, etc. This method is also called the constant cycle system. The time for replenishment order is chosen purely from the point of view of administrative convenience. The number of orders to be placed is determined based on the EOQ formula.

e) Imprest stock control:

This is the simplest method of inventory control and here the maximum level for the bin is determined and periodic inspection of stock level in the bin is undertaken. As and when the stock is used the bin is replenished immediately to the maximum level. This method is restricted to material of low value (classification 'C' material). A stock-out situation can be easily rectified as the stock is easily available.

The purpose of the Scientific Inventory Control system is to avoid the dangers of overstocking and under stocking of materials, work-in-processes, and finished products.

2.5.1 Importance of Scientific Inventory Control System:

1. **It ensures smooth flow of production processes** by making the right quality of materials at right time.

2. **It reduces ordering cost**

There are certain overhead costs involved in ordering supplies. It is possible to avoid frequent ordering of requirements if the organization has a scientific inventory control system.

3. **It minimizes locking up of working capital in inventories**

With a proper inventory control system, it is possible to minimize the locking up of working capital in excess inventories and to improve the liquidity position of the firm.

4. **It helps in the supply of goods as per the market demand**

If there is sufficient stock of goods in hand, it is possible to supply goods as per the demand. It helps to satisfy customers and improve the market image.

5. **It helps in getting quantity discounts**

For bulk orders, the organization gets the benefits of trade discounts from the suppliers. These discounts can reduce the cost of goods and increase profits.

6. **It helps in taking the advantage of price fluctuations**

The firm can make purchases in bulk lots, when the prices of raw materials are low, thereby reducing the cost of raw materials. The firm can also take the benefit by marketing goods when the prices are higher. Thus, by taking the advantage of price fluctuations, the firm can maximize profits.

7. **It helps in deciding timely replenishment of stocks**

A proper inventory control system helps in keeping up-to-date records of the inventories. It helps the firm to avoid thefts, wastages, and leakages of inventories. These records also help in deciding about the timely ordering of stocks.

2.6 SUMMARY

Inventory control has been a must in running a business or an organization. Inventory management is primarily about specifying the size

and placement of stocked goods. The scope of inventory management also concerns the fine lines between replenishment lead time, carrying costs of inventory, asset management, inventory forecasting, inventory valuation, inventory visibility, future inventory price forecasting, physical inventory, available physical space for inventory, quality management, replenishment, returns, and defective goods and demand forecasting. Balancing these competing requirements leads to optimal inventory levels, which is an ongoing process as the business needs shift and react to the wider environment.

Inventory management functions techniques related to the tracking and management of material. This would include the monitoring of material moved into and out of stock room locations and reconciling the inventory balances. Also may include ABC analysis, JIT, lot tracking, cycle counting support, etc.

Management of the inventory, with the primary objective of determining/controlling stock levels within the physical distribution function to balance the need for product availability against the need for minimizing stock holding and handling costs. Therefore design an inventory control system by the way i.e. the Two-bin system, open access Bin system, Re-order level system, Fixed time system, and Impress stock control.

2.7 EXERCISE

Multiple Choice Questions

1. _____ managers are responsible for controlling the costs of operations.
a) **Production** b) Finance c) Selling d) Purchase
2. _____ means ABC Control
a) **Always Better Control** b) Any Body Control c) Always Best Control d) Anyways better cost
3. ABC analysis classifies all the items in the inventory into _____ groups
a) **Three** b) Two c) One d) One
4. In _____ technique the company does not have a warehouse and it does not maintain any inventories at any stage of production
a) ABC Analysis b) **Just in Time** c) CARDEX System d) Two Bin
5. In Two bin System the _____ bin is locked and kept as reserve stock
a) **First** b) Second c) Third d) Fourth

6. In Two bin System the _____ bin is kept open, materials are used from the second bin for the production process

Inventory Control

- a) First b) **Second** c) Third d) Fourth

Theory Questions

- 1) Define inventory control. Explain the objectives of inventory control.
- 2) Discuss the techniques of inventory control.
- 3) What are the methods/types of inventory control systems? Explain it.
- 4) Write short notes
 - i) Inventory control
 - ii) ABC Analysis
 - iii) JIT
 - iv) The Two-Bin system
 - v) Re-order level System
 - vi) Scientific Inventory Control system



QUALITY MANAGEMENT

Unit structure

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Introduction to Quality
- 3.3 Quality Control
- 3.4 Quality Circle
- 3.5 Summary
- 3.6 Exercise

3.0 OBJECTIVES

After studying the unit the students will be able to

- Know the concept of quality management
- Understand the concept of quality control
- Makes the students aware of the techniques of quality control.
- Study the concept quality circle.
- Evaluate the process of a quality circle.

3.1 INTRODUCTION

Quality management takes measures to control the quality of the future output. ISO 9000 is the only internationally accepted standard for quality management. The development of quality management has seen four phases i.e. a) quality planning b) quality control c) quality assurance and d) quality improvement. Quality management improves the competitiveness and reputation of the firm. It ensures satisfaction to customers through the guarantee of goods, safe performance, efficient service, and prompt delivery.

Quality management is concerned with quality production through regular inspection during the process of production. Quality is a combination of characteristics of the manufacture of the product and control is the correction in the quality of the product as and when the deviations in the product are more than expected. A good quality item confirms some standard specifications. These specifications are determined by the expectations of consumers and also by the availability of processes and materials.

"Quality management uses quality assurance and control of processes as well as products to achieve more consistent quality".

3.2 INTRODUCTION TO QUALITY

Quality is the degree to which a product, process, or service satisfies a specified set of attributes or requirements. It is a relative term because specifications or requirements differ from person to person or organization to organization.

3.2.1 Dimensions of Quality

The following are the dimensions of quality that can be used to determine/decide the quality characteristics.

1. Performance:

Performance of a product/service refers to a product's primary operating characteristics. It decides whether it can perform well to fulfill the need or requirements of the consumer.

2. Features:

Features are additional or supplementary characteristics that enhance the utility or performance of the product/service. These features supplement the basic functioning of the product/service.

3. Reliability:

Reliability indicates the specified working life of the product, and it's a kind of assurance that the product can be used for the specified period without fail.

4. Conformance:

The dimension of conformance refers to the degree to which a product design and operating characteristics meet established standards. It is a kind of quality assurance given by the organization to the customers.

5. Durability:

Durability refers to the length of a product's life. With proper handling, repairs, and maintenance, the product's life can be increased to a certain limit.

6. Serviceability:

Serviceability refers to how efficiently the organization can provide repairs and maintenance service to the customers if the product fails to operate.

7. Aesthetics:

Aesthetics is the relative / subjective term and it refers to how the product looks, feels, sounds, tastes, and smells. It is a matter of personal performance a judgment.

8. Perceived Quality:

Very often consumers do not get or have complete information about a product's or service's attributes. They may select the particular brand based on other factors such as the organization's and brand's image, advertising message, feedback from the customers, and so on.

3.2.2 Cost of quality :

Meaning

Cost of quality refers to the cost involved in activities and resources for preventing detecting and remediating manufacturing of poor quality of goods/services.

Quality costs are categorized / Types into four main types and they are -

1. Prevention Costs:

It is always better to take measures to prevent defects in manufacturing products. The costs which are incurred to avoid or minimize the defects in manufacturing costs are known as prevention costs. Such costs can include costs incurred for improvement of manufacturing processes, training to workers, repairs, and maintenance of machinery, etc.

2. Appraisal Costs:

Appraisal or Inspection costs are those costs that are incurred to identify defective products before they are sold to customers. These costs include supervision or inspection costs for maintaining a team of inspectors. It helps to ensure the production of products with required quality standards.

3. Internal failure costs:

Internal failure costs are those costs that are incurred to remove defects from the products before selling them to customers. They include the cost of rework, rejected products, scrap, etc.

4. External failure costs:

External failure costs are incurred if the defective goods are sold to customers. They include the costs like warranties replacements, sales returns, etc. It also covers the damages such as spoiling of market reputation & goodwill unsatisfied customers reduced sales and profits.

In every manufacturing concern, quality control plays a very important role. In most organizations, there is a separate quality control division with well-equipped tools, machines, etc. Before producing the actual product its design has to be prepared. Product quality is the degree to which such actual output conforms to the design. It is physically impossible to make all the items alike. There is always variability in the product. When variability becomes noticeable its results in scraps, rework, and losses, thus adding to the cost. Quality control takes measures to control the quality of the future output. Quality control is concerned with quality production through regular inspection during the process of production.

3.3.1 DEFINITION OF QUALITY CONTROL:

According to Alford and Beatty, "Quality control is those techniques by which products of uniform acceptable quality are manufactured".

3.3.2 Techniques of Quality Control

The following are the techniques of quality control

a) Inspection:

Inspection is an important technique of quality control. It means testing a product to ensure that it meets its design specifications. It involves critical appraisal involving examination, measurement, testing, gauging, and comparison of materials or items. An inspection determines if the material or item is in proper quantity and condition and if it conforms to the applicable or specified requirements.

Inspection can be defined as "an act of monitoring or observing a process, procedure or service to ensure compliance with the operational definition and to ensure that all customer requirements or internal prerequisites are met.

b) Just-In-Time (JIT):

Just-In-Time is an important technique of quality control. The quality of finished products depends on the quality of raw materials. Manufacturers enter into a contract with the suppliers to supply raw materials Just in time and enable to manufacture quality products in time and economically. Just-in-time assumes the use of sophisticated technology to maintain a high quality of production.

Just-in-time supports the adoption of preventive maintenance of the plant to avoid machine breakdowns. Preventive maintenance goes a long way to ensure continuous production. Due attention should be given to train and develop employees who are largely responsible to provide quality goods and services.

c) Total Quality Management (TQM):

Total Quality Management (TQM) is a management approach that originated in the 1950s and has steadily become more popular since the early 1980s. It is an integrated organizational effort designed to improve quality at every level. In a TQM effort, all members of an organization participate in improving processes, products, services, and the culture in which they work.

At its core, TQM is a management approach to long-term success through customer satisfaction. It seeks to improve quality and performance which will meet or exceed customer expectations. This can be achieved by integrating all quality-related functions and processes throughout the company. TQM looks at the overall quality measures used by a company including managing quality design and development quality control and maintenance, quality improvement, and quality assurance. TQM takes into account all quality measures taken at all levels and involving all company employees. TQM is undertaken continuously.

TQM can be defined as "an integrative philosophy of management for continuously improving the quality of products and processes".

d) Quality at the source:

Under quality at the source technique, each employee is made responsible to produce quality parts before they are given to the next operation. Each employee is expected to conduct self-appraisal of work. He should evaluate his performance, note defects, and introduce corrective actions. In case the defect in the product continues, he is allowed to stop his part of the work rather than continue to make defective parts. In situations of this nature, the quality circle is of great help to mutually work out suitable solutions.

e) Statistical Quality Control (SQC):

In today's economic activity, the need to make the optimal use of resources for the manufacture of goods and services of high quality at a low cost and to market them at a competitive price has acquired great significance. Consequently, there has been a growing demand for persons trained in the techniques and approach of quality control. The Statistical Quality Control (SQC) process relates to the use of statistical methods of monitoring and control to reduce wastes in the production activity and make sure that conforming goods are being produced. Although this process has been mostly applied in the control of manufacturing lines, its applicability can be extended to any process with a measurable output.

SQC evaluates the quality of a product, service, or process. It is used to analyze quality problems and solve them. It is used by quality professionals.

f) Quality circles:

Quality circle is based on the concept of participative management. It assumes that quality improvement is possible by uplifting morale and motivation through consultation and discussion in informal groups. The circle consists of operators, supervisors, and managers who come together to improve ways to make quality products or deliver the service. Members are trained in problem-solving techniques. Members forward recommendations to the management for implementation.

Check Your Progress

1. Define the following terms:
 - a. Quality management
 - b. Quality control
 - c. Inspection
 - d. JIT
 - e. TQM
 - f. Quality at the source
 - g. SQC

3.4 QUALITY CIRCLE

This concept was first introduced in Japan by Mr. Kaoru Ishikawa. The quality circle was formed to promote the concept of quality. The concept of quality control is based on the management's faith in the capabilities of employees. Quality control is a small voluntary group of people from the same work area who meet regularly to identify, select, analyzing and solving work-related problems of quality, productivity, cost reduction, safety, customer service, etc. The Quality circle members select problems in their immediate work environment through the process of discussion and deliberation to identify possible solutions for the same. Quality circle is a people-building philosophy, providing self-motivation and happiness in an improving environment without any compulsion or monetary benefits.

3.4.1 Meaning:

A quality circle is a small group of volunteered employees from the same work area, doing similar work, who meet regularly to identify, analyze and solve problems in their work field.

3.4.2 Process of Quality Circle

Quality circle is teamwork for quality improvement. It is a voluntary and self-service activity useful to the company, employees, and the national economy. This concept has its philosophy with wide meaning and significance. The quality circle needs a suitable organizational structure for effective internal communication and efficient functioning. Quality circles are not merely for studying, analyzing, and suggesting solutions but for the implementation of concrete results about quality, cost, and

productivity. Quality circle is based on workers' initiative. Strictly, it is a participative program on a purely voluntary basis.

The following are the process of the Quality circle

a) Listing of problems:

The first step in the process of the quality circle is the listing of problems. It means list out the problems. Such listing of problems can be done by management or employees.

b) Selection of problem:

The second step in the process of the quality circle is a selection of problems. It involves discussion over the list of problems. The quality circle members select one problem at a time to work on.

c) Analysis of the problem:

The problem selected by the members is thoroughly analyzed. The quality circle can approach management with a request to provide an expert or consultant so that the analysis gets professional touch.

d) Generating Solutions:

As members of the quality circle discuss only quality matters it is possible to arrive at a workable solution. Sometimes technical issues may drag on and the solution is obtained in more than one sitting. The circle is allowed to work out more than one solution. Alternative solutions need to be evaluated in the light of specified objectives. Compare costs and benefits of each solution and the quality circle should recommend the best solution to top management.

e) Recommendations:

As a practice, the quality circle recommends the solution to its departmental head which finally reaches the top management. The decision of top management will be final. Top management will also consider the recommendation of the quality circle. Nowadays the quality circle provides audio-visual presentation. The presentation should be self-explanatory. Nothing is left to the imagination of top management and every point is well illustrated and explained.

f) Acceptance of Recommendations:

The management will closely scrutinize the solution. They will consider the pros and cons of the solution. They will also evaluate its practical utility. If the management is convinced about the soundness of the solution it will approve the project and sanction the requisite amount.

g) Implementation:

The management then implements the decision. Implementation often requires help from other workers who are not members of the quality

circle. The team spirit among the workforce ensures proper Quality Management implementation of the decision.

h) Rewarding the employees:

The quality circle member is recognized and rewarded for their positive and fruitful recommendations.

3.4.3 Features / Characteristics of quality Circles:

A quality circle is a small group of employees who voluntarily join hands to solve day-to-day work-related problems such as wastage of materials, quality of raw materials, tools, semi-finished and finished goods, work environment, scheduling, maintenance of machinery, safety measures, and so on. They solve the problems with the guidance and advice of their supervisor.

The following are the characteristics/features of the quality circle:

1. It is a group of workers/employees doing a similar kind of job.
2. It is a group of few members maybe three to ten to achieve better communication and coordination.
3. Members join the circle voluntarily. They feel the need to identify and solve work-related problems.
4. Generally, meetings of the circle take place for at least an hour every week at a time suitable to all members.
5. The quality circle is formed basically to find out solutions to the work-related issues/problems. So the supervisor, who is in charge of the work, generally acts as a leader of the group.
6. The members of the group are concerned only about the issues related to their work area only.
7. After studying and analyzing the problem related to the work, the members collectively find out the solutions for the problems and they are forward to the management for their approval.

After the management's approval, the circle members can implement the measures for overcoming the problems.

3.5 SUMMARY

Quality management is concerned with controlling activities to ensure that products and services are fit for their purpose and meet the specifications.

Quality control takes measures to control the quality of the future output. Quality control is concerned with the quality of production through regular inspection, Just-in-time, total quality management, quality at the source, statistical quality control, and quality circle techniques during the process of production. The main objective of quality control is to ensure that the

business is achieving the standards it sets for itself. Quality circles are designed to improve employee morale, Job efficiency, management procedures, and the quality of a firm's products. Although most commonly found in manufacturing environments, quality circles apply to a wide variety of business situations and problems. They are based on two ideas, that employees can often make better suggestions for improving work processes than management, and that employees are motivated by their participation in making such improvements.

3.6 EXERCISE

3.6.1 Multiple Choice Questions

1. _____ takes measures to control the quality of the future output.
 a) **Quality Management** b) Inventory Management c) Financial Management d) None of the Above
2. _____ is concerned with quality production through regular inspection during the process of production
 a) **Quality Management** b) Inventory Management c) Financial Management d) None of the Above
3. _____ refers to the cost involved in activities and resources for preventing detecting and remediating manufacturing of poor quality of goods/services.
 a) **Cost of Quality** b) Cost of Quantity c) Cost d) Quality
4. _____ is those techniques by which products of uniform acceptable quality are manufactured
 a) ABC Analysis b) **Quality Control** c) Quality Management d) Cost of Quality
5. _____ process relates to the use of statistical methods of monitoring and control to reduce wastes
 a) **Statistical Quality Control** b) Quality Control c) Statistical Process d) None of the above
6. _____ is based on the concept of participative management
 a) Cost of Quality b) **Quality Circles** c) Quality Management d) Quality Management
7. _____ assumes that quality improvement is possible by uplifting morale and motivation through consultation and discussion in informal groups
 a) Cost of Quality b) **Quality Circles** c) Quality Management d) Quality Management

8. A _____ is a small group of volunteered employees from the same work area, doing similar work, who meet regularly to identify, analyze and solve problems in their work field Quality Management

- a) Cost of Quality b) **Quality Circles** c) Quality Management
d) Total Quality Management

Theory Questions

- a) Explain the techniques of quality control.
- b) Discuss the process of the quality circle.
- c) Explain the term Quality Circles and its Characteristics
- d) What are the dimensions of Quality
- e) What are the types of Quality
- f) Write short notes

- | | |
|--|------------------------|
| i) Quality management | ii) Quality control |
| iii) Quality at the source | iv) Inspection |
| v) Total Quality Management (TQM) | vi) Just-In-Time (JIT) |
| vii) Statistical quality control (SQC) | viii) Quality circle |



CONTEMPORARY TRENDS IN QUALITY MANAGEMENT

Unit structure

- 4.0 Objectives
- 4.1 Total Quality Management (TQM)
- 4.2 Six Sigma
- 4.3 Steps in Six Sigma
- 4.4 International Standards Organisation (ISO 9000)
- 4.5 Procedure to Obtain Iso 9000
- 4.6 Kaizen
- 4.7 Service Quality Management
- 4.8 Summary
- 4.9 Questions

4.0 OBJECTIVES

After studying this chapter the students will be able to-

- Understand the meaning and features of total quality management.
- Know the meaning and features of six sigma as well as the steps in six sigma.
- Bring out the meaning and procedure of ISO 9000.
- Elaborate on the kaizen process.
- Evaluate service quality management and its importance.

4.1 TOTAL QUALITY MANAGEMENT (TQM)

Total Quality Management is a comprehensive concept and not related only to the quality of goods and services. It is a wide term that is concerned with an overall improvement of the system, techniques, and staff of the organization. Total quality management is a preventive approach and not a corrective one. It aims at producing the best possible product and service through regular innovation. It believes in doing the right things the first time. TQM is a strategic approach to produce the best possible product and service through constant innovation and timely action. It is always focused on the requirements of the customers both internal and external.

TQM is a management philosophy that places emphasis on continuous improvement in quality in the interest of the organization and that of its customers.

Definition:

According to prof K.K.Chaudhari "TQM represents a customer-oriented, quality-focused management philosophy".

4.1.1 FEATURES OF TOTAL QUALITY MANAGEMENT

The following are the main features of Total Quality Management

a) Continuous process:

Total Quality Management is a continuous process. The managers are continuously trying to find out new methods and techniques for improving the quality. They also encourage the employees to give their ideas and suggestions for improving the quality. Quality improvement helps the organization to face the challenges of the competitors and to meet the requirement of the customers.

b) Customer Focus:

TQM gives great importance to customers. It tries to give maximum satisfaction to the customers. TQM tries to give the customers a regular supply of good quality goods and services at a low cost. It tries to avoid wastage, rejection, etc. It tries to protect the customers in all ways. TQM believes that if the organization cannot satisfy and protect the customers, then the customers will be attracted by the competitors.

c) Defect-free Approach:

TQM emphasizes defect-free work most of the time. It follows a zero-defect approach. i.e., It tries to produce goods with zero (no) defects. TQM aims for perfection. It works hard to achieve perfection. It gives more importance to prevention and less importance to rectification. i.e., it tries to prevent errors and mistakes. It tries to be "right first time" and all times.

d) Employees Involvement:

TQM is possible only through participative management. Under TQM, employees will be motivated to participate actively in the process of quality improvement through incentives, rewards, and recognition. TQM creates teamwork where workers are trained and motivated properly. In TQM everyone is involved in the process from the managing director to the junior clerk or worker in the organization.

e) Linkage of quality and productivity:

TQM technique is useful for improving quality as well as productivity. The method used in TQM programs, for example, zero-defect production

makes all employees responsible for quality maintenance and improvement. It also leads to higher productivity.

f) Recognition and Rewards:

In TQM, the employees are encouraged to improve the quality. They are encouraged to give suggestions about how to improve the quality. TQM offers recognition and rewards to the employees for improving quality.

Recognition means encouraging individuals and groups by giving them letters of thanks, merit certificates, inviting them for lunches, dinners, etc.

Rewards mean to encourage individuals and groups by giving them financial benefits such as merit pay, promotion with higher status and pay, etc.

g) Synergy in Team Work:

The Japanese are great believers in Synergy. Synergy means to work together. In Japan, there is no status difference between an engineer and an ordinary worker. Both are treated equally by each other. They work side by side as a team. So, TQM gives importance to teamwork. Without teamwork, we can't have TQM.

h) Techniques:

TQM needs the use of various techniques such as quality circles, value engineering, statistical process control, quality assurance, etc. With the help of such techniques, it is possible to improve the quality and reduce time-consuming low-value activities.

i) Management involvement:

TQM is a systematic approach for managing business and improving performance. Management participation is necessary for the success of TQM. It requires total commitment from the top management to provide good leadership to the whole approach.

4.1.2 IMPORTANCE OF TOTAL QUALITY MANAGEMENT

The following is the importance of Total Quality Management

a) Cost Reduction & Increased Profitability:

TQM helps reduce total quality costs. In other words, it aims to produce superior quality products and services so that no additional costs are borne later. Many companies like Apple, Microsoft, etc. implemented TQM techniques to reduce manufacturing costs, saving billions of dollars.

b) Enhanced Productivity:

Some organizations offer superior quality resources, high-end infrastructure and excellent technology—all of which are instrumental in

motivating employees. With improved standards of work and better working conditions, employees are encouraged to maximize their output.

c) Lesser Redundancy:

Every organization aims at improving productivity and profitability. TQM uses a systematic approach to reduce any duplication of tasks, therefore saving time and fully utilizing available resources.

d) Improved Innovation Process:

As we've already established, TQM includes a research phase. Organizations collect data about any current challenges or problems to devise effective solutions. Some organizations rely on unique strategies to get to the root of a problem. For example, businesses often use the A/B testing method to compare two versions of the same strategy and implement the one that produces better results.

e) Continual Improvement:

As we've already established, TQM includes a research phase. Organizations collect data about any current challenges or problems to devise effective solutions. Some organizations rely on unique strategies to get to the root of a problem. For example, businesses often use the A/B testing method to compare two versions of the same strategy and implement the one that produces better results.

f) Effective Communication:

TQM techniques push individuals to collaborate and support each other for the greater benefit of an organization. Increased teamwork and cross-functional collaboration prompt everyone to strive for continuous improvement. For example, clear communication enables a production chain that functions seamlessly because everyone is on the same page.

g) Holistic Approach To Management:

Many organizations struggle with low employee engagement. TQM helps workplaces bring behavioral changes by facilitating self-development, teamwork and improved employee engagement. Individuals show more interest in their roles because the organization prioritizes their well-being and job satisfaction.

h) Increased Goodwill:

Organizations can establish quality standards for goods/services using TQM. Internal stakeholders (employees and investors) get lucrative incentives and profitable return on investment. External stakeholders (customers and clients) get superior quality products and services. The result: positive brand image and goodwill in the long-run.

i) Satisfied Customers:

High-quality products that meet customers' needs results in higher customer satisfaction. High customer satisfaction, in turn, can lead to increased market share, revenue growth via upsell and word-of-mouth marketing initiated by customers.

j) Well-defined cultural values:

Organizations that practice TQM develop and nurture core values around quality management and continuous improvement. The TQM mindset pervades across all aspects of an organization, from hiring to internal processes to product development.

4.2 SIX SIGMA

In 1986, Bill Smith, a Motorola engineer, developed the six sigma program. Six Sigma is a set of tools, techniques, and strategies designed for process improvement. Six Sigma attempts to improve the quality of process output by identifying and removing the cause of defects or errors. It minimizes variability in manufacturing and business processes. Under six Sigma Motorola defined six standard deviations of variation which could be squeezed within the limits defined by their customer's specification.

4.2.1 Features of Six Sigma

The following are the main features of Six Sigma.

a) Problem-solving approach:

Six Sigma adopts a structured approach towards problem-solving. The most commonly used version of the problem-solving methodology is known as DMAIC. It stands for D-Define M-Measure A-Analysis I-Improve C-Control an acronym for the phases of Six Sigma improvement. This methodology defines a problem and works to find a solution.

b) Reduced process variation:

Process variation takes up when the production activities are uneven, To maintain uniformity in production firms use Six Sigma. It brings about stable and predictable process results. As a consequence, process variation gets reduced.

c) Based on Factual Data:

There is no place for assumptions and guesswork in Six Sigma. The entire operation of Six Sigma is based on factual data and statistical methods. All decisions are taken only when reliable data is collected, analyzed, and interpreted. Such finding must reflect the ground reality. Only then it can be put into practice.

d) Team-Based:

Six Sigma is team-based and the structured nature of this approach required extreme discipline within the organization which includes time management and pro-active leadership but the real challenge lies in the ability to plan and execute projects which deliver specified financial benefits.

e) Improved market Image:

As quality products are rolled out consumers get money's worth and they continue their patronage for the same product. Moreover, the name of the company gets established in the market as the maker of quality products. The improved market image continues to rope in new customers.

f) Customer Focus:

Six Sigma has a very strong customer focus. The targets are set keeping in mind the requirements of the customers. The customer focus is fundamental to the Six Sigma approach. The quality improvement and control standards are based on explicit customer requirements.

g) Organisational commitment:

Six Sigma should not be used as a decorative piece. It must be based on the active support, involvement, and commitment of management and employees. Top management is committed to improving quality. The managers must display their capabilities from planning to work to plan for the accomplishment of specific goals.

h) Better Approach:

Six Sigma enables to measurement, analysis, control, and improve the manufacturing process. Even total business operations are kept under control. Six Sigma is a better approach because it is result-oriented.

i) Continuous Improvement:

Six Sigma is all about continuous improvement. Like all other quality improvement initiatives, its ultimate aim is to refine the processes within the organization leading to the improvement of the quality of the produced output. Therefore management must decide on priority areas of improvement.

4.3 STEPS IN SIX SIGMA

The steps in Six Sigma are as follows:

1. DEFINE PHASE:

There are five high-level steps in the application of Six Sigma to improve the quality of output. The first step is to Define. During the define phase, the important major takes are undertaken i.e. formation of project team, document customers core business processes, develop a project charter

and develop the Suppliers, Input, Process, Output, Customers (SIPOC) process map. This step helps to know who the customer or end-user is, their resistance issues, and requirements. You should also have a clear understanding of goals and the scope of the project including budget, time constraints, and deadlines.

2. MEASURE PHASE:

The second step or phase of Six Sigma is a measure phase. During the measure phase, the overall performance of the core business process is measured.

There are three important parts of the measure phase

i) Data collection plan and data collection:

A data collection plan is prepared to collect the required data. This plan includes what type of data needs to be collected, what are the sources of data etc. The reason to collect data is to identify areas where current processes need to be improved.

ii) Data evaluation:

At this stage, collected data is evaluated and Sigma is calculated. This gives the approximate number of defects.

iii) Failure mode and Effects Analysis (FMEA):

The final segment of the measure phase is called FMEA. This refers to preventing defects before they occur. The FMEA process usually includes rating possible defects or failures.

3. ANALYSE PHASE:

Six Sigma aims to define the causes of defects, measure those defects, and analyze them so that they can be reduced. Five specific types of analysis help to promote the goals of the project. These are source analysis, process analysis, data analysis, resource analysis, and communication analysis. The proper procedure is the one that works best for your team, provided that the result is successful. Analysis helps to reduce the defects.

4. IMPROVE PHASE:

If the project team does a thorough job in the root causation phase of Analysis, the Improve phase of DMAIC can be quick, easy, and satisfying work. The objective of Improve phase is to identify improvement breakthroughs, identify high gain alternatives, select preferred approach, design the future state, determine the new sigma level, perform Cost/benefit analysis, design dashboard/scorecards, and create a preliminary implementation plan.

5. CONTROL PHASE:

The last stage or phase of DMAIC is control, which ensures that the processes continue to work well, produce desired output results, and maintain quality levels. There are four specific aspects of control i.e. quality control, standardization, control methods and alternative, and responding to defects. The project team determines how to technically control the newly improved process and creates a response plan to ensure the new process maintains the improved sigma performance.

4.4 INTERNATIONAL STANDARDS ORGANISATION (ISO 9000)

Meaning:

ISO is the International Organisation for standardization, located in Switzerland. It has been established to develop common international standards worldwide. The term ISO 9000 refers to a set of quality management standards. Currently, ISO 9000 is supported by national standards bodies from nearly 150 countries including India. ISO currently includes ISO 9000, ISO 9001, ISO 9002, ISO 9003, and ISO 9004. These five series apply to a group of products or services and are not specific to a product or service.

ISO 9000 is essentially a mark of quality assurance. The purpose of ISO is to facilitate international trade by providing a single set of standards that people worldwide would recognize and respect. It is to be noted that there is no compulsion to obtain ISO certification and use ISO 9000 standards, except in some cases where governments or regulatory authorities impose them for public security reasons, or where they are required in contractual terms. However, the demand for these standards has been increasing in the global markets, and avoiding them will soon become impossible. It is also be noted that the ISO registration does not automatically extend to other plants of a company, even if the same product or the same service is been offered.

4.5 PROCEDURE TO OBTAIN ISO 9000

The following is the procedure to obtain ISO 9000 certification-

a) Preliminary Investigation:

The Company wishing to obtain ISO 9000 certification should first conduct self-evaluation to determine its quality control infrastructure. This work can be entrusted to a team of specialists working with the firm the company can appoint an ISO steering team to evaluate the existing quality procedures prevailing within the firm.

b) Submission of application:

Exporters can apply on the prescribed proforma in triplicate to the nearest regional office of BIS along with the prescribed non-refundable

application fee. The Company has to give information about the name, location, and structure of the company, size of the business, range of products, type of manufacturing process, name of products, etc.

c) Audit of the quality manual:

The existing quality manual is audited to determine how it compares with the twenty elements of the ISO 9000 standard. A report is prepared on the findings. Deficiencies, if any are corrected and the manual is resubmitted for approval by the auditing body the quality manual would provide guidelines to the employees of the firm to maintain quality standards.

d) Selection of Registrar:

A registrar is an independent body with knowledge, skills, and experience to evaluate a company's quality system. Registrars are approved and certified by accreditors. The company should make an application to the accredited agency along with necessary documents which include quality manual undertaking to pay the required fee etc.

e) Pre-assessment meeting:

The company representative would hold a pre-assessment meeting with the registrar of the agency. Pre-inspection meetings may look for sufficient documents as per the standards, implementation of the documented procedure, and whether implementation is effective.

f) Preliminary visit:

The accredited agency, normally, arranges for a preliminary visit to the firm and notifies the company of any significant omission or deviations from the prescribed requirements, so that any suitable modification or changes can be made before the assessment visit.

g) Actual Assessment visit:

The actual assessment visit is a practical evaluation to check that the company's systems are functioning effectively. The assessment team from the BIS will visit the firm to assess the firm's compliance with the procedures as mentioned in the quality manual. The assessment will go through the opening meeting, conducting assessment, closing meeting, and presenting the report.

h) Issue of certificate:

The assessment team should ensure whether the company has complied with the ISO 9000 standard. Verbal feedback is given to the company at the time of assessment. The assessment team, if satisfied will submit a favorable report to the registration board. When the registration board approves the registration, the registrar issues a certificate that enables the company to use ISO 9000 mark.

1. Define the following terms:
 - a. Six Sigma
 - b. TQM
2. Enlist the steps in the Six Sigma process.
3. "Total quality management is a preventive approach and not a corrective one". Discuss.
4. Enlist the steps in the procedure to obtain ISO 9000 certification.

4.6 KAIZEN

The concept of Kaizen was made popular by Masaaki Imai in his book Kaizen: - The Key to Japan's competitive success. Kaizen in Japanese means 'change (kai) for good (zen)'. Kaizen technique places emphasis on continuous improvement in varied aspects of the organization such as quality, corporate culture, safety, technology, process, productivity, and leadership. Kaizen applies not only to manufacturing units but also service organizations as well as non-profit organizations.

Definition: - According to Sumuel Kho," Kaizen is a programme, a philosophy and a strategy to improve quality of goods and services of an organization".

4.6.1 Kaizen Process:

The following are the steps in the Kaizen process

a) Define the problem:

Kaizen is of utility only when, at the initial stage, the problem is correctly defined. When defining the problem we often notice a performance gap. It means there is a difference between the ideal situation and the current level of performance. In the process of defining the problem, we may notice a deviation in performance.

b) Document the current situation:

The management must analyze the current situation in terms of organization structure, Superior-Subordinate relationships, employee selection procedures, training policies and practices, the production facilities, corporate culture, technology, production process, and so on. A proper analysis of the current situation may enable the management to have a re-look at the causes of the problem. To solve the problem, it is important to correctly assess the current situation.

c) To find the root cause:

Kaizen is built on the premise that it is vital to locate the root cause to rightly solve the problem. Root cause analysis is the central theme of Kaizen. Once the cause of the problem is identified, under Kaizen, it is not accepted instantly but several efforts are made to confirm that the cause thus established is the real one. Root cause analysis uses problem-solving techniques.

d) Define measurement Targets:

There is a need to define measurement targets at which the outcomes or results can be compared. For example, the measurement target for complaints of the customer can be stated as Reduction in customer. Customers from the current level of 60 per month to 15 in the first month of the implementation and finally to near zero at the end of three month period.

e) Brainstorm Solutions to the problem:

The management needs to generate ideas to develop an effective solution to the problem. As far as possible, multiple solutions need to be generated. This can be done through various techniques i.e. obtaining suggestions from the employees, analysis of solutions for a similar problem and adopted by other organizations, organizing brainstorming sessions involving representatives of the management and the employees, etc. The knowledgeable people call to find the solution.

f) Develop Kaizen plan:

There is a need to prepare a Kaizen plan to bring continuous improvement in the organization at all levels and in all departments. Kaizen plan includes the areas or activities, responsible persons, period, process, and the number of funds that can be utilized for improvements during the plan period, etc.

g) Implement plan:

Once the solution is selected, and the plan is prepared to implement the solution, the management needs to implement the solution. Implementation of the solution would involve i.e. arrangement of resources, directing the employees, and motivating the employees.

h) Measurement of outcomes:

The management must measure the outcomes of the solution. The actual outcome needs to be recorded and compared against the set targets. The comparison is required to find out whether the organization is on the right track to achieve Kaizen success.

i) Review:

Regular review of the implementation of the measures needs to be done. This will establish if implementation was done correctly and the problem

solved. The review will indicate that implementation was so done that it solved the problem in totality. The results can be found out because of the organizational goals.

j) To establish a new standard:

A standard is a specification by which results are measured, when the problem is solved and the system is working well, the next step is to establish a new standard. Once the problem is solved or the desired objective is achieved, the new standard will deliver the expected results.

4.7 SERVICE QUALITY MANAGEMENT

Service quality is understood in terms of the satisfaction that the customer derives and whether it is in keeping with the service desired. Service quality management is undertaken to improve the quality of services continue to enhance customer satisfaction and loyalty. It is to be noted that service firms must consider the trade-off between incremental costs involved in service quality improvement and incremental revenues. It makes no business sense to improve the quality dimensions when the customers are not willing to pay extra for the added quality dimensions.

Definition:

Service quality management refers to the monitoring and maintenance of end-to-end Services for specific customers or classes of customers.

4.7.1 Importance of Service Quality Management (SQM)

The importance of Service quality management is as follows

a) Customer Satisfaction:

Service quality management leads to improvement in the quality of services. Therefore, Service quality management leads to customer satisfaction. Customer satisfaction takes place when service performance meets customer expectations. At times, service quality management may lead to customers' delight. Customer delight takes place when service performance is much more than customer expectation. Service providers prosper on the continued support of customers.

b) Earning goodwill:

Service quality management offering high-quality service earns goodwill in the market. They retain a competitive advantage in the marketplace. Goodwill is not earned overnight but over a long period. These SQM's offer consistently high-quality service which ensures consumer loyalty.

c) Efficiency:

Efficiency is the ratio of returns to costs. A service organization would be more efficient when it gets higher returns at lower costs than before. Service quality management helps to reduce internal costs, and at the same

time, the organization is likely to get a higher return due to the efforts of trained and motivated employees.

d) Premium price:

Customers looking for reliable and satisfactory service are prepared to pay a higher price provided the quality of service is as per their expectations. In services like medical, travel and tourism, entertainment, etc. customers want better service and show readiness to pay the premium price.

e) Corporate Image:

Service quality management helps to improve the image of the organization. Due to good quality services, the organization may get higher performance, on account of higher performance, the image of the organization improves in the mind of various stakeholders i.e. customers, employees, shareholders, and others.

f) Commitment of top management:

Service quality must be based on active support, involvement, and commitment of top management to accomplish specific goals. Top management must not restrict its prosperity in terms of profits but must also give equal importance to service performance to keep the customers loyal to the business.

g) Economies of Scale:

Service quality management may also generate economies of scale. The service organization may adopt the latest technology for its operations. The use of technology reduces the need for more manpower as it expands. Therefore, the service firm may get economies of large-scale operation.

h) Self-Service:

Service quality management helps to make service transactions prompt, convenient, and accurate with the help of advanced technology. Because of the use of advanced technology customers have preferred self-service. For example, ATMs of banks, automatic vending machines at railway stations, online purchase of tickets, and hotel booking. They make service transactions prompt, convenient, and accurate.

i) Expansion of business:

Service quality management facilitates the expansion of business. Due to higher performance, and corporate image, a service organization can enter into new markets. This means a service organization can expand from local level to regional level to national level and national level to international level.

4.7.2 SERVQUAL Model :

The Service Quality Model or SERVQUAL Model was developed and implemented by American Marketing Experts like Valarie Zeithaml, A.

Parasuraman, and Leonard Berry in 1988. Its purpose is to measure the service quality experienced by customers.

Marketing of services is more challenging than the marketing of goods. As services are intangible they cannot be seen or touched. They can only be felt or experienced by the customers. So to measure the performance/quality of services is subjective and not easily quantifiable.

This model is a qualitative analysis. It finds out the shortcomings or weaknesses in the performance of services provided by the supplier.

In that sense, it is also called 'GAP Analysis'. It compares the expected service quality and the service quality that has been experienced.

Thus the model helps to compare the expectations of the customers and the satisfaction the customers have experienced after getting the service performance. If there is a difference in quality that is shown in the difference (the gap) between what was expected and what was experience the organization can take certain corrective measures to improve the service performance.

While studying and analyzing the performance of service quality, it was found out that the following ten dimensions of service quality are considered important service quality and they are reliability, responsiveness, competence, access, courtesy, communication credibility, security, knowing the customer, and tangibles such as the appearance of the staff and office.

So this model is certainly useful to organizations dealing in goods and services to survive in a competitive environment. They are to be conscious about the service quality provided by them to gain consumer satisfaction.

4.7.3 Measures to improve service quality :

Products are tangible and so they have standard specifications and so measuring the quality of products is rather easier whereas services are intangible so measuring the quality of services is rather a challenging task. However, it is important to measure the service quality provided by the organizations to make decisions on measures to improve service quality and thereby consumer satisfaction.

The following are the measures to improve service quality -

1. The first step is to measure service quality as it is hard to improve that which is not measured.
2. The second step is to identify gaps between the customer's expectations of service quality and the service provider's desired level of performance.
3. To understand the customer expectations, efforts should be made to observe and interact with customers by conducting customer visits & surveys.

4. After knowing the customer expectations, the organization should create service quality standards.
5. Employees should be trained in performing the services.
6. The management to observe how services are being performed by the staff.
7. The organization should recruit skilled and knowledgeable staff and make efforts to retain and motivate them.
8. There have to be effective & prompt feedback from customers to know their satisfaction levels.

4.8 SUMMARY

Total Quality management is a strategic approach to produce the best possible product and service through constant innovation and timely action. It emphasizes prevention rather than rectification. Total quality management focused on consumer, process, employees, quality, productivity, techniques, etc.

Six Sigma is a set of tools that a company adopts to achieve dramatic improvement in its profits. The uses of these tools cut down costs and remove inefficiencies in production or use of resources. Six Sigma helps a company to re-tool and re-create itself to prevent problems and defects. Six Sigma helps to solve a problem, reduced process variation, uses factual data, improves the market image, customer focus, organizational commitment, better approach, and continuous improvement. The six Sigma approach can be explained with the help of the DMAIC (Define, Measure, Analyse, Improve, and Control) methodology.

The quality standard recognized at the global level is called ISO 9000. It provides common standards of products and services worldwide. ISO 9000 is essentially a mark of quality assurance. It has a good amount of procedures to obtain ISO 9000 certification.

Kaizen emphasizes process-oriented thinking as opposed to result-oriented thinking. The ultimate goal should be that not a day should pass without some kind of improvement made somewhere in the organization. A small improvement on a continuous process is the bottom line of Kaizen.

Service quality management is of great importance because it ensures repeat visits from clients. There appears to be some agreement that the important practices are unavoidable to ensure better service quality management i.e. customer satisfaction, Earning goodwill, efficiency, premium price, corporate image, the commitment of top management, economies of scale, self-service, expansion of business, etc.

4.9 EXERCISE

Multiple Choice Questions

1. _____ It is a wide term that is concerned with an overall improvement of the system, techniques, and staff of the organization.
a) **Total Quality Management** b) Quality Control c) Quality Management d) Cost of Quality
2. _____ follows a Zero Defect Approach
a) **Total Quality Management** b) Quality Control c) Quality Management d) Cost of Quality
3. _____ means to work together.
a) **Synergy** b) Team Work c) Grouping d) Grapevine
4. _____ is a set of tools, techniques, and strategies designed for process improvement
a) Total Quality Management b) **Six Sigma** c) Quality Circles d) Quality management
5. _____ attempts to improve the quality of process output by identifying and removing the cause of defects or errors
a) Total Quality Management b) **Six Sigma** c) Quality Circles d) Quality management
6. The First step of Six Sigma is _____
a) Measure Phase b) **Define Phase** c) Analyse Phase d) Control Phase
7. The Last step of Six Sigma is _____
a) Measure Phase b) Define Phase c) Analyse Phase d) **Control Phase**
8. _____ emphasis on continuous improvement in varied aspects of the organization such as quality, corporate culture, safety, technology, process, productivity, and leadership
a) TQM b) **KAIZEN** c) Quality Management d) Quality Circles
9. _____ finds out the shortcomings or weaknesses in the performance of services provided by the supplier.
a) **SERVQUAL Model** b) KAIZEN c) SQM d) Six Sigma

Theory Questions

1. Define TQM. Explain the main features of TQM
2. Define TQM. What is the Importance of TQM
3. Define Six Sigma. What are the features of Six Sigma?
4. Discuss the steps or phases of Six Sigma.
5. Explain the procedure of ISO 9000.
6. Explain the process of Kaizen.
7. Discuss the importance of Service Quality Management.
8. Write short notes:
 - a. TQM
 - b. Six Sigma
 - c. ISO 9000
 - d. Kaizen
 - e. Service Quality Management



INDIAN FINANCIAL SYSTEM - I

Unit Structure

- 5.0 Objectives
- 5.1 Introduction
- 5.2 Financial System
- 5.3 Indian Financial System
- 5.4 Components of Indian Financial System
- 5.5 Financial Markets
- 5.6 Securities Markets
- 5.7 Difference between Primary and Secondary Market
- 5.8 Role of Financial Markets
- 5.9 Depositories & their Role
- 5.10 Summary
- 5.11 Questions

5.0 OBJECTIVES

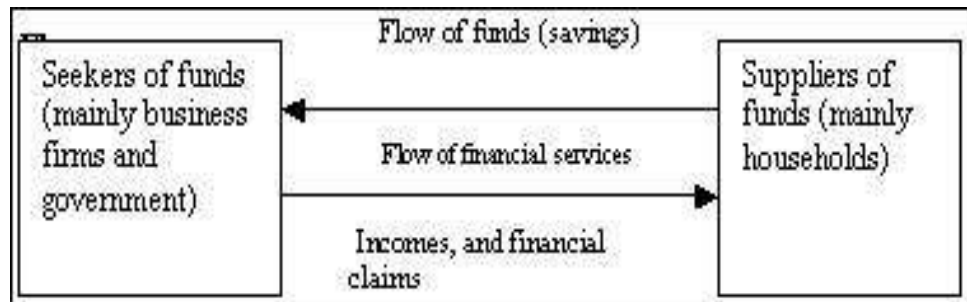
After studying the unit the students will able to:

- Know the meaning of the Financial System.
- Explain the structure of the Indian Financial System.
- Understand the components of the Indian Financial System.
- Understand the classification of the Financial Market.
- Discuss the types of Securities Markets

5.1 INTRODUCTION

The economic development of a nation is reflected by the progress of the various economic units, broadly classified into the corporate sector, government, and household sector. There are areas or people with surplus funds and there are those with a deficit. A financial system or financial sector functions as an intermediary and facilitates the flow of funds from the areas of surplus to the areas of deficit. A Financial System is a composition of various institutions, markets, regulations and laws, practices, money managers, analysts, transactions, and claims and liabilities.

The financial system comprises a set of subsystems of financial institutions, financial markets, financial instruments, and services that helps in the formation of capital. It provides a mechanism by which savings are transformed into investment.



5.2 FINANCIAL SYSTEM

The word "system", in the term "financial system", implies a set of complex and closely connected or interlinked institutions, agents, practices, markets, transactions, claims, and liabilities in the economy. The financial system is concerned about money, credit, and finance -the three terms are intimately related yet are somewhat different from each other. Indian financial system consists of a financial market, financial instruments, and financial intermediation.

A financial system functions as an intermediary between savers and investors. It facilitates the flow of funds from the areas of surplus to the areas of deficit. It is concerned about money, credit, and finance. These three parts are very closely interrelated with each other and depend on each other.

5.2.1 FUNCTIONS OF FINANCIAL SYSTEM

Following are the main functions:

1. To mobilize savings and channelize them into productive activities.
2. To make provision of money and monetary assets for the production of goods and services.
3. To provide a payment system for the exchange of goods and services.
4. To facilitate pooling of funds for undertaking large-scale enterprises.
5. To provide a mechanism for temporal transferor resources.

5.3 INDIAN FINANCIAL SYSTEM

• INTRODUCTION TO INDIAN FINANCIAL SYSTEM (IFS)

The IFS has experienced impressive growth in the post-1950 era. Until the early 1990s, the role of the financial system in India was primarily restricted to the function of channeling resources from the surplus to deficit sectors. As a result of the reforms and initiatives taken by the

Government and the Regulators, the market structure has been refined and modernized. This is visible from the following:

- Introduction of a variety of schemes and instruments for mobilizing savings.
- The emergence of a wide variety of financial institutions to provide a variety of services.
- Expansion in the network of commercial banks and operations of financial institutions.
- The remarkable growth in the primary and secondary segments of the capital market.
- Introduction of new intermediaries and new instruments in the capital market.
- Nationalization of banks, the establishment of UTI, establishment of term lending institutions, institution for agricultural finance, an institution for housing finance, growth of mutual fund industry, venture capital institutions, etc.

Financial structure refers to the shape, components, and order in the financial system. The Indian financial system can be broadly classified into:

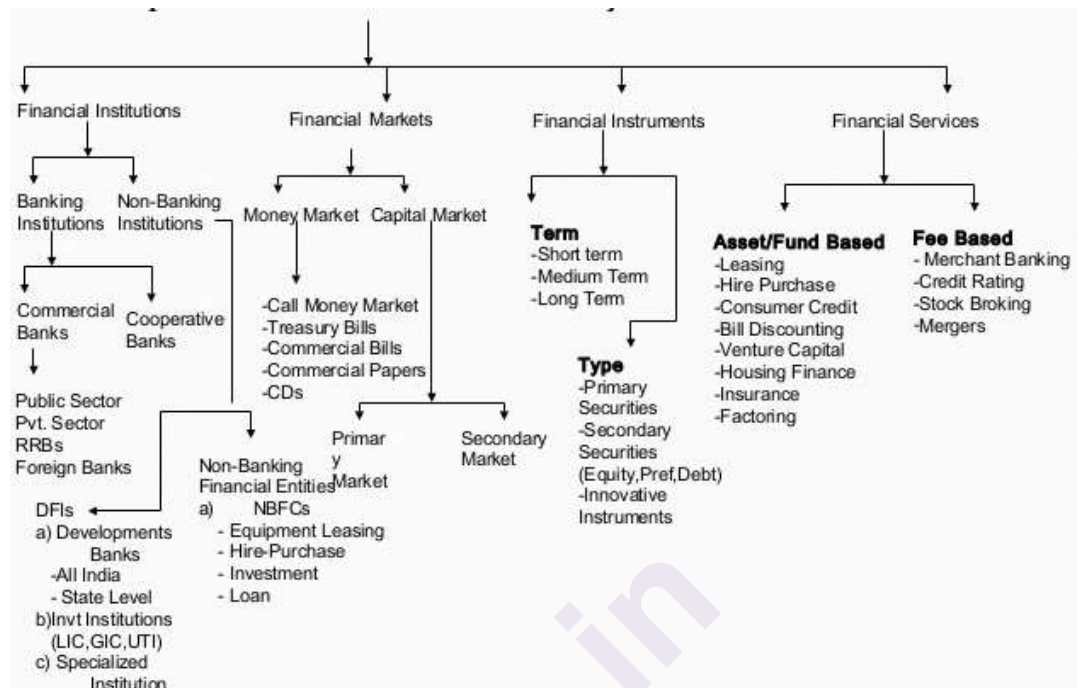
1. Formal (organized) Financial System and
2. Informal (unorganized) Financial System.

The formal financial system comprises of Ministry of Finance, RBI, SEBI, and other regulatory bodies. The informal financial system consists of individual money lenders, groups of persons operating as funds or associations, partnership firms consisting of local brokers, pawnbrokers, and non-banking financial intermediaries such as finance, investment, and chit fund companies.

5.4 COMPONENTS OF INDIAN FINANCIAL SYSTEM

Components of Formal Financial System:

The formal financial system comprises financial institutions, financial markets, financial instruments, and financial services. These constituents or components of the Indian financial system may be briefly discussed as below:

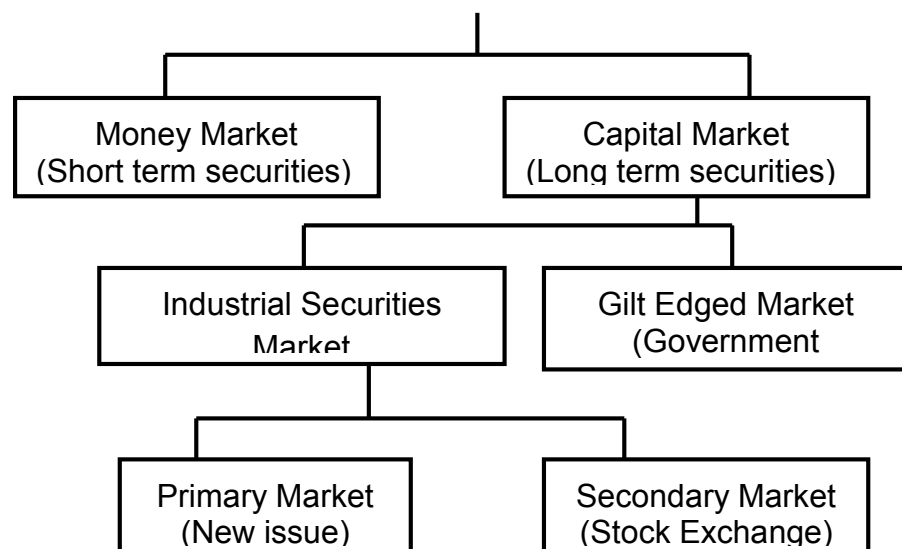


Indian financial system is a broad term that includes the following components:

1. Financial markets
2. Financial intermediaries
3. Financial instruments
4. Financial Services

1. Financial Markets:

A financial market is a market in which financial assets are created or transferred. It provides funds for undertaking business activities. Following is the structure of the financial markets



a) Money market:

The money market deals with short-term funds. There are two sectors in the money market i.e. organized sector and unorganized sector. RBI has control over the organized sector whereas it has no control over the unorganized sector. The money market is a wholesale debt market for low-risk, highly liquid, and short-term instruments. Funds are available in this market for periods ranging from a single day up to a year. This market is dominated mostly by the government, banks, and financial institutions.

b) Capital Market:

A capital market is a market for long-term debt and equity shares. The transactions taking place in this market are generally more than a year. It includes the industrial securities market which is classified into primary market and secondary market. The primary market deals with a new issue and the secondary market deals with the trading of securities i.e. stock exchanges.

2. Financial Intermediaries:

Financial intermediaries are banks, financial institutions, and brokers. When the borrower of the funds approaches the financial market to raise funds, he needs to have full details about the issue, issuer and the security should be passed on. There should be a proper channel within the financial system to ensure such transfer. To serve this purpose, the role of financial intermediaries is important. These financial intermediaries include investment bankers, underwriters, stock exchanges, registrars, depositories, custodians, mutual funds, portfolio managers, primary dealers, etc.

3. Financial instruments:

Financial instruments include money market instruments and capital market instruments. The financial instruments in the money market are generally for the short term i.e. up to one year. Some of the important money market instruments are Notice Money, Term Money, Treasury Bills, Certificate of Deposit, Commercial Papers, etc. Whereas the capital market generally consists of financial instruments of the long term i.e. more than one year. Some of the important financial instruments in the capital market are equity shares, preference shares, debentures, bonds, security deposits, treasury bills, etc.

4. Financial services:

The financial services sector provides financial services to people and corporations. This segment of the economy is made up of a variety of financial firms including banks, investment houses, lenders, finance companies, real estate brokers, and insurance companies. As noted above, the financial services industry is probably the most important sector of the economy, leading the world in terms of earnings and equity market capitalization.

5.5 FINANCIAL MARKETS

The financial market is an important component of the Indian Financial System. Efficient financial markets are essential for speedy economic development. The vibrant financial market enhances the efficiency of capital formation. It facilitates the flow of savings into investment. Financial markets bridge one set of financial intermediaries with another set of players. Financial markets are the backbone of the economy. This is because they provide monetary support for the growth of the economy. The growth of the financial markets is the barometer of the growth of a country's economy.

Financial market deals in financial securities (or financial instruments) and financial services. Financial markets are the centers or arrangements that provide facilities for buying and selling of financial claims and services. These are the markets in which money, as well as monetary claims, is traded in.

Financial markets exist wherever financial transactions take place. Financial transactions include the issue of equity stock by a company, purchase of bonds in the secondary market, a deposit of money in a bank account, transfer of funds from a current account to a savings account, etc.

The participants in the financial markets are corporations, financial institutions, individuals, and the government. These participants trade in financial products in these markets. They trade either directly or through brokers and dealers.

In short, financial markets are markets that deal in financial assets and credit instruments.

5.5.1 FUNCTIONS OF FINANCIAL MARKETS:

The main functions of financial markets are outlined as below:

- a. To facilitate the creation and allocation of credit and liquidity.
- b. To serve as intermediaries for mobilization of savings.
- c. To help in the process of balanced economic growth.
- d. To provide financial convenience.
- e. To provide information and facilitate transactions at a low cost.
- f. To cater to the various credit needs of the business organizations.

5.5.2 CLASSIFICATION OF FINANCIAL MARKETS:

There are different ways of classifying financial markets. There are mainly five ways of classifying financial markets.

a. Classification based on the type of financial claim:

On this basis, financial markets may be classified into debt markets and equity markets.

1. Debt market:

This is the financial market for fixed claims like debt instruments.

2. Equity market:

This is the financial market for residual claims, i.e., equity instruments.

b. Classification based on the maturity of claims:

On this basis, financial markets may be classified into money markets and capital markets.

1. Money market:

A market where short-term funds are borrowed and lend is called the money market. It deals in short-term monetary assets with a maturity period of one year or less. Liquid funds as well as highly liquid securities are traded in the money market. Examples of money markets are Treasury bill market, call money market, commercial bill market, etc. The main participants in this market are banks, financial institutions, and the government. In short, a money market is a place where the demand for and supply of short-term funds are met.

2. Capital market:

The capital market is the market for long-term funds. This market deals in long-term claims, securities, and stocks with a maturity period of more than one year. It is the market from where productive capital is raised and made available for industrial purposes. The stock market, the government bond market and the derivatives market are examples of the capital market. In short, the capital market deals with long-term debt and stock.

c. Classification based on the seasoning of claim:

On this basis, financial markets are classified into primary markets and secondary markets.

1. Primary market:

Primary markets are those markets that deal in the new securities. Therefore, they are also known as new issue markets. These are markets where securities are issued for the first time. In other words, these are the markets for the securities issued directly by the companies. The primary markets mobilize savings and supply fresh or additional capital to business

units. In short, the primary market is a market for raising fresh capital in the form of shares and debentures.

2. Secondary market:

Secondary markets are those markets that deal in existing securities. Existing securities are those securities that have already been issued and are already outstanding. The secondary market consists of stock exchanges. Stock exchanges are self-regulatory bodies under the overall regulatory purview of the Govt. /SEBI.

d. Classification based on structure or arrangements:

On this basis, financial markets can be classified into organized markets and unorganized markets.

1. Organised markets:

These are financial markets in which financial transactions take place within well-established exchanges or in a systematic and orderly structure.

2. Unorganised markets:

These are financial markets in which financial transactions take place outside the well-established exchange or without systematic and orderly structure or arrangements.

e. Classification based on the timing of delivery:

On this basis, financial markets may be classified into cash/spot markets and forward / futures markets.

1. Cash / Spot market:

This is the market where the buying and selling of commodities happen or stocks are sold for cash and delivered immediately after the purchase or sale of commodities or securities.

2. Forward/Future market:

This is the market where participants buy and sell stocks/commodities, contracts and the delivery of commodities or securities occurs at a pre-determined time in the future.

3. Other types of financial market:

Apart from the above, there are some other types of financial markets. They are the foreign exchange market and derivatives market.

4. Foreign exchange market:

A foreign exchange market is simply defined as a market in which one country's currency is traded for another country's currency. It is a market for the purchase and sale of foreign currencies.

5. Derivatives market:

Derivatives are the most modern financial instruments in hedging risk. The individuals and firms who wish to avoid or reduce risk can deal with the others who are willing to accept the risk for a price. A commonplace where such transactions take place is called the derivative market. It is a market in which derivatives are traded. In short, it is a market for derivatives. The important types of derivatives are forwards, futures, options, swaps, etc.

CHECK YOUR PROGRESS

1. Fill in the blanks
 - a. Primary Markets are also known as -----markets.
 - b. Forwards, futures, options, swap, etc. are the examples of -----market.
 - c. A market for the purchase and sale of foreign currencies is known as -----market.
 - d. the market where the buying and selling of commodities happen for cash is called as -----market.
 - e. When the financial transactions take in the systematic and orderly structure it means it is a -----market.
2. Draw the figure explaining the components of the Indian Financial System.
3. Define the following terms:
 - a. Forward market
 - b. Unorganized market
 - c. Money market
 - d. Capital market
 - e. Primary market
 - f. Secondary market
 - g. Financial system.

5.6 SECURITIES MARKETS

A Securities market is an exchange where sale and purchase transactions of securities are conducted based on demand and supply. A well-functioning securities market should be able to provide timely and accurate information on past transactions, liquidity, low transaction costs (internal efficiency), and securities prices that rapidly adjusted to all available information (external efficiency).

There are two levels of securities markets Primary and secondary market:

5.6.1 Primary Market

Primary Market is the market for new securities issues and is facilitated by underwriting groups. The companies sell their securities to the public directly to the investors through the underwriters (normally investment banks for stock and bond issuance). When the firm is issuing shares for the very first time, it is called Initial Public Offering (IPO). New shares issued by firms whose shares are already trading in the market are called seasoned or secondary issues. The issuing company receives cash from the sale and uses it to expand or fund the operations. After the initial sale, the securities trading will be conducted on the secondary market.

The primary market is the part of the capital market that deals with issuing of new securities. Companies, governments, or public sector institutions can obtain funds through the sale of a new stock or bond issues through the primary market. This is typically done through an investment bank or finance syndicate of securities dealers.

The process of selling new issues to investors is called underwriting. In the case of a new stock issue, this sale is an Initial Public Offering (IPO). Dealers earn a commission that is built into the price of the security offering, though it can be found in the prospectus. Primary markets create long-term instruments through which corporate entities borrow from the capital market.

Once issued the securities typically trade on a secondary market such as a stock exchange, bond market, or derivatives exchange.

Features:

Features of primary markets are:

1. This is the market for new long-term equity capital. The primary market is the market where the securities are sold for the first time. Therefore it is also called the new issue market (NIM).
2. In a primary issue, the securities are issued by the company directly to investors.
3. The company receives the money and issues new security certificates to the investors.
4. Primary issues are used by companies to set up a new business or for expanding or modernizing the existing business.
5. The primary market performs the crucial function of facilitating capital formation in the economy.
6. The new issue market does not include certain other sources of new long-term external finance, such as loans from financial institutions. Borrowers in the new issue market may be raising capital for

converting private capital into public capital; this is known as "going public"

5.6.2 INITIAL PUBLIC OFFER (IPO)

The IPO (Initial Public Offering) process is the process through which a private company issues new and or existing securities to the public for the first time.

Private companies decide to convert themselves into Public Limited Companies to raise a huge amount of capital in exchange for securities. So to offer its shares to the public, it has to go through the process of IPO. The IPO process is quite complicated. The entire process of IPO is regulated by the Securities and Exchange Board of India. The following are the steps involved in the IPO process.

1. Appointment of an investment bank:

A company appoints a team of underwriters or investment banks to start the process of IPO. They are the specialized agencies to market the securities to the public. They study the financial position of the company and make decisions on the amount that will be raised and the securities that will be issued. They are the managers of the issue of securities and do not share the risks involved in the marketing of securities.

2. Register with SEBI :

The company has to submit a registration statement to SEBI, which includes a detailed report of its financial position and business plans. It has to fulfill all the requirements and satisfy all rules and regulations.

3. Preparation of the Prospectus :

The companies with the help of the underwriters have to prepare the prospectus giving all the details of the company & its plans and the expected share price range. The prospectus is meant for prospective investors who would be interested in buying the stock.

4. The Roadshow :

Once the prospectus is ready, underwriters and company officials plan countrywide roadshows for promoting the company's IPO among selected few private buyers and also to get the idea about the response of the prospective investors.

5. SEBI's Approval :

Once SEBI is satisfied with the registration statement, it gives a green signal to the IPO and date to be fixed for the same. Sometimes, it asks for certain changes in the prospectus before giving its approval.

6. Selection of a stock exchange/s –

The Company needs to select a stock exchange/s where it intends to sell its shares and get listed.

7. Deciding on Price Band and number of share to be issued :

After the SEBI approval, the company, with assistance from the underwriters decides on the price band of the shares and also decides the number of shares to be sold. The shares can be issued with the help of two methods - 1) Fixed Price IPO - In a Fixed Price issue, the company decides the price of the share issue and the number of shares being sold. 2) Book Building IPO - A Book building issue helps the company discover the price of the issue. The company decides a price band and it gives the investor an option to choose the price at which he/she wishes to bid for the company shares.

8. Available to Public for Purchase :

On the dates mentioned in the prospectus, the shares are made available to Public Investors fill-up the IPO form and if it is a book building IPO, specify the price at which they wish to make the purchase and submit the application.

9. Determination of Issue Price and Share Allotment :

Once the stipulated period for applying for IPO is over, the company, with the help of underwriting banks, determines the price at which shares are to be allotted to the prospective investors. The price would be directly determined by the demand and the bid price quoted by investors. Once the price is finalized, shares are allotted to investors based on the bid amounts and the shares available. In case of over-subscribed issues, shares are not allotted to all applicants.

10. Listing of shares :

The last step is the listing of shares on the stock exchanges.

5.6.3 Secondary Market:

The secondary market, also known as the aftermarket, is the market where the trading of the previously issued securities is conducted. On a secondary market, an investor buys securities from another investor instead of the issuer. It is important that the secondary market provides liquidity and therefore provides continuous information about the market price of the securities.

Secondary markets are mainly organized in two ways. One is to form a centralized and organized exchange where all buyers and sellers (or their representative agents) meet and conduct trading.

The more investors participate in a market, the greater the centralization of that market, and the more liquid the market. Some examples of this form of secondary markets are New York Stock Exchange (NYSE) and

American Stock Exchange (AMEX). The other way is the Over-the-counter (OTC) market which is a secondary market where securities are traded directly between two parties. Trading occurs via dealers who carry inventories of securities and contact each other by computer, telephone, or other electronic networks instead of a physical trading floor. Over-the-counter dealers quote a bid price at which they would buy, and an ask price at which they would sell. An example of an over-the-counter securities market is the National Association of Securities Dealers Automated Quotations System (Nasdaq).

The secondary market is the financial market in which previously issued financial instruments such as stock, bonds, options, and futures are bought and sold.

The term "secondary market" is also used to refer to the market for any used goods or assets, or alternative use for an existing product or asset where the customer base is the second market (for example, corn has been traditionally used primarily for food production and feedstock, but a "second" or "third" market has developed for use in ethanol production).

With primary issuances of securities or financial instruments, or the primary market, investors purchase these securities directly from issuers such as corporations issuing shares in an IPO or private placement, or directly from the federal government in the case of treasuries. After the initial issuance, investors can purchase from other investors in the secondary market.

Function:

In the secondary market, securities are sold by and transferred from one investor or speculator to another. It is therefore important that the secondary market be highly liquid (originally, the only way to create this liquidity was for investors and speculators to meet at a fixed place regularly; this is how stock exchanges originated, see History of the Stock Exchange). As a general rule, the greater the number of investors that participate in a given marketplace, and the greater the centralization of that marketplace, the more liquid the market.

5.7 DIFFERENCE BETWEEN PRIMARY AND SECONDARY MARKET

Primary markets are those where securities are offered to the public in the form of subscriptions to raise money. On the other hand, the secondary market refers to the market where the trading of already existing securities take place. The secondary market is often referred to as a dealer market or an auction market. Examples of an auction market are the stock exchange whereas an OTC or over the counter exemplifies a dealer market. In a primary market, the securities, stocks, or bonds are bought directly from the company issuing all of the above. These are usually bought at a "par value". In the secondary market, the existing securities, bonds, or stocks are traded again. For instance, if an individual had purchased bonds or any

other investment instruments from the primary market a year back and the individual now wants to avail of the principal amount the bonds may be sold off in the secondary market.

In the event when the price of the bonds rises, the individual intending to dispose of the bonds needs to do it at a discounted rate. On the other hand, if the price of bonds increases, the individual selling the shares will be benefited and may sell it at a premium rate.

5.8 ROLE OF FINANCIAL MARKETS

The role of financial markets is as follows:

1. Capital formation:

The financial markets encourage capital formation in the country. The financial markets mobilize savings of the households and the industrial concerns. Such savings are then invested for productive purposes. Thus, savings and investments lead to capital formation in the country.

2. Economic Growth:

Financial markets facilitate the growth of the industrial sector, as well as the other sectors of the economy. The capital market makes it possible to lend funds to various projects, both in the private sector as well as in the public sector. The productive use of capital funds leads to economic development in the country.

3. Development of Backward areas:

The financial markets provide funds for the projects in backward areas. For instance, entrepreneurs can obtain funds by way of long-term loans, debentures, shares, etc. for investment in backward areas. This facilitates the economic development of backward areas.

4. Greater employment:

Financial markets generate employment in the country:

Direct employment in the financial markets related activities such as stock markets, banks, and financial institutions.

Indirect employment in all the sectors of the economy because of the funds provided for developmental projects.

5. Foreign Capital:

The financial markets generate foreign capital. Indian firms can generate capital funds from overseas markets by way of bonds and other securities. Such foreign exchange funds are vital for the economic development of the nation.

6. Development of Stock Market:

Financial markets facilitate the development of stock markets. Several investors invest in primary securities such as shares and debentures in the secondary market. This facilitates the development of stock markets.

7. Development of Role of Financial institutions:

Financial institutions play an important role in financial markets, they are:

- Provides medium and long-term funds to various sectors.
- Refinances the commercial banks.
- Rediscount the bills of commercial banks.
- Merchant banking services.

8. Investment opportunity:

Financial markets provide an excellent investment opportunity to the members of the public. Due to financial markets, the public has alternative sources of investment. The public can invest not only in bank deposits but also in shares and debentures issued by public companies. Investors can get handsome returns from stock markets if they invest wisely in blue-chip companies.

9. Revival of sick units:

The financial markets facilitate the revival of several sick units in India, the commercial and FIs provide financial assistance to viable sick units to overcome their industrial sickness. The banks and FIs may also write off a part of the loan, or they re-schedule the loan, to offer payment flexibility to the weak units, which in turn help the weak units to overcome financial-industrial sickness.

10. Easy liquidity:

The secondary market makes it possible for the investors to sell off their holdings in form of shares and debentures and convert them into liquid cash. The commercial banks also allow investors to withdraw their medium-term and long-term deposits, as and when they need funds, subject to certain conditions.

5.9 DEPOSITORY

Earlier shares were issued in the form of physical certificates that the investor had to keep safe and then forward to the buyer once sold. This process was highly time-consuming and gave rise to issues like fake securities and bad deliveries. Because of all these problems and the improvement in technology a new system of depositories and the electronic mode of holding and transferring shares have come up.

The electronic mode of holding and transferring shares is called the dematerialization of securities. It is a process by which the physical certificates of an investor are taken up by the depository and are destroyed and an equivalent number of securities are credited in the depository account of the investor. The depository acts as a bank. It accepts the deposits of securities such as shares, debentures, bonds, and government securities, in electronic form. Thus depository holds the securities of investors and provides services to them.

In India, two companies are acting as depositories and they are - 1) National Securities Depository Ltd. (NSDL) and Central Depository Service Ltd. (CDSL). The depositories provide their services to investors through their agents called depository participants (DP). A DP can be a bank, financial institution, a custodian, or a broker. Just as one opens a bank account to avail of the services of a bank / an investor opens a depository account with a depository participant to avail of depository facilities.

The following are the functions/Role of Depository –

1. Dematerialization:

One of the primary functions of the depository is to eliminate or minimize the movement of physical securities in the market. This is achieved through the dematerialization of securities.

2. Account Transfer:

The depository keeps records of all transfers resulting from the settlement of trades and other transactions between various beneficial owners by recording entries in the accounts of such beneficial owners

3. Transfer and Registration:

A transfer is the legal change of ownership of a security in the records of the issuer. For affecting a transfer, certain legal steps have to be taken like an endorsement, execution of a transfer instrument, and payment of stamp duty.

4. Corporate Actions:

A depository may handle corporate actions in two ways. In the first case, it merely provides information to the issuer about the persons entitled to receive corporate benefits. In the other case, the depository itself takes the responsibility for the distribution of corporate benefits.

5. Pledge and Hypothecation:

Depositories allow the securities placed with them to be used as collateral to secure loans and other credits.

6. Linkages with clearing system:

The depository has linkages with the clearing system attached to a stock exchange that performs the functions of ascertaining the pay in (Sell) or payout (buy) of brokers who have traded on the stock exchange.

5.10 SUMMARY

From the above discussion, the structure of the Indian Financial System and its working is clear. The economic growth and development of any country depend upon a well-knit financial system. A financial system is a set of complex and closely interlinked financial institutions, financial markets, financial instruments, and services that facilitate the transfer of funds. The financial system provides a mechanism by which savings are transformed into investments and it can be said that the financial system plays a significant role in the economic growth of the country by mobilizing surplus funds and utilizing them effectively for productive purposes.

The Financial System of any country consists of financial markets, financial intermediation, and financial instruments or financial products. A financial market is a market that facilitates the transfer of funds between investors and borrowers. It deals in financial instruments like bills of exchange, shares, debentures, bonds, etc. It provides security to dealings in financial assets, liquidity to financial assets for investors, and ensures low cost of transactions and information. It consists of two major segments: (a) Money Market; and (b) Capital Market. While the money market deals in short-term credit, the capital market handles the medium-term and long-term credit.

5.11 EXERCISE

Multiple Choice Questions

1. A _____ functions as an intermediary between savers and investors
a) **Financial System** b) Agent c) Broker d) Investor
2. A _____ is a market in which financial assets are created or transferred
a) **Financial Market** b) Financial Services c) Labour Market d) Fruit Market
3. In _____ market Government Securities are dealt with
a) **Gilt Edged** b) Capital c) Money d) Private
4. In _____ market New and Fresh shares are traded
a) **Primary** b) Secondary c) Money d) Private
5. In _____ market existing shares are traded
a) Primary b) **Secondary** c) Money d) Private
6. _____ market deals with short term securities
a) Primary b) Secondary c) **Money** d) Private

7. _____ is the market where the buying and selling of commodities happen or stocks are sold for cash and delivered immediately after the purchase or sale of commodities or securities
a) Forward/Future b) Swap c) **Cash/Spot** d) Derivatives
8. _____ is the market where participants buy and sell stocks/commodities, contracts and the delivery of commodities or securities occurs at a pre-determined time in the future
a) **Forward/Future** b) Swap c) Cash/Spot d) Derivatives
9. In _____ market is which where one country's currency is traded for another country's currency
a) **Foreign Exchange** b) Swap c) Cash/Spot d) Derivatives
10. _____ process is the process through which a private company issues new and or existing securities to the public for the first time.
a) FPO b) MBO c) **IPO** d) FFO
11. The electronic mode of holding and transferring shares is called the _____ of securities.
a) **Dematerialization** b) Rematerialization c) Physical form d) E holding
12. _____ holds the securities of investors and provides services to them
a) **Depository** b) SEBI c) RBI d) Companies

Theory Questions

1. What is the financial system? Explain the structure of the Indian financial system.
2. Distinguish between Primary Market and Secondary market.
3. Explain in detail the role of financial markets.
4. Explain the classification of the Financial Market.
5. What are the components of the Indian financial System?
6. Write Short Notes;
 - a. Primary Market
 - b. Secondary Market
 - c. Role of Financial Market
 - d. Financial System
 - e. Financial Market
 - f. Role of Depositories



INDIAN FINANCIAL SYSTEM - II

Unit Structure

- 6.0 Objectives
- 6.1 Introduction
- 6.2 Securities and Exchange Board of India (SEBI)
- 6.3 Stock Exchange
- 6.4 Bombay Stock Exchange (BSE)
- 6.5 Dematerialisation
- 6.6 Credit Rating Agencies (CRA)
- 6.7 Summary
- 6.8 Exercise

6.0 OBJECTIVES

After studying the unit the students will be able to:

- Explain the role, functions, and objectives of SEBI.
- Know about the Stock Exchange and its functions
- Discuss the concept of Dematerialization and its process.
- Understand the meaning of Credit Rating Agencies and their functions and advantages.
- Know about CRISIL.

6.1 INTRODUCTION

In 1991, India opened its economy for outsiders. The globalization and liberalization policies introduced by the government increased the volume of business in both the primary and secondary markets. As the securities market started growing so also the number of malpractices in these markets such as manipulation of security prices, price rigging, insider trading, delay in the listing, delay in settlement, etc. It was necessary to curb these malpractices and promote healthy capital markets. The government felt the need to take measures for developing and regulating the Indian Financial sector. As a result, various bodies came into existence. Stock Exchange, SEBI, and Credit Rating Agencies are the fruits of these efforts.

6.2 SECURITIES AND EXCHANGE BOARD OF INDIA (SEBI)

The Securities and Exchange Board of India (frequently abbreviated SEBI) is the regulator for the securities market in India. It was established in the year 1988 and given statutory powers on 12 April 1992 through the SEBI Act, 1992.

SEBI has its Headquarters at the SEBI Bhavan, Bandra Kurla Complex, Bandra East, Mumbai- 400051, and has Northern, Eastern, Southern, and Western Regional Offices in New Delhi, Kolkata, Chennai, and Ahmedabad respectively and is planning to open offices at Guwahati, Bhubaneswar, Patna, Kochi and Chandigarh in Financial Year 2013 - 2014. The SEBI is a vital component in improving the quality of the financial markets in India, both by attracting foreign investors and protecting Indian investors.

The SEBI is managed by its members, which consists of the following:

- The chairman is nominated by the Union Government of India.
- Two members, i.e. Officers from Union Finance Ministry.
- One member from The Reserve Bank of India.
- The remaining 5 members are nominated by the Union Government of India out of them at least 3 shall be a whole-time member

6.2.1 REASONS FOR ESTABLISHMENT OF SEBI

With the growth in the dealings of stock markets, a lot of malpractices also started in stock markets such as price rigging, 'unofficial premium on a new issue, and delay in delivery of shares, violation of rules and regulations of the stock exchange and listing requirements. Due to these malpractices, the customers started losing confidence and faith in the stock exchange. So the government of India decided to set up an agency or regulatory body known as the Securities Exchange Board of India (SEBI).

6.2.2 PURPOSE AND ROLE OF SEBI

SEBI was set up with the main purpose of keeping a check on malpractices and protect the interest of investors. It was set up to meet the needs of three groups.

1. Issuers:

For issuers, it provides a marketplace in which they can raise finance fairly and easily. With the achievement of this objective, it becomes easy for the New Companies to enter the Financial Markets.

2. Investors:

For investors, it provides protection and supply of accurate and correct information. This helps to maintain the trust and Confidence among the Investors which tends to more and More money inflow in the market which helps in the growth and development of the economy.

3. Intermediaries:

For intermediaries, it provides a competitive professional market which facilitates the increase in efficiency of the Intermediaries.

6.2.3 OBJECTIVES OF SEBI

The overall objectives of SEBI are to protect the interest of investors and to promote the development of the stock exchange and regulate the activities of the stock market.

The objectives of SEBI are:

1. To regulate the activities of the stock exchange.
2. To protect the rights of investors and ensuring the safety of their investment.
3. To prevent fraud and malpractices by having a balance between self-regulation of business and its statutory regulations.
4. To regulate and develop a code of conduct for intermediaries such as brokers, underwriters, etc.

6.2.4 FUNCTIONS OF SEBI

The SEBI performs functions to meet its objectives. To meet three objectives SEBI has three important functions. These are:

1. Protective Functions:

These functions are performed by SEBI to protect the interest of the investor and provide safety of the investment. As protective functions SEBI performs the following functions:

a. It Checks Price Rigging:

Price rigging refers to manipulating the prices of securities with the main objective of inflating or depressing the market price of securities. SEBI prohibits such practice because this can defraud and cheat the investors.

b. It Prohibits Insider trading:

Insider is any person connected with the company such as directors, promoters, etc. These insiders have sensitive information which affects the prices of the securities. This information is not available to people at large but the insiders get this privileged information by working inside the company and if they use this information to make a profit, then it is known

as insider trading, e.g., the directors of a company may know that company will issue Bonus shares to its shareholders at the end of the year and they purchase shares from market to make profit with bonus issue. This is known as insider trading. SEBI keeps a strict check when insiders are buying securities of the company and takes strict action on insider trading.

c. It prohibits fraudulent and Unfair Trade Practices:

SEBI does not allow the companies to make misleading statements that are likely to induce the sale or purchase of securities by any other person.

SEBI undertakes steps to educate investors so that they can evaluate the securities of various companies and select the most profitable securities.

d. SEBI promotes fair practices and code of conduct in the security market by taking the following steps:

SEBI has issued guidelines to protect the interest of debenture-holders wherein companies cannot change terms in a midterm.

SEBI is empowered to investigate cases of insider trading and has provisions for stiff fines and imprisonment.

SEBI has stopped the practice of making preferential allotment of shares unrelated to market prices.

2. Developmental Functions:

These functions are performed by the SEBI to promote and develop activities in the stock exchange and increase the business in the stock exchange. Under developmental categories following functions are performed by SEBI:

- a. SEBI promotes the training of intermediaries of the securities market.
- b. SEBI tries to promote activities of stock exchange by adopting a flexible and adaptable approach in the following way:
- c. SEBI has permitted internet trading through registered stock brokers.
- d. SEBI has made underwriting optional to reduce the cost of the issue.
- e. Even an initial public offer of the primary market is permitted through the stock exchange.

3. Regulatory Functions:

These functions are performed by SEBI to regulate the business in the stock exchange. To regulate the activities of the stock exchange following functions are performed:

- a. SEBI has framed rules and regulations and a code of conduct to regulate the intermediaries such as merchant bankers, brokers, underwriters, etc.
- b. These intermediaries have been brought under the regulatory purview and private placement has been made more restrictive.
- c. SEBI registers and regulates the working of stockbrokers, sub-brokers, share transfer agents, trustees, merchant bankers, and all those who are associated with the stock exchange in any manner.
- d. SEBI registers and regulates the working of mutual funds etc.
- e. SEBI regulates the takeover of the companies.
- f. SEBI conducts inquiries and audits of stock exchanges.

6.2.5 Investor's protection measures of SEBI

SEBI has been established with the primary objective of protecting the interests of investors in securities. An investor can invest his money safely and profitably if:

- 1) He knows how to invest.
- 2) He has full knowledge of the market.
- 3) The market is safe and there are no unfair practices.
- 4) There are arrangements for redressal in case of grievances.

Accordingly, SEBI's investor protection measures have four elements.

1. SEBI educates and trains investors to make informed investment decisions. It makes them aware of available information required for making the right investment decisions, to suit their specific investment goals. SEBI has been organizing investor education and awareness workshops. It has a special website for investors. It gives precautionary messages through various media. It answers the queries of investors through telephone, emails, and letters, and in-person for those who visit the SEBI office.
2. It has prescribed rules and regulations to the companies and intermediaries for disclosing relevant information to the public to help them to make informed investment decisions.
3. It ensures that the market has systems and practices to make transactions safe and secured. It has introduced various measures such as a screen-based trading system, dematerialization of securities, T + 2 rolling settlement to protect the interests of investors in securities.
4. It facilitates the redressal of investor grievances against intermediaries and companies. It has set up a comprehensive arbitration mechanism

6.3 STOCK EXCHANGE

Stock Exchange is also called Stock Market or Share Market. It is one important constituent of the capital market. The stock exchange is an organized market for buying and selling corporate and other securities. It is a convenient place where trading in securities is conducted systematically i.e. as per certain rules and regulations. The securities include shares and debentures issued by public companies which are duly listed at the stock exchange and bonds and debentures issued by the government, public corporations, and municipal and port trust bodies. London stock exchange (LSE) is the oldest stock exchange in the world. Similar large Stock exchanges exist and operate in the majority of countries of the world.

6.3.1 Definitions of Stock Exchange:

According to **Husband and Dockerary**, “Stock exchanges are privately organized markets which are used to facilitate trading in securities.”

The Indian Securities Contracts (Regulation) Act of 1956, defines Stock Exchange as, “An association, organization or body of individuals, whether incorporated or not, established to assist, regulate and controlling business in buying, selling and dealing in securities.”

- Stock Exchange plays an important role in the capital market. Stock exchanges serve as:
 1. Primary markets where corporations, governments, municipalities, and other incorporated bodies can raise capital by channeling savings of the investors into productive ventures; and
 2. Secondary markets where investors can sell their securities to other investors for cash.

On modern exchange trades are conducted over the telephone or online. Almost all exchanges are ‘auction exchanges’, where buyers enter competitive bids and sellers enter competitive orders through a trading day. Some European exchanges, however, use the 'periodic auction' method in which round-robin calls are made once a trading day. The first stock exchange was opened in Amsterdam in 1602. The three largest exchanges in the world are (in descending order) New York Stock Exchange (NYSE), London Stock Exchange (LSE), and the Tokyo Stock Exchange (TSE).

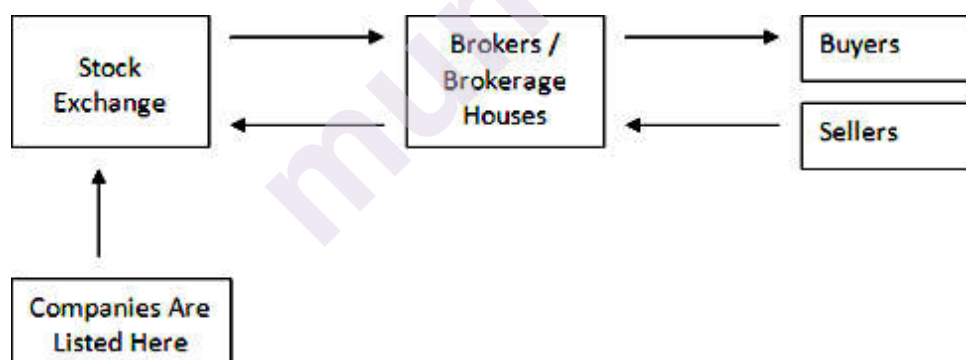
A stock exchange does not own shares. Instead, it acts as a market where stock buyers connect with stock sellers. Stocks can be traded on one or more of several possible exchanges such as the Bombay Stock Exchange (BSE). Although you will most likely trade stocks through a broker, it is important to understand the relationship between exchanges and

companies, and how the requirements of different exchanges protect investors. To be traded, every stock must list on an exchange where buyers and sellers meet. The two big U.S. exchanges are the BSE and NSE. Companies listed on either of these exchanges must meet various minimum requirements and baseline rules concerning the "independence" of their boards. But these are by no means the only legitimate exchanges. Electronic communication networks are relatively new, but they are sure to grab a bigger slice of the transaction pie in the future. Finally, the OTC market is a fine place for experienced investors with an itch to speculate and the know-how to conduct a little extra due diligence.

The primary function of an exchange is to help provide liquidity; in other words, to give sellers a place to "liquidate" their shareholdings.

Stocks first become available on an exchange after a company conducts its initial public offering (IPO). In an IPO, a company sells shares to an initial set of public shareholders (the primary market). After the IPO "floats" shares into the hands of public shareholders, these shares can be sold and purchased on an exchange (the secondary market).

The exchange tracks the flow of orders for each stock, and this flow of supply and demand sets the stock price. Depending on the type of brokerage account you have, you may be able to view this flow of price action. For example, if you see that the "bid price" on a stock is Rs.200, this means somebody is telling the exchange that he or she is willing to buy the stock for Rs.200. At the same time, you might see that the "ask price" is Rs.210, which means somebody else is willing to sell the stock for Rs.210. The difference between the two is the bid-ask spread.



Company:

When a company requires capital to expand, it can either approach a financial institution to borrow money or ask the general public to invest in the company. In the case of the latter, the company has to approach an investment bank, which will help it get listed on the stock exchange. Shareholders, traders, and brokers can trade the company's stock once it is listed on the stock exchange.

Stock exchange:

The stock exchange serves as a platform that helps companies raise capital by issuing stocks to retail/institutional investors. Stock that is issued keeps

trading handset the exchange even after the company is listed. The price of the stock is determined by the demand, supply, and market demographics at a particular time, and keeps changing by the minute.

Buyers/Sellers:

When a company is listed on the stock exchange, traders/investors buy and sell stocks intending to make money through price fluctuations. These traders/investors can be individuals, corporate entities, governments, etc.

Brokers:

Brokers or brokering houses are middlemen between the buyers/sellers and the stock exchange. They have the authority to carry out a transaction on the behalf of the buyer or seller. The investor must mandatorily have a brooking account to trade/invest in stocks. Brokers charge an additional fee for the service they provide, which is known as brokerage.

6.3.2 Importance Or Functions of Stock Exchange

We discuss major functions of stock exchange under these headings:-

1. Providing a ready market:

The Organization of Stock Exchange provides a ready market to speculators and investors in industrial enterprises. It thus, enables the public to buy and sell securities already in issue.

2. Providing a quoting market price:

It makes possible the determination of supply and demand on price. The very sensitive pricing mechanism and the constant quoting of market price allow the investors to always be aware of values. This enables the production of various indexes which indicate trends etc.

3. Providing facilities for working:

It provides opportunities to Jobbers and other members to perform their activities with all their resources in the stock exchange

4. Safeguarding activities for investors:

The Stock Exchange renders safeguarding activities for investors which enable them to make a fair judgment of securities. Therefore directors have to disclose all material facts to their respective shareholders. Thus innocent investors may be safeguard from the clever brokers.

5. Operating a compensation fund:

It also operates a compensation fund which is always available to investors suffering loss due to the speculating dealings in the stock exchange.

6. Creating the discipline:

The Members are controlled under a rigid set of rules designed to protect the general public and its members. Thus this tendency creates discipline among its members in their social life also.

7. Checking functions:

New securities are checked before being approved and admitted to the listing. Thus stock exchange exercises rigid control over the activities of its members.

8. Adjustment of equilibrium:

The investors in the stock exchange promote the adjustment of equilibrium of demand and supply of a particular stock and thus prevent the tendency of fluctuation in the prices of shares.

9. Maintenance of liquidity:

Banking and Insurance companies purchase a large number of securities from the stock exchange. These securities are marketable and can be turned into cash at any time. Therefore banks prefer to keep securities instead of cash in their reserve. It facilitates the banking system to maintain liquidity by procuring marketable securities.

10. Promotion of the habit of saving:

Stock exchange provides a place for saving to the general public. Thus it creates the habit of thrift and investment among the public. This habit leads to an investment of funds in corporate or government securities. The funds placed at the disposal of companies are used by them for productive purposes.

11. Refining and advancing the industry:

Stock exchange advances the trade, commerce, and industry in the country. It provides an opportunity for capital to flow into the most productive channels. Thus the flow of capital from the unproductive field to the productive field helps to refine large-scale enterprises.

12. Promotion of capital formation:

The Stock Exchange plays an important part in capital formation in the country. The publicity regarding various industrial securities makes even disinterested people feel interested in investment.

13. Increasing Government Funds:

The Government can undertake projects of national importance and social value by raising funds through the sale of its securities on a stock exchange.

6.3.3 Speculators of Stock Exchange

- **Meaning:**

The speculators are traders of securities on stock exchanges. They are engaged in buying and selling securities to earn profits. They are not investors. They buy securities with the hope to sell them in the future at a profit. They do not hold the securities for a longer period. They are more concerned with price movements on stock exchanges.

In reality, there is no much difference between a speculator and an investor. Each investor is to a certain extent - a speculator as he also buys the securities with the hope of selling them at a higher price in the future. Similarly, every speculator to a certain extent is an investor because he may also hold the securities for some period with the hope of selling them at a higher price. Thus, the difference between the two is a matter of degree only.

- **Types of Speculators**

Four types of speculators trade on stock exchanges are as follows.

1. **Bull:**

A bull is an optimistic speculator. He expects a rise in the price of the securities in which he deals. Therefore he buys the securities with the hope of selling them in the future at a higher price and gain profits. If it happens he can sell the securities. Thus he is not required to take delivery of the securities.

2. **Bear:**

A bear is a pessimistic speculator who expects a sharp fall in the prices of certain securities. He, therefore, enters into selling contracts in certain securities on a future date. If the price of the security falls as per his expectations he will get the price difference.

3. **Stag:**

He is a cautious investor as compared to the bulls or bears. He only applies for IPOs of the companies to sell them at a premium or profit as soon as he gets the shares allotted.

4. **Lame Duck:**

When a bear cannot fulfill his commitment immediately, he is called a lame duck.

6.4 BOMBAY STOCK EXCHANGE (BSE)

Established in 1875, BSE Ltd. (formerly known as Bombay Stock Exchange Ltd.), is Asia's first Stock Exchange and one of India's leading exchange groups. Over the past 137 years, BSE has facilitated the growth

of the Indian corporate sector by providing it an efficient capital-raising platform. Popularly known as BSE, the bourse was established as "The Native Share & Stock Brokers' Association" in 1875. BSE is a corporatized and demutualized entity, with a broad shareholder base that includes two leading global exchanges, Deutsche Bourse and Singapore Exchange as strategic partners.

BSE has won several awards and recognitions that acknowledge the work done and progress made like The Golden Peacock Global CSR Award for its initiatives in Corporate Social Responsibility, NASSCOM - CNBC-TV18's IT User Awards, 2010 in Financial Services category, Skoch Virtual Corporation 2010 Award in the BSE StAR MF category and Responsibility Award (CSR) by the World Council of Corporate Governance. Its recent milestones include the launching of BRICSMART indices derivatives, BSE-SME Exchange platform, S&P BSE GREENEX to promote investments in Green India.

BSE forecast for 2014:

The BSE Sensex is forecast to scale new highs next year after elections, attracting offshore funds despite an expected rough period for emerging markets when the U.S. Federal Reserve shifts monetary policy, a Reuter's poll showed.

The poll predicts a better performance than this year's 9 percent increase but far more modest than the 25 percent surge in 2012 when foreign investors bought a massive \$24.4 billion worth of Indian stocks.

Uncertainty about the outcome of the elections, due by May, has prompted many investors and businesses to delay decisions as there are no clear favorites among leading parties to win a majority when India goes to elections.

Starmine data shows seven of the 30 companies that make up the index will likely see earnings drop next fiscal year. Six of those are companies in the heavy machinery and power sectors that have traditionally been reliant on government policies, subsidies, and tax exemptions.

6.5 DEMATERIALISATION

During the late eighties, the common man used to stay away from the stock market because of the sheer complexity of the paperwork involved in trading at the market. This resulted in a very low mobilization of funds in the market. Besides this, the paper-based system also gave rise to several problems duplication of shares, fake shares, fake signatures, signature mismatches, and transfer problems. Stock certificates became the major reason for rising arbitration cases and investor disputes. This fact created a need for a more technologically advanced system to maintain records of all the transactions. The government of India decided to bring a fully automated system for book-keeping, to eliminate all the risks that came along with the paper-based certificates. The depository system was introduced by the Depository Act, 1996 which helped in

eliminating the paper-based system and made way for the safer electronic system in which every investor made transactions using a DEMAT Account.

A concept of reducing the number of materials required to serve economic functions. Signifies conversion of a share certificate from its present physical form to electronic form for the same number of holding. It attempts to avoid the time-consuming and complex process of getting shares transferred in the name of the buyers.

Dematerialization of shares is optional and an investor can still hold shares in physical form. However, he/she has to DEMAT the shares if he/she wishes to sell the same through the Stock Exchanges. Similarly, if an investor purchases shares, he/she will get delivery of the shares in DEMAT form only.

It offers scope for paperless trading through state-of-the-art technology, whereby share transactions and transfers are processed electronically without involving any share certificate or transfer deed after the share certificates have been converted from physical form to electronic form.

6.5.1 Process of Dematerialisation :

Any person should open a DEMAT account with any Depository Participant (DP). The DP acts like an agent between the investor and depository. The process is as follow:

1. He/she has to fill up an online DEMAT account opening form and needs to surrender the certificate(s) to the DP. The DP then sends the form and the original share certificates and the documents for proof of his identity and address and self-attested passport size photograph to the concerned Registrar & Transfer (R&T) agent. To avoid any misuse of the share certificates, the investor must ensure that they are defaced by marking “Surrendered for Dematerialization” on the face of the certificates.
2. The person will have to sign a pact with his DP in which all the rules and regulations will be written to be followed by the investor and DP both. The DP gives a copy of the agreement to the investor.
3. After signing the agreement and the verification of the documents, in about 15 days the person will get his online account number. It is also known as BO ID that is Beneficiary Owner’s Identification Number. All your future transactions will be done with this ID.
4. The R&T agent holds the details about the shares. He checks with the signature of the applicant and processes it and intimate about this to the company & NSDL.
5. On receiving intimation from the R&T agent, NSDL or CDSL credit the securities in the depository account of the client with the DP and inform the client accordingly. It should not take more than 30 days from the date of submission of a DEMAT request to get the holdings

dematerialized. Finally, the investor gets the DEMAT shares through his/her DP. Indian Financial System -II

A person having a DEMAT account, can step into the world of the stock exchange and start investing the money in mutual funds, shares, debentures, insurance, retirement funds, etc. Unlike the bank account, the person has not kept a minimum balance, the DEMAT account does not require the minimum number of securities.

6.5.2 Key Concepts involved in the process of Dematerialisation :

1. Depository:

Regulates and controls the various activities of the Depository Participants. **There are two depositories in India :**

- NSDL – National Securities and Depositories limited
- CDSL – Central Depositories Securities limited

2. Depository Participant:

This is a representative for the depository and it acts as an interface between the clients and the depository.

• Functions of DP:

- a. DEMAT Account opening
- b. Dematerialization of securities
- c. Account statement
- d. Pledging
- e. Process delivery Instruction slip

3. Registrar:

He keeps a record of applications and money received from investors. Assisting issuing companies in determining the basis of allotment of securities, dispatching allotment letters, dispatching of refund orders, shares, etc.

4. Transfer agents:

He keeps a Record of holders of securities on behalf of the company, handling all matters related to the transfer and redemption of securities of the company.

5. Beneficiary account:

A beneficiary account is an account opened by the investor with the DP. Every beneficiary account will be given a unique ID. In NSDL, the BO ID number is 8 digits and in CDSL it is 16 digits.

6. DEMAT account:

This account is like a bank account and it shows the shares we have. Like cheque leaf in the bank, here we have Delivery Instruction Slip to transfer our shares to some other persons.

6.5.3 Advantages of Dematerialisation:

- Reduces brokerage charges.
- Eliminates the risks involved with physical certificates like forgery, loss, theft, damage of certificates, etc.
- There is no paperwork involved which has greatly reduced the time required.
- Traders don't need to visit the stock market again and again as they can operate it from anywhere as the system is electronic.
- The system reduces the cost incurred by the company in issuing and distributing shares.

6.5.4 Disadvantages of Dematerialisation:

- Trading in securities may become uncontrolled.
- The biggest limitation is that to have a DEMAT account one needs to be internet savvy and therefore people who are not that literate with the internet will find it hard to operate their DEMAT account and therefore they tell their brokers or sub-brokers to transact on behalf of them which sometimes lead to fraud and mismanagement of funds by the sub-brokers.
- Another limitation is that since stocks are dematerialized individuals tend to keep looking at the stock price more often than they would have if stocks were in paper form and therefore they end up doing trading instead of investment.
- Multiple regulatory frameworks have to be confirmed.
- Agreements are entered at various levels in the process of dematerialization. These may cause worries to the investor desirous of simplicity.
- There is no provision to close a Demat account, which is having illiquid shares.

Check Your Progress

1. Define the following terms;
 - a. SEBI
 - b. Stock exchange
 - c. DEMAT account

- d. Depository
 - e. Beneficiary account
 - f. Dematerialization
2. Enlist the functions of the stock exchange.
 3. Explain the management structure of SEBI.

6.6 CREDIT RATING AGENCIES (CRA)

Credit rating is an analysis of the credit risks associated with a financial instrument or a financial entity. It is a rating given to a particular entity based on the credentials and the extent to which the financial statements of the entity are sound, in terms of borrowing and lending that has been done in the past. Usually, is in the form of a detailed report based on the financial history of borrowing or lending and creditworthiness of the entity or the person obtained from the statements of its assets and liabilities to determine their ability to meet the debt obligations. It helps in the assessment of the solvency of the particular entity.

Definition:

“Credit Rating is an opinion expressed by an independent rating agency about the credit quality of the issuer of a debt instrument”.

The credit rating of debt security essentially reflects the probability payment of interest and repayment of principal amount by a borrower.

“A credit rating agency is a company that assigns credit ratings to institutions that issue debt obligations”.

Credit rating measures creditworthiness, or the ability to pay back a loan. Credit rating is done for debt instruments such as debentures, fixed deposits, commercial papers, bonds, etc. The company which issues debt instruments is called an issuer or issuing company. An investor looks at the credit rating of the instrument and issuer before investing. If the credit rating is high, the investor will invest in the company. That is, he will purchase the debentures, bonds, etc. issued by that company. If the credit rating is low, the investor will not purchase the debentures, bonds, etc. of that company. So credit rating guides the investor while investing. Credit rating is an opinion about a debt instrument and its issuer. It tells an investor, whether the debt instrument is safe or risky. It tells whether the issuer will be able to pay the interest and repay the principal amount in time. Credit rating is only an opinion. It is not a recommendation. It does not ask an investor to buy, hold or sell an instrument.

6.6.1 ROLE / ADVANTAGES OF CREDIT RATING AGENCIES:

1) Collection of financial information:

Credit rating agencies collect valuable information relating to the credit quality of an issuer of debt security. The collected information is analyzed

and summarized in a simple and readily understood manner. The rating agency is likely to provide unbiased information.

2) Supply of information:

The information about the credit quality of an issuer is provided to the public. This helps them in making an investment decision. The information is also supplied to others like SEBI, bankers government, etc.

3) Provides the basis for assessing risk and return:

The ratings are evaluated and revised from time to time, and as such it helps the existing investors to decide whether or not to hold on to the security or to dispose of it off. The information provided to the potential investors enables them to decide whether or not to invest in debt securities.

4) Corporate Discipline:

Credit rating imposes healthy discipline on corporate borrowers. Firms would naturally prefer a better credit rating as a higher credit rating tends to enhance the corporate image and visibility of the firms. Therefore, they maintain financial discipline i.e. regular payment of interest and repayment of debt on time.

5) Guidance to institutional investors:

Credit rating agencies facilitate the formulation of public policy guidelines on institutional investment. This helps them to plan their investment portfolios easily and earn better returns.

6) Provide Greater Credence:

Credit rating agencies provide greater credence to financial and other representations. When a credit rating agency rates particular security, its credibility is at stake, and as such, it would make all possible efforts to collect proper financial information about the credit quality of the issuer and that of the debt instrument.

At times, it has been observed that the companies that provide debt products and services are rating the debt instruments by them.

The providers of securities like the companies, the governmental organizations at the state and central level, and special purpose entities are the major clients of the credit rating agencies. The non-profit-seeking organizations and the national governments also avail the services of the credit rating agencies.

6.6.2 BENEFITS OF CREDIT RATING COMPANY:

1. Improves corporate image
2. Lower cost of borrowings

3. A wider audience of borrowings
4. Good for nonpopular companies
5. Act as a marketing tool
6. Helps for growth and expansion

6.6.3 Credit Rating and Information Services of India Ltd. (CRISIL):

CRISIL is India's global analytical company providing ratings, research, and risk and policy advisory services. CRISIL's businesses can be divided into three broad categories - Ratings, Research and Advisory. CRISIL Ratings has assessed over 61,000 entities in India. Its rating capabilities span the entire range of debt instruments and it has worked across the corporate strata, from large corporations in the country to SMEs.

CRISIL was established in 1987. The world's largest rating agency Standard & Poor's now holds a majority stake in CRISIL. It has been promoted by Industrial Credit and Investment Corporation of India Ltd. (ICICI) and Unit Trust of India Ltd. (UTI) as a public limited company with its headquarters in Mumbai.

Under Research, CRISIL Global Research and Analytics serves global investment banks and financial institutions with high-end research, risk, analytics, and equity and credit research services. Its credit research supports 80 percent of the global structured finance market and over 60 percent of the global credit markets. The company's equity research covers over 90 percent of the global trading volumes and 88 percent of the global market capitalization. In India, CRISIL Research is an independent and integrated research house. It provides the following information:

6.6.4 Functions of CRISIL

1. It provides growth forecasts, profitability analysis, emerging trends, expected investments, industry structure, and regulatory frameworks. CRISIL's rating experience covers more than 24654 entities, including 14,500 small and medium enterprises.
2. CRISIL offers domestic and international customers with independent information, opinions, and solutions related to credit ratings and risk assessment; energy infrastructure and corporate advisory; research on India's economy, industries, and companies; global equity research; fund services; and risk management.
3. CRISIL Infrastructure Advisory is a division of CRISIL Risk and Infrastructure Solutions (CRIS) Limited, a wholly-owned subsidiary of CRISIL Limited. It helps shape policy and establish viable frameworks to improve the risk profile of infrastructure projects. It works with government agencies in enhancing their capacity, capabilities, and internal financial viability, and supports the implementation of infrastructure improvement initiatives.

4. CRISIL Risk Solutions (CRS), the other division of CRIS, provides a range of risk management tools, analytics, and solutions to financial institutions, banks, and corporate, in India, and across the world.

The rating is an opinion on the future ability and legal obligation of the issuer of securities to make timely payments of principal and interest on specific fixed income security such as debentures.

6.6.5 CRISIL Role:

The role of CRISIL can be divided into two groups:

- Specific Roles
- General Roles

1. Specific Roles :

CRISIL's businesses can be divided into four broad categories:

- Ratings
- Research
- Advisory
- Risks Management

2. General Roles:

The general roles of CRISIL are as follows:

- a) It supplies credit rating information to the public.
- b) It provides the basis for assessing risk and return for an investment.
- c) It imposes good discipline on corporate borrowers.
- d) It facilitates the formulation of public policy.
- e) It protects investor interests.

Thus, CRISIL was the first credit rating agency in India, which was set up in 1987. There are also other credit rating agencies such as CARE and ICRA. Investors rely on credit ratings and invest in good performing firms or firms with good potential. Therefore, firms are in a position to raise medium-term to long-term funds from the capital markets. This gives a big boost to capital markets in India.

6.6.6 Credit Analysis and Research Ltd. (CARE)

Credit Analysis & Research Ltd (CARE) commenced its operations in the year 1993 has established itself as the leading credit rating agency of India. The company provides various credit ratings that help corporates to raise capital for their various requirements and assist the investors to form informed investments decision based on the credit risk and their own risk-return expectations. Credit Analysis & Research Ltd (CARE Ratings) is a

full service rating company that offers a wide range of rating and grading services across sectors. The company is recognized by Securities and Exchange Board of India (Sebi) Government of India (GoI) and Reserve Bank of India (RBI) etc.

The company was promoted by major Banks/ FIs (financial institutions) in India. The company carries out rating of the debt instruments namely structured obligations Commercial paper Debentures Fixed deposits and Bonds covering the full spectrum of Universe comprising Industrial Companies Service companies Infrastructure companies Banks Financial Institutions (FIs) Non-Bank Finance companies (NBFCs) Public Sector Undertakings (PSUs) State Government Undertakings Municipal Corporations Structured Finance Transactions Securitization Transactions SMEs SSI and Micro Finance Institutions.

In addition to debt ratings the company has experience in providing specialized grading/rating services such as Corporate Governance ratings IPO grading Mutual Fund Credit quality Ratings Insurance Claims Paying Ability Ratings Issuer Ratings Grading of Construction entities Grading of Maritime training institutes and LPG/ SKO Ratings.

6.6.7 ICRA Limited Formerly Known as - Information and Credit Rating Agency of India Ltd. (ICRA)

ICRA Limited (formerly Investment Information and Credit Rating Agency of India Limited) was set up in 1991 by leading financial/investment institutions, commercial banks and financial services companies as an independent and professional investment Information and Credit Rating Agency.

Today, ICRA and its subsidiaries together form the ICRA Group of Companies (Group ICRA). ICRA is a Public Limited Company, with its shares listed on the Bombay Stock Exchange and the National Stock Exchange.

Alliance with Moody's Investors Service

The ultimate parent company of international Credit Rating Agency Moody's Investors Service is the indirect largest shareholder of ICRA. The participation of Moody's is supported by a Technical Services Agreement, which entails Moody's providing certain technical services to ICRA. Specifically, the agreement is aimed at benefiting ICRA's in-house research capabilities by providing ICRA with access to Moody's global research base. Under the agreement Moody's provides enrichment programs to ICRA employees, including access to the financial markets and related courses that are offered as part of the eLearning software licensed by Moody's from Intuition, and provision of financial writing training seminars to designated ICRA employees.

Services of ICRA

- Provide information and guidance to institutional and individual investors/creditors;
- Enhance the ability of borrowers/issuers to access the money market and the capital market for tapping a larger volume of resources from a wider range of the investing public;
- Assist the regulators in promoting transparency in the financial markets;
- Provide intermediaries with a tool to improve efficiency in the funds raising process.

6.7 SUMMARY

The Securities and Exchange Board of India describes the basic Functions as, "...to protect the interests of investors in securities and to promote the development of the securities market, and to regulate the securities market and for matters connected therewith or incidental thereto".

Stock Exchange is an association of people organized to provide an auction market among themselves for the purchase and sale of securities. It is one important constituent of the capital market. Stock Exchange is an organized market for the purchase and sale of industrial and financial security.

CRAs play a key role in financial markets by helping to reduce the informative asymmetry between lenders and investors, on one side, and issuers on the other side, about the creditworthiness of companies. CRISIL is the largest credit rating agency in India

6.8 EXERCISE

Multiple Choice Questions

1. _____ was set up with the main purpose of keeping a check on malpractices and protect the interest of investors
a) **SEBI** b) RBI c) CBI d) SBI
2. SEBI has been established with the primary objective of _____
a) **protect the interest of investors** b) defraud the investors c) Ignore the Investors d) None of the above
3. Stock Exchange is also called _____
a) **Share Market** b) Debenture Market c) Deposits Market d) Financial Market
4. In _____ market New and Fresh shares are traded
a) **Primary** b) Secondary c) Money d) Private

5. In _____ market existing shares are traded
a) Primary b) **Secondary** c) Money d) Private
6. _____ market deals with short term securities
a) Primary b) Secondary c) **Money** d) Private
7. A _____ is an optimistic speculator
a) Bear b) Stag c) **Bull** d) Lame Duck
8. _____ expects a rise in the price of the securities in which he deals
a) Bear b) Stag c) **Bull** d) Lame Duck
9. A _____ is an pessimistic speculator
a) **Bear** b) Stag c) Bull d) Lame Duck
10. _____ expects a sharp fall in the prices of certain securities
a) **Bear** b) Stag c) Bull d) Lame Duck
11. _____ only applies for IPOs of the companies to sell them at a premium or profit as soon as he gets the shares allotted
a) Bear b) **Stag** c) Bull d) Lame Duck
12. _____ holds the securities of investors and provides services to them
a) **Depository** b) SEBI c) RBI d) Companies
13. The electronic mode of holding and transferring shares is called the _____ of securities.
a) **Dematerialization** b) Rematerialization c) Physical form d) E holding

Theory Questions

1. 'In today's commercial world, SEBI performs many vital functions which leads the investors towards a positive environment.' Explain how by giving any reasons.
2. Define stock exchange. Describe the role of the stock exchange in an economy.
3. Briefly explain dematerialization and its benefits.
4. Discuss the role and functions of the Securities and Exchange Board of India.
5. "SEBI is set up to protect the interest of investors". Discuss.
6. What is a credit rating? Explain the functions of credit rating.
7. Write a detailed note on Credit Rating Agencies in India.

8. Write Short notes:
 - a. Credit Rating Agencies
 - b. CRISIL
 - c. SEBI
 - d. Bombay Stock Exchange.
 - f. Role of Depositories
 - g. SEBI's investor protection measures
9. Explain the terms
 - a. IPO
 - b. Depository
 - c. Speculators
 - d. Bull
 - e. Bear



CONTEMPORARY PRACTICES IN FINANCIAL MARKETS

Unit Structure

- 7.0 Objectives
- 7.1 Mutual Fund
- 7.2 Derivatives Market
- 7.3 Start-Up Ventures
- 7.4 Micro-Finance
- 7.5 Self Help Groups
- 7.6 Summary
- 7.7 Exercise

7.0 OBJECTIVES

After studying the unit the students will be able to:

- Understand the concept of Mutual Fund.
- Discuss the factors responsible for the growth of
- Mutual Fund and its types.
- Define Derivative Market.
- Explain the types of Derivative Market and the participants in the Derivative Market
- Define Venture Capital and microfinance.
- Discuss the features of Venture Capital.
- Elaborate on the role of Micro Finance.

7.1 MUTUAL FUND

A mutual fund is a mechanism for pooling the resources by issuing units to the investors and investing funds in securities in accordance with objectives as disclosed in the offer document.

Investments in securities are spread across a wide cross-section of industries and sectors and thus the risk is reduced. Diversification reduces the risk because all stocks may not move in the same direction in the same proportion at the same time. Mutual fund issues units to the investors in accordance with the quantum of money invested by them. Investors of mutual funds are known as unitholders.

The profits or losses are shared by the investors in proportion to their investments. The mutual funds normally come out with several schemes with different investment objectives which are launched from time to time. A mutual fund is required to be registered with the Securities and Exchange Board of India (SEBI) which regulates securities markets before it can collect funds from the public.

Mutual funds represent one of the organizational forms of the delegated portfolio management, in which fund shareholders delegate the task of allocating their money to the fund manager. Since the manager's objective are not necessarily identical to those of the fund's shareholders, a potential agency problem arises: the agent may not pursue investment policies optimal for the principals (fund shareholders)

Mutual funds are typically organized as corporations and have a board of directors or trustees, which is elected by the shareholders.

In contrast to most business corporations, mutual funds are very limited internal resources and rely on the provision of specific services by affiliated organizations and independent contractors. In particular, the board of directors hires a separate entity- the investment advisor/ management company- to provide all management and advisory services to a fund for a fee, which is usually based on a percentage of the fund's average net assets.

In practice, however, the usual procedure is for the management organization to create mutual funds. To mitigate a potential conflict of interest, the ICA requires that an investment advisor must serve under a written contract approved initially by a vote of the shareholders and thereafter approved annually by the board of directors.

7.1.1 History of Mutual Funds:

Unit Trust of India was the first mutual fund set up in India in the year 1963. In the early 1990s, the Government allowed public sector banks and institutions to set up mutual funds.

As far as mutual funds are concerned, SEBI formulates policies and regulates the mutual funds to protect the interest of the investors. SEBI notified regulations for mutual funds in 1993. Thereafter, mutual funds sponsored by private sector entities were allowed to enter the capital market. The regulations were fully revised in 1996 and have been amended thereafter from time to time. SEBI has also issued guidelines to the mutual funds from time to time to protect the interests of investors.

All mutual funds whether promoted by the public sector or private sector entities including those promoted by foreign entities are governed by the same set of Regulations. There is no distinction in regulatory requirements for these mutual funds and all are subject to monitoring and inspections by SEBI. The risks associated with the schemes launched by the mutual funds sponsored by these entities are of a similar type.

7.1.2 Types of Mutual Funds:

There are 3 principal types of mutual funds are:

Open-end funds, unit investment trusts (UITs), and closed-end funds. Exchange-traded funds (ETFs) are open-end funds or unit investment trusts that trade on an exchange; they have gained popularity recently. While the term "mutual fund" may refer to all three types of registered investment companies, it is more commonly used to refer exclusively to the open-end type.

1. Open-end fund:

Open-end mutual funds must be willing to buy back their shares from their investors at the end of every business day at the net asset value computed that day. Most open-end funds also sell shares to the public every business day; these shares are also priced at net asset value. A professional investment manager oversees the portfolio, buying and selling securities as appropriate. The total investment in the fund will vary based on share purchases, share redemptions, and fluctuation in market valuation. There is no legal limit on the number of shares that can be issued.

2. Closed-end funds:

Closed-end funds generally issue shares to the public only once, when they are created through an initial public offering. Their shares are then listed for trading on a stock exchange. Investors who no longer wish to invest in the fund cannot sell their shares back to the fund (as they can with an open-end fund). Instead, they must sell their shares to another investor in the market; the price they receive may be significantly different from net asset value. It may be at a "premium" to net asset value (meaning that it is higher than net asset value) or, more commonly, at a "discount" to net asset value (meaning that it is lower than net asset value). A professional investment manager oversees the portfolio, buying and selling securities as appropriate.

3. Unit investment trusts:

Unit investment trusts or UITs issue shares to the public only once, when they are created. UITs generally have a limited life span, established at creation. Investors can redeem shares directly with the fund at any time (as with an open-end fund) or wait to redeem upon the termination of the trust. Less commonly, they can sell their shares in the open market. Unit investment trusts do not have a professional investment manager. Their portfolio of securities is established at the creation of the UIT and does not change.

4. Schemes according to the investment objective

Besides these, there are other types of mutual funds also to meet the investment needs of several groups of investors. Some of them include the following:

a) Income oriented schemes:

The fund primarily offers fixed income to investors. Naturally enough, the main securities in which investments are made by such funds are the fixed income yielding ones like bonds.

b) Growth-oriented schemes:

These funds offer growth potentialities associated with an investment in the capital market namely: 1) high source of income by way of dividend and 2) rapid capital appreciation, both from holding good Quality scrips. These funds, to satisfy the growth needs of investors, primarily concentrate on the low risk and high yielding spectrum of equity scrips of the corporate sector.

c) Hybrid schemes:

These funds cater to both the investment needs of the prospective investors- namely fixed income as well as growth orientation. Therefore, investment targets of these mutual funds are a judicious mix of both the fixed income securities like bond and debentures and also sound equity scrip's. These funds utilize the concept of balanced investment management. These funds are thus, also known as "balanced funds".

d) High Growth Schemes:

As the nomenclature depicts, these funds primarily invest in high risk and high return volatile securities in the market and induce the investors with a high degree of capital appreciation. Aggressive investors willing to take excessive risks are the normal target group of such funds.

e) Capital Protection Orientated Scheme:

It is a scheme that protects the capital invested in the mutual fund through a suitable orientation of its portfolio structure.

f) Tax Saving Schemes:

These schemes offer tax rebates to the investors under tax laws as prescribed from time to time. This is made possible because the government offers a tax incentive for investment in specified avenues. For example, Equity Linked Saving Schemes (ELSS) and pension scheme.

g) Special Schemes:

This category includes index schemes that attempt to replicate the performance of a particular index such as BSE, Sensex, or the NSE-50 or industry-specific scheme (which invest in specific industries) or sectoral schemes (which exclusively in the segment such as 'A' group or initial public offering). Index fund schemes are ideal for investors who are satisfied with a return approximately equal to that of an index. Sectoral fund schemes are ideal for investors who have already decided to invest in a particular sector or segment.

h) Real Estate Funds:

These are close-ended mutual funds that invest predominantly in real estate and properties.

i) Off-shore Funds:

Such funds invest in securities of foreign companies with RBI permission.

j) Leverage Funds:

Such funds, also known as borrowed funds, increase the size and value of the portfolio and offer benefits to members from out of the excess of gains over the cost of borrowed funds. They tend to indulge in speculative trading and risky investment.

k) Hedge Funds:

They employ only their funds for speculative trading i.e., for buying shares whose prices are likely to rise and for selling shares whose prices are likely to dip.

l) Fund of Funds:

They invest only in units of other mutual funds. Such funds do not operate at present in India.

m) New Direction Funds:

They invest in companies engaged in scientific and technological research such as birth control, anti-population, oceanography, etc.

n) Exchange Traded Funds:

A relatively recent innovation, the exchange-traded fund or ETF is often structured as an open-end investment company, though ETFs may also be structured as unit investment trusts, partnerships, investments trust, grantor trusts, or bonds (as an exchange-traded note). ETFs, combine characteristics of both closed-end funds and open-end funds. Like closed-end funds, ETFs are traded throughout the day on a stock exchange at a price determined by the market. However, as with open-end funds, investors normally receive a price that is close to the net asset value. To keep the market price close to net asset value, ETFs issue and redeem large blocks of their shares with institutional investors.

o) Money Market Funds:

These funds invest in short-term debt securities in the money market like a certificate of deposit, commercial papers, government treasury bills, etc. Owing to their large size, the funds normally get a higher yield on such short-term investments than on an individual investor.

p) Infrastructure Debt Fund:

They invest primarily in the debt securities or securitized debt investment of infrastructure companies.

7.1.3 Advantages of Mutual Funds

An investor must be aware of the advantages and limitations of mutual funds to choose the best fund for investment. The advantages of Mutual Funds are as follows:

1. Diversification of risks:

Mutual fund managers invest the funds in different sectors and thus the risks of investing in securities get reduced or diversified.

2. Professional Management:

Investing in securities is not an easy task many factors are required to be studied and analyzed before making an investment decision. The advantage of mutual funds is that they are managed by professional experts who can make the right investment decisions.

3. Simplicity:

Mutual fund dealers make available the required information about the funds easily such as level of risk, return on investment, and the price so the investor can choose the right type of mutual fund very easily.

4. Liquidity:

Liquidity refers to the ability to convert your assets to cash with relative ease. An investor can get money by exiting the mutual fund very easily and quickly.

5. Cost:

Mutual funds are one of the best investment options considering the costs involved. A Portfolio Management Service may charge 2% to 3% of the total investment per year as its management fees. They may deduct a share from your profit. Mutual funds are relatively cheaper and deduct only 1% to 2% of the expense ratio. Debt mutual funds usually deduct even lesser.

6. Tax efficiency:

Mutual funds are relatively more tax-efficient than other types of investment. Long-term capital gain tax on equity mutual funds is zero. For debt funds, long-term capital gains apply when you hold them for 3 years.

7. Availability of more options:

Mutual funds are of different types based on the period of investment and also sector-wise. This allows investors to invest in particular types of funds, depending on their goals.

8. Requirement of a small amount:

Mutual Funds allow you to begin with as small as Rs. 500 or Rs. 1000/- so a common man can also invest in mutual funds.

9. Automated Investment:

In a Systematic Investment Plan or SIP, the money gets automatically debited from the investor's account. So it is a very convenient way of investing in mutual funds.

10. Safe and Transparent:

Investments in mutual funds are very transparent. All mutual funds are regulated by SEBI and they need to make necessary disclosures.

11. Option to choose SIP or Lumpsum mutual funds also give you the flexibility to invest through SIP or lump sum.

7.1.4 Disadvantages of mutual funds

The disadvantages of mutual funds are as follows :

1. Costs:

Some mutual funds have a high cost associated with them. Mutual funds charge for managing the funds. Even when an investor exits from the mutual fund within a specified duration, there may be an extra cost as exit load. Thus investors should be aware that different funds have different expense ratios.

2. Dilution:

Diversification has an averaging effect on your investments while diversification protects the investor from suffering any major losses, it also prevents from making any major gains. Thus, major gains get diluted.

3. Costs to Manage Mutual Funds:

The salary of the market analysts and fund managers comes from the investors. Total fund management charge is one of the first parameters to consider when choosing a mutual fund. Higher management fees do not guarantee better fund performance.

4. Fluctuating returns

Mutual funds do not offer fixed guaranteed returns in that you should always be prepared for any eventuality including depreciation in the value

of your mutual fund. In other words, mutual funds entail a wide range of price fluctuations. Professional management of a fund by a team of experts does not insulate you from the bad performance of your fund.

5. No Control

All types of mutual funds are managed by fund managers. In many cases, the fund manager may be supported by a team of analysts. Consequently, as an investor, you do not have any control over your investment. All major decisions concerning your fund are taken by your fund manager. However, you can examine some important parameters such as disclosure norms, corpus, and overall investment strategy followed by an Asset Management Company (AMC).

6. Diversification

Diversification is often cited as one of the main advantages of a mutual fund. However, there is always the risk of over-diversification, which may increase the operating cost of a fund, demands greater due diligence, and dilutes the relative advantages of diversification.

7. Fund Evaluation

Many investors may find it difficult to extensively research and evaluate the value of different funds. A mutual fund's net asset value (NAV) provides investors the value of a fund's portfolio. However, investors have to study various parameters such as Sharpe ratio and standard deviation among others to ascertain how one fund has fared compared to another which can be complicated to some extent.

8. Past performance

Ratings and advertisements issued by companies are only an indicator of the past performance of a fund. It is important to note that the robust past performance of a fund is not a guarantee of a similar performance in the future. As an investor, you should analyze the investment philosophy, transparency, ethics, compliance, and overall performance of a fund house across different phases in the market over a period of time. Ratings can be taken as a reference point.

7.1.5 Factors responsible for the growth of mutual funds

The various factors responsible for the growth mutual fund industry in India can be given as follows:

1. Population:

In India, the percentage of the young and working population is increasing at a higher rate. It results in higher per capita income, higher savings, and investments in equity markets. Also, there is growing awareness of the benefits of investments in mutual funds, both in urban and rural areas.

2. Movement in Global Markets:

In India, the performance of equity markets is far better than in other countries of the world. This has resulted in higher investments in mutual funds.

3. The growing significance of the service industry:

The service sector is growing faster than the manufacturing sector. As a result, professional services are available at reasonable costs in India.

4. Inflation affects the Returns:

Inflation represents the general price level of the country and it is increasing over a period of time. It affects the returns on fixed income options such as bank deposits, PPF, National Service Certificates, and so on. As a result, such traditional options of investing money are becoming unpopular.

5. Other factors:

The other factors contributing to the growth of mutual funds in India are - change in the attitudes of people, availability of several mutual funds even operated by public financial institutions, the impact of globalization, and so on.

7.1.6 Systematic Investment Plan (SIP):

The terms SIP and mutual fund schemes are not synonymous. A SIP is only a scheme that helps the investor to invest regularly in mutual fund schemes. Thus, SIP or systematic Investment Plan is a scheme in which an investor invests a fixed amount of money regularly in a mutual fund, generally an equity mutual fund scheme. An investor can start investing in a mutual fund scheme with a minimum of Rs. 500. He can invest a fixed amount of money monthly, bi-monthly, or forthrightly, according to his convenience. In a step-up SIP scheme, an investor can increase the SIP amount periodically. In Alert SIP, the mutual fund management sends an alert to the investor to increase his investment when the markets are down. In perpetual SIP; the investor can continue to invest periodically, without any end date. He can exit the scheme as his requirements.

The following are the benefits of investing in mutual funds by using a SIP scheme.

1. It is very convenient and time-saving as money gets automatically debited from an investor's account.
2. It helps to average purchase cost and maximize returns when an investor invests regularly over a period of time irrespective of the market conditions, he gets more units when the market is down and fewer units when the market is up. This averages out the purchase cost of mutual fund units.

3. It helps to build the habit of saving and invest regularly among the people.
4. When an investor continues to invest over a long period, his returns get compounded. After the expiry of a long period, he can accumulate a large sum of money which ultimately helps him to achieve his long-term financial goal.

Check Your Progress

1. Define the following terms:
 - a. Operating Leasing
 - b. Financial Leasing
 - c. Sale of Leaseback
 - d. Leverage lease
 - e. Mutual Fund
 - f. ETF
 - g. Open-end fund
 - h. Closed-end fund
2. Enlist the types of mutual funds which meet the investment needs of several groups of investors.
3. Write the points of advantages of lease financing.

7.2 DERIVATIVES MARKET

The Derivatives Market is meant as the market where the exchange of derivatives takes place. Derivatives markets are markets that are based upon another market, which is known as the underlying market. Derivatives markets can be based upon almost any underlying market, including individual stock markets (e.g. the stock of company XYZ), stock indices (e.g. the Nasdaq 100 stock index), and currency markets (i.e. the forex markets). Derivatives markets take many different forms, some of which are traded in the usual manner (i.e. the same as their underlying market), but some of which are traded quite differently (i.e. not the same as their underlying market).

7.2.1 Meaning Of Derivative:

Derivatives are one type of securities whose price is derived from the underlying assets or derivatives are products whose value is derived from one or more basic variables called underlying assets or base.

In simpler form, derivatives are financial security such as an option or future whose value is derived in part from the value and characteristics of another underlying asset.

Derivative contracts can be standardized and traded on the stock exchange. Such derivatives are called exchange-traded derivatives. Or they can be customized as per the Over-the-counter (OTC) derivatives.

A Derivative includes:

- (a) A security derived from a debt instrument, share, loan, whether secured or unsecured, risk instrument or contract for differences or any other form of security;
- (b) A contract that derives its value from the prices, or index of prices, of underlying securities.

The primary objectives of any investor are to bring an element of certainty to returns and minimize risks. Derivatives are contracts that originated from the need to limit risk. The value of these derivatives is determined by the fluctuations in the underlying assets. These underlying assets are most commonly stocks, bonds, currencies, interest rates, commodities, and market indices.

As Derivatives are merely contracts between two or more parties, anything like weather data or amount of rain can be used as underlying assets. The Derivatives can be classified as Future Contracts, Forward Contracts, Options, Swaps, and Credit Derivatives. Futures, options, and swaps are complicated instruments. However, they have found their way into the risk management options of just about every major financial institution.

Derivatives are used for the following:

- A hedge or mitigate risk in the underlying, by entering into a derivative contract whose value moves in the opposite direction to their underlying position and cancels part or all of it out.
- Create option ability where the value of the derivative is linked to a specific condition or event (e.g. the underlying reaching a specific price level)
- Obtain exposure to the underlying where it is not possible to trade in the underlying.
- Provide leverage (or gearing), such that a small movement in the underlying value can cause a large difference in the value of the derivative.
- Speculate and make a profit if the value of the underlying asset moves the way they expect (e.g. moves in a given direction, stays in or out of a specified range, reaches a certain level)
- Switch asset allocations between different asset classes without disturbing the underlining assets, as part of transition management
- Avoid paying taxes. For example, an equity swap allows an investor to receive steady payments, e.g. based on LIBOR rate while avoiding paying capital gains tax and keeping the stock.

7.2.2 Advantages of Derivatives:

1. They help in transferring risks from risk-averse people to risk-oriented people.
2. They help in the discovery of future as well as current prices.
3. They catalyze entrepreneurial activity.
4. They increase the volume traded in markets because of the participation of risk-averse people in greater numbers.
5. They increase savings and investment in the long run.

7.2.3 Types of Derivative:

In broad terms, there are two groups of derivative contracts, which are distinguished by the way they are traded in the market:

1. Over-the-counter :

(OTC) derivatives are contracts that are traded (and privately negotiated) directly between two parties, without going through an exchange or other intermediary. Products such as swaps, forward rate agreements, exotic options – and other exotic derivatives – are almost always traded in this way. The OTC derivative market is the largest market for derivatives, and is largely unregulated with respect to the disclosure of information between the parties, since the OTC market is made up of banks and other highly sophisticated parties, such as hedge funds. Reporting of OTC amounts is difficult because trades can occur in private, without the activity being visible on any exchange. According to the Bank for International Settlements, who first surveyed OTC derivatives in 1995, reported that the "gross market value, which represents the cost of replacing all open contracts at the prevailing market prices, ... increased by 74% since 2004, to \$11 trillion at the end of June 2007 (BIS 2007:24)." Positions in the OTC derivatives market increased to \$516 trillion at the end of June 2007, 135% higher than the level recorded in 2004. the total outstanding notional amount is US\$708 trillion (as of June 2011). Of this total notional amount, 67% are interest rate contracts, 8% are credit default swaps (CDS), 9% are foreign exchange contracts, 2% are commodity contracts, 1% are equity contracts, and 12% are other. Because OTC derivatives are not traded on an exchange, there is no central counter-party. Therefore, they are subject to counterparty risk, like an ordinary contract, since each counter-party relies on the other to perform.

2. Exchange-traded derivatives:

(ETD) are those derivatives instruments that are traded via specialized derivatives exchanges or other exchanges. A derivatives exchange is a market where individuals trade standardized contracts that have been defined by the exchange. A derivatives exchange acts as an intermediary to all related transactions and takes initial margin from both sides of the trade to act as a guarantee. The world's largest derivatives exchanges are

the Korea Exchange (which lists KOSPI Index Futures & Options), Eurex, and CME Group.

For better conceptual understanding derivatives and the most common types of derivatives are classified as forwarding contracts, futures contracts, options contracts, and swap contracts. These are the most common use types of derivatives:

A. Forward Contracts:

A forward contract is an agreement between two parties – a buyer and a seller to purchase or sell something at a later date at a price agreed upon today. Forward contracts, sometimes called forward commitments, are very common in everyone's life. Any type of contractual agreement that calls for the future purchase of a good or service at a price agreed upon today and without the right of cancellation is a forward contract.

B. Future Contracts:

Market in standardized contracts for future delivery of various goods. A futures contract is an agreement between two parties – a buyer and a seller – to buy or sell something at a future date. The contract trades on a futures exchange and is subject to a daily settlement procedure. Future contracts evolved out of forwarding contracts and possess many of the same characteristics. Unlike forward contracts, futures contracts trade on organized exchanges, called future markets. Future contracts also differ from forwarding contracts in that they are subject to a daily settlement procedure. In the daily settlement, investors who incur losses pay them every day to investors who make profits. It arose in the mid-1800s in Chicago and institutionalized an ancient form of contracting called forward contracts. In 1842, the Chicago Board of Trade was founded. In 1871, Fire destroyed all records.

C. Options Contracts:

Options are contractual obligations that Derive their value from some underlying asset. Options are of two types – calls and puts. Calls give the buyer the right but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a given future date. Puts give the buyer the right, but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date. In options on futures contracts, the contractual obligations call for delivery of one futures contract.

D. Binary contracts:

Binary contracts are contracts that provide the owner with an all-or-nothing profit profile.

E. Warrant:

Apart from the commonly used short-dated options which have a maximum maturity period of 1 year, there exist certain long-dated options

as well, known as the warrant. These are generally traded over-the-counter.

F. Swaps:

Swaps are private agreements between two parties to exchange cash flows in the future according to a prearranged formula. They can be regarded as portfolios of forwarding contracts. The 1st major swap occurred in August of 1981. The World Bank issued \$290 million in Eurobonds and swapped the interest and principal on these bonds with IBM for Swiss francs and German marks. The two commonly used swaps are interest rate swaps and currency swaps.

1. **Interest rate swaps:** These involve swapping only the interest-related cash flows between the parties in the same currency.
2. **Currency swaps:** These entail swapping both principal and interest between the parties, with the cash flows in one direction being in a different currency than those in the opposite direction.

Forward Markets V/S Future Markets:

- a. Forward Contract transaction in which two parties agree in advance on the terms of a trade to be executed later whereas a futures contract is traded in an organized exchange.
- b. Forward contracts are non-standardized contract terms whereas future contracts are standardized contract terms
- c. Forward contracts are more flexible as compared to future contracts.
- d. Forward contracts are difficult to find a trading partner but in the case of futures contracts, the contract is guaranteed by the exchange.

7.2.4 Participants of Derivative Markets

The following are the participants in the derivatives market.

1. Hedgers:

They are cautious traders in stock markets. They enter derivative markets to secure their investment portfolio against the market risk and price movements. They can achieve this by taking an opposite position in the derivatives market. In this manner, they transfer the risk of loss to those others who are ready to take it. To have this benefit, they are required to pay a premium to the risk-taker.

2. Speculators:

They are risk-takers of the derivative market. They are ready to take risks to earn profits. If their anticipation of price movements proves to be correct, they can earn huge profits.

3. Margin Traders:

A margin refers to the minimum amount that is required to be deposited with the broker to participate in the derivative market. It is used to compensate for the losses if any, while trading in the derivatives market.

4. Arbitrageurs:

They deal in low-risk, low-priced securities to make profits. They buy low-priced securities in one market and sell them at a higher price in another market. This can take place only when the same security is quoted at different prices in different markets.

7.2.4 Commodity Markets

A commodity market is a market that trades in the primary economic sector rather than manufactured products, such as cocoa, fruit and sugar. Hard commodities are mined, such as gold and oil. Futures contracts are the oldest way of investing in commodities. Commodity markets can include physical trading and derivatives trading using spot prices, forwards, futures, and options on futures. Farmers have used a simple form of derivative trading in the commodity market for centuries for price risk management.

7.2.5 Categories of Commodity Markets

Commodities that are traded are typically sorted into four categories broad categories: metal, energy, livestock and meat, and agricultural.

Metals

Metals commodities include gold, silver, platinum, and copper. During periods of market volatility or bear markets, some investors may decide to invest in precious metals, particularly gold—because of its status as a reliable, dependable metal with real, conveyable value. Investors may also decide to invest in precious metals as a hedge against periods of high inflation or currency devaluation.

Energy commodities

Energy commodities include crude oil, heating oil, natural gas, and gasoline. Global economic developments and reduced oil outputs from established oil wells around the world have historically led to rising oil prices, as demand for energy-related products has gone up at the same time that oil supplies have dwindled.

Energy

Investors who are interested in entering the commodities market in the energy sector should also be aware of how economic downturns, any shifts in production enforced by the Organization of the Petroleum Exporting Countries (OPEC), and new technological advances in alternative energy sources (wind power, solar energy, biofuel, etc.) that aim to replace crude

oil as a primary source of energy, can all have a huge impact on the market prices for commodities in the energy sector.

Livestock and meat

Livestock and meat commodities include lean hogs, pork bellies, live cattle, and feeder cattle.

Agriculture

Agricultural commodities include corn, soybeans, wheat, rice, cocoa, coffee, cotton, and sugar. In the agricultural sector, grains can be very volatile during the summer months or during any period of weather-related transitions. For investors interested in the agricultural sector, population growth—combined with limited agricultural supply—can provide opportunities for profiting from rising agricultural commodity prices.

7.3 START-UP VENTURES

Startup capital is what entrepreneurs use to pay for any or all of the required expenses involved in creating a new business. This includes paying for the initial hires, obtaining office space, permits, licenses, inventory, research and market testing, product manufacturing, marketing, or any other expense. In many cases, more than one round of startup capital investment is needed to get a new business off the ground.

The majority of startup capital is provided to young companies by professional investors such as venture capitalists and/or angel investors. Some startups may also receive startup capital from banks and other financial institutions. Considering the sources of startup capital, it's no surprise that companies may receive large amounts of money from their investors. Since investing in young companies comes with a great degree of risk, these investors often require a solid business plan in exchange for their money. They usually get an equity stake in the company for their investment.

7.3.1 Sources of start-up financing

It is always better to use different sources for financing the new business besides a bank loan. The following are typical sources of financing start-ups.

1. Personal Investment:

While starting a new business an entrepreneur should have his savings and/or assets as collateral security for investing in the business.

2. Love money:

This is the money that an entrepreneur borrows from a spouse, parents, family, or friends. He should be cautious while borrowing love money as they may like to have an equity stake in the business.

3. Venture Capital:

Every entrepreneur cannot depend upon venture capital. Because generally venture capitalists are very selective in their approach and they prefer to invest in technology-driven businesses and companies with high growth potential in sectors such as information technology, communications, and biotechnology. Venture capitalists also require to be given some ownership or equity stake in the business.

4. Angels:

Angels are generally wealthy individuals or retired company executives who invest directly in small firms owned by others. They also contribute to the business by way of their expertise, experience, and/or managerial knowledge.

5. Business incubators:

Business incubators provide various services for new businesses such as sharing their premises and even laboratories as well as their administrative logistical and technical resources. Generally, the incubation phase lasts up to two years. Once the product is ready, an entrepreneur leaves the incubator's premises and starts its industrial production phase. Such services are available in sectors such as biotechnology, information technology, multimedia, or industrial technology.

6. Government Grants and Subsidies:

Government agencies finance venture capital in the form of grants and subsidies. An entrepreneur needs to go through a long and complicated procedure to avail of grants and subsidies. He has to submit a detailed project report giving details like project description, the significance of the project, cost structure, resources available, projected return on investment, and so on.

7. Bank Loans:

A bank loan is the major source of financing venture capital for small and medium-sized businesses. An entrepreneur needs to select the bank that meets his specific needs. He has to fulfill various requirements for getting bank loans such as a detailed project report and the guarantee.

Check Your Progress

1. Fill in the blanks:
 - a. Agreement between two to purchase or sell something at a later date at a price agreed upon today means -----.
 - b. ----- are non-standardized contract terms.
 - c. ----- are standardized contract terms.

- d. The two commonly used swaps are ----- and -----.
2. “Angel Investor” Discuss.
3. Explain the types of Options – calls and puts.

7.4 MICRO-FINANCE

Microfinance is a general term to describe financial services to low-income individuals or to those who do not have access to typical banking services. Microfinance is also the idea that individuals are capable of lifting themselves out of poverty if given access to some of the financial services. The two main mechanisms for the delivery of financial services to such clients are:

- Relationship-based banking for individuals entrepreneurs and small business; and
- Group-based models, where several individual entrepreneurs come together to apply for loans and other services as a group.

"Microfinance is the supply of loans, savings, and other basic financial services to the poor." As these financial services usually involve small amounts of money - small loans, small savings, etc. - the term "microfinance" helps to differentiate these services from those which formal banks provide.

7.4.1 FEATURES OF MICROFINANCE

- 1) It is an essential part of rural finance.
- 2) It deals in small loans.
- 3) It caters to poor households.
- 4) It is one of the most effective and warranted Poverty Alleviation Strategies.
- 5) It supports women's participation in the economic activity.
- 6) It provides an incentive to grab self-employment opportunities.
- 7) It is more service-oriented and less profit-oriented.
- 8) It is meant to assist small entrepreneurs and producers.
- 9) Poor borrowers are rarely defaulters in repayment of loans as they are simple and God-fearing.
- 10) India needs to establish several Microfinance Institutions.

7.4.2 Importance Of Microfinance:-

Microfinance institutions are those which provide credit and other financial services and products of very small amounts to the poor in rural,

semi-urban, and urban areas for enabling them to raise their income and improve their standard of living.

1. Credit to Rural Poor:

Usually, the rural sector depends on non-institutional agencies for their financial requirements. Microfinancing has been successful in taking institutionalized credit to the doorstep of the poor and has made them economically and socially sound.

2. Poverty Alleviation:

Due to microfinance poor people get employment. It also helps them to improve their entrepreneurial skills and encourages them to exploit business opportunities. Employment increases income level which in turn reduces poverty.

3. Women Empowerment:

Normally more than 50% of SHGs are formed by women. Now they have greater access to financial and economical resources. It is a step towards greater security for women. Thus microfinance empowers poor women economically and socially.

4. Economic Growth:

Finance plays a key role in stimulating sustainable economic growth. Due to microfinance, the production of goods and services increases which increase GDP and contribute to the economic growth of the country.

5. Mobilisation of Savings:

Microfinance develops saving habits among people. Now poor people with meager income can also save and are bankable. The financial resources generated through savings and microcredit obtained from banks are utilized to provide loans and advances to its members. Thus microfinance helps in the mobilization of savings.

6. Development of Skills:

Microfinancing has been a boon to potential rural entrepreneurs. SHGs encourage its members to set up business units jointly or individually. They receive training from supporting institutions and learn leadership qualities. Thus microfinance is indirectly responsible for the development of skills.

7. Mutual Help and Co-operation:

Microfinance promotes mutual help and cooperation among members. The collective efforts of the group promote economic interest and help in achieving socio-economic transition.

8. Social Welfare:

With employment generation the level of income of people increases. They may go for better education, health, family welfare, etc. Thus microfinance leads to social welfare or betterment of society.

7.4.3 Microfinance Institutions:

A microfinance institution (MFI) is an organization that provides microfinance services. MFIs range from small non-profit organizations to large commercial banks. In the 1990s, many of these institutions transformed themselves into formal financial institutions to access and on-lend client savings, thus enhancing their outreach.

7.4.4 Profitability and Sustainability of MFIs:

Some worry that an excessive concern for profit in microfinance will lead MFIs away from poor clients to serve better-off clients who want larger loans. Programs serving very poor clients are indeed somewhat less profitable than those reaching better-off clients, but this may say more about managers' objectives than an inherent conflict between serving the very poor and profitability. Microfinance programs like Bangladesh Rural Advancement Committee and ASA in Bangladesh have already demonstrated that very poor clients can be reached profitably both institutions had profits of more than 4% of assets in 2000."There are cases where microfinance cannot be made profitable, for example, where potential clients are extremely poor and risk-averse or live in remote areas with very low population density. In such settings, microfinance may require continuing subsidies. Whether microfinance is the best use of these subsidies will depend on evidence about its impact on the lives of this client

7.4.5 Role of Self Help Group and Functions Of Micro Finance Programs:

Microfinance programs have generally targeted poor women. By providing access to financial services only through women-making women responsible for loans, ensuring repayment through women, maintaining savings accounts for women, providing insurance coverage through women-microfinance programs send a strong message to households as well as to communities.

1. Poverty reduction tools:

Microfinance can be a critical element of an effective poverty reduction strategy. Improved access and efficient provision of savings, credit, and insurance facilities, in particular, can enable the poor to smooth their consumption, manage their risks better, build their assets gradually, and develop their microenterprises. Microfinance is only a means and not an end. The ultimate goal is to reduce poverty.

2. Self Employment:

Poverty reduction through self-employment has long been a high priority for the Government of India. Microfinance is an experimental tool in its overall strategies. Most poor people manage to optimize resources over time to develop their enterprises. Financial services could enable the poor to leverage their initiative, accelerating the process of generating incomes, assets, and economic security.

3. SHG-bank linkage program:

Indian microfinance is dominated by the operational approach of Self-help Groups (SHGs). The approach is popularly known as the SHG-Bank linkage model. This model is the dominant model, initiated by the NABARD in the early 1990s. Today the SHG model also links the informal groups of women to the mainstream system and it has the largest outreach to micro-financial clients in the world. SHGs comprise a group of 15-20 members.

In India, more than 70% of the population lives in villages and most of these villages are underdeveloped. The government, NGOs, and other financial institutions have introduced various welfare schemes and activities to reduce poverty.

7.4.6 Types of MF Providers:

The different legal forms under which MF can be provided in India are:

1. Commercial Banks
2. Cooperative Banks
3. Regional Rural Banks (RRBs)
4. Local Area Banks (LABs)
5. Cooperative Societies, SHGs, and Federation
6. Societies
7. Trusts
8. Sec 25 (Not for Profit) company
9. Non-Banking Finance Companies (NBFCs)
10. Organisations under Business

7.5 SELF HELP GROUPS (SHG)

Self Help Groups generally operate in rural India. They are also found in other countries, especially in South Asia and Southeast Asia. It generally consists of 10-20 self-employed rural women. Members of the group are encouraged to serve a small amount regularly and contribute to the common fund. After few months, when a sizable amount is accumulated the group starts lending back to the members as to others in the village for some purpose. In India, many SHGs are linked to banks for the delivery of microcredit. Microcredit refers to small loans that help poor rural women

to meet their immediate credit needs. Central and State Government along with the National Bank for Agriculture and Rural Development are encouraging Self Help Groups to achieve women empowerment.

7.5.1 Role of Self Help Groups

The role of SHGS in India can be given with the help of the following points -

- **Initiate and maintain savings within the group:**

All members must regularly save at least a small amount. These savings allow them to get future credits for their group.

- **Lending loans to the members:**

The savings made by the SHG must be used to provide loans to members of the group. Everything related to the loan must be decided within the group.

- **Solving common problems:**

SHGs mostly consist of individuals who face similar problems. The grouping should essentially help the individual overcome these problems through discussions and interactions within the group and overcoming the problems and finding a common and united solution to the problems.

- **Bank Loans:**

SHGs work on getting a collective guarantee system so that they can avail of loans from official sources.

Thus they are of great help to achieve sustainable economic development in India.

- **Poverty Alleviation:**

The formation of SHGs has helped the members save a part of their income. It has increased its assets, income, and generated employment opportunities. There has been a significant shift in the use of loans for personal use to them being used for income generation. The cumulative savings of the members had made them financially stable. This has helped them come out of the vicious circle of poverty and unemployment.

- **Financial Inclusion:**

According to the NSSO survey(59th round), more than half of the farmer households in rural India do not have access to formal credit. Overall around 70% of all the households don't have any access to institutional credit. Microfinance helps the SHGs access formal institutions like the banks both for saving and securing loans. The members of the SHGs are thus able to minimize their dependence on money lenders. Thus, SHGs can help achieve the goal of financial inclusion in rural India.

▪ **Human Resource Development:**

The financial stability of the members encourages them to spend more on the education of their children. The member households have reported better school attendance and a decrease in school dropout rates. The financial stability has led to lower child mortality, improved maternal health, good nutrition, housing, and health – especially among women and children.

▪ **Women Empowerment:**

The contribution of women to household income has increased. It gave them better control over the decisions that affect their lives. It has led to an increased involvement of women in decision making. It has increased their awareness about various welfare schemes and organizations and access to such organizations. The Expenditure on girl education in member households has also increased.

7.6 SUMMARY

A lease is a contract calling for the lessee (user) to pay the lessor (owner) for use of an asset. A rental agreement is a lease in which the asset is tangible property. Leases for the intangible property could include the use of a computer program or the use of a radio frequency.

Mutual funds raise money by selling shares of the fund to the public and use it to purchase various investment vehicles, such as stocks, bonds, and money market instruments. In return for the money they give to the fund when purchasing shares, shareholders receive an equity position in the fund and, in effect, in each of its underlying securities. For most mutual funds, shareholders are free to sell their shares at any time. Benefits of mutual funds include diversification and professional money management. Mutual funds offer choice, liquidity, and convenience, but charge fees and often require a minimum investment. Every Mutual Fund / launches different schemes, each with a specific objective

The derivative itself is merely a contract between two or more parties. Its value is determined by fluctuations in the underlying asset. The most common underlying assets include stocks, bonds, commodities, currencies, interest rates, and market indexes. There are two kinds of derivative instruments – futures and options. Futures contracts, forward contracts, options, and swaps are the most common types of derivatives.

Venture capital is the term for money invested in young, fast-growing companies. Venture capital is provided as seed funding to early-stage, high-potential, and growth companies. To put it simply, an investment firm will give money to a growing company. The growing company will then use this money to advertise, do research, build infrastructure, develop products, etc. The investment firm is called a venture capital firm, and the money that it gives is called venture capital. Venture Capital is a form of “risk capital”. In other words, capital is invested in a project where there is a substantial element of risk relating to the future creation of profits and

cash flows. Risk capital is invested as shares rather than as a loan and the investor requires a higher “rate of return” to compensate him for his risk. Venture capital provides long-term, committed share capital, to help unquoted companies grow and succeed.

7.7 EXERCISE

Multiple Choice Questions

1. The person who lets the asset be used by another person is called the _____
a) **Lessor** b) Lessee c) Broker d) Investor
2. person who utilizes the asset is called the _____
a) Lessor b) **Lessee** c) Broker d) Investor
3. Long-term, non-cancellable lease contracts are known as _____
a) **Financial Lease** b) Operating Lease c) Direct Lease d) Leverage Leasing
4. _____ lease agreement gives to the lessee only a limited right to use the asset
a) Financial Lease b) **Operating Lease** c) Direct Lease d) Leverage Leasing
5. Under _____ arrangement, the assets are not physically exchanged but it all happens in records only
a) Financial Lease b) Operating Lease c) **Sale and Leaseback** d) Leverage Leasing
6. Under _____ arrangement, a third party is involved besides lessor and lessee
a) Financial Lease b) Operating Lease c) Sale and Leaseback d) **Leverage Leasing**
7. Under direct leasing, a firm acquires the right to use an asset from the manufacturer directly
a) Financial Lease b) Operating Lease c) Sale and Leaseback d) **Direct Leasing**
8. _____ mutual funds must be willing to buy back their shares from their investors at the end of every business day
a) **Open Ended** b) Close Ended c) SIP d) UTI
9. _____ funds generally issue shares to the public only once, when they are created through an initial public offering
a) Open Ended b) **Close Ended** c) SIP d) UTI
10. _____ is only a scheme that helps the investor to invest regularly in mutual fund schemes.
a) FPO b) MBO c) **SIP** d) IPO

11. _____ funds cater to both the investment needs of the prospective investors- namely fixed income as well as growth orientation.
a) **Hybrid** b) Open Ended c) Close Ended d) Any ended
12. Derivatives markets are markets that are based upon another market, which is known as the _____ market.
a) **Underlying** b) Overlying c) Worthlying d) None of the above
13. A _____ is an agreement between two parties – a buyer and a seller to purchase or sell something at a later date at a price agreed upon today.
a) **Forward Contract** b) Purchase Contract c) selling contract d) None of the above
14. Call and Put are types of _____ contracts
a) Forward b) Future c) **Options** d) Swaps
15. _____ are private agreements between two parties to exchange cash flows in the future according to a prearranged formula.
a) Forward b) Future c) Options d) **Swaps**

Theory Questions

1. Explain the types of leasing.
2. Explain the Advantages and Limitations of Mutual Funds
3. Explain the Sources of start-up financing.
4. Define venture capital and state its advantages for a company
 - a. Define Micro Finance and Elaborate the role and functions of Micro Finance.
 - b. What is Derivative Market? Explain in detail the types of Derivative Market.
5. Write short notes:
 - a. Factors responsible for the growth of mutual funds
 - b. Systematic Investment Plan
 - c. Commodity Market
 - d. Participants in Derivatives Market
 - e. Types of Derivative Instruments
 - f. Role of Self Help Groups
 - g. Leasing
 - h. Financial Lease
 - i. Operating Lease
 - j. Derivative Market

6. Explain the terms

- a. Mutual Funds
- b. SIP
- c. Commodity Market
- d. Hedgers
- e. Speculators
- f. Arbitrageurs
- g. Forward Contracts
- h. Future Contracts
- i. Swaps
- j. SHGs



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