

Introduction to Agribusiness Management

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Abbreviations

ABC	-	Audit Bureau of Circulation
ABM	-	Agri-business Management
AMA	-	Agricultural Marketing Advisor
ASCI	-	Advertising Standards Council of India
BBLIL	-	Brooke Bond Lipton India Limited
CDSL	-	Central Depository Services Limited
CM	-	Clearing Member
CWC	-	Central Warehousing Corporation
DP	-	Depository Participants
FMC	-	Forward Market Commission
FMCG	-	First Moving Consumer Goods
ITC	-	Indian Tobacco Company
MCX	-	Multi Commodity Exchange
MTM	-	Marking-to-Market
NABARD	-	National Bank for Agriculture and Rural Development
NBHC	-	National Bulk Handling Corporation
NCDEX	-	National Commodity and Derivative Exchange
NCMSL	-	National Collateral Management Services Limited
NDDB	-	National Dairy Development Board
NGO	-	Non-Governmental Organisation
NMCEIL	-	National Multi Commodity Exchange of India Limited
NSCCL	-	National Securities Clearing Corporation Limited
NSDL	-	National Securities Depository Limited
NSE	-	National Stock Exchange
PCM	-	Professional Clearing Member
PURA	-	Providing Urban Amenities in Rural Areas
SWC	-	State Warehousing Corporations
TCM	-	Trading cum Clearing Members
UNCTAD	-	United Nations Conference on Trade and Development
VSAT	-	Very Small Aperture Terminal
WTO	-	World Trade Organisation

Chapter I

Agribusiness Management

Aim

The aim of this chapter is to:

- introduce the concept of agribusiness
- explain the concept of capital in the business
- explicate the concept of capital management

Objectives

The objectives of this chapter are to:

- explain management in the context of its nature, types, tasks and responsibilities
- elaborate capital management in agri-business
- define management

Learning outcome

At the end of this chapter, you will be able to:

- describe capital management in agribusiness
- understand the scope of agribusiness
- identify the characteristics of an ideal form of organisation

1.1 Introduction

Agribusiness as a concept was born in Harvard University in 1957 with the publication of a book “A concept of Agri-business”, written by John David and A. Gold Berg. It was introduced in Philippines in early 1966, when the University of the Philippines offered an Agribusiness Management (ABM) programme. In 1969, the first Advanced Agribusiness Management seminar was held in Manila.

1.2 Agribusiness

“Agribusiness is the sum total of all operations involved in the manufacture and distribution of farm supplies, production activities on the farm, storage, processing and distribution of farm commodities and items made from them.”

The word agriculture indicates ploughing a field, planting seeds, harvesting crop, milking cows, or feeding livestock. Till date, this was a fairly accurate picture. However, recently agriculture is radically different. Agriculture has evolved into agribusiness and has become a vast and complex system that reaches far beyond the farm to include all those who are involved in bringing food and fibre to consumers. Agribusiness includes not only those that ranch the land, but also the people and firms that provide the inputs, e.g., seed, chemicals, credit, etc., process the output, e.g., milk, grain, meat, etc., manufacture the food products, e.g., ice-cream, bread, breakfast cereals, etc., and transport and sell the food products to consumers, e.g., restaurants, supermarkets.

Agribusiness system has undergone a rapid transformation as new industries have evolved and traditional farming operations have grown larger and more specialised. The transformation did not happen overnight, but came slowly as a response to a variety of forces. Knowing something about how agribusiness came about makes it easier to understand how this system operates today and how it is likely to change in the future.

Initially agriculture being the major venture, it was easy to become a farmer, but productivity was low. Average farmer produced enough food to feed just four people. As a consequence, most farmers were nearly totally self-sufficient. They produced most of the inputs they needed for production, such as seeds, draft animals, feed and simple farm equipment. Farm families processed the commodities they grew to make their own food and clothing. They consumed or used just about everything they produced. The small amount of output not consumed on the farm was sold for cash. These items were used to feed and clothe the minor portion of the country's population that lived in villages and cities. A few agricultural products made their way into the export market and were sold to buyers in other countries.

Farmers found it increasingly profitable to concentrate on production and began to purchase inputs they formerly made themselves. This trend enabled others to build business that focused on meeting the need for inputs used in production agriculture, such as seeds, fencing, and machinery and so on. These farms involved into the industries that make up the “agricultural inputs sector”. Input farms are major part of agribusiness and produce variety of technologically based products that account for approximately 75 percent of all the inputs used in production agriculture.

At the same time the agriculture input sector was evolving, commodity processing and food manufacturing moved off the farm. The form of most commodities like wheat, rice, milk and livestock and so on must be changed to make them more useful and convenient for consumers. For example, consumers would rather buy flour than grind the wheat themselves before baking a cake. They are willing to pay extra for the convenience of buying the processed commodity (flour) instead of the raw agriculture commodity (wheat).

During the same period, technological advance was made in the food preservation method. Until this time, the perishable nature of most agriculture commodities meant that they were available only at harvest. Advance in food processing has made it possible to get those commodities all throughout the year. Today, even most farm families' use purchased food and fibre products rather than doing the processing themselves. The farms that meet the consumer's demand for greater processing and convenience also constitute a major part of agribusiness and are referred to as the processing manufacturing sector.

It is apparent that the definition of agriculture had to be expanded to include more than production. Farmers rely on the input industries to provide the products and service they need to produce agricultural commodities. They also rely on commodity processors, food manufactures, and ultimately food distributors and retailers to purchase their raw agricultural commodities and to process and deliver them to the consumer for final sale. The result is the food and fibre system.

The food and fibre system is increasingly being referred to as “agribusiness”. The term agribusiness represents three part system made up of:

- The agricultural input sector
- The production sector
- The processing-manufacturing sector

To capture the full meaning of the term “agribusiness”, it is important to visualise these three sectors as interrelated parts of a system in which the success of each part depends heavily on the proper functioning of the other two.

1.3 Management

There is no single definition of management. The following are some definitions of management according to various management people.

- Henry Fayol who is considered as the father of principles of management, - “To manage is to forecast, to plan, to organise, to command coordinate and to control.”
- Frederick Winslow Taylor - “Management is knowing exactly what you want men to do and then seeing that they do it in the best and cheapest way.”
- Mary parker - “Management is the art of getting things done through people.”
- Per Drucker - “Management is a multi-purpose organ that manages a business, manages manager and manages worker and work.”
- George Terry - “Management is a distinct process consisting of planning, organising actuating and controlling performance to determine and accomplish the objectives by the use of people and resources.”

After going through the above definitions of management, now it can be defined as getting things done through others/ subordinates. In other words, it is a process of various functions like planning, organising, leading and controlling the business operations in such a manner as to achieve the objectives set by the business firm. It consists of all activities beginning from business planning to its actual survival.

1.4 Nature of Successful Agribusiness

Today, the agribusiness has become very competitive and complex. This is mainly due to changing taste and fashion of the consumers on one hand, and introduction of substitute and cheaper and better competitive goods, on the other. The old dictum, “produce and sells has changed overtime into “produce only what customers want.” In fact, knowing what customers want is never simple. Nevertheless, a farmer operator/farmer manager has to give proper thought to this consideration in order to make his business a successful one. The important requisites for success in a modern business are mentioned below.

1.4.1 Clean Objectives

Determination of objectives is one of the most essential pre-requisite for the success of business. The objectives set forth should be realistic and clearly defined. Finally, all the business efforts should be geared to achieve the set objectives. In a way, objectives are destination points for an agribusiness. As a traveler one must know where he/she has to reach, i.e., destination. Similarly, business also must set objectives.

1.4.2 Planning

In simple words, planning is a pre-determined line of action. The accomplishment of objectives set, to a great extent, depends upon planning itself. It is said that it does not take time to do something but it takes time to decide what and how to do. Planning is a proposal based on past experience and present trends for future actions. In other words, it is an analysis of a problem and finding out the solutions to solve them with reference to the objective of the farm.

1.4.3 Sound Organisation

An organisation is the art or science of building up a systematical whole by a number of, but related parts. Just as human frame is build up by various body parts like heart, liver, brain, legs, etc. Similarly, organisation of business is a harmonious combination of men, machine, material, money management, etc., so that all these could work jointly as one unit, i.e., “business” and “the agribusiness”. Organisation is, thus such a systematic combination of various related parts for achieving a defined objective in an effective manner.

1.4.4 Research

As indicated earlier, today the agricultural production philosophy is “produce what the consumer wants”. “Consumers behavior” is influenced by variety of factors like cultural, social, personal and psychological factors. The business needs to know and appreciate these factors and then function accordingly. The knowledge of these factors is acquired through market research. Research is a systematic search for new knowledge. Market research enables a business in finding out new methods of production, improving the quality of product and developing new products as per the changing tastes and wants of the consumers.

1.4.5 Finance

Finance is said to be the life-blood of business enterprise. It brings together the land, labour, machine and raw materials into production. Agribusiness should estimate its financial requirements adequately, so that it may keep the business wheel on moving. Therefore, proper arrangements should be made for securing the required finance for the enterprise.

1.4.6 Proper Plant Location, Layout and Size

The success of agribusiness depends to a great extent on the location where it is set up. Location of the business should be convenient from various points of view such as, availability of required infrastructure facilities, availability of inputs like raw materials, skill labour, nearer to the market, etc. Hence, it is necessary to take sufficient care in the initial stages to select suitable location for the business. The sign of the business is also important, because the requirement for infrastructural facilities and inputs varies as per the size of the business. The requirement for raw materials, for example, will be less in a smaller sized firm than a larger size firm.

1.4.7 Efficient Management

One of the reasons for failure of business often attributed to as their poor management or inefficient management. The one man, i.e., the proprietor may not be equally good in all areas of the business. Efficient businessman can make proper use of available resources for achieving the objectives set for the business.

1.4.8 Harmonious Relations with the Workers

In an agribusiness organisation, the farmer operator occupies a distinct place because he/she is the main living factor among all factors of production. In fact, it is the human factor that makes the use of other non-human factors like land, machine, money, etc. Therefore, for successful operation of business, there should be cordial and harmonious relations maintained with the workers/labours to get their full cooperation in achieving business activities.

1.4.9 Scope of Agribusiness

It was already indicated that agribusiness is a complex, system of input sector, production sector, processing manufacturing sector and transport and marketing sector. Therefore, it is directly related to industry, commerce and trade. Industry is concerned with the production of commodities and materials, while commerce and trade are concerned with their distribution.

1.4.10 Industry

Industry refers to the processes of extraction and production of goods meant for final consumption or use by an individual or by another industry for its production. Thus, goods used by the final or ultimate consumers are called “consumer goods”, such as edible oils, fruit jams, papaya, pickles, etc.

Types of industries

According to nature, the industries are broadly classified into following types:

- **Extractive industries:** These industries are concerned with the extraction; and utilisation of natural resources. Examples, fishing, fruit gathering, agro-based industries, forestation, etc.
- **Genetic industries:** These industries include breeding of plants, seeds, cattle breeding farm, fish hatcheries, and poultry farms. Of course, factors like nature, climate and environment play a dominant role in these industries, yet human skill involved in their production cannot be ignored. For example, intensive agriculture is possible with greater amount of capital and larger number of workers.
- **Manufacturing industries:** These industries are engaged in the conversion of raw material or semi-finished goods produced in the extractive industries. Some prominent examples are cotton textile industry, spinning and weaving mills, etc. Manufacturing industries can further be classified into five types:
 - Analytical industry
 - Processing industry
 - Synthetic industry
 - Service industry
 - Assembly industry

1.5 Commerce

Commerce is another major component of agribusiness. It includes all those activities which are necessary to bring goods and services from the place of their production to the place of their consumption. Thus, it includes the buying and selling of goods and service and all those activities, which facilitate trade, such as storing, grading, packaging, financing, insurance and transportation. In simple words, commerce includes trade and aid to trade. The principal functions of trade (commerce) are to remove the hindrance of person, place, time exchange, knowledge, etc., and ensure a free and smooth flow of goods from the producers to the consumers.

Trade in fact is a branch of commerce itself. In a way, it is the final state of business activity involving sale and purchase of commodities or goods. It does not include trade like transportation, insurance, banking, finance, etc. On the basis of its coverage and volume, trade is normally classified into the following types:

- On the basis of volume
 - Wholesale trade
 - Retail trade
- On the basis of coverage
 - Regional trade
 - National trade

1.6 Management – Nature, Types, Tasks and Responsibilities

Traditional concept of management restricted management to getting things done by others. According to modern view, management covers wide range of business-related activities. It is considered as a process, an activity, a discipline and effort to coordinate control and direct individual and group efforts towards attaining the cherished goal of the business. Management may also play the role as science, as an art, as a profession and as a social process.

As a participant in any management programme, one may either be a practising manager or aspiring to be one. Responsibility and performance are the main keywords in defining a manager's role. Performance implies action, and action necessitates taking specific steps and doing the following tasks to produce desired results:

- Providing purposeful direction to the farm.
- Managing survival and growth.
- Maintaining farm's efficiency.
- Meeting the challenge of increasing competition.

- Managing for innovation.
- Coping with growing technological sophistication.
- Maintaining relation with various society segments.

An agribusiness is a social institution. Its very existence is dependent upon its harmonious relationship with various segments of the society. This harmonious relationship originates from the farm's positive responsiveness to the various segments and is closely associated with the tasks a manager is expected to perform. The process of evolving this mutual relationship between agribusiness farms and various interest groups begins by acknowledging the existence of the responsibilities of manager. These responsibilities are towards consumers, suppliers, distributors, workers, financiers, government and the society.

1.7 Importance of Agribusiness

Agribusiness deals with agricultural sector and also with the portion of industrial sector, which is the major source of farm inputs like fertilizers, pesticides, machines, processing and post-harvest technologies. It suggests and directs the government and private sectors for development of sub-sectors. It contributes a good part of the national economy.

1.7.1 Dimensions of Agribusiness

Agribusiness has various dimensions, such as follows:

- Agribusiness deals with different components of both agricultural and industrial sector, their interdependence and influence of one sector on other.
- It deals with the decision-making process of farm, either private or government in relation to production and selling aspects.
- It deals with strengths and weaknesses of a project and thereby their viability in competing enterprises.
- Agribusiness is always market-oriented.
- Structure of Agribusiness is generally vertical and it comprises the following:
 - Government. policies and programmes regarding raising of crops or taking enterprises, etc.,
 - Research and extension programmes of the government.
 - Farm supplies or inputs
 - Agricultural production
 - Processing
 - Marketing of agricultural products

1.7.2 Structure of Agribusiness

Agribusiness sector provides crucial backward and forward linkages. It involves the following two important sectors.

- Farm input sector: It deals with agro-based industries providing seeds, fertilizers, feed, chemicals, etc. The industries supplying machinery or equipment, implements and petroleum, etc., are also important in this regard.
- Farm product sector: It deals with production and distribution of farm commodities. Large cooperative bodies also exist in agribusiness, but they are few in number, whereas small-scaled agro industries are large in number. The vertical integration of a farm is very common in poultry, fruit and vegetable farms.

1.8 Capital Management in Agribusiness

Capital is not an original factor like land, but it is the result of man-made efforts. Man makes the capital goods to produce other goods and services, which provides income. Examples are machinery, raw material, transport equipment, dams, etc.

- Capital is produced means of production
- Karl Marx in his book “Das Kapital” defined “capital is crystallised labour.”

All capital is necessarily wealth, but all wealth is not necessarily capital. Money if used for the purchase of capital goods, then only it becomes capital. Example, residential buildings are the wealth of the individuals, but these are not considered as capital. However, rent from that building is capital.

1.8.1 Characteristics of Capital

The following are the characteristics of capital:

- Capital is not a free gift of nature. It is the resultant of the man-made efforts.
- Capital is productive, as it helps in enhancing the overall productivity of all the resources employed in the production process. Invested capital provides interest for its productive capacity. Farm machinery, when used with skilled labourers enhances the productivity of land. Irrigation dam, by providing water can bring out complementary effect on the productivity of other resources like fertilizers, seeds, etc.
- Capital is prospective, as its accumulation reward income in future. Example, savings and investment in the economy leads to growth and development of the economy due to accumulation of capital over time.
- Capital is highly mobile among factors of production. Example, tractor.
- Capital is supply-elastic, as its supply can be altered according to the need. Based on demand, supply of the capital goods can be changed.

Economists speak of capital as wealth, which is used in the production of additional wealth. Business men frequently use the word capital in the sense of the total assets employed in a business. In law, capital usually means capital stock. A financial manager determines the proper capital structure for his firm. He determines the mix of debt and equity stock. The balancing of the capital expenditures against estimated savings in future requires careful analysis while dealing with the financial aspects of the company's operations. A careful balancing of facilities at each stage of the productive process is necessary to avoid higher operating costs and delay caused by facility bottlenecks and the freezing of capital in idle equipment.

Long-range planning for the capital management/expenditures is essential due to the following reasons:

- It helps in fitting yearly corporate expansion on orderly plan of growth by adopting capital expenditures to anticipated sales requirements.
- It assists in testing the profitability of capital expenditure over a period of time as against in the next following year.
- It facilitates in contracting for plant sites, construction, water or power requirements, etc., in advance.
- Aids to assess the necessary funds provided by internal or external sources.
- Assist in examining the impact of capital expenditures on depreciation, insurance expenses and other fixed expenses in advance in order to make the necessary allowance for them.

1.9 Working Capital

It is regarded as the life blood of a business, because its efficient management will lead to success of business and its inefficient management will lead to failure of the business.

Definitions

- Working capital can be defined as that portion of the assets in a business, which is used to meet the day-to-day/ current operations of the business.
- The assets formed due to the working capital are relatively temporary in nature.
- In accounting, working capital is defined as difference between inflow and outflow of funds. It is otherwise called as net cash flow per year.

$$\text{Net cash flow per year} = \text{Cash inflow} - \text{Cash outflow.}$$

- Working capital is the excess of current assets over current liabilities of a business. It is otherwise called as net current assets or net working capital/year.
- Working capital may also be defined as total current assets employed before operating the business. It is also called gross working capital.
- Working capital is also called as circulating capital. At the beginning, cash is provided by owners and lenders. A part of capital is invested on the fixed assets and the remaining cash is used to meet the current requirements like purchase of services, raw material or merchandise. By selling the products from the enterprise, cash will be received, which is used for the expansion of the business. This process indicates the circular flow of working capital, so named as circulating capital.

1.9.1 Types of Working Capital

The types of working capital are mentioned as follows:

- Net working capital: Net working capital is the difference between the current assets and current liabilities of a business. This concept enables a firm to determine how much is left for operational requirements.

$$\text{Net working capital per year} = \text{Current assets} - \text{Current liabilities}$$

- Gross working capital: It is the total amount of the funds invested in the business or the total current assets employed in the business. It helps to plan and control the funds usage in the business and also helps in identifying the prioritised areas of investment.
- Permanent working capital: This is the minimum amount of current assets, which is needed to conduct a business even during the dull/slack season of the year. It is the amount of the funds required to produce the goods and services, which are necessary to satisfy demand at a particular point. It represents the current assets which are required on a continuous basis over the entire year. It is maintained as the medium to carry on operations at any time.
- Temporary working capital: It represents the additional assets which are required at different times during the operating year like additional inventory, extra cash, etc.
- Balance sheet working capital: The working capital that is calculated from the items appears in the balance sheet is called balance sheet working capital. Eg., Gross working capital and Net working capital.
- Cash working capital: This will be calculated from the items appear in profit and loss account. It will show the real flow of money at a particular point of time and hence it is considered as most realistic approach in working capital management. It forms the basis for operational cycle concept and gained more importance in the financial management. The major reason is that cash working capital indicates the adequacy of the cash flow in the business, hence considered as prerequisite of the business.
- Negative working capital: It arises when current liabilities are more than current assets. Such situation arises when firm is nearing a crisis of some magnitude.

1.9.2 Tests of Working Capital Policy

The four tests of working capital policy are as follows:

- **Level of working capital:** It is the test to be done in a careful manner by observing the movements of working capital in a firm in successive periods of production activity. If a management can develop a pattern of flow of working capital in these movements, this pattern would serve as a guide to its changing requirements in relation to certain decisions which are made from time-to-time.
- **Structural health:** The relative health of the various components of the working capital should be considered from the point of view of liquidity. It is necessary to draw structural relationships in respect of each component constituting the current assets.
- **Circulation:** This is one of the important features of the liquid position and involves the natural activity cycle of an enterprise. Ratios may be calculated to show the average period required for the conversion of raw materials into finished goods into sales, and sales into cash.
- **Liquidity:** A more comprehensive test to measure liquidity may be adopted by using the following ratios by expressing them in the percentages of:
 - Working capital to current assets
 - Stocks to current assets
 - Liquid resources to current assets

1.10 Forms of Business Organisations

Business concerns are established with the objective of making profits. They can be established either by one person or by a group of persons in the private sector by the government or other public bodies in the public sector. A business started by only one person is called sole proprietorship.

Thus, there are three legal forms of agribusiness organisation:

- Sole Proprietorship
- Partnership Firm
- Joint Stock Company or Corporation

Forms of business organisation are legal forms in which a business enterprise may be organised and operated.

These forms of organisation refer to such aspects as ownership, risk bearing, control and distribution of profit. Any one of the above mentioned forms may be adopted for establishing a business, but usually one form is more suitable than other for a particular enterprise. The choice will depend on various factors like the nature of business, the objective, the capital required, the scale of operations, state control, legal requirements and so on.

Out of the forms of private ownership listed above the first three forms (1, 2, and 3) may be described as non-corporate and the remaining (4 and 5) as corporate forms of ownership. The basic difference between these two categories is that a non-corporate form of business can be started without registration, while a corporate form of business cannot be set up without registration under the laws governing their functioning.

1.10.1 Characteristics of an Ideal Form of Organisation

Before we discuss the features, merits and demerits of different forms of organisation, let us know the characteristics of an ideal form of organisation. The characteristics of an ideal form of organisation are found in varying degrees in different forms of organisation. The entrepreneur, while selecting a form of organisation for his business, should consider the following factors.

- **Ease of formation:** It should be easy to form the organisation. The formation should not involve many legal formalities and it should not be time consuming.
- **Adequacy of capital:** The form of organisation should facilitate the raising of the required amount of capital at a reasonable cost. If the enterprise requires a large amount of capital, the preconditions for attracting capital from the public are safety of investment, fair return on investment and transferability of the holding.

- **Limit of liability:** A business enterprise may be organised on the basis of either limited or unlimited liability. From the point of view of risk, limited liability is preferable. It means that the liability of the owner as regards the debts of the business is limited only to the amount of capital agreed to be contributed by him. Unlimited liability means that even the owners' personal assets will be liable to be attached for the payment of the business debts.
- **Direct relationship between ownership, control and management:** The responsibility for management must be in the hands of the owners of the firm. If the owners have no control on the management, the firm may not be managed efficiently.
- **Continuity and stability:** Stability is essential for any business concern. Uninterrupted existence enables the entrepreneur to formulate long-term plans for the development of the business concern.
- **Flexibility of operations:** Another ideal characteristic of a good form of organisation is flexibility of operations. Changes may take place either in market conditions or the states' policy toward industry or in the conditions of supply of various factors of production. The nature of organisation should be such as to be able to adjust itself to the changes without much difficulty.

Summary

- “Agribusiness is the sum total of all operations involved in the manufacture and distribution of farm supplies, production activities on the farm, storage, processing and distribution of farm commodities and items made from them.”
- Agribusiness system has undergone a rapid transformation as new industries have evolved and traditional farming operations have grown larger and more specialised.
- The food and fiber system is increasingly being referred to as “agribusiness”.
- Determination of objectives is one of the most essential pre-requisite for the success of business.
- The accomplishment of objectives set, to a great extent, depends upon planning itself.
- Planning is a proposal based on past experience and present trends for future actions.
- An organisation is the art or science of building up a systematical whole by a number of, but related parts.
- Organisation is, thus such a systematic combination of various related parts for achieving a defined objective in an effective manner.
- “Consumer's behavior" is influenced by variety of factors like cultural, social, personal and psychological factors.
- Market research enables a business in finding out new methods of production, improving the quality of product and developing new products as per the changing tastes and wants if the consumers.
- Agribusiness should estimate its financial requirements adequately, so that it may keep the business wheel on moving.
- The success of agribusiness depends to a great extent on the location where it is set up.
- The sign of the business is also important because the requirement for infrastructural facilities and inputs varies as per the size of the business.
- Efficient businessman can make proper use of available resources for achieving the objectives set for the business.
- It was already indicated that agribusiness is a complex, system of input sector, production sector, processing manufacturing sector and transport and marketing sector.
- Industry refers to the processes of extraction and production of goods meant for final consumption or use by an individual or by another industry for its production.

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Self Assessment

1. What is a systematic search for new knowledge?
 - a. Organisation
 - b. Research
 - c. Agribusiness
 - d. Management
2. What is said to be the life-blood of business enterprise?
 - a. Finance
 - b. Industry
 - c. Worker
 - d. Retail

3. Match the following

1. Extractive industries	A. These industries include breeding of plants, seeds, cattle breeding farm, fish hatcheries, and poultry farms.
2. Genetic industries	B. It arises when current liabilities are more than current assets.
3. Manufacturing industries	C. These industries are engaged in the conversion of raw material or semi finished goods produced in the extractive industries.
4. Negative working capital	D. These industries are concerned with the extraction; and utilisation of natural resources.

- a. 1-D, 2-A, 3-C, 4-B
 - b. 1-C, 2-B, 3-A, 4-D
 - c. 1-B, 2-A, 3-D, 4-C
 - d. 1-A, 2-C, 3-B, 4-D
4. Which of the following is calculated from the items appear in profit & loss account?
 - a. Temporary working capital
 - b. Balance sheet working capital
 - c. Negative working capital
 - d. Cash working capital
5. _____ is the minimum amount of current assets which is needed to conduct a business even during the dull/slack season of the year.
 - a. Gross working capital
 - b. Net working capital
 - c. Permanent working capital
 - d. Current assets

6. The assets formed due to the working capital are relatively _____ in nature.
 - a. permanent
 - b. temporary
 - c. circulating
 - d. efficient

7. Which of the following statements is false?
 - a. Agri-business is always market oriented.
 - b. Structure of Agri-business is generally vertical.
 - c. Capital is not a free gift of nature.
 - d. Capital is immobile among factors of production.

8. According to whom is management the art of getting things done through people?
 - a. Henry Fayol
 - b. Freederick Winslow Taylor
 - c. Mary parker
 - d. George Terry

9. _____ is a proposal based on past experience and present trends for future actions.
 - a. Planning
 - b. Sound Organisation
 - c. Research
 - d. Finance

10. Which of the following will not fall under manufacturing industries?
 - a. Trade industry
 - b. Processing industry
 - c. Synthetic industry
 - d. Service industry

Chapter II

Agricultural Marketing

Aim

The aim of this chapter is to:

- introduce the components of market structure
- explain the market structure
- explicate advantages of grading

Objectives

The objectives of this chapter are to:

- elucidate the concept of grading and standardisation
- elaborate optimisation of resource use and output management
- explain widening of market

Learning outcome

At the end of this chapter, you will be able to:

- recognise the difference in marketing of agricultural and manufactured goods
- describe the components of market
- identify factors affecting capital requirements of an agricultural marketing firm

2.1 Introduction

The word market comes from the Latin word 'marcatus', which means merchandise or trade or a place where business is conducted. The word 'market' has been widely and variedly used to mean:

- A place or a building where commodities are bought and sold, e.g., super market
- Potential buyers and sellers of a product, e.g., wheat market and cotton market
- Potential buyers and sellers of a country or region, e.g., Indian market and Asian market
- Organisation which provides facilities for exchange of commodities, e.g., Bombay stock exchange
- A phase or a course of commercial activity, e.g., a dull market or bright market

A market includes any place where persons assemble for the sale or purchase of commodities intended for satisfying human needs. Other terms used for describing markets in India are Haats, Painths, Shandies and Bazar. The word market in the economic sense carries a broad meaning. Some of the definitions of market are given as follows:

- A market is the sphere within which price determining forces operate.
- A market is the area within which the forces of demand and supply converge to establish a single price.
- The term market means not a particular market place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such a free intercourse with one another that the prices of the same goods tend to equality, easily and quickly.
- Market means a social institution which performs activities and provides facilities for exchanging commodities between buyers and sellers.
- Economically interpreted, the term market refers, not to a place, but to a commodity or commodities and buyers and sellers who are in free intercourse with one another.

2.2 Components of a Market

For a market to exist, certain conditions must be satisfied. These conditions should be both necessary and sufficient. They may also be termed as the components of a market.

- The existence of a good or commodity for transactions (physical existence is, however, not necessary).
- The existence of buyers and sellers.
- Business relationship or intercourse between buyers and sellers.
- Demarcation of area such as place, region, country or the whole world. The existence of perfect competition or a uniform price is not necessary.

2.3 Dimensions of a Market

There are various dimensions of any specified market. These dimensions are as follows:

- Location
- Area or coverage
- Time span
- Volume of transactions
- Nature of transactions
- Number of commodities
- Degree of competition
- Nature of commodities
- Stage of marketing
- Extent of public intervention
- Type of population served
- Accrual of marketing margins

Any individual market may be classified in a twelve-dimensional space.

2.4 Market Structure

By the term market structure, we refer to the size and design of the market. It also includes the manner of the operation of the market. Some of the expressions describing the market structure are:

- Market structure refers to those organisational characteristics of a market which influence the nature of competition and pricing, and affect the conduct of business firms.
- Market structure refers to those characteristics of the market which affect the traders' behaviour and their performances.
- Market structure is the formal organisation of the functional activity of a marketing institution.

An understanding and knowledge of the market structure is essential for identifying the imperfections in the performance of a market.

2.5 Components of Market Structure

The components of the market structure, which together determine the conduct and performance of the market, are discussed in the paragraphs given below.

2.5.1 Concentration of Market Power

The concentration of market power is an important element determining the nature of competition and consequently of market conduct and performance. This is measured by the number and size of firms existing in the market. The extent of concentration represents the control of an individual firm or a group of firms over the buying and selling of the produce. A high degree of market concentration restricts the movement of goods between buyers and sellers at fair and competitive prices, and creates an oligopoly situation in the market.

2.5.2 Degree of Product Differentiation

Whether or not the products are homogeneous, it will affect the market structure. If products are homogeneous, the price variations in the market will not be wide. When products are heterogeneous, firms have the tendency to charge different prices for their products. Everyone tries to prove that his product is superior to the products of others.

2.5.3 Conditions for Entry of Firms in the Market

Another dimension of the market structure is the restriction, if any, on the entry of firms in the market. Sometimes, a few big firms do not allow new firms to enter the market or make their entry difficult by their dominance in the market. There may also be some government restrictions on the entry of firms.

2.5.4 Flow of Market Information

A well-organised market intelligence information system helps all the buyers and sellers to freely interact with one another in arriving at prices and striking deals.

2.5.5 Degree of Integration

The behaviour of an integrated market will be different from that of a market where there is no integration either among the firms or of their activities. Firms plan their strategies in respect of the methods to be employed in determining prices, increasing sales, co-coordinating with competing firms and adopting predatory practices against rivals or potential entrants. The structural characteristics of the market govern the behaviour of the firms in planning strategies for their selling and buying operations.

2.6 Agricultural Marketing

The term agricultural marketing is composed of two words, such as agriculture and marketing. Agriculture, in the broadest sense, means activities aimed at the use of natural resources for human welfare, i.e., it includes all the primary activities of production. However, generally, it is used to mean growing and/or raising crops and livestock. Marketing connotes a series of activities involved in moving the goods from the point of production to the point of consumption. It includes all the activities involved in the creation of time, place, form and possession utility.

According to Thomsen, the study of agricultural marketing comprises all the operations, and the agencies conducting them, involved in the movement of farm-produced foods, raw materials and their derivatives, such as textiles from the farms to the final consumers, and the effects of such operations on farmers, middlemen and consumers. This definition does not include the input side of agriculture.

Agricultural marketing is the study of all the activities, agencies and policies involved in the procurement of farm inputs by the farmers and the movement of agricultural products from the farms to the consumers. The agricultural marketing system is a link between the farm and the non-farm sectors. It includes the organisation of agricultural raw materials supply to processing industries, the assessment of demand for farm inputs and raw materials, and the policy relating to the marketing of farm products and inputs.

According to the National Commission on Agriculture (XII Report), agricultural marketing is a process which starts with a decision to produce a saleable farm commodity, and it involves all the aspects of market structure or system, both functional and institutional, based on technical and economic considerations, and includes pre-and post-harvest operations, assembling, grading, storage, transportation and distribution.

2.6.1 Objectives of the Study

A study of the agricultural marketing system is necessary to an understanding of the complexities involved and the identification of bottlenecks with a view to providing efficient services in the transfer of farm products and inputs from producers to consumers. An efficient marketing system minimises costs, and benefits all the sections of the society.

The expectations from the system vary from group to group; and, generally, the objectives are in conflict. The efficiency and success of the system depends on how best these conflicting objectives are reconciled.

2.6.2 Producers

Producer-farmers want the marketing system to purchase their produce without loss of time and provide the maximum share in the consumer's rupee. They want the maximum possible price for their surplus produce from the system. Similarly, they want the system to supply them the inputs at the lowest possible price.

2.6.3 Consumers

The consumers of agricultural products are interested in a marketing system that can provide food and other items in the quantity and of the quality required by them at the lowest possible price. However, this objective of marketing for consumers is contrary to the objective of marketing for the farmer-producers.

2.6.4 Market Middlemen and Traders

Market middlemen and traders are interested in a marketing system, which provides them a steady and increasing income from the purchase and sale of agricultural commodities. This objective of market middlemen may be achieved by purchasing the agricultural products from the farmers at low prices and selling them to consumers at high prices.

2.6.5 Government

The objectives and expectations of all the three groups of society, such as producers, consumers and market middlemen conflict with one another. All the three groups are indispensable to society. The government has to act as a watchdog to safeguard the interests of all the groups associated in marketing. It tries to provide the maximum share to the producer in the consumer's rupee; food of the required quality to consumers at the lowest possible price; and enough margin to market middlemen, so that they may remain in the trade and not think of going out of trade and jeopardise the whole marketing mechanism. Thus, the government wants that the marketing system should be such as it may bring about the overall welfare to all the segments of society.

2.7 Scope and Subject Matter of Agricultural Marketing

Agricultural marketing in a broader sense is concerned with the marketing of farm products produced by farmers and of farm inputs required by them in the production of these farm products. Thus, the subject of agricultural marketing includes product marketing as well as input marketing.

The subject of output marketing is as old as civilisation itself. The importance of output marketing has become more conspicuous in the recent past with the increased marketable surplus of the crops following the technological breakthrough. The farmers produce their products for the markets. Farming becomes market-oriented. Input marketing is a comparatively new subject. Farmers in the past used such farm sector inputs as local seeds and farmyard manure. These inputs were available with them; the purchase of inputs for production of crops from the market by the farmers was almost negligible. The importance of farm inputs-improved seeds, fertilizers, insecticides and pesticides, farm machinery, implements and credit-in the production of farm products has increased in recent years. The new agricultural technology is input-responsive.

Thus, the scope of agricultural marketing must include both product marketing and input marketing. In this chapter, the subject matter of agricultural marketing has been dealt with; both from the theoretical and practical points of view. It covers what the system is, how it functions, and how the given method or techniques may be modified to get the maximum benefits. Specially, the subject of agricultural marketing includes marketing functions, agencies, channels, efficiency and costs, price spread and market integration, producer's surplus, government policy and research, training and statistics on agricultural marketing.

2.8 Difference in Marketing of Agricultural and Manufactured Goods

The marketing of agricultural commodities is different from the marketing of manufactured commodities, because of the special characteristics of the agricultural sector (demand and supply) which have a bearing on marketing. Because of these characteristics, the subject of agricultural marketing has been treated as a separate discipline and this fact makes the subject somewhat complicated. These special characteristics of the agricultural sector affect the supply and demand of agricultural products in a manner different from that governing the supply and demand of manufactured commodities. The special characteristics which the agricultural sector possesses, and which are different from those of the manufactured sector are discussed below.

2.8.1 Perishability of the Product

Most farm products are perishable in nature; but the period of their perishability varies from a few hours to a few months. To a large extent, the marketing of farm products is virtually a race with death and decay. Their perishability makes it almost impossible for producers to fix the reserve price for their farm-grown products. The extent of perishability of farm products may be reduced by the processing function, but they cannot be made non-perishable like manufactured products. Nor can their supply be made regular.

2.8.2 Seasonality of Production

Farm products are produced in a particular season; they cannot be produced throughout the year. In the harvest season, prices fall. But the supply of manufactured products can be adjusted or made uniform throughout the year. Their prices therefore remain almost the same throughout the year.

2.8.3 Bulkiness of Products

The characteristic of bulkiness of most farm products makes their transportation and storage difficult and expensive. This fact also restricts the location of production to somewhere near the place of consumption or processing. The price spread in bulky products is higher, because of the higher costs of transportation and storage.

2.8.4 Variation in Quality of Products

There is a large variation in the quality of agricultural products, which makes their grading and standardisation somewhat difficult. There is no such problem in manufactured goods, for they are products of uniform quality.

2.8.5 Irregular Supply of Agricultural Products

The supply of agricultural products is uncertain and irregular, because of the dependence of agricultural production on natural conditions. With the varying supply, the demand remaining almost constant, the prices of agricultural products fluctuate substantially.

2.8.6 Small Size of Holdings and Scattered Production

Farm products are produced throughout the length and breadth of the country and most of the producers are of small size. This makes the estimation of supply difficult and creates problems in marketing.

2.8.7 Processing

Most of the farm products have to be processed before their consumption by the ultimate consumers. This processing function increases the price spread of agricultural commodities. Processing firms enjoy the advantage of monopsony, oligopsony or duopsony in the market. This situation creates disincentives for the producers and may have an adverse effect on production in the next year.

2.9 Importance of Agricultural Marketing

Agricultural marketing plays an important role not only in stimulating production and consumption, but in accelerating the pace of economic development. Its dynamic functions are of primary importance in promoting economic development. For this reason, it has been described as the most important multiplier of agricultural development.

The importance of agricultural marketing in economic development has been indicated in the paragraphs that follow.

2.9.1 Optimisation of Resource Use and Output Management

An efficient agricultural marketing system leads to the optimisation of resource use and output management. An efficient marketing system can also contribute to an increase in the marketable surplus by scaling down the losses arising out of inefficient processing, storage and transportation. A well-designed system of marketing can effectively distribute the available stock of modern inputs, and thereby sustain a faster rate of growth in the agricultural sector.

2.9.2 Increase in Farm Income

An efficient marketing system ensures higher levels of income for the farmers by reducing the number of middlemen or by restricting the commission on marketing services and the malpractices adopted by them in the marketing of farm products. An efficient system guarantees the farmers better prices for farm products and induces them to invest their surpluses in the purchase of modern inputs, so that productivity and production may increase. This again results in an increase in the marketed surplus and income of the farmers. If the producer does not have an easily accessible market-outlet where he can sell his surplus produce, he has little incentive to produce more. The need for providing adequate incentives for increased production is, therefore, very important, and this can be made possible only by streamlining the marketing system.

2.9.3 Widening of Markets

A well-knit marketing system widens the market for the products by taking them to remote corners both within and outside the country, i.e., to areas far away from the production points. The widening of the market helps in increasing the demand on a continuous basis, and thereby guarantees a higher income to the producer.

2.9.4 Growth of Agro-based Industries

An improved and efficient system of agricultural marketing helps in the growth of agro-based industries and stimulates the overall development process of the economy. Many industries depend on agriculture for the supply of raw materials.

2.9.5 Price Signals

An efficient marketing system helps the farmers in planning their production in accordance with the needs of the economy. This work is carried out through price signals.

2.9.6 Adoption and Spread of New Technology

The marketing system helps the farmers in the adoption of new scientific and technical knowledge. New technology requires higher investment and farmers would invest only, if they are assured of market clearance.

2.9.7 Employment

The marketing system provides employment to millions of persons engaged in various activities, such as packaging, transportation, storage and processing. Persons like commission agents, brokers, traders, retailers, weighmen, hamals, packagers and regulating staff are directly employed in the marketing system. This apart, several others find employment in supplying goods and services required by the marketing system.

2.9.8 Addition to National Income

Marketing activities add value to the product thereby increasing the nation's gross national product and net national product.

2.9.9 Better Living

The marketing system is essential for the success of the development programmes which are designed to uplift the population as a whole. Any plan of economic development that aims at diminishing the poverty of the agricultural population, reducing consumer food prices, earning more foreign exchange or eliminating economic waste has, therefore, to pay special attention to the development of an efficient marketing for food and agricultural products.

2.9.10 Creation of Utility

Marketing is productive, and is as necessary as the farm production. It is, in fact, a part of production itself, for production is complete only when the product reaches a place in the form and at the time required by the consumers. Marketing adds cost to the product; but, at the same time, it adds utilities to the product. The following four types of utilities of the product are created by marketing:

- **Form utility:** The processing function adds form utility to the product by changing the raw material into a finished form. With this change, the product becomes more useful than it is in the form in which it is produced by the farmer. For example, through processing, oilseeds are converted into oil, sugarcane into sugar, cotton into cloth and wheat into flour and bread. The processed forms are more useful than the original raw materials.
- **Place utility:** The transportation function adds place utility to products by shifting them to a place of need from the place of production. Products command higher prices at the place of need than at the place of production because of the increased utility of the product.
- **Time utility:** The storage function adds time utility to the products by making them available at the time when they are needed.
- **Possession utility:** The marketing function of buying and selling helps in the transfer of ownership from one person to another. Products are transferred through marketing to persons having a higher utility from persons having a low utility.

2.10 Marketing Functions

Any single activity performed in carrying a product from the point of its production to the ultimate consumer may be termed as a marketing function. A marketing function may have any one or combination of three dimensions, viz., time, space and form.

The marketing functions involved in the movement of goods from the producer to its ultimate consumer vary from commodity to commodity, market-to-market, the level of economic development of the country or region, and the final form of the consumption. The marketing functions may be classified in various ways. For example, Thomsen has classified the marketing functions into three broad groups. These are:

Primary Functions

- Assembling or procurement
- Processing
- Dispersion or distribution
- Secondary Functions
 - Packing or packaging
 - Transportation
 - Grading, standardisation and quality control
 - Storage and warehousing
 - Price determination or discovery
 - Risk taking
 - Financing
 - Buying and selling
 - Demand creation
 - Dissemination of market
 - Information
- Tertiary Functions
 - Banking
 - Insurance
 - Communications-posts & telegraphs
 - Supply of energy-electricity

2.11 Grading and Standardisation

Grading and standardisation is a marketing function which facilitates the movement of produce. Without standardisation the rule of caveat emptor (let the buyer beware) prevails; and there is confusion and unfairness as well. Standardisation is a term used in a broader sense. Grade standards for commodities are laid down first and then the commodities are sorted out according to the accepted standards.

Products are graded according to quality specifications. However, if these quality specifications vary from seller to seller, there would be a lot of confusion about its grade. The top grade of one seller may be inferior to the second grade of another. This is why buyers lose confidence in grading. To avoid this eventuality, it is necessary to have fixed grade standards which are universally accepted and followed by all in the trade.

2.11.1 Meaning

Standardisation means the determination of the standards to be established for different commodities. Pyle has defined standardisation as the determination of the basic limits on grades or the establishment of model processes and methods of producing, handling and selling goods and services.

Standards are established on the basis of certain characteristics, such as weight, size, colour, appearance, texture, moisture content, staple length, amount of foreign matter, ripeness, sweetness, taste, chemical content, etc. These characteristics, on the basis of which products are standardised, are termed grade standards. Thus, standardisation means making the quality specifications of the grades uniform among buyers and sellers over space and over time.

Grading means the sorting of the unlike produces into different lots according to the quality specifications laid down. Each lot has substantially the same characteristics in so far as quality is concerned. It is a method of dividing products into certain groups or lots in accordance with predetermined standards. Grading follows standardisation. It is a sub-function of standardisation.

2.11.2 Types of Grading

Grading may be done on the basis of fixed standards or variable standards. It is of three types which are discussed in the paragraphs below.

Fixed grading/Mandatory grading

This means sorting out of goods according to the size, quality and other characteristics which are of fixed standards. These do not vary over time and space. It is obligatory for a person to follow these grade standards, if he wants to sell graded products. For a number of agricultural commodities, grade standards have been fixed by the Agricultural Marketing Advisor, Government of India, and it is compulsory to grade the produce according to these grade specifications. Individuals are not free to change these standards. The use of mandatory standards is compulsory for the export of the agricultural commodities to various countries.

Permissive/Variable grading

The goods are graded under this method according to standards, which vary over time. The grade specifications in this case are fixed over time and space, but changed every year according to the quality of the produce in that year. Under this method, individual choice for grading is permitted. In India, grading by this method is not permissible.

Centralised/Decentralised Grading

Based on the degree of supervision exercised by the government agencies on grading of various farm products, the programmes can be categorised into centralised and decentralised grading. Under the centralised grading system, an authorised packer either sets up his own laboratory manned by qualified chemists or seeks access to an approved grading laboratory set up for the purpose by the state authorities/co-operatives/associations/private agencies. Grading in respect of commodities, such as ghee, butter and vegetable oils where elaborate testing facilities are needed for checking purity and assessing quality has been placed under centralised grading system. In this system, the Directorate of Marketing and Inspection exercises close supervision on grading work of approved chemists through periodical inspection of the grading stations and the quality of the graded produce.

The decentralised grading system is implemented by State Marketing Authorities under the overall supervision and guidance of the Directorate of Marketing and Inspection. This is followed in those commodities which do not require elaborate testing arrangements for quality assessment. The examples are fruits, vegetables, eggs, cereals and pulses. For these commodities, the grade of the produce is determined on the basis of physical characteristics.

2.11.3 Advantages of Grading

Grading offers the following advantages to different groups of persons:

- Grading before sale enables farmers to get a higher price for their produce. Studies during 60's and 70's revealed that on an average, the producers obtained a premium of 12 paise per kg of tobacco at Ongloe (AP) and Rs. 9.40 per quintal of kapas at Hubli (Karnataka). Graded apple fetched a premium price of 11.27 percent over that of ungraded apples. Graded dasheri and desi mango fetched a premium of Rs.31.50 and Rs.32.50 per quintal over the price of ungraded mangoes. Grading also serves as an incentive to producers to market the product of better quality.
- Grading facilitates marketing, for the size, colour, qualities and other grade designations of the product are well known to both the parties, and there is no need on the part of the seller to give any assurance about the quality of the product.
- Grading widens the market for the product, for buying can take place between the parties located at distant places on the telephone without any inspection of the quality of the product.
- Grading reduces the cost of marketing by minimising the expenses on the physical inspection of the produce, minimising storage losses, reducing its bulk, minimising advertisement expenses and eliminating the cost of handling and weighing at every stage.
- Grading makes the following possible for the farmer:
 - To get easy finance when commodities are stored
 - To get the claims settled by the railways and insurance companies

- To get storage place for the produce
 - To get market information
 - To pool the produce of different farmers
 - To improve the “keeping” quality of the stored products by removing the inferior goods from the good lot
 - To facilitate futures trading in a commodity
- Grading helps consumers to get standard quality products at fair prices. It is easier for them to compare the prices of different qualities of a product in the market. It minimises their purchasing risk, for they will not get a lower quality product at the given price.
 - Grading contributes to market competition and pricing efficiency. The product homogeneity resulting from grading can bring the market closer to perfect competition, encourages price competition among sellers, and reduces extraordinary profits.

Thus, the grading of product is beneficial to all the sections of society; i.e., the producers, traders and consumers of the product.

2.12 Progress in India

To improve the quality of agricultural products in India, grading and marking were introduced under an Act namely The Agricultural Produce (Grading and Marking) Act, 1937. The act authorises the Central Government to frame rules relating to the fixing of grade standards and the procedure to be adopted to grade the agricultural commodities included in the schedule. The Act of 1937 was amended from time-to-time to widen its scope, so that a number of commodities may be included under the changed circumstances. Initially, only 19 commodities were included for grading purposes; but now there are 153 commodities in the schedule for which grade standards are available. The commodities included in the schedule are food grains, fruits and vegetables, dairy products, tobacco, coffee, oilseeds, edible oils, oilcakes, fruit products, cotton, hemp, edible nuts, jaggery, lack, spices and condiments, essential oils, honey, etc.

The Agricultural Marketing Advisor to the Government of India (AMA) is the authority empowered to implement the provisions of the Act, and suggest suitable modifications. The Central Agricultural Marketing Department (Directorate of Marketing and Inspection) maintains some staff for the inspection of the grading premises and the collection of the samples of graded products from different points in the marketing process. The collected samples are examined and analysed either at the central Agmark laboratory or at other laboratories set up in different parts of the country to test whether the graded products conform to the standards of quality laid down in the Act. If the sample is below standard, the necessary legal action against the party is taken, and the graded product is removed from the market. The license of the party, too, is cancelled.

2.13 Factors Affecting Capital Requirements of an Agricultural Marketing Firm

The capital requirements of a marketing agency for its marketing business vary with the following factors:

- Nature and volume of business: Financial requirements for trading in high value crops like cummin, chillies, cotton and oilseeds are higher than for trading in food-grains. For the wholesale business too, financial requirements are higher than for retail business.
- Necessity of carrying large stocks: It is essential to carry over large stocks throughout the year, of goods which are seasonally produced and marketed on a wholesale basis.
- Continuity of business during various seasons: If business is continuous throughout the year, the financial requirements will be greater than if business is conducted only during a particular season.
- Time required between production and sale: Some goods are sold immediately after production perishables. Financial requirements in the marketing of the latter goods are therefore higher.
- Terms of payment for purchase and sale: The terms of transactions whether payment will be in cash, on credit or by instalments affect the financial requirements of the marketing middlemen.
- Fluctuations in prices: Financial requirements are higher for goods which suffer frequent price fluctuations than for goods that are subject to less frequent price fluctuations.

- Risk-taking capacity: The financial needs of the market middlemen vary with their risk-taking capacity. A middleman with a low risk-taking capacity often resorts to hedging, and needs less finance than a middleman who takes risks.
- General conditions in the economy: During the period of price fall or recession, the financial requirements increase. The marketing agency has to hold stocks for a longer period in anticipation of a price rise. Moreover, the recovery of old bills tends to be slow. Whenever, therefore, a new product is introduced, the dealer needs more finance temporarily till the demand for it picks up in the economy.

Summary

- The word market comes from the Latin word 'marcatus' which means merchandise or trade or a place where business is conducted.
- A market includes any place where persons assemble for the sale or purchase of commodities intended for satisfying human wants.
- Market structure refers to those organisational characteristics of a market which influence the nature of competition and pricing, and affect the conduct of business firms.
- The concentration of market power is an important element determining the nature of competition and consequently of market conduct and performance.
- The behaviour of an integrated market will be different from that of a market where there is no integration either among the firms or of their activities
- The structural characteristics of the market govern the behaviour of the firms in planning strategies for their selling and buying operations.
- The term agricultural marketing is composed of two words-agriculture and marketing.
- A study of the agricultural marketing system is necessary to an understanding of the complexities involved and the identification of bottlenecks with a view to providing efficient services in the transfer of farm products and inputs from producers to consumers.
- The objectives and expectations of all the three groups of society, such as producers, consumers and market middlemen conflict with one another.
- Agricultural marketing in a broader sense is concerned with the marketing of farm products produced by farmers and of farm inputs required by them in the production of these farm products.
- Farm products are produced in a particular season; they cannot be produced throughout the year.
- Agricultural marketing plays an important role not only in stimulating production and consumption, but in accelerating the pace of economic development.
- A well-knit marketing system widens the market for the products by taking them to remote corners both within and outside the country, i.e., to areas far away from the production points.
- The marketing system is essential for the success of the development programmes which are designed to uplift the population as a whole.
- Any single activity performed in carrying a product from the point of its production to the ultimate consumer may be termed as a marketing function.

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Self Assessment

1. _____ means a social institution which performs activities and provides facilities for exchanging commodities between buyers and sellers.
 - a. Market
 - b. Foreign exchange
 - c. Seller
 - d. Buyer

2. Match the following

1. Market dimension	A. Perishable in nature
2. Market structure	B. Accrual of marketing margins
3. Farm products	C. Depends on agricultural production on natural conditions
4. Supply of Agricultural Products	D. Size and design of the market

 - a. 1-B, 2-D, 3-A, 4-C
 - b. 1-C, 2-A, 3-B, 4-D
 - c. 1-A, 2-C, 3-D, 4-B
 - d. 1-D, 2-B, 3-C, 4-A

3. _____ plan their strategies in respect of the methods to be employed in determining prices, increasing sales, co-coordinating with competing firms.
 - a. Farmers
 - b. Firms
 - c. Markets
 - d. National Commission on Agriculture

4. What makes farm products transportation and storage difficult and expensive?
 - a. Quality of Products
 - b. Perishability of the Product
 - c. Seasonality of Production
 - d. Bulkiness of Products

5. What leads to the optimisation of resource use and output management?
 - a. An efficient marketing system
 - b. A well-knit marketing system
 - c. An efficient agricultural marketing system
 - d. Industries

6. The processing function adds _____ to the product by changing the raw material into a finished form.
 - a. place utility
 - b. form utility
 - c. time utility
 - d. possession utility

7. The transportation function adds _____ to products by shifting them to a place of need from the place of plenty.
- place utility
 - form utility
 - time utility
 - possession utility
8. The marketing function of _____ helps in the transfer of ownership from one person to another.
- buying and selling
 - availability
 - transportation
 - cost to the product
9. The storage function adds _____ to the products by making them available at the time when they are needed.
- place utility
 - form utility
 - time utility
 - possession utility
10. Which of the following facilitates the movement of produce?
- Degree of supervision
 - Goods
 - Grading and standardisation
 - Products

Chapter III

Marketing Management

Aim

The aim of this chapter is to:

- introduce marketing management
- explain the concepts of marketing
- explicate various aspects of marketing management

Objectives

The objectives of this chapter are to:

- explore the needs, wants and demands of marketing
- elaborate products- goods, services and place for marketing
- define retailing

Learning outcome

At the end of this chapter, you will be able to:

- describe the marketing mix
- understand market structure
- recognise a value proposition

3.1 Introduction

Marketing Management is a social and managerial process by which individuals or firms obtain what they need or want through creating, offering and exchanging products of value with each other.



Fig. 3.1 Core concepts of marketing

(Source: http://memberfiles.freewebs.com/05/44/44274405/documents/Ch-1%20_Introduction%20to%20Marketing%20Management_.pdf)

3.1.1 Needs/Wants/Demands

Marketers cannot create needs. Needs pre-exist. Marketers can influence wants. This is done in combination with societal influencers. This section tells what is the need of marketing, why it is in demand and what are the wants of marketing?

- Need: It is the state of deprivation of some basic satisfaction. E.g., food, clothing, safety and shelter.
- Want: Desire for specific satisfier of need. E.g., Indian food needs - Paneer Tikka/Tandoori Chicken.
- Demand: Want for a specific product backed up by the ability and willingness to buy. E.g., Need – transportation. Want – car (say, Mercedes) but able to buy only Maruti. Therefore, the demand is for Maruti.

Demand is influenced by making products as follows:

- Appropriate
- Attractive
- Approachable/ affordable
- Available easily

3.1.2 Products- Goods/ Services/ Place

Product is anything that can satisfy need/want.

Product component:

- Physical Good
- Service
- Idea

Example:

- Fast food- burger/pizza
- Physical good - material eaten
- Service - purchase of raw material/cooking
- Idea - speed of computer/processing power

Importance of product lies in-

- Owning them (minor)
- Obtaining them (major)

Hence, products are really a via- media for services. Hence, in marketing, focus is on providing/satisfying service rather than providing products. Marketing myopia focuses on products rather than on customer needs.

3.1.3 Value/Cost/Satisfaction

Decision for purchase made based on value/cost satisfaction delivered by product/offering.

- Product fulfills/ satisfies need/ want.
- Value is the product's capacity to satisfy needs/wants as per consumer's perception or estimation.
- Each product would have cost/price elements attached to it.

Example: Travel from city A to city B
 Need – to reach B (from A)
 Method/ Products- Rail/ air/ road or train/ plane
 Satisfaction – Estimated in terms of time lead and travel comfort

Value- It is the product's capacity to satisfy.

Cost- It is the price of each product.

3.1.4 Exchange/Transaction

To satisfy needs/wants, people may obtain the product through:

- Self production
- By force or coercion
- Begging
- Exchange

Exchange

The act/process of obtaining a desired product from someone by offering something in return is called as exchange. For exchange potential to exist, the following conditions must be fulfilled:

- There must be at least two parties.
- Each party has something of value for other party.
- Each party is capable of communication and delivery.
- Each party is free to accept/reject the exchange offer.
- Each party believes it is appropriate to deal with the other party.

Transaction

Transactions are the events those happen at the end of an exchange. Exchange is a process towards an agreement. When agreement is reached, we say a transaction has taken place. The following are the examples of various transactions.

- Barter transaction
- Monetary Transaction:
 - At least two things of value
 - Condition agreed upon
 - Time of agreement
 - Place of agreement
 - May have legal system for compliance

3.1.5 Relationship/Networking

Relationship marketing is a pattern of building long-term satisfying relationship with customers, suppliers and distributors in order to retain their long-term performances and business.

Achieved through promise and delivery of

- high quality
- good service
- fair pricing, over a period of time

Outcome of relationship marketing is called as marketing network. Marketing network is made up of the company and its customers, employees, suppliers, distributors, advertisement agencies, retailers and research and development with whom it has built mutually profitable business relationship. Competition is between whole network for market share and not between companies alone.

3.1.6 Market

A market consists of all potential customers sharing particular needs/wants who may be willing and able to engage in exchange to satisfy needs/wants.

Market Size = f_n (Number of people who have need/ want; have resources that interest others, willing or able to offer these resources in exchange for what they want).

In Marketing terms: Sellers – called as “INDUSTRY”
 Buyers – referred to in a group as “MARKET”

Types of markets:

- Resource market
- Manufacturing market
- Intermediary market
- Consumer market
- Government market

3.1.7 Marketers/Prospects

Marketers work with markets to actualise potential exchanges for the purpose of satisfying needs and wants. One party seeks the exchange more actively, called as “Marketer”, and the other party is called “Prospect”. Prospect is someone whom marketer identifies as potentially willing and able to engage in exchange. Marketer may be seller or buyer. Most of time, marketer is seller. A marketer is a company serving a market in the face of competition. Marketing Management takes place, when at least one party to a potential exchange thinks about the means of achieving desired responses from other parties.

3.2 Marketing Management

The art and science of choosing target markets and building profitable relationships with them.

Marketing management requires that consumers and the marketplace be fully understood. The aim is to find, attract, keep, and grow customers by creating, delivering, and communicating superior value.

Marketing managers must consider the following, to ensure a successful marketing strategy:

- What customers will we serve?
- What is our target market?
- How can we best serve these customers?
- What is our value proposition?

3.2.1 Choosing a Value Proposition

The set of benefits or values a company promises to deliver to consumers to satisfy their needs. Value propositions dictate how firms will differentiate and position their brands in the marketplace.

3.3 The Marketing Concept

A marketing management philosophy that holds achieving organisational goals depends on knowing the needs and wants of target markets and delivering the desired satisfaction better than competitors.

3.3.1 Customer Perceived Value

Customer perceived value “Customer’s evaluation of the difference between all of the benefits and all of the costs of a marketing offer relative to those of competing offers.”

- Perceptions may be subjective
- Consumers often do not objectively judge values and costs.

$$\text{Customer Value} = \text{Perceived Benefits} - \text{Perceived Sacrifice.}$$

3.4 The Marketing Mix

The set of controllable, tactical marketing tools that the firm blends to produce the response it wants in the target market.

- Product: Variety, features, brand name, quality, design, packaging and services.
- Price: List price, discounts, allowances, payment period and credit terms.
- Place: Distribution channels, coverage, logistics, locations, transportation, assortments and inventory.
- Promotion: Advertising, sales promotion, public relations and personal selling.

3.4.1 Customer-Driven Marketing Strategy

Marketing requires careful customer analysis to be successful, firms must engage in the following:

- Market segmentation
- Market targeting
- Differentiation
- Positioning

3.5 Market Segmentation and Targeting

Segmentation is the process of dividing a market into distinct groups of buyers with different needs, characteristics, or behaviour who might require separate products of marketing programmes. Targeting involves evaluating each market segment’s attractiveness and selecting one or more segments to enter.

Differentiation and Positioning

Differentiation creates superior customer value by actually differentiating the market offering. Positioning is an arrangement for a product to occupy a clear, distinctive and desirable place relative to competing products in the minds of target consumers.

3.5.1 Market Segmentation

Key segmenting variables are as follows:

- Geographic
- Demographic
- Psychographic
- Behavioural

Different segments desire different benefits from products. It is best to use multivariable segmentation bases in order to identify smaller, better-defined target groups. Segmentation is necessary because of the following reasons:

- To meet consumer-needs more precisely
- Increase profits
- Segment leadership
- Retain customers
- Focus marketing communications

Evaluating market segments

Evaluating market segments includes the following:

- Segment size and growth: Analyse current segment sales, growth rates, and expected profitability.
- Segment structural attractiveness: Consider competition, existence of substitute products, and the power of buyers and suppliers.

Company objectives and resources includes the following:

- Examine company skills and resources needed to succeed in that segment.
- Offer superior value and gain advantages over competitors.

3.5.2 Market Targeting

Market targeting involves the following:

- Evaluating marketing segments: Segment size, segment structural attractiveness, and company objectives and resources are considered.
- Selecting target market segments: Alternatives range from undifferentiated marketing to micro marketing.
 - Being socially responsible.

Differentiation and Positioning

A product's position is the way the product is defined by consumers on important attributes to place the product occupies in consumers' minds relative to competing products. Perceptual positioning maps can help define a brand's position relative to competitors.

Identifying possible value differences and competitive advantages:

- Key to winning target customers is to understand their needs better than competitors do and to deliver more value.
- Extent to which a company can position itself as providing superior value. Achieved via differentiation.

3.6 Retailing

The exchange of food and weapon was practised in the earlier centuries, which led to the emergence of trade and peddlers. The day bartering was replaced by the exchange of money for trade of any commodity lead to the evolution of retailing. With the growth of division of labour and trade, business expanded. By 14th century, retail assumed great importance. Small shops, stores and selling special lines of goods became very popular during the 18th century.

Retailing is one of the oldest businesses and is being practised since prehistoric time. It comes from an old French word "tailer", which means "to cut off, clip, pare or divide". As a single category of modern real estate, retail includes businesses that serve everyday needs, such as groceries, drug store and cloth house and so on.

Retailing can be defined as the buying and selling of goods and services. It is the timely delivery of goods and services demanded by consumers at prices that are competitive and affordable. Retailing involves a direct interface with the customer and the coordination of business activities from end-to-end right from the concept or design stage of a product or offering, to its delivery and post-delivery service to the customer.

This industry has contributed to the economic growth of many developed and developing countries and is undoubtedly one of the fastest changing and dynamic industries in the world today.

3.6.1 Basic Structure of Retailing

Retail does not have to involve a store. Manufacturers, importers, non-profit firms act as retailers. These can directly reach the consumers, avoiding wholesalers. However, most of the organised retails involve wholesaler. This further signifies that retailing involves both the sale of services and that of tangible goods as given in fig. 3.2 below:

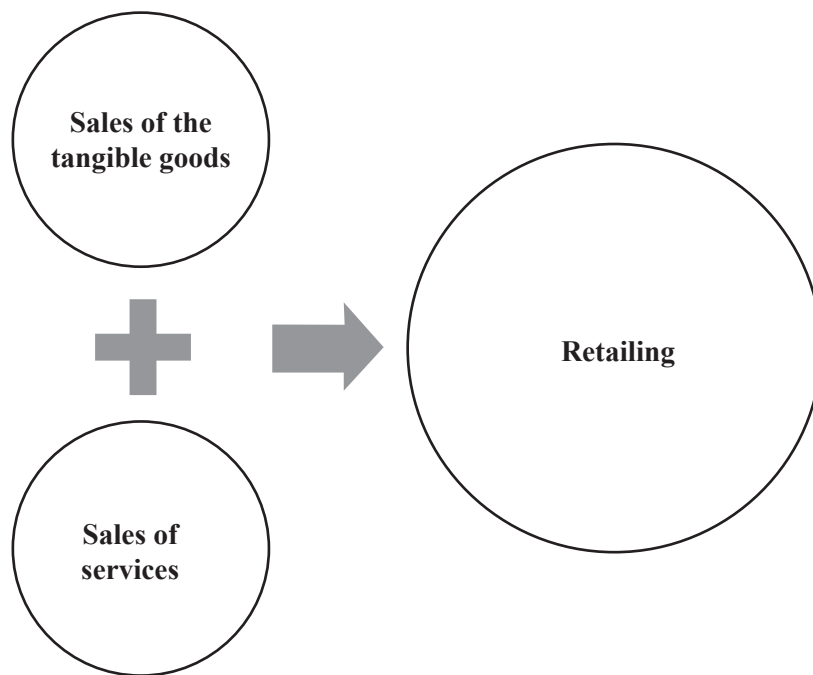


Fig. 3.2 Basic structure of retailing

Sales of tangible goods: For example, FMCG (First Moving Consumer Goods), electronic good and edible products and so on.

Sales of services: For example, tele services, distance education services, financial services and so on.

3.6.2 Retail in Business

As stated earlier, retail includes different types of businesses, with very different requirements and varied users. From daily usages to special shops and stores to wide range of narrow markets as of special equipments, it covers all the commodities. Clearly these markets have different spatial and location requirements, but serve the same purpose of selling and serving of goods. Despite these varieties, they all follow a consistent pattern of the requirement of all trades. If there is no demand of the product or service, the retail industry is bound to fail. Thus, the location of the business plays a crucial role.

Locating on high-level travelling routes provides a considerable high market value of the product. Indian economy has witnessed a remarkable change due to the ever changing retail industry:

- Indian economic growth has bounced from 8% to 9.4% during 2006-07.
- The change in the pattern elucidates that India is more likely to emerge as a big economic power in the coming future.
- By 2025, it is likely to emerge as the third largest economy of the world. Trade is constantly increasing which has helped in reforming the economy.
- The agricultural economy of the country has now predominantly become service sector-oriented.
- The share of service sector in the Gross National Product has now exceeded to 55% (2007-08) and the trends continue.

A number of foreign companies are entering into the Indian Market, exploiting the potential of the market. With these multinational co-operations, various new strategies and marketing policies have been also introduced in the industry.

With this, the rising incomes, increased advertising, and an evident increase in the number of women working in the country's urban areas have made goods more attainable and available to a larger portion of the population. Therefore, retail has emerged as a big industry. With dominant retail sectors, the farmers and suppliers can sell their products directly to the major retail companies and can ensure stable profit.

3.6.3 Importance of Retailing

A retailer is the link between a consumer and a manufacturer. The manufacturer can directly sell the product to the user but that will be time consuming, expensive and inconvenient as compared to the job performed by the specialist in the line. Therefore, the manufacturer depends on the retailer to sell his product to the ultimate consumer.

Economical growth

Indian economy is expanding at a fast rate of 8% since last three years. As expanding economies lead to increase in income, thus, increasing the consumer needs and opportunity to producer/supplier.

Increase in consumption

The growing economy has resulted into greater disposable income for the booming Indian middle class, which comprises 22% of the total population. This figure is expected to increase to 32% by 2010. Disposable incomes are expected to rise at an average of 8.5% p.a. till 2015.

3.7 Importance of Advertising

Advertising has become an essential marketing activity in the modern era of large-scale production and serve competition in the market. It performs the following functions:

- **Promotion of sales:** It promotes the sale of goods and services by informing and persuading the people to buy them. A good advertising campaign helps in winning new customers both in the national as well as in the international markets.
- **Introduction of new product:** It helps the introduction of new products in the market. A business enterprise can introduce itself and its product to the public through advertising. A new enterprise can't make an impact on the prospective customers without the help of advertising. Advertising enables quick publicity in the market.
- **Creation of good public image:** It builds up the reputation of the advertiser. Advertising enables a business firm to communicate its achievements in an effort to satisfy the customers' needs. This increases the goodwill and reputation of the firm which is necessary to fight against competition in the market.
- **Mass production:** Advertising facilitates large-scale production. Advertising encourages production of goods in large-scale, because the business firm knows that it will be able to sell on large-scale with the help of advertising. Mass production reduces the cost of production per unit by the economical use of various factors of production.
- **Research:** Advertising stimulates research and development activities. Advertising has become a competitive marketing activity. Every firm tries to differentiate its product from the substitutes available in the market through advertising. This compels every business firm to do more and more research to find new products and their new uses. If a firm does not engage in research and development activities, it will be out of the market in the near future.
- **Education of people:** Advertising educates the people about new products and their uses. Advertising message about the utility of a product enables the people to widen their knowledge. It is advertising which has helped people in adopting new ways of life and giving-up old habits. It has contributed a lot towards the betterment of the standard of living of the society.
- **Support to press:** Advertising provides an important source of revenue to the publishers and magazines. It enables to increase the circulation of their publication by selling them at lower rates. People are also benefited because they get publications at cheaper rates. Advertising is also a source of revenue for TV network. For instance, Doordarshan and ZeeTV insert ads before, in between and after various programmes and earn millions of rupees through ads. Such income could be used for increasing the quality of programmes and extending coverage.

3.7.1 Active Participant in Advertising

The group of people who are actively involved in advertising are discussed in the paragraphs given below.

Advertiser

Seller who manufactures and markets consumer products are the prominent group of advertisers. Hindustan Unilever, Proctor and Gamble, Seimens and Larson and Toubro are the examples of advertisers. Also, the retailers are the second prominent segment among advertisers. They stock the products and sell them to the ultimate consumers. Government and social organisation are also the active participants in this category.

Target audience

It refers to the recipient of the advertising message. Every message is either directed to a mass audience and class audience. Advertising desires to cover this target audience for promoting sales. Advertising message intends to cover the potential user and non-user who may purchase the product in future. The messages are also directed to the user of the competitor's product, so that they switch over the advertiser's products.

Advertising agencies

An advertiser has two options as follows:

- To design, develop and produce an advertising message and get it placed in desired media directly through his own sales or advertising department.
- To entrust the entire job of advertising to a team of highly professionalised, specialised, independent, advertising agency.

An advertising agency is composed of creative people, who conceive design, develop and produce, advertising message with creative ideas and place it in the desired advertising media, for and on behalf of its client (the advertiser). The advertising agencies usually charge a commission of 15% on the media bills from the media owners. In addition, they charge out-of-pocket expenses to their clients, i.e., the advertisers. They employ copywriters, artists, photographers, typographers, layout designers, editors and such other creative people.

3.7.2 Advertising Production People (Artists)

The production of impressive and persuasive advertisements is possible only with the active help and creative spirit of the artists like copywriters, artists, photographers, typographers, layout designers, editors and such other creative people. Such people are usually employed by the ad agencies or, their services may be hired by the ad agencies on job basis.

Target Audience (Readers, Listeners, Viewers and Present and Future Buyers): Advertising messages are given about products services and ideas to readers, listeners, viewers and actual and potential buyers, who are known as the audience. The target audience may be classified into the following three categories:

- Existing or current consumers, who are reminded and influenced to continue their patronage and to increase the volume of their buying.
- Consumers, who buy and use, a competitor's brand; hence they are persuaded to buy the advertised brand, instead of the competitor's brand.
- Those consumers, who do not use any such product; and even then, are persuaded to buy the advertised product.

3.7.3 Mass Media

Advertising messages are communicated to the target audience through different mass media, such as:

- Print media: They consist of newspapers, magazines, journals, handbills, etc.
- Electronic media: They consist of radio, television motion pictures, video, multi-media and the internet.
- Outdoor media: They consist of posters, hoarding, handbills, stickers air balloons, neon sign bill boards, local cinema houses and transit media.
- Direct mail: It consists of brochures, leaflets, pamphlets, letters and return cards addressed to consumers.

The advertising agencies guide their clients (advertisers) in selection of the most appropriate advertising media, which is known as media planning. Each medium has its own merits and demerits.

Government authorities

The business of advertising is regulated by the government department. The government adopts law and regulation which have a direct or an indirect bearing on the advertising. Apart from this, ASCI (Advertising Standards Council of India) and ABC (Audit Bureau of Circulation) are also some of authorities regulating advertising.

Advertising production firms

Advertising production firms are the support agencies which help in the production of advertisement. This includes copywriter, artist, photographers, typographers, producer and editors. These are the people who transform ideas into a finished forms Thus the success and failure of the advertisements depend on these people.

Summary

- Marketing Management is a social and managerial process by which individuals or firms obtain what they need or want through creating, offering and exchanging products of value with each other.
- Marketing myopia focuses on products rather than on customer needs.
- The act/process of obtaining a desired product from someone by offering something in return is called as exchange.
- Transactions are the events those happen at the end of an exchange.
- Exchange is a process towards an agreement.
- Relationship marketing is a pattern of building long-term satisfying relationship with customers, suppliers and distributors in order to retain their long-term performances and business.
- Marketing network is made up of the company and its customers, employees, suppliers, distributors, advertisement agencies, retailers and research & development with whom it has built mutually profitable business relationship.
- A market consists of all potential customers sharing particular needs/wants who may be willing and able to engage in exchange to satisfy needs/ wants.
- Marketers work with markets to actualise potential exchanges for the purpose of satisfying needs and wants.
- Prospect is someone whom marketer identifies as potentially willing and able to engage in exchange.
- Marketing Management takes place when at least one party to a potential exchange thinks about the means of achieving desired responses from other parties.\
- The set of benefits or values a company promises to deliver to consumers to satisfy their needs.
- A marketing management philosophy that holds achieving organisational goals depends on knowing the needs and wants of target markets and delivering the desired satisfaction better than competitors.
- Segmentation is the process of dividing a market into distinct groups of buyers with different needs, characteristics, or behaviour who might require separate products of marketing programme s.
- Retailing can be defined as the buying and selling of goods and services.
- The growing economy has resulted into greater disposable income for the booming Indian middle class, which comprises 22% of the total population.

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Self Assessment

1. _____ is want for a specific product backed up by ability and willingness to buy.
 - a. Need
 - b. Expectation
 - c. Demand
 - d. Product
2. Marketing myopia focuses on _____ rather than on customer needs.
 - a. products
 - b. customers
 - c. cost
 - d. value
3. What is value?
 - a. It is the production cost of the material.
 - b. It is the price of each product.
 - c. It is the process of manufacturing a product.
 - d. It is the products capacity to satisfy.
4. The act/process of obtaining a desired product from someone by offering something in return is called as _____.
 - a. coercion
 - b. force
 - c. exchange
 - d. self production
5. What are transactions?
 - a. Transactions are the processes towards an agreement.
 - b. Transactions are the events those happen at the end of an exchange.
 - c. The act/process of obtaining a desired product from someone by offering something in return.
 - d. Transactions are the agreements.

6. Match the following

1. Product	A. It is the state of deprivation of some basic satisfaction.
2. Want	B. Want for a specific product backed up by ability and willingness to buy.
3. Need	C. It can satisfy needs/wants.
4. Demand	D. Desire for specific satisfier of need.

- a. 1-C, 2-D, 3-A, 4-B
- b. 1-A, 2-B, 3-C, 4-D
- c. 1-D, 2-B, 3-A, 4-C
- d. 1-B, 2-C, 3-A, 4-D

7. _____ is the process of dividing a market into distinct groups of buyers with different needs, characteristics, or behaviour who might require separate products of marketing programmes.
 - a. Targeting
 - b. Segmentation
 - c. Positioning
 - d. Psychographic

8. _____ is an arrangement for a product to occupy a clear, distinctive, and desirable place relative to competing products in the minds of target consumers.
 - a. Segment
 - b. Market
 - c. Differentiation
 - d. Positioning

9. What plays the link between a consumer and a manufacturer?
 - a. Retailer
 - b. Economic growth
 - c. Consumption
 - d. Advertising

10. Which of the following helps the introduction of new products in the market?
 - a. Sales
 - b. Marketing
 - c. Advertising
 - d. Research

Chapter IV

Commodity Markets

Aim

The aim of this chapter is to:

- explicate commodity markets
- explain framework of future trading
- elaborate classification of markets

Objectives

The objectives of this chapter are to:

- explore forward and backward linkages
- elaborate forward and backward linkages in markets
- explain commodities and other assets

Learning outcome

At the end of this chapter, you will be able to:

- distinguish characteristics of commodities
- understand market participants
- explain market motives

4.1 Introduction

Agriculture occupies a very important place in the economic life of our country. It is the backbone of our economic system. India is primarily an agricultural country. The fortunes of the economy are, even now, dependent on the course of agricultural production. Commodity markets have been serving the livelihood in the Indian economy. There were different kinds of markets based on products, nature of competition, time, etc. This chapter will help you to understand the following concepts via:

- Commodity markets
- Classification of markets
- Market motives
- Market participants
- Forward and backward linkages

4.2 Commodity Markets

A commodity is anything for which there is demand, but which is supplied without qualitative differentiation across a given market. It refers to any good that possesses a physical attribute.

4.2.1 Characteristics of Commodities

The following are the characteristics of commodities:

- They are essential things that are produced and consumed in large quantities.
- Physical goods that have a value attached to them and hence can be called asset classes.
- They are often used as inputs in the production of other goods or services.
- The prices are determined as a function of their market as a whole.
- There is little differentiation between commodity coming from one producer and the same commodity from another producer.
- Generally, they do not have brands.
- Include physical substances, such as food, grains, and metals, which are interchangeable with another product of the same type, and which investors buy or sell.

Commodities are different from other assets in the following manner:

- Commodities are bulky in nature.
- They are perishable, especially agro products.
- Commodities are physical assets which involves storage costs.
- They are goods associated with logistics problems as they are bulky and as their production and consumption centres are far apart.
- They have wide variations in quality and hence certain grades are taken as standards.

The term market means not a particular place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such a free intercourse with one another that the prices of the same goods tend to equality, easily and quickly.

4.3 Classification of Markets

There are different kinds of markets, which have been classified, based on the following aspects.

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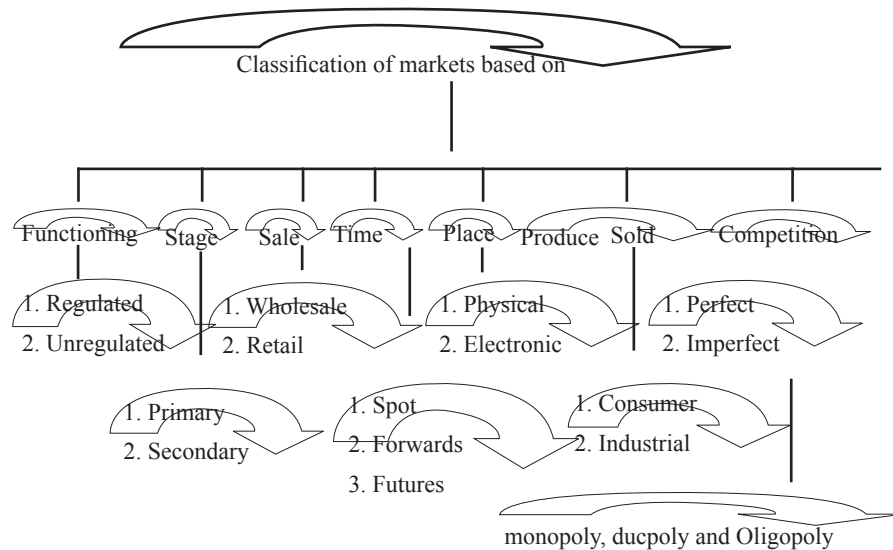


Fig. 4.1 Classification of markets

(Source: <http://www.manage.gov.in/pgdaem/studymaterial/aem202.pdf>)

Different kinds of markets are explained in the paragraphs given below.

4.3.1 Based on Functioning

Based on the functioning, markets are placed in two categories.

Regulated markets

These are markets in which business is done in accordance with the rules and regulations framed by the statutory market organisation representing different sections involved in markets. The marketing costs in such markets are standardised and marketing practices are regulated. E.g., Regulated market for cotton, Coimbatore. Important features of regulated markets are:

- **Method of sale:** In regulated markets, the sale of agricultural produce is undertaken either by open auction or by the close tender method.
- **Weighment of produce:** Weighment of the produce is done by a licensed standard weights and platform scale.
- **Grading:** The produce in the regulated markets is expected to be sold only after grading.
- **Licensing of market functionaries:** All the market functionaries, from the hamaals (loaders) to traders, working in the regulated markets have to obtain license from market committee.

Unregulated markets

These are the markets in which business is conducted without any set rules and regulations. Traders frame the rules for the conduct of the business and run the market. These markets suffer from many ills, ranging from non-uniform charges for marketing functions to imperfections in the determination of prices.

4.3.2 Based on the Stage of Marketing

Based on the marketing, the markets are divided into three categories. They are explained in the paragraphs given below:

Primary markets

Primary markets are markets where most of the raw materials/materials are sold without much processing. They lie near the origin of commodities. In primary markets, the producers of goods sell their farm products to the wholesalers and their agents. E.g., Mostly farmers sell their produce in the farm gate, characterised by large volume of production of most commodities and attracts the wholesaler/agents to procure from that place for further activities in the chain.

Secondary markets

These markets are mostly far away from the primary centres of production and located at the consumption centres. This is the market where the wholesalers sell their goods to the retailers for onward selling to the consumer. The middlemen buy goods from producers and manufacturers and sell to the retailers. E.g., Wholesale market of vegetables Ottanchatiram (Tamil Nadu). Here, vegetables are brought to the market and distributed to various wholesale markets and some time to large-scale retail markets.

Wholesale market

This market sells primarily to traders, such as caterers and small shopkeepers. Members of the public however, are not necessarily excluded. Large-scale transactions take place. Wholesale shops are mostly concentrated in a particular location in a town/city. It is the market where the middlemen buy the goods in bulk from the producers and manufacturers. Wholesaling is normally characterised by a system of delivery by the wholesaler to the customer and the extension of credit facilities against bulk purchases. E.g., Wholesale market of vegetables Ottanchatiram (Tamil Nadu).

4.3.3 Based on Time

Based on the time, market is further divided into three categories:

Futures market

This is an auction market in which participants buy and sell commodity/future contracts for delivery on a specified future date. Futures exchanges act as a platform facilitating and regulating trade. A futures contract is an agreement between two parties to buy or sell a specified and standardised quantity and quality of an asset at a certain time in the future at a price agreed upon. It is a market in which the buyers and sellers make agreement for delivery of goods in future. The contract is made on a certain date, but the goods will be delivered in future. E.g., MCX

Forward market

Forward contract is an agreement between two parties to buy or sell an asset at a future date for a price agreed upon by both. Contracts are booked in advance, to mitigate risk. Contracts are signed by the buyers and sellers and they have their own set of norms. Forward trade may not involve the activity of an exchange.

Spot market

Commodities are physically bought and sold here so these are called physical markets. In this ready market, delivery is taken immediately. Cash settlement is done within a maximum of 11 days. The spot market is a ready market where the sellers on the spot physically hand over goods to the buyers. There is an exchange of goods for money at the same time.

4.3.4 Based on Place

Based on the place too, markets can be classified. They are described in the paragraphs given below:

Electronic market

These are markets wherein the buyers and sellers do not meet. They are also called as virtual markets/online market place for e.g., e-bay. In Futures exchanges also, trading can take place electronically.

Physical markets

A market in which commodities, such as grain, gold, crude oil, etc., are bought and sold for cash and are delivered immediately. This is also called cash market or spot market.

4.3.5 Based on Products Sold

On the basis of the products sold, Market is further divided. These are explained in the paragraphs given below.

Industrial market

This involves the sale of goods between businesses. They are not aimed directly at the consumer. E.g., primary market, where the raw materials and inputs are obtained, such as cement, etc.

Consumer market

Here, the products and services are bought by individuals for their own or family use. This can be broadly classified into:

- Fast-Moving Consumer Goods (FMCG) - high volume, low unit value
- Consumer durables - low volume, but high unit value
- Soft goods - e.g., clothes, shoes
- Services - e.g., hairdressing, dentistry
- Based on Competition

Based on competition the markets are classified into perfect and imperfect markets:

Perfect market

A perfect market is one in which the following conditions will hold good:

- There is a large number of buyers and sellers.
- All the buyers and sellers in the market have perfect knowledge.
- Prices at any one time are uniform over a geographical area plus or minus the cost of supplies.

Imperfect market

The markets in which the conditions of perfect competition are lacking are characterised as imperfect markets. The following are the situations based on the imperfections:

- Monopoly: It is a persistent situation where there is only one provider of a product or service in a particular market. Monopolies are characterised by a lack of economic competition for the good or service that they provide and a lack of viable substitute goods.
- Oligopoly: It is a market form in which a market or industry is dominated by a small number of sellers (oligopolists).
- Duopoly: This is a specific type of oligopoly where only two producers exist in one market.

4.4 Market Players and Motives

There are different kinds of participants in the markets, which are listed below. Their activities vary slightly according to the markets they operate and they also carry different names according to the place of operation. For e.g., speculators, hedgers & arbitrageurs in futures market.

Buyer

The following are some of the features of the buyers:

- A person who buys commodities or products
- Buyers are classified as consumer/industrial buyer
- The buying behaviour varies with time, place, etc.,

Seller

A person who has goods to offer for willing buyers to buy.

Stockist

The following are some of the features of the stockist:

- A trader who buys goods at lower levels and stores it for some time and sells when prices improve.
- They take advantage of the price variation.

Brokers

The following are some of the features of the brokers:

- Intermediaries who operate between buyers and sellers
- They facilitate trade and take some part of the price margin e.g., Stock brokers, share brokers

4.5 Motives of Market Participants

The market participants have different kinds of motives to meet physical requirements. The different kinds of motives are listed below.

4.5.1 Investment Motive

A trader who is neither a producer nor a consumer of a produce, but operates in the markets for profit motive is an investor. He works in the market by buying goods and selling it at a later period or in a different market and gains from the price differences. Investment may be subdivided into:

- Speculative
- Arbitrage motive

4.5.2 Speculative Motive

A speculator buys, holds and sells commodities in the market to get profit from the fluctuations that arises in the market and are associated with more of risk factors.

4.5.3 Arbitrage Motive

Arbitrage is the practice of taking advantage of a price differential between two or more markets, time periods, etc, e.g., a person buying in the spot market and selling in the futures market or vice-versa.

4.6 Forward and Backward Linkages in Markets

The markets are linked with two types of linkages namely backward and forward linkages:

4.6.1 Backward Linkage

The backward linkage consists of two factors which are explained in the paragraph given below.

Contract farming

Contract farming has been prevalent in various parts of the country for commercial crops like sugarcane, cotton, tea, coffee, etc. The concept has, however, gained importance in recent times in the wake of economic liberalisation. The main feature of contract farming is that farmers grow selected crops under a buyback agreement with an agency engaged in trading or processing. There are many success stories on contract farming, such as potato, tomato, groundnut and chilli in Punjab, Safflower in Madhya Pradesh, oil palm in Andhra Pradesh, seed production contracts for hybrids seed companies in Karnataka, cotton in Tamil Nadu and Maharashtra, etc., which helped the growers in realisation of better returns for their produce. In our country, contract farming has considerable potential, where small and marginal farmers can no longer be competitive without access to modern technologies and support.

The contractual agreement with the farmer provides access to production services and credit as well as knowledge of new technology. Pricing arrangements can significantly reduce the risk and uncertainty of the market place. Small-scale farmers are frequently reluctant to adopt new technologies, because of the possible risks and costs involved.

In contract farming, private agribusiness firms normally offer improved methods and technologies, because they have a direct economic interest in improving farmers' production to meet their needs. In many instances, the larger companies provide their own extension support to contracting farmers to ensure that production is according to the specification. The farmer learns many skills through contract farming like record keeping, improved methods of applying chemicals, fertilizers and knowledge of the importance of quality and of the demands of export markets. In view of the above, contract-farming arrangements need to be encouraged widely. This would require arrangement for registration of sponsoring companies and recording of contract farming agreements, in order to check unreliable and spurious companies.

A dispute resolution mechanism needs to be set up near to farmers which can quickly settle issues, if any, arising between the farmers and the company under a quasi-judicial manner. The farmers while raising the contracted crops run the risk of incurring debt and consequent displacement from land in the event of crop failure. Farmers need to be indemnified from such displacement by law. E.g., Pepsi Co has emerged as one of the biggest providers of high quality seeds (especially tomatoes, chillies and potatoes) for which farmers have to pay up-front. The company recently imported 15,000 citrus plants from California, which are being distributed in Punjab with an idea to develop Punjab as a major citrus exporter.

Corporate farming

Corporate farming refers to direct ownership or leasing in of farmland by business organisations in order to produce for their captive processing requirements or for the open market. E.g., Jamnagar Farms Pvt. Ltd., a subsidiary of Reliance Industries (Mukesh Ambani group) with 7500 acres of farm land which has mango occupying 450 acres that makes it the largest mango orchard in Asia with highest social responsibility to ensure environmental protection and functioning as profitable venture .

4.6.2 Forward Linkage

Forward linkage means the dealings with retail chains and processors. The most essential things in forward linkages are as follows:

- Quantity and consistency in supply
- Competitive pricing of the produce
- Market knowledge and
- Farmers' ability to build their associations, which are very much required.

Retailer's buying process

Retail buying is the recent procurement strategy adopted by major retailers, i.e., they will not agree with any pre-agreed price with farmer; however they give the prevailing market rate through their collection centres in villages place. They directly buy the produce on cash and cheque payments, some retail companies buy directly from existing open markets. E.g., Reliance Retail buying of vegetables through their collection centres for their outlets.

4.6.3 Challenges for Commodities Markets

Commodity markets face many challenges; some of them are listed as follows.

- Encourage the retail companies to evolve sourcing models and meanwhile proactively prepare farmer group to establish linkage with retailers.
- Necessary infrastructure in order to provide, multi-commodity service, preserving quality, enhancing agri produce shelf life, etc.
- Improved market access for farmers, both in the national and overseas markets.
- Increase bargaining power of farmers by building their own associations.
- Introduce de-intermediation process into the current marketing system.
- Forward linkage of farmers and backward linkage of retail chain, etc.

4.7 Regulation of Commodity Markets

Commodity markets are regulated at national and international level by the following organisations:

- Commodity markets are regulated in India by the following organisations:
 - APMC
 - State Marketing Board
 - Forward Markets Commission (FMC)
- Commodity markets are regulated at the International level by the following organisations:
 - WTO
 - United Nations Conference on Trade and Development (UNCTAD)

4.7.1 United Nations Conference on Trade and Development (UNCTAD)

The United Nations Conference on Trade and Development (UNCTAD) was established in 1964 as a permanent inter-governmental body; UNCTAD is the principal organ of the United Nations General Assembly dealing with trade, investment and development issues:

- To maximise the trade and development prospects of developing countries and economies in transition,
- Assist them in their beneficial integration into the globalising and liberalising world economy and the international trading system, and
- Aims to strengthen human, institutional and policy-making capacities by formulating and implementing national trade policy frameworks conducive to economic, human and social development and poverty alleviation, as well as in participating effectively in multilateral, regional and sub-regional trade negotiations.
- To develop comprehensive computer-based information system on trade control measures that uses UNCTAD's database.

4.7.2 World Trade Organisation (WTO)

WTO is the only international body dealing with the rules of trade between nations. The main functions of WTO are as follows:

- To oversee implementation and administering of WTO agreements
- To provide a forum for negotiations
- To provide a dispute settlement mechanism
- Expand the production and trade in goods and services

4.8 Recent Innovations in Commodities Markets

Some of the recent innovations in commodity markets are explained below.

4.8.1 Safal Market

This was the initiative by NDDB, which came into existence in April 2003 with setting up of a full-fledged trading platform for fruits and vegetables at Bangalore. It has been formed to establish an alternative market set-up that operates parallel to mandis to stimulate production, raise quality standards, reduce losses, etc. Reasons for NDDB's debut into the F&V sector could be the following:

- Dominated by small farmers, who were unable to effectively bargain in the Mandis and get remunerative prices.
- APMC Act emphasises on regulation and restrictions on marketing activity which create a situation which is disadvantageous to growers.
- Mandi operations were poorly designed - inefficient & lack transparency

4.8.2 E-Choupal

E-Choupal is an initiative of ITC Limited (a large diversified group in India) to link directly with rural farmers for the procurement of agricultural/aquaculture produce like soya, coffee and prawns. E-Choupal was conceived to tackle the challenges posed by the unique features of Indian agriculture, characterised by fragmented farms, weak infrastructure and the involvement of numerous intermediaries. Traditionally, these commodities are being procured in 'mandis' (major agricultural marketing centres in rural areas of India), where the middleman used to make most of the profit. These middlemen used unscientific means to judge the quality of the product, the price difference in the payout for good quality and inferior quality was less and hence there was no incentive for the farmers to produce good quality yield. With e-choupal, role of the middleman was restricted.

ITC Limited has now established computers and Internet access in key rural areas, where the farmers can directly negotiate the sale of their produce with ITC Limited. The PCs and Internet access at these centres enable the farmers to obtain information on mandi prices, good farming practices and place orders for agricultural inputs like seeds and fertilizers. This helps farmers in improving the quality of produce, and also helps in realising a better price. Each ITC Limited kiosk having an access to Internet is run by a sanchalak—a trained farmer. The computer housed in a farmer's house is linked to the Internet via phone lines or by a VSAT connection and serves an average of 600 farmers in 10 surrounding villages within about a 5 km radius. The sanchalak bears some operating cost, but in return gets commissions for the e-transactions done through his eChoupal. The warehouse hub is managed by middle-men called samyojaks. The samyojak acts as a local commission agent for ITC Limited.

The system saves procurement costs for ITC Limited. The E-Choupal model is quite different from the other models, as the farmers do not pay for the information and knowledge they get from E-Choupals. ITC Limited has extracted value in the following four steps through E-Choupal

- Elimination of non-value adding activities
- Differentiating product through identity preservation
- Value-added products traceable to farm practices
- E-market place and support services to future exchange

4.8.3 Metro Cash & Carry

Cash and Carry is a new initiative in wholesaling in which services of credit and delivery are replaced with discounts. Metro's Cash & Carry's business model brings together small, medium and large-sized producers, farmers, agricultural cooperatives and manufacturers, with the dispersed community of hotels, restaurants, caterers, traders, retailers and small to medium business enterprises, under one roof. They buy directly from producers and manufacturers and sell to business customers at wholesale centres.

This way, they shorten the supply chain and thereby eliminate the high costs associated with a fragmented supply chain. They also cut costs and wastage by building modern trade infrastructure and implementing modern IT-based systems, which improve efficiency. By aggregating the demand of small and medium businesses, they are able to buy in bulk quantities at lower costs, a part of which is passed on to the customers.

Summary

- Agriculture occupies a very important place in the economic life of our country.
- Commodity markets have been serving the livelihood in the Indian economy.
- A commodity is anything for which there is demand, but which is supplied without qualitative differentiation across a given market.
- The term market means not a particular place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such a free intercourse with one another that the prices of the same goods tend to equality, easily and quickly.
- Traders frame the rules for the conduct of the business and run the market.
- Forward contract is an agreement between two parties to buy or sell an asset at a future date for a price agreed upon by both.
- The spot market is a ready market, where the sellers on the spot physically hand over goods to the buyers.
- A market in which commodities, such as grain, gold, crude oil, etc., are bought and sold for cash and delivered immediately.
- The markets in which the conditions of perfect competition are lacking are characterised as imperfect markets.
- A trader who is neither a producer nor a consumer of a produce, but operates in the markets for profit motive is an investor.
- A speculator buys holds and sells commodities in the market to get profit from the fluctuations arises in the market and associated with more of risk factors.
- Contract farming has been prevalent in various parts of the country for commercial crops like sugarcane, cotton, tea, coffee, etc.
- The contractual agreement with the farmer provides access to production services and credit as well as knowledge of new technology.
- ITC Limited has now established computers and Internet access in key rural areas, where the farmers can directly negotiate the sale of their produce with ITC Limited.

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Self Assessment

1. _____ is anything for which there is demand, but which is supplied without qualitative differentiation across a given market.
 - a. A commodity
 - b. A product
 - c. Indian economy
 - d. Forward linkage
2. _____ are markets in which business is done in accordance with the rules and regulations framed by the statutory market organisation representing different sections involved in markets.
 - a. Unregulated markets
 - b. Regulated markets
 - c. Commodity markets
 - d. Rural markets
3. _____ frame the rules for the conduct of the business and run the market.
 - a. Marketers
 - b. Middlemen
 - c. Traders
 - d. Farmers
4. _____ is normally characterised by a system of delivery by the wholesaler to the customer and the extension of credit facilities against bulk purchases.
 - a. Product
 - b. Commodities
 - c. Large-scale transactions
 - d. Wholesaling
5. The produce in the regulated markets is expected to be sold only after _____.
 - a. grading
 - b. hedging
 - c. marketing
 - d. contract
6. The markets in which the conditions of perfect competition are lacking are characterised as _____.
 - a. imperfect markets
 - b. perfect market
 - c. outside markets
 - d. village markets
7. The main feature of _____ is that farmers grow selected crops under a buyback agreement with an agency engaged in trading or processing.
 - a. commodity markets
 - b. contractual agreement
 - c. contract farming
 - d. pricing

8. _____ is a persistent situation where there is only one provider of a product or service in a particular market.
- Motives
 - Duopoly
 - Oligopoly
 - Monopoly
9. _____ is a specific type of oligopoly where only two producers exist in one market.
- Motives
 - Duopoly
 - Oligopoly
 - Monopoly
10. Which of the following is a market form in which a market or industry is dominated by a small number of sellers?
- Motives
 - Duopoly
 - Oligopoly
 - Monopoly

Chapter V

Entrepreneurship Development and Cash Management

Aim

The aim of this chapter is to:

- introduce the concept of entrepreneur and entrepreneurship
- explain role and importance of cash management
- explicate phases of entrepreneurial development programme

Objectives

The objectives of this chapter are to:

- explain need and importance of a business plan
- elaborate various tools for cash control
- determine intricacies in preparing an effective agribusiness plans

Learning outcome

At the end of this chapter, you will be able to:

- analyse entrepreneurial skills and cash management
- understand functions or importance of cash budget
- explain cash planning process

5.1 Introduction

After economic liberalisation, entrepreneurial activity is playing a major role in socioeconomic development of the country in India. In developing countries like India, for raising the living standard of the vast majority of the backward regions, planning and implementation for development of entrepreneurial programmes are essential because of their over-dependence on agriculture for employment. Thus, entrepreneurship development in rural industries appears to be the best possible alternative to find employment avenues for the rural population. The issues of educated unemployment in rural India and increase in farm income need much concentration by the extension functionaries working in the field of agriculture and allied sectors.

Extension functionaries should encourage unemployed rural youth to attempt towards entrepreneurship development. A serious attempt was made in India towards massive creation of self-employment opportunities through entrepreneurship development programmes. Recent trends in agribusiness sector and emerging ICT has substantially improved Indian agriculture system. In the modern era, agriculture is not only restricted to farm, but it has expanded to the global market system. Hence, the farmer now is not only restricted to farm and domestic market, but also has opportunity to reach global markets as an agribusiness entrepreneur.

5.2 Definition and Concept of Entrepreneurship

Entrepreneurship means to create some things new, organising and coordinating and bearing risk with economic uncertainty. Entrepreneurial activities are substantially different depending on the type of organisation that is being started. It is the name given to the factor of production which performs the function of “Enterprise”. Out of the five factors of production, i.e., land, labour, capital, organisation and enterprise, organisation does the work of coordination between different factors and makes the production possible by taking upon itself the risk or more appropriately the uncertainty of production.

That is why the entrepreneur is termed as “Uncertainty Bearer” and his function as that of Uncertainty bearing. Haggen defines entrepreneurship as “the function of seeing investment and production opportunity, organising and enterprise to undertake a new production process, raising capital, hiring labour, arranging the supply of raw materials and selecting top managers for day-to-day operation of the enterprise.”

The major factor for entrepreneurship is the achievement motivation. A society constituting individuals with a high level of need for achievement would come up as entrepreneurs. Entrepreneurship involves task accomplishment that embodies a reasonable challenge to the individual’s competence. Entrepreneurs have to work hard at tasks that involve a real challenge which imply only a moderate risk. Entrepreneurs have many of the same traits as leaders.

5.3 Entrepreneur

According to McClelland entrepreneur is “someone who exercises some control over the means of production and produces more than what he can consumed in order to sell it for profit. He executes the functions of coordination, organisation and supervision. Entrepreneur is basically an innovator who introduces new combinations. An entrepreneur is one who creates a new business in the face of risk and uncertainty for the purpose of achieving profit and growth by identifying opportunities and assembling the necessary resources to capitalise on them. He conceives an industrial enterprise for the purpose, displays considerable initiative, grit and determination in bringing his project into fruition. During the process entrepreneur exhibits some of the following characteristics:

5.3.1 Desire for Responsibility

Entrepreneur feels a deep sense of personal responsibility for the outcome of ventures he starts. He prefers to be in control of his resources and use those resources to achieve self-determined goals.

5.3.2 Preference for Moderate Risk

Entrepreneurs are not mere risk takers, but are instead calculating risk takers. Their goals may appear to be high or even impossible. However, they see the situation from a different perspective and believe that their goals are realistic and attainable. They usually select only those areas of opportunity, where they reflect their knowledge, backgrounds, and experiences, which increase their probability of success.

5.3.3 Confidence to Succeed

Entrepreneurs typically will take the challenges with confidence in their ability to succeed. They tend to be optimistic about their chances for success, and their optimism is based in reality.

5.3.4 Desire for Immediate Feedback

Entrepreneurs enjoy the challenge of running a business avoiding risks, and they like to know how they are running their business through constant feedback from the customers.

5.3.5 High Level of Energy

Entrepreneurs are more energetic than the average person. That energy may be a critical factor given the incredible effort required to launch a start-up company. Long hours and hard work are the rule rather than the exception.

5.3.6 Future Orientation

Entrepreneurs have a well-defined sense of searching for opportunities. They look ahead and are less concerned with what was done yesterday than with what might be done tomorrow. Entrepreneurs see potential where most people see only problems or nothing at all. In contrast to traditional managers who are concerned with managing available resources, entrepreneurs are more interested in spotting and capitalising on opportunities.

5.3.7 Skill at Organising

Building a company “from scratch” is much difficult task. Entrepreneurs know how to put the right people together to accomplish a task.

5.3.8 Value of Achievement over Money

It is a common misconception that entrepreneur starts his business to make money. However, it is difficult to say what will be the force behind an entrepreneur’s motivation. Sometimes, money may be only a secondary force.

An Entrepreneur puts his innovative ideas into effect in the process of economic development. The important factor of entrepreneurship is the ability to create new and useful ideas that solve the problems and challenges people face every day. Entrepreneurs achieve success by creating value in the marketplace by utilising the resources in an innovative way to sustain the product competitively in the market which in turn satisfies the customer’s needs. Creative thinking is a core business skill which every entrepreneur needs to acquire. Entrepreneurship is the result of a disciplined, systematic process of applying creativity and innovation to needs and opportunities in the market place.

Entrepreneurship is a commitment to expand and grow the major determinants of industrial development which leads to economic growth of the country. It has been identified as an essential factor for economic development of the country. The basic objective of an entrepreneurship development should be to develop the man and competencies required to initiate, manage, and expand the entrepreneurial activity. Hence, it is very much important to pay attention towards conceptualisation, planning, implementation and management of a business idea. It involves applying focused strategies to mould new ideas to create a product or services that satisfies customers’ needs or solves their problems. Thus, business plan is a prerequisite which helps an entrepreneur to execute his creative ideas into course of action.

5.4 Types of Entrepreneurs

According to Clarence Dan of entrepreneurs are classified into four types:

- **Innovating entrepreneurs:** In this category, entrepreneur introduces new goods/service, invent new method of production, discovers new market and reorganises the enterprises. This kind of entrepreneur can be comfortable with certain level of development already achieved and when people look forward to change and improvement.
- **Imitative entrepreneurs:** These people are characterised by readiness to adopt successful innovation, but do not innovate.
- **Fabian entrepreneurs:** These particular entrepreneurs are characterised by great caution and skepticism in experimenting any change in their enterprises.

- **Drone entrepreneurs:** Entrepreneurs of this category exhibit the characteristics of refusal to adopt opportunities to make changes in production methods, despite of reduced returns as compared to similar producers. Even they may suffer from the loss; however they are not ready to make changes in their existing production methods.

Apart from this classification, some more categories of entrepreneurs are listed by behavioural scientists. They are as follows:

- **Solo operators:** Essentially work alone and if needed, they only take few employees.
- **Agripreneurs:** People of these kinds venture into agriculture and allied sectors.
- **Women entrepreneurs:** Those women, who think of business enterprise, initiate it, organise and combine the factors of production, operate the enterprise and undertake risks and handle economic uncertainty involved in running a business enterprise.
- **Inventors:** Characterised by competence and inventiveness to invent new product and show interest in research and innovative activities. E.g., Scientists who contributed for innovation.
- **Challengers:** Entrepreneurs who plunge into industry because of the challenges it presents. Even after facing the challenge, they look for the new one.
- **Lifetimers:** These entrepreneurs take business as an integral part to their life. Usually the family enterprises and business run with their personal skill belong to this category.
- **Social entrepreneurs:** These entrepreneurs involve in social activities. People who engaged their service in NGOs, voluntary organisations, etc., are noted in this category. Even if they run business, certain portion of the profit will be utilised for the social activities. Mostly shows high social responsibility.

Intrapreneurs

- **New breed of entrepreneurs:** Operate from within the organisation itself.
- **Emerge from within the confines of existing enterprise.**
- **Dependent on the entrepreneur for some activities (E.g., Fund raising)**
- **Not fully bear the risks involved in the enterprise.**

5.5 Entrepreneurial Traits of Agripreneurs

What makes the entrepreneurs successful? Whether have they anything common in their personal characteristics? The scanning of their personal characteristics shows that there are certain characteristics or traits which are found usually prominent in them. Achievement motivation, risk-taking ability, leadership ability, decision-making ability, innovativeness, management orientation, and self confidence, attitude towards self employment and income generation and information seeking are some of the important entrepreneurial traits for any entrepreneur reported by various researchers.

- **Achievement motivation:** The achievement motivation is one of the traits required by the agripreneurs. It is the basic urge for the entrepreneur to become enterprising.
- **Risk-taking ability:** Any enterprise or venture normally circumvents with all kinds of risks. Especially in agribusiness enterprises, it is unpredictable. Hence, agripreneurs should assume more of risks than any other business venture. Randhawa and Goleman reported that agripreneurs should have the willingness to take risk, while facing tough situations. Agribusiness is complex and risky prone ventures in all spheres, agripreneurs necessarily exhibit the traits of risk taking ability.
- **Leadership ability:** Agriventures as an enterprise is a group activity which demands team work and leadership abilities.
- **Decision-making ability:** The decision-making ability generally depends on education, better communication behaviour, large-scale awareness about the developmental practices in that particular enterprise. Such factors will support the decision-making ability of entrepreneurs. Taking right decision, at right time, at right place (Production and post production activities) will be the most essential traits of successful entrepreneurs. Any failure will attribute for unsuccessful performance.

- **Innovativeness:** Innovativeness towards the developmental activities and new technologies in the Agri-enterprise innovativeness significantly affect the leadership qualities of entrepreneurship in the process of development.
- **Management orientation:** Management orientation included orientation towards planning, production practices, marketing information and awareness about the new technologies and developmental practices to improve the productivity of agri-enterprises.
- **Self confidence:** Literacy level and good exposure will certainly extend to support self confidence.
- **Information seeking:** The people who have adequate education, innovativeness, enthusiastic will exhibit good information seeking behaviour. Any business enterprise requires wide variety of information related to production and post production. Hence, an entrepreneur should possess adequate information seeking behaviour.

5.6 Entrepreneur vs. Entrepreneurship

Though, we use the term entrepreneur often interchangeably with entrepreneurship, yet they are conceptually different. The relationship between entrepreneur and entrepreneurship is given in the table.

Entrepreneur	Entrepreneurship
Person	Process
Organiser	Organisation
Innovator	Innovation
Risk bearer	Risk bearing
Motivator	Motivation
Creator	Creation
Visualiser	Vision
Leader	Leadership
Imitator	Imitation

Table 5.1 Entrepreneur vs. entrepreneurship

5.7 Factors Required to Motivate Entrepreneurs to Start Enterprises

It is important to know what factors motivate the entrepreneurs to start enterprises. Various researchers have tried to identify the factors that motivate people to start business enterprises. Such factors will be immensely useful, whenever we design entrepreneurial development programme for the targeted people. The factors identified are as follows:

- Entrepreneur should possess technical knowledge or manufacturing experience in the same/related line.
- There might be a heavy demand for the particular product.
- Availability of governmental and institutional assistance.
- Achievement motivation to do something.

5.8 Cash Management

Cash is one of the current assets of the business. It is needed at all times to keep the business going. A business concern should always keep sufficient cash for meeting its obligations. Any shortage of cash will hamper the operations of a concern and any excess of it will be unproductive. Cash is the most unproductive of all the assets. While fixed assets like machinery, plant, etc., and current assets, such as inventory will help the business in increasing its earning capacity, cash in hand will not add anything to the concern. It is in this context that cash management has assumed much importance.

What is cash management? Every undertaking is desirous of utilising the available cash most effectively so as to accomplish the goals of the undertaking, i.e., maximisation of profits or wealth of the owners of capacity with the minimum efforts. However, management of cash is not as simple as it appears. In case, the undertaking does not keep sufficient cash in hand, it may not be in a position to meet the unexpected challenges that may bring down its credit in the market. On the other hand, if the undertaking maintains excessive cash revenue to meet the challenges the excessive cash will remain idle in the business, contributing nothing towards the wealth of the firm.

If heavy amounts are blocked for unforeseen contingencies, the company will not be in a position to carry on its day-to-day working efficiently. It is where the real problem of cash management comes, i.e., how much cash should be set aside for unexpected challenges and how much for regular day-to-day working. Therefore, the aim of cash management is to maintain a sound cash position to keep the firm sufficiently liquid and to use the excessive cash, if any, in some profitable way.

5.9 Problems of Cash Management

Cash management has problems attached to it. We can examine these problems under the following four heads.

5.9.1 Controlling Level of Cash

Every undertaking desires to keep minimum balance of cash for its unforeseen obligations. What that minimum amount of cash should be is really a problem for financial management to solve. In deciding the level of cash, the following considerations should be taken into account.

5.9.2 Predictable Discrepancies

The basic tool for management to forecast the predictable discrepancies between cash inflow and outflow is cash budget. Cash budget reveals the timing and the size of net cash flow as well as the period during which surplus cash may be available for temporary investment. In small concerns, preparation of cash budget is a very minor job while in large companies; the job is assigned to the controller of finance and is a full-time job. Cash budget may be short-range cash budget and long-range cash budget. Short-range cash budget is usually of duration of 6-12 months.

It is generally regarded as a basic financial working tool to determine operating cash requirements, to anticipate the need for short-term financing and to manage investments. The short-term forecasts may be of great help in optimising bank relationship by indicating the highest and lowest of the cash and the timing of its flow in and out of the company. It also helps in planning education of long-term bets, guiding dividend policy, co-coordinating divisional financial needs, taking advantage of cash discount planning forward purchasing, etc. In addition, revision and review is a regular feature. Informal reviews are carried on between formal reviews. Some big companies have developed their own standard forms to maintain uniformity information.

5.9.3 Unpredictable Discrepancies

In addition to the predictable discrepancies, there are certain unpredictable discrepancies like strike, lock out, recession, rise in the cost of material, etc. It is desirable to reserve an adequate balance of cash to meet such contingencies. These events either may interrupt the inflow of cash or cause a sudden outflow of cash which the undertaking did not expect. The amount kept in reserve for such eventualities is in the nature of insurance. The amount should be very carefully earmarked because if no such eventuality arises, the company will lose its profits, which should have been earned, had the amount been earned, had the amount been invested in business.

5.9.4 Sources of Funds

Cash level depends very much on the sources of funds from which a company can obtain funds at short notice. Creditability of the company counts much in this regard. They say the better the credit standings, the smaller the amount of cash to be maintained by the company. The company is required to maintain less cash, if it has internal sources of funds to meet unpredictable expenses. It may sell its redundant machinery and equipment; assign its receivables or other assets convertible into cash.

5.9.5 Relations with Banks

The level of cash balance is determined, to a great extent by relationship of a company with banks. Relationship with banks very much depends upon the creditability of the concern. If the company has cordial relations with banks, banks will come forward to assist the undertaking as and when it needs cash. Company will have to maintain less cash to meet its unexpected challenges. On the other hand, it depends much on their services which the company will like to have from banks, i.e., cash credit arrangement, discounting and collecting the bills, control of balances, etc. In this context, points of major importance are financial conditions of the bank, its location, the services it offers and the managerial ability of its chief officers.

5.10 Controlling Inflow of Cash

Adequate control of cash inflow is an important problem before every business executive with a view not only to prevent fraudulent diversion of cash receipts, but also to collect cash speedily. Fraudulent diversion of cash can be checked easily by installing an internal check system by breaking the job of cash receipts into several stages, each handled by a different employee. However, collections of cash speedily, i.e., inflow of cash can be controlled by adopting lock box system or collecting funds through regional officers.

5.10.1 Lock-box System

This system is quite popular in U.S.A. It is a technique for speedy collection of cash from debtors. Under this system, deposit accounts are opened with new or more banks, geographically so located that remittances from customers do not take more than one day in transit. Customers mail their remittances to the lock-box in the post office that serves the company's regional bank. The bank collects cheques from the lock-box several times a day, clears them and deposits the amount in the account of the customers; bank emits the excess funds to the company in accordance with the arrangement after maintaining the minimum balances to cover the costs or may be drawn by the company treasurer at his discretion. This system speeds up collections of cheques. The company comes to know of dishonoured cheques and weak credit situations sooner. It also reduces the chances of fraud in the collection process of cash as it controls the incoming cash better.

5.10.2 Collections Through Regional Branch Officers

It is another method for collecting cash speedily. Under this system, the company's regional branch officers are authorised to collect the payments from the customers and deposit them in the local office of the banks. The local officers in turn transfer the amount to the company's head office bank, telegraphically or by telexes. Regional officers maintain an account of cost of remittances paid by them. The Head office either collects the amount or may instruct the regional officers to make the payments to suppliers. The system is good when business of the company is spread over throughout the country and the amounts to be collected are of small value.

5.10.3 Controlling Outflow of Cash

Controlling outflow of cash is as important as controlling inflow in the interest of the customers as well. Every company knows by experiences the peak timings of cash inflows and outflows. The problem is that of adjustments of timings between inflows and outflows which must be planned properly, in the absence of any proper planning there shall either be overflow of cash or unnecessary drain on un-liquid cash. In order to control the outflow of cash, most of the companies flow the system of centralised cash payments. Under this system, all receipts are transferred from subsidiaries to the central office and central office in turn accepts and pays the creditor's bills direct to the parties. Bills for local expenses are, however, paid by the local office of the company.

5.10.4 Optimal Investment of Surplus Cash

After controlling inflows and outflows of cash, the next problem is that of investment of surplus cash available with the company, for a short period. The finance executive will have to use its discretion as far as the decision for investment of surplus cash is concerned. Cash surplus can be temporary or permanent. Temporary cash surplus is composed of funds available for investment on short-term basis as they are required to meet the regular obligations, such as taxes, dividends, etc.

5.11 Cash Planning

Planning and control of cash is the central point of all finance functions. It is one of the primary responsibilities of financial management to maintain an adequate supply of cash. Ample cash funds are the index of liquidity of financial resources and the profitability of the firm. Inadequacy of funds or non-availability of cash when it is needed may have serious setback to an undertaking, but this does not imply that there must be ample funds to remain unutilised in the business. In order to maintain the flow of cash, cash planning is necessary.

5.11.1 What is Cash Planning and Control?

Cash planning is nothing, but simply to forecast the cash needs well in advance for a given period with a view to maintain adequate cash balance in hand, sufficient to meet the payments and obligations as and when they mature. Thus, it includes forecasting of cash inflows and cash outflows. Cash planning includes cash control as well. Cash planning is a technique to plan for and control the use of cash. It involves formation and sound cash management policies, procedures and practices. Sound cash planning does not only cover the amount of cash required for day-to-day operations, but it must make allowance for abnormal situations also which are likely to occur in the business. Cash for normal operations is easy to predict, but it is not so easy to forecast the requirements of cash for contingencies. Cash control involves proper implementation of policies and procedures regarding inflow and outflow of cash. It includes short-term investment plans, when cash is surplus and borrowing programmes during the days of cash deficit.

5.11.2 Tools for Cash Control

Proper cash control is possible only when there is a person responsible for planning and controlling the cash. Business exigencies and government policies should also be taken into account while planning the control of cash. We can control the cash position with the following tools.

- Cash budget report: Cash Budget is also a good tool for cash control. For this purpose, a cash budget report is prepared as a supplement to cash budget.
- Inflow and outflow of cash: In order to check the diminution in cash position, a cash flow statement is prepared. It helps controlling inflows and outflows of cash.
- Ratio analysis: Cash ratios are also important tools of cash control. Various cash ratios are used which explain the efficiency of cash management.

Following are the tools of cash planning:

- Net cash forecast: Forecast of net cash means forecast of cash inflows and cash outflows for a given period.
- Cash budget: Cash Budget is the second tool of cash planning. It is a systematic forecast of cash requirement, i.e., forecast of cash inflows and outflows and thus shows the probable surplus or deficiency of cash flow, policies regarding other functions such sales, production, marketing, etc.
- Forecasting an overall working capital position: This is also an important tool of cash planning. Working capital analysis forecasts the value of current assets and current liabilities to know the cash position of the business.

5.12 Cash Budget

One of the major responsibilities of financial management is to maintain an adequate cash balance to ensure the business to make available sufficient cash to meet its needs as and when they arise. The following are the features of cash budget:

- Cash budget is an analytical device to estimate the flow of cash in any business over a future period of time.
- It presents an estimate of cash inflows and outflows. It involves a projection of future cash receipts and cash disbursement of the firm over various intervals of time.
- It reveals to the financial manager the timing and amount of expected cash inflows and outflows over the period studied.

5.12.1 Functions or Importance of Cash Budget

The importance of cash budget may be summarised as follows:

- **Evaluation of performance:** Cash budget acts as a standard for evaluating the financial performance by comparing the actual performance with the budget figures. If deviations are positive, the performance may be regarded as good.
- **Sound dividend policy:** Cash budget plans for cash dividend to shareholders consistent with the liquid position of the firm. It helps in following a sound consistent dividend policy.
- **Helpful in planning:** Cash budget helps planning for most efficient use of cash. It points out cash surplus or deficiency at selected points of time and enables the management to arrange for the deficiency before time or to plan for investing the surplus money as profitably as possible without any threat to the liquidity.
- **Controlling cash expenditure:** Cash budget acts as a controlling device. The expense of various departments in the firm is controlled, so as not to exceed the budgeted limit.
- **Testing the influence of proposed expansion programmes:** Cash budget forecasts its impact on cash position.
- **Forecasting the future needs of funds:** Cash budget forecasts the future needs of funds, its time and the amount well in advance. It, thus, helps planning for raising the funds through the most profitable source at reasonable terms and costs.
- **Maintenance of ample cash balance:** Cash is the basis of liquidity of the enterprise. Cash budget helps in maintaining the liquidity. It suggests adequate cash balances for retiring the obligations and to the liquidity.
- **Basis of long-term planning and co-ordination:** Cash budget helps in coordinating the various finance functions, such as sales, credit, investment, working capital, etc.

Summary

- After economic liberalisation, entrepreneurial activity is playing a major role in socioeconomic development of the country in India.
- The issue of educated unemployment in rural India and increase in farm income needs much concentration by the extension functionaries working in the field of agriculture and allied sectors.
- Entrepreneurship means to create some things new, organising and coordinating and bearing risk with economic uncertainty.
- According to McClelland entrepreneur is "someone who exercises some control over the means of production and produces more than what he can consume in order to sell it for profit."
- An entrepreneur is one who creates a new business in the face of risk and uncertainty for the purpose of achieving profit and growth by identifying opportunities and assembling the necessary resources to capitalise on them.
- Entrepreneur feels a deep sense of personal responsibility for the outcome of ventures he starts.
- Entrepreneurs are not mere risk takers, but are instead calculating risk takers. Their goals may appear to be high even impossible.
- An entrepreneur puts his innovative ideas into effect in the process of economic development.
- Entrepreneurship is a commitment to expand and grow the major determinants of industrial development, which leads to economic growth of the country.
- The achievement motivation is one of the traits required by the agripreneurs. It is the basic urge for the entrepreneur to become enterprising.
- The decision-making ability generally depends on education, better communication behaviour, large-scale awareness about the developmental practices in that particular enterprise.
- The basic tool for management to forecast the predictable discrepancies between cash inflow and outflow is cash budget.
- Cash budget may be short-range cash budget and long-range cash budget.
- Cash level depends very much on the sources of funds from which a company can obtain funds at short notice.
- Relationship with banks very much depends upon the creditability of the concern.
- Adequate control of cash inflow is an important problem before every business executive with a view not only to prevent fraudulent diversion of cash receipts, but also to collect cash speedily.

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Self Assessment

1. _____ involves task accomplishment that embodies a reasonable challenge to the individual's, competence.
 - a. Entrepreneurship
 - b. Organisation
 - c. Leader
 - d. Buyer

2. An _____ is one who creates a new business in the face of risk and uncertainty for the purpose of achieving profit and growth by identifying opportunities and assembling the necessary resources to capitalise on them.
 - a. entrepreneurship
 - b. organisation
 - c. leader
 - d. entrepreneur

3. _____ exhibits the characteristics of refusal to adopt opportunities to make changes in production methods, despite reduced returns as compared to similar producers.
 - a. Fabian entrepreneurs
 - b. Innovating entrepreneurs
 - c. Imitative entrepreneurs
 - d. Drone entrepreneurs

4. Which category entrepreneurs introduce new goods/service, invents new method of production, discovers new market and reorganises the enterprises?
 - a. Fabian entrepreneurs
 - b. Innovating entrepreneurs
 - c. Imitative entrepreneurs
 - d. Drone entrepreneurs

5. _____ are characterised by readiness to adopt successful innovation, but do not innovate.
 - a. Fabian entrepreneurs
 - b. Innovating entrepreneurs
 - c. Imitative entrepreneurs
 - d. Drone entrepreneurs

6. _____ are characterised by competence and inventiveness to invent new product and show interest in research and innovative activities.
 - a. Inventors
 - b. Agripreneurs
 - c. Challengers
 - d. Solo operators

7. _____ are the entrepreneurs who plunge into industry because of the challenges it presents?
 - a. Inventors
 - b. Agripreneurs
 - c. Challengers
 - d. Solo operators

8. Match the following

1. Lifetimers	A. People who engaged their service in NGOs.
2. Social entrepreneurs	B. Women, who think of business enterprise
3. Solo operators	C. Take business as an integral part to their life.
4. Women entrepreneurs	D. Essentially work alone and if needed only take few employees.

a. 1-B, 2-D, 3-A, 4-C

b. 1-A, 2-D, 3-C, 4-B

c. 1-C, 2-A, 3-D, 4-B

d. 1-D, 2-B, 3-A, 4-C

9. _____ reveals the timing and the size of net cash flow as well as the period during which surplus cash may be available for temporary investment.

a. Cash budget

b. Cash Management

c. Business asset

d. Cash level

10. _____ is a technique to plan for and control the use of cash.

a. Cash planning

b. Cash control

c. Cash Budget

d. Cash balance

Chapter VI

Rural Marketing and Procurement

Aim

The aim of this chapter is to:

- introduce the meaning and the objectives of rural marketing
- explain the importance of procurement
- elucidate procurement management environment

Objectives

The objectives of this chapter are to:

- determine the scope of agriculture
- analyse procurement
- enlist types of purchasing

Learning outcome

At the end of this chapter, you will be able to:

- distinguish characteristics of rural markets
- understand rural marketing strategies
- explain rural vs. urban consumer

6.1 Introduction

Of late, rural markets have acquired significance as a result of substantial increase in the purchasing power of the rural communities. On account of the green revolution, the rural areas are consuming a large quantity of industrial and urban manufactured products. In this context, a special marketing strategy, namely, rural marketing has emerged. Rural Marketing means delivering manufactured or processed inputs or services to rural producers or consumers.

6.2 Rural Marketing

Rural marketing facilitates flow of goods and services from rural producers to urban consumers at a possible time at reasonable prices, and agriculture inputs/consumer goods from urban to rural. Marketing is an exchange function; it started much earlier when civilisation began, but was not recognised as marketing. All economic goods are marketed in terms of goods and services (Barter system). Now, money is used as a good exchange medium. The surplus produce is brought to sophisticated places where both buyers and sellers meet and exchange goods, services and ideas in terms of money. The market may be a street, or a small town/metropolitan city. Developments in infrastructure, transport, and communication facilities increased the scope of the rural market. The advent of PURA (Providing Urban amenities in Rural areas) has further widened the scope and importance of rural marketing.

6.3 Profile of Indian Rural Market

The difference between rural and urban markets is on the basis of various socio economic factors, viz., the source of income, the frequency of receipt of income, the seasonal nature of income and consumption. Rural markets are small, non-contiguous settlement units of village with low infrastructure facilities and low density of population. Rural consumers are mostly farmers, whose income receipts are dependent on the vagaries of monsoon and nature. The following are the facts related to Indian Rural Market (According to the Estimates of 2000).

- 742 million people
- Estimated annual size of the rural market
- FMCG Rs 65,000 Crore
- Durables Rs 5,000 Crore
- Agri-inputs (incl. tractors) Rs 45,000 Crore
- 2/4 wheelers Rs 8,000 Crore
- In 2001-02, LIC sold 55 % of its policies in rural India.
- Of the six lakh villages, 5.22 lakh have a Village Public Telephone (VPT).
- 41 million Kisan Credit Cards issued (against 22 million credit-plus-debit cards in urban) with cumulative credit of Rs 977 billion resulting in tremendous liquidity.
- 42 million rural households availing banking services in comparison to 27 million urban.
- Investment in formal savings instruments: 6.6 million HHs in rural and 6.7 million in urban.

6.4 Features of Indian Rural Markets

Some features of Indian rural markets are explained in the paragraphs given below:

Heterogeneity

Rural markets comprise of heterogeneous population. Various tiers are present depending on the incomes like landlords; traders, small farmers, marginal farmers, labours, artisans. State-wise variations exist in rural demographics like literacy (Kerala 90%, Bihar 44%), population below poverty line (Orissa 48%, Punjab 6%), etc.

Annual income

Number of middle class House Holds (annual income Rs 45,000- 2,15,000) for rural sector is 27.4 million as compared to the figure of 29.5 million for urban sector. Rural incomes of CAGR were 10.95% compared to 10.74% in urban between 1970-71 and 1993-94.

Collective decision making

In rural markets, decision-making process is collective. Purchase process, influencer, decider and buyer can all be different. Hence, marketers must address brand message at several levels. Rural youth brings brand knowledge to households.

6.5 Marketing Strategies

It is very important to note by the marketers that the rural markets are not dumping grounds for low-end products basically designed for an urban audience.

6.5.1 Product

The winning strategy of organisations in rural markets is to focus on their core competency, such as technological expertise to design-specific products for the rural economy. Launch of sachets is the most remarkable example in this context which has transformed the rural market considerably as packaging in smaller units and lesser-priced packs increases the product's affordability. Along with the cultural dynamics, the needs and latent feelings of the rural people have to be well understood by the marketers before launching products in rural segments. Marketers would do well to first understand this and then designing products accordingly. Another very important factor is the proliferation of spurious products. Majority of rural masses are illiterate people and they identify a product by its packaging (colour, visuals, size, etc.). So, it becomes very easy for counterfeit products to eat into the market share of established reputed brands. The retailer also gets a larger profit on selling the counterfeits rather than the genuine products and hence is biased towards the fakes.

6.5.2 Pricing

The rural market remains quite price-sensitive and thus squeezing costs at every stage is of vital importance. Some marketers like HLL are in process of enhancing their control on the rural supply chain through a network of rural sub-stockists, who are based in the villages only.

6.5.3 Sales

Marketers need to understand the psyche of the rural consumers and then act accordingly. Rural marketing involves more intensive personal selling efforts compared to urban marketing. Firms should refrain from designing goods for the urban markets and subsequently pushing them in the rural areas. Marketers should reach the customers by utilising the various rural folk media like celebrations, festivals, melas and other activities where they assemble.

6.5.4 Distribution

Companies would also do well to have proper sales and distribution network. In terms of sheer reach the companies can gain significant competitive advantages as the rural market is highly fragmented and a brand needs to be on the shop shelf before it can be sold. Companies should also make sure that the prices of their products are not pushed up because of a channel of middlemen who are neither required nor add any value to the product. One of the ways could be using company delivery vans which can serve two purposes as it can take the products to the customers in every nook and corner of the market and it also enables the firm to establish direct contact with them and thereby facilitate sales promotion.

Annual "melas" organised are quite popular and provide a very good platform for distribution, because people visit them to make several purchases. Rural markets have the practice of fixing specific days in a week as Market Days (often called "Haats") when exchange of goods and services are carried out. This is another potential low-cost distribution channel available to the marketers. Also, every region consisting of several villages is generally served by one satellite town (termed as "Mandis" or Agri-markets) where people prefer to go to buy their durable commodities. If marketing managers use these feeder towns, they will easily be able to cover a large section of the rural population.

6.5.5 Promotion

The use of traditional media for creating awareness about their products in the rural markets will be an effective promotional strategy. The need for unconventional media arises as mass media is too glamorous, interpersonal and unreliable for a rural consumer. The traditional media on the other hand with its effective reach, powerful input and personalised communication system will help in realising the goal. Besides this, when the advertisement is couched in entertainment, it goes down easily with the villager. The advantages of traditional media which make it a powerful marketing communication channel are as follows:

- Accessibility is high
- It involves more than one sense
- Interest arousal capability is high
- Cost is minimum

There are few companies which have used traditional media effectively and reaped rich dividends. Brooke Bond Lipton India Ltd (BBLIL) markets its rural brands through magic shows and skits. Firms must be very careful in choosing the mode of communication. Access to a vernacular newspaper is very low. Hence, audio visuals must be planned to convey a right message to the rural folk. The rich, traditional media forms like folk dances, puppet shows, etc., with which the rural consumers are familiar and comfortable, can be used for high impact product campaigns. E.g., media mix strategy

6.6 Rural Market Needs

The following are the major areas to be addressed by organisations poised to take a major share of rural markets. Though the list is not exhaustive, it enables “The Rural Players” to frame up the following strategies to cater to the customers in these markets:

- Small unit packing
- Simple and easily understandable literature in local language
- New product designs
- Sturdy products
- Proper selection of colours
- Utility-oriented products
- Mnemonics and brand name (It should be easy to recognise)
- Usage of Logos
- Basic packaging
- Reusable packaging
- Innovative distribution strategies
- Developmental marketing
- Extensive distribution
- Appointing opinion leaders
- Relevant promotional strategies with blend of appropriate media mix
- Taking care of price sensitivity

In agricultural marketing, use of marketing information system is indispensable, because it is essential for all the stakeholders (the farmers, traders and consumers) in agriculture value chain for the improvement. Especially, the farmers and traders are helped by providing the market information of agricultural commodities by way of publishing in the Newspapers, Magazines’ and Government Bulletins, transmitting/broadcasting on the Radio, T.V., etc. The ICT applications in areas, such as supply chain management, logistics, transactions, market creation, information on pricing, etc., makes a remarkable utility in the agriculture value chain. Different agencies from Government, private and NGOs have made a significant initiative in the form of research models, projects in providing information to the

online with agricultural market information. Some of the novel attempts, viz., e-procurement (MCX), e-auction for cardomum (Spice Board of India), e-marketing (ITCe- choupal) and e-governance (Kerala) are worth mentioning. The lesson learned from the experiments helps the policy makers to think of scaling up of the successive model wherever applicable.

6.7 Procurement

Purchase (procurement) is as important function as production and marketing in contributing to profit and other objectives of an organisation. It deserves all the skills and knowledge of modern professional management. The importance of procurement function in agro-business is even more due to the following reasons:

- Cost of raw material constitutes a very high percentage of the total cost of processed products
- It involves operations under highly fluctuating markets
- It affects the economy of large number of producers (farmers) often inviting government intervention

The importance of agro-processing is increasing in view of the expected large growth of demand for processed products for internal consumption and exports, entry of a number of large national and multinational corporations in an organised manner. Retailing of processed agro-based products, fresh fruits and vegetables and other agricultural commodities has further created demand for professional procurement managers. On socio-economic front, agri-business has a high potential for generation of non-farm employment. Hence, procurement of agricultural raw materials is expected to provide more challenging opportunities in years to come.

6.8 Nature of Agricultural Commodities

Procurement is an integral part of materials management.

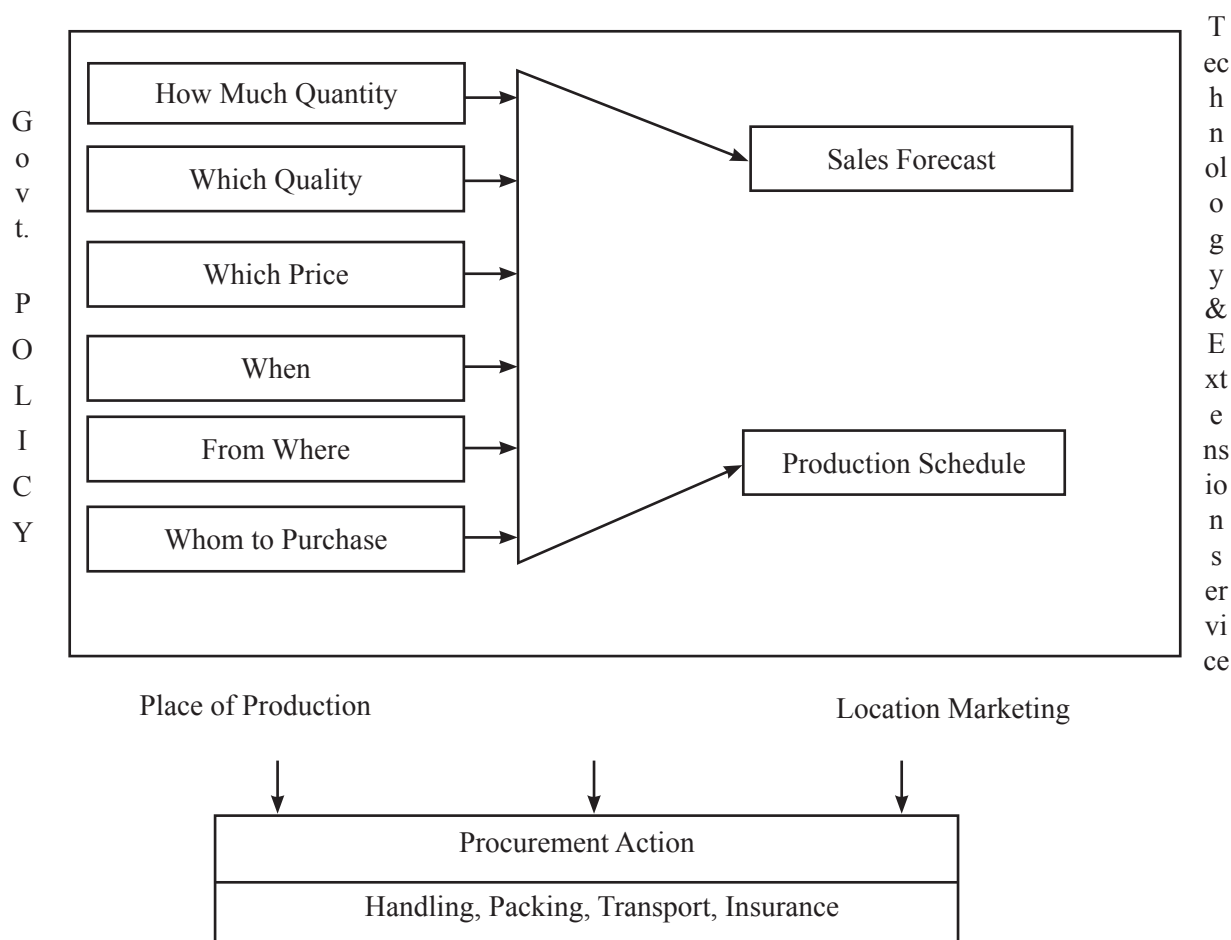


Fig. 6.1 Nature of agricultural commodities

(Source: <http://www.manage.gov.in/pgdaem/studymaterial/aem202.pdf>)

Purchasing is an integral, important and profit-making part of business management. Agricultural commodities procurement is affected due to their perishable nature, seasonality of production, production density, degree of freedom in quality control, etc. All these individually and interactively, influence organisational pattern and management structure of procurement system as well as processing units, and organised retailing.

6.8.1 Perishable

Some of the agricultural commodities, such as milk, green leafy vegetables, and some fruits are highly perishable. These have to be procured as soon as produced, marketed/processed immediately so that quality is not lost and wastage is minimised before these reach the consumer.

6.8.2 Season Specific

Some of the agricultural raw materials are produced during specific season. For example, wheat is produced in winter (Rabi season), harvested in March-April and arrives in mandis, April onwards. Paddy is cultivated in rainy season (Kharif) and generally harvested in November (though in some regions of the country it is cultivated all the year round). Hence, procurement period for these crops is different. Similarly, there are fruits and vegetables that are available only in certain seasons. Thus, the seasonality of production determines the timing of procurement.

6.8.3 Region and Agro-climatic Specific

There are certain crops which grow only in certain locations having the needed agro-climatic conditions, e.g., apples in Kashmir and Himachal Pradesh, grapes in and around Nasik and Hyderabad, while onions cultivated all over India, are primarily available in and around Nasik. Tea is grown in North Bengal and Ooty Hills. Coffee and spices in South India's coastal belt.

6.8.4 Essential Commodities

There are certain commodities which are considered as essential commodities as this form a major part of the food and consumption. These commodities are essential for survival and health of the people. These are cereals, pulses, oilseeds, oil, milk, sugar, salt, etc. Central and State governments keep a constant watch on production, movement, availability and prices of such commodities. It keeps large buffer stock of cereals and controls the prices of many essential commodities. A procurement manager has to be aware of government policy and regulations, while dealing with such commodities.

6.8.5 Price Variations

These said reasons, agricultural commodities are subjected to high price variations. The price variations greatly affect the purchasing decision in terms of quantity purchased for production of finished products, fixation of price for the consumable products, difficulty in competing with alternate products, etc., thus, you as a procurement manager needs to be aware of the following:

- The characteristics/nature of commodities
- The place of production
- The location of mandis where a particular raw material can be purchased
- Government policy and regulations related to marketing of agricultural commodities especially, essential commodities
- Price variations

6.9 Scope of Agriculture

The scope of "Agriculture" is very vast as it encompasses entire bio-mass produce by plants, livestock and other animals (both land and aquatic) insects and micro-organisms, each covering numerous species and subspecies.

Every primary agricultural commodity and organic residue, animal by-products and waste, fishery and forest by-products have potential for developing a series of industries, and thus urging proper planning for procurement in order to ensure timely production. The biomass provides numerous opportunities for commercial and industrial

exploitation, which contribute to economic growth. The biomass processing chain provides a variety of products even from common food crops. For example, the below table portrays the range of major products and by-products from the paddy explores the scope and possibility of various commercial products.

Major Products from Paddy	Subsequent processed products from the major products
Rice	Rice products (puffed rice, poha, noodles, etc.), starch, wine from rice
Bran	Rice bran oil, de-oiled cake, cattle feed, wax, tar
Husk	Cement, coal briquettes, husk board, furfural oil, Silica, etc.
Straw	Straw board, paper, handicraft products

Table 6.1 Range of major products and by-products from the paddy

Similarly, various products can be produced from other commodities like sugarcane, groundnut, coconut, cassava, maize, cotton, castor, horticultural crops, forest produce, animal and fish, and insects like silkworm and honeybee. Commercial enterprises could also be developed from cultivation/procurement of wild plants (especially medicinal crops) and rearing of wild animals like rabbit, crocodile, snake and butterflies. In fact, there are number of big companies having vertically integrated plants processing primary products, associated products, and by-products. Common among these are paddy, sugarcane, cotton, maize, castor, etc. While the basic concepts and principles of material management are applicable to procurement of agricultural raw materials, while applying these concepts you should be aware of the above mentioned differences between the industrial raw materials and agricultural raw materials. Hence, the agricultural commodities should be handled with due care by considering its perishability, seasonality, productivity, quality of agricultural commodities.

6.10 Procurement Management Environment

Indian agriculture is an economic activity with mainly a small unit of management as are fishery and livestock rising. The small size causes two problems. On one hand, providing knowledge of modern agricultural practices (extension services), credit, inputs, irrigation, power and other services (including infrastructure) to each farmer and other primary producers becomes increasingly difficult and costly. On the other hand, small units produce small quantities; two units may produce the same commodity, but of somewhat different qualities. From this small produce, he keeps some for his consumption and some for seed for next season. This marketable surplus is even smaller. This small surplus somehow gets pooled and then reaches the market.

Procurement managers of companies involved in buying commodities for marketing/processing/organised retailing and exports often list the problems that they face in getting the material of right quality, in the right quantity, at the right time and at the right price, caused by small and varied offerings of individual producers. Agricultural export business has been particularly affected by this, since exporters have to function in markets which are competitive in terms of quality, quantity, time and price. To have better knowledge and understanding, a procurement manager may be aware of the constraints discussed below.

6.10.1 Constraints of Procurement of Agricultural Commodities

Here, problems encountered in procurement of agricultural commodities needed for processing units and exporters are given below.

- Strengthening the backward and forward linkages of agro-processing with farming operations and better price and higher share in value addition to reach the farmers on account of agro- processing activities should be key areas needing policy intervention.
- Poor yields and quality, cost-ineffective processing, expensive and unsuitable packing material, are the reasons for dismal Indian performance in fruit and vegetable exports.
- Foremost problem is supply of good quality of raw material in sufficient quantity to ensure high quality of finished products.

- As Black pepper is grown as a garden crop in Kerala, it is very difficult to improve the yield. Export oriented corporate and co-operative farms could play a very important role.
- Absence of high-yielding and disease resistant varieties (of pepper and cardamom) and inadequate extension were the main problems.
- Importance of medicinal plants as export commodity is still not fully appreciated. Inhabitants of the forest area should be trained in scientific method of herb collection.
- India lost Middle-East meat market due to some inherent drawbacks, such as unhygienic breeding, slaughter at an unproductive age which produced poorer meat and a traditional butcher style increased the risk of infection.
- Production of high quality sericulture raw material needs to be planned by inducing farmers to accept advanced silkworm rearing technology.

In leather industry, defective technologies, inadequate storage facilities, poor market intelligence, indifferent grading of hides and excessive retention by trade intermediaries coupled with the diminished bargaining capacity of primary producers were the main problems. Farmers suffer avoidable losses in handling and transport due to poor packaging, especially in case of horticultural and floricultural crops and medicinal plants. The following are the major problems suffered by the Indian producers, which could be avoided:

- The Indian trade (as distinct from multinationals) in agricultural products is yet to understand the significance of packaging in market penetration, sustenance and expansion.
- The crux of the problem lies in the absence of effective backward linkages of food processing industry with small farmers. Even contract farming arrangements have failed to ensure that farmers kept their end of the contract this mechanism (contract farming) could be effectively strengthened if the tripartite arrangement between farmers, industry and State/Central Government could be worked out.
- Low yields combined with the excessive number of intermediaries in the procurement chain, the waste, and loss of value; lock India's food chain into a vicious cycle of low investment, low skill, low yield, low efficiency, and low added value. Their solution comprises both backward integration for reducing costs and forward integration for adding value.

From the above, we can find that the processing units and exporters of agricultural commodity or products face identical problems.

6.11 Types of Purchasing

There are two types of purchasing, which are discussed in the paragraphs below:

6.11.1 Purchasing for Resale

In this type, buyer purchases the material for resale. This is done by traders, merchants, speculators and trading firms. For example, small traders/merchants buy wheat, paddy, oilseed, etc., from the farmers in villages and/or mandis (regulated markets) and resale these to bigger merchants/commission agents, retail shops, processing companies, etc. Speculators and trading firms buy such commodities and take physical delivery, stock these for some time and sell these when the prices are high, and make profit. For resale, the buyer knows in advance the market price and what his customer wants and sells the commodity at a price which includes his cost of buying (i.e., price he paid for the commodity plus his cost of travel, weighing, packaging, transport, octroi, and losses in trading the material), and profit.



Fig. 6.2 Purchasing for resale

(Source: <http://www.manage.gov.in/pgdaem/studymaterial/aem202.pdf>)

The buyers purchase from the farmer at a price which permits resale at a profit. Further, he is quite aware of the price he is likely to get in the mandis as well as the costs likely to be incurred on weighing, packaging, handling and transport. It is because of this knowledge of market price and various costs, he makes a profit. E.g., a vegetable hawker buys fruits and vegetables from the mandi early morning, load these on his/her four wheel cart, or carries it on his/her head, goes round the housing colonies or parks his cart at roadsides, and sell these to consumers. E.g., even large companies buy fruits and vegetables from farmers and mandis and after cleaning & grading sell these in retail chains, and supermarket outlets. For example, we have Reliance Fresh, Subhiksha, Tata's Star Bazaar supermarket, Big Bazaar's Food Bazaar, ITC's e-choupal system for purchasing and reselling of farm produce. This kind of system of purchasing activities can be encouraged among the members of SHGS/FIGs/ CIGs to involve in group marketing.

6.11.2 Purchasing for Conversion or Consumption

In the second type of purchasing, the buyer purchases the material for own consumption or conversion, i.e., for converting the material in different finished or semi-finished products by processing. The following table indicates with the examples of purchasing for consumption and conversion.

Sources of purchase and agricultural commodities	Organisation	Organisation product	By-products
Tomato growers- Tomato	Companies	Tomato ketchup, ,soup, etc.,	
Sugarcane growers- sugarcane	Sugar mill companies	Sugar	Bagass(raw materials for fuel, and paper mills)
Fruit growers (Mango/guava/litch/ oranges/pineapples)	Fruit processing companies	Pulp, juices, jams, jelly	Finished products as canned juices and soft drinks

Table 6.2 Examples of for consumption and conversion

Some companies purchase fruits for conversion into semi-finished products. For example, a company may specialise in processing mangoes only up to mango pulp stage. This pulp is purchased by other companies to produce finished products like bottled or canned juices and soft drinks. We thus see that company purchasing agricultural commodities faces different kind of problems. It has to determine the following:

- What finished products it should make?
- What commodity / raw material, in what quantity it should be purchased from open mandi market?

Company's purchasing department has to decide from the following where to buy the needed material:

- Through contract farmers
- Open mandi markets
- Direct from farmers
- Direct from farmers' cooperative, groups, associations
- Semi-finished products from other companies

Illustrations of companies buying semi-finished products are many. The examples are as follows:

- Buying mango pulp from other companies specialising in mango pulp, instead of buying mangoes and converting it into mango pulp and then into juices and soft drinks.
- Buying mint extracts from farmers who do the first stage of conversion at village-level.
- Vanaspati manufacturing company buying oil from oil mills.
- Solvent extraction plants buying rice-bran from rice mills.

All these types of factories are operating in case of oil seeds, timber, leather, chocolate manufacturing, biscuits, etc.

6.12 Procurement Objective

The classical definition of procurement objective is to buy the following materials and services:

- Of the right quality
- Of the right quantity
- At the right price
- From the right source
- At the right time

6.13 What is the Right Quality?

People are generally attracted towards high quality. However, this does not mean they always buy high quality products. Many a time, budget available is also one of the factors considered for purchase decision. Purchasing high quality is not something, that has always to be insisted upon. It is also accepted fact that best quality raw materials gives best production. E.g., a company purchasing mangoes for producing mango pulp for fruit juices and soft drinks falls under it. It needs to consider the following questions and sub questions before going for procurement of mango pulp.

- Which mango variety it should purchase? Alphonso (High quality but costly) or Keshar or still cheaper Badam and Totapuri.
- Fact for consideration I: Quality of Alphonso pulp will be high, but so costly.
- Facts for consideration II: Market demand for high cost product is limited.
- Facts for consideration III: Large segment of market wants a low price product.

Wise purchase decision: It has to purchase Kesar and/or Totapuri. Hence depending on quality attributes (taste, colour, thickness, flavour, etc.,) the consumer wants he has to purchase different varieties of mangoes and blend them to produce the preferred quality. Therefore, quality has altogether different meaning. (suitability, satisfaction of the need, functions and cost, etc.) The best quality is one that satisfies the intended need at the lowest cost.

6.13.1 How is Quality Determined?

While determining the quality of raw materials to be purchased, following three major considerations has to be kept in mind.

Major considerations for quality	Determinants
The technical consideration of suitability	Whether machines are designed to suit a particular quality and made of standard raw material. Minimisation of wastage, less chance of break-down of plant, match with plant capacity and suited for agro processing.
The economic consideration of price	Availability of appropriate cost-effective substitutes. Cost involved in price, weighing, packaging, handling, transportation, insurance, receiving and inventory cost
The physical consideration of availability of materials	Season, distance, means of transport (logistic services), suitability for transport

Table 6.1 Major considerations for quality

Taking into consideration all these factors, a manager strives to get the required quality of materials at right time and place and at least cost. “Value analysis is an organised procedure for efficient identification of unnecessary cost”. Value Analysis is a major cost-saving technique used in industry. It looks into the cost side of quality problem. By value analysis one can achieve a balance among price cost and value received and reduces cost by better integration of technical and economic factors of quality.

6.13.2 What is the Right Source of Supply?

The procurement manager has to locate right source of supply of raw materials. Based on the requirements of quality and quantity, one has to choose right type of sources.

6.13.3 How to Build Good Buyer -Seller Relationship?

Right source is a very critical factor in procurement management. In procurement of material, the company must develop “supplier good will”. The system should develop and sustain good buyer and seller relationship. Some practical tips to build good buyer and seller relationship are:

- A good procurement manager motivates the suppliers and builds up such buyer-seller relationship which is mutually profitable and advantageous with continuing relationship.
- The procurement staff has to learn respect sellers’ culture and behave accordingly.
- A capable supplier, if motivated, can provide the other four requirements, namely, right price, right quality, right quantity and right time.
- Dealings should be fair to all vendors, irrespective of their caste, creed, language, dress, etc.
- Not favour any one vendor over the other just because he is a friend or relative.

The procurement manager has to see that in his dealings he is fair to all vendors, irrespective of their caste, creed, language, dress, etc., and not favour one vendor over the other just because he is friend of a friend or a relative of some friend or relative. The reputation of fairness to all vendors is a valuable asset and goes a long way in developing a mutually profitable, continuing relationship.

6.13.4 Factors to be Considered for the Selection of Vendor

The following discussed factors have to be considered for the selection of vendor.

Reliability of seller

If a seller regularly supplies the agreed quality and quantity at right time and place, then he is considered to be reliable. From own experience, track record and from market reputation of the seller, the manager will know, how reliable the seller is.

Continuous supply of goods under all conditions

A good supplier will continue to deliver materials even under adverse conditions such as due to market, increase cost of transportation, strikes, weather conditions; crop failure in the region from where the supplier procures the material, etc. In all such conditions, the reliable seller finds out ways and means and, continues, to deliver the material as agreed upon.

Accessibility of Seller

A good seller is accessible to the company at all time. To cope up with some of the occasions like uncertainties, sudden rush order for finished product needs, sudden revision of supply schedule due to temporary breakdown of plant, warranted quick decisions. While taking such key decisions, accessibility of seller is very imperative to support the contingency measures.

Low prices

Price is another important factor while selecting one vendor over another. Vendor who regularly offers lower price and interested to establish long-term relationship with the company would obviously preferred to get the bulk order on regular basis. On the other hand, there are vendors who are opportunists and believe in one-shot, high profit in their deals and move from company-to-company taking advantage of short-term demand and supply conditions in the market.

Quick and reliable delivery

Many agricultural commodities, especially fruit and vegetables are highly perishable and delivered quickly to keep their freshness. Systematic planned delivery reduced the cost of inventory cost and sometimes quick deliveries are also important, when there is a sudden spurt of demand for finished products in the market. Thus, a procurement manager has to keep in mind all the above factors while evaluating vendors and while selecting one over the other.

6.13.5 Sources of Information on Suppliers

The information about the suppliers can be procured from the enlisted sources:

Supplier's Catalogues	Purchasing department's vendor files
Trade registers and directories	File on mailing pieces (mail advertisement)
Trade journals	Salesmen
The "Yellow Pages"	Trade exhibits
Company personnel (having past experience of purchasing)	

6.13.6 Evaluating a New Supplier

When a company decides to purchases of semi-finished products from other processors, it should take following steps for evaluating a new supplier. The Procurement Manager should personally visit the plant of the new supplier, and check the following listed observations:

- Plant location and capacity
- Technology used and process followed
- Hygienic conditions at all stages of handling, processing, and transport
- Technology and process for quality control

- Variety of commodities processed
- Financial conditions
- Overall reputation in the market
- Management system of the new supplier
- Services the supplier can provide
- Whether vendor is also a supplier to the nearest competitors

6.14 What is the Right Price?

Different vendors supply materials at different prices. What is the right price to one vendor is not necessarily the right price for other vendors. What is a right price today may not be the right price tomorrow, it varies with time and place. There are constantly changing variables, such as demand and supply at a particular place and at a particular time. These have to be evaluated to arrive at the right price for a specific purchase. For this we have to understand the following:

- Condition of competition
- What constitutes a fair profit

6.14.1 Condition of Competition

The condition of competition depends upon the market structure prevailing. To understand and determine, what would be the right price, it is essential to know the different market structures. Traditionally, the markets are determined as indicated in the following table:

Market Structure	What it means?	What is the right price?
Perfect competition	Large number of buyers and sellers, homogeneous product and complete knowledge about the market.	Supply and demand determine the price and this can be considered as the right price.
Monopolistic competition	Large number of buyers and sellers and heterogeneous products.	Supply and demand and additional quality of the product also determine the right price
Oligopoly competition	Few sellers in the market, each one has significant portion of total market supply, entry restricted to new suppliers and product may be homogeneous/heterogeneous	Price is dictated by the single seller. E.g., National Egg Coordination committee of Poultry farmers association decides the price of egg.

Table 6.2 Determination of various markets

6.14.2 Fair Profit

A company may procure the material through contract farming. It may buy semi-finished product from small food processors. While deciding the price, it often has to see that the farmer/producer gets a fair profit so that he is motivated to have a continuing mutually profitable relationship with the company. The buyer company should see that the price is high enough to keep the vendor in business. In agriculture, profit to farmer producer may be calculated on percentage of cost-basis. Treating farming as business, cost should be calculated taking into account all cost factors including all operating expenses (on inputs, labour, power, etc.), market value of land, all other fixed costs (on machinery, equipment, etc.) and managerial cost.

On this total cost, farmer should get fair profit. This should be between the current interest rate charged by banks for medium-term loan, and the interest rate for medium-term deposits. The cost-plus fair profit should be price of the produce purchased at farm gate by a company. Many large companies buy semi-finished products from small processors. They also ensure with fair price that whatever may be the category of supplier; purchasing company has to see that the processor makes a fair profit to keep him in business. The profit may be calculated on percentage of cost-basis. The other method for calculating the profit is to first calculate the capital investments made by the processors and then work out a fixed return on investment.

6.14.3 Obtain the Right Price- How and Where?

Information about prevailing prices of agricultural commodities in the market is obtained from the following published websites of market boards, Department of Agricultural marketing, market intelligence cell, pricelists, competitive bidding, negotiation and price investigation:

- Many suppliers publish periodically pricelist of commodities handled by them. Generally listed prices are for orders placed during a specific period.
- Auction or competitive bidding or tender helps in knowing the range of price within which buyer can take decision.
- A procurement manager has to investigate price from various sources to get an idea about the range of price before taking a decision.
- Negotiation with suppliers is a common feature in purchasing. During negotiation, in addition to agreement on price, details regarding supply schedule, transport and other services should also be agreed upon.

6.14.4 Contracts

Written contract between buyer and seller is a significant part of purchasing. There are short-term and long-term contracts. The period of contract mainly depends on the following:

- Amount of competition in the market
- Accuracy in judgment about the availability of material and price
- Extent of business risk

Parties to contract generally start with the assumption that during the period of contract, market conditions (demand and supply, prices, availability, transport and other services, etc.) do not significantly change. However, as there is no guarantee that changes may be significant, the parties often incorporate in the contract such items as follows:

- Fixed price with escalation
- Fixed price with predetermination of
 - Maximum price
 - Flexible price
- Fixed price with incentives. In case of semi-processed products, the parties may negotiate the price on the basis of the following:
 - Cost to supplies plus percentage of cost
 - Cost plus fixed fees
 - Cost sharing between parties

6.15 What is the Right Time?

Right time depends upon the kinds of market and timings of purchase, these are explained below.

6.15.1 Kinds of Market

In procurement of agricultural commodities, timing of purchase is determined by two factors:

- Availability
- Price

Markets of agricultural are unstable. Here, supply and price fluctuate substantially producing a highly unstable short-run situation. For example, in vegetable markets, which generally start operations early morning, prices may change hour-on-hour. Certain vegetables are available in certain seasons. Early arrivals of crops such as cauliflower may fetch higher price which goes down during the season. Highly perishable crops like green leafy vegetables lose their value, if not sold early in the day. Same is the case with many soft skin fruits. Grains (wheat and rice), oilseeds, cotton, onion and potato are seasonal crops. These are not perishable in short period as vegetables or fruits. These can be stored.

Thus, markets for agricultural commodities are unstable. Only the markets for industrial products and hardware are stable. Here, factors of supply and price are reasonably stable in the short-run.

6.15.2 Timings of Purchase

The timings of purchase depends on the following:

- Policies for purchasing: These should be in relation to quality, source, price and quantity.
- Speculative buying: It means buying at one price and selling it at higher price later with profit motive.
- Forward buying: Here, company purchases quantity which is more than its current requirement and surplus quantity is stored for its future use.
- Hand-to-mouth buying: There are companies which do not keep any inventory of material.

However, buy the quantity needed according to their daily or weekly capacity and/or demand for the processed product. E.g., Medium companies engaged in producing fruit pulp, pickles, rice and wheat flour, cooking oil, etc. E.g., Companies of solvent extraction plant for processing rice bran or oil cake. E.g., Big companies involved in organised retailing of fruits and vegetables.

6.16 What is the Right Quantity?

This could be analysed in relation to the following:

- Total quantity needed by the buyer
- Time, price and source

6.16.1 Total Quantity of Raw Material

In processing industry, plant capacity (installed or rated capacity) determines the total quantity of raw material needed by the company. E.g., soybean processing plant with installed capacity of 300 MT/day operating continuously for 365 days in a year will require $300 \times 365 = 10,9500$ MT of soybean. The actual requirement will depend on sale forecast and production schedule. For example, say 60% capacity utilisation is needed to satisfy the demand, then quantity needed will be $(109500 / 100) \times 60 = 65,100$ MT. Depending upon company policy and delivery schedule for the finished products, and corresponding production schedule, the right quantity is determined as follows:

- Inventory and storage issues related to raw material, as well as finished goods.
- Since quantity is related to time of buying and price, the price-volume-time factors taken together decide the right quantity for a specific transaction.
- Close relation between quality and quantity of raw materials in deciding the right quantity.

E.g., Agricultural commodities are biological produce. As such, these are affected during transport and storage. There could be weight loss due to loss of moisture (as often happens in case of paddy), losses due to poor packaging and handling during transport and storage, spoilage due to unscientific storage, pest attack and fungus, etc. Often external matter, such as small stones, sticks, mud, unripe or overripe seeds affect the quantity and quality of the material. All these have to be taken into account while determining the right quantity.

On the basis of expected demand of the outlets

In organised retail business, in fruits and vegetables quantity is determined on the basis of expected demand from the company single outlets and multiple outlets. Availability of quality, quantity and logistics also some determine the right quantity.

Summary

- Of late, rural markets have acquired significance as a result of substantial increase in the purchasing power of the rural communities.
- On account of the green revolution, the rural areas are consuming a large quantity of industrial and urban manufactured products.
- Rural marketing facilitates flow of goods and services from rural producers to urban consumers at a possible time at reasonable prices, and agriculture inputs/consumer goods from urban to rural.
- The difference between rural and urban markets is on the basis of various socio-economic factors, viz., the source of income, the frequency of receipt of income, the seasonal nature of income and consumption.
- In rural markets, purchase process, the influencer, decider, and buyer can all be different.
- The winning strategy of organisations in rural markets is to focus on their core competency, such as technological expertise to design-specific products for the rural economy.
- The rural market remains quite price-sensitive and thus squeezing costs at every stage is of vital importance.
- Marketers need to understand the psyche of the rural consumers and then act accordingly.
- Companies should also make sure that the prices of their products are not pushed up because of a channel of middlemen who are neither required nor add any value to the product.
- The use of traditional media for creating awareness about their products in the rural markets will be an effective promotional strategy.
- In agricultural marketing, use of marketing information system is indispensable, because it is essential for all the stakeholders (the farmers, traders and consumers) in agriculture value chain for the improvement.
- Purchase (procurement) is as important a function as production and marketing in contributing to profit and other objectives of an organisation.
- Purchasing is an integral, important and profit-making part of business management.
- Some of the agricultural commodities, such as milk, green leafy vegetables, and some fruits are highly perishable.
- There are certain commodities which are considered as essential commodities, since this form a major part of the food and consumption as these are essential for survival and health of the people.
- The biomass provides numerous opportunities for commercial and industrial exploitation, which contribute to economic growth.

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Self Assessment

1. _____ means delivering manufactured or processed inputs or services to rural producers or consumers.
 - a. Urban marketing
 - b. Rural Marketing
 - c. Economic factors
 - d. Rural communities
2. Which of the following statement is false?
 - a. Marketing is an exchange function.
 - b. Marketing started much earlier when civilisation began.
 - c. All economic goods are marketed in terms of goods and services.
 - d. The market cannot be on a street, or it cannot be in a small town.
3. Which of the following factor helped in increasing the scope of the rural market?
 - a. Money
 - b. Urban market
 - c. Developments in infrastructure
 - d. Small town market
4. Rural markets comprise of _____.
 - a. heterogeneous population
 - b. estimated annual size of the rural market
 - c. banking services
 - d. population
5. The winning strategy of _____ in rural markets is to focus on their core competency such as technological expertise to design specific products for the rural economy.
 - a. farmers
 - b. urban audience
 - c. organisations
 - d. retailers
6. _____ is as important a function as production and marketing in contributing to profit and other objectives of an organisation.
 - a. Purchase
 - b. Management
 - c. Agro-business
 - d. Cost

7. Match the following

1. A procurement manager	A. Depends on amount of competition in the market.
2. Period of contract	B. Highly perishable
3. Biomass	C. Characteristics/nature of commodities
4. Green leafy vegetables	D. Provides numerous opportunities for commercial and industrial exploitation

- a. 1-C, 2-A, 3-D, 4-B
- b. 1-A, 2-D, 3-B, 4-C
- c. 1-D, 2-B, 3-C, 4-A
- d. 1-B, 2-C, 3-A, 4-D

8. _____ is an economic activity with mainly a small unit of management as are fishery and livestock rising.

- a. Farming
- b. Agricultural export
- c. Indian agriculture
- d. Procurement management

9. _____ is a major cost saving technique used in industry.

- a. Economic factor
- b. Procurement management
- c. Supply of raw materials
- d. Value Analysis

10. _____ need to understand the psyche of the rural consumers and then act accordingly.

- a. Marketers
- b. Farmers
- c. Retailers
- d. Buyers

Chapter VII

Introduction to Commodity Exchanges

Aim

The aim of this chapter is to:

- introduce derivatives
- explain commodity exchanges and futures trading
- elucidate exchange transactions

Objectives

The objectives of this chapter are to:

- explicate evolution of futures trading
- enlist instruments available for trading
- determine the evolution of futures trading

Learning outcome

At the end of this chapter, you will be able to:

- distinguish future trading and agricultural marketing
- identify commodity exchanges at global and national-levels
- understand the meaning of derivatives

7.1 Introduction to Derivatives

In the world of liberalisation, it is most indispensable to predict the future. It becomes more requisite for agriculture, which faces more flux than other sectors. Hence, the Government of India introduced commodity futures trading in India through commodity exchanges. Derivative is a product whose value is derived from the value of one or more underlying variables or assets in a contractual manner. The underlying asset can be equity, forex, commodity or any other asset. It is a generic term for a variety of financial instruments. Unlike financial instruments, such as stocks and bonds, a derivative is a contract rather than an asset. It is essentially a promise to convey ownership of the asset, rather than the asset itself. Derivative markets can broadly be classified as commodity derivative market and financial derivatives markets.

As the name suggests, commodity derivatives market trade contracts for which the underlying asset is a commodity. It can be an agricultural commodity like wheat, soybeans, rapeseed, cotton, etc., or precious metals like gold, silver, etc. Financial derivatives market trade contracts that have a financial asset or variable as the underlying. The main types of derivatives are futures, forwards, options, and swaps.

- **Futures:** A futures contract is an agreement between two parties to buy or sell the underlying asset at a future date at a future price. Futures contracts differ from forward contracts in the sense that they are standardised and exchange traded.
- **Options:** There are two types of options such as 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.
- **Warrants:** Options generally have lives of up to one year, the majority of options traded on options exchanges having a maximum maturity of nine months. Longer dated options are called warrants and are generally traded over the counter.
- **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 forward contracts.

7.2 Instruments Available for Trading

In recent years, derivatives have become increasingly popular due to their applications for hedging, speculation and arbitrage. Before we study about the applications of commodity derivatives, we will have a look at some basic derivative products. There are three derivative contracts namely forward, futures and options trading.

7.2.1 Forward Contracts

A forward contract is an agreement to buy or sell an asset on a specified date for a specified price. One of the parties to the contract assumes a long position and agrees to buy the underlying asset on a certain specified future date for a certain specified price. The other party assumes a short position and agrees to sell the asset on the same date for the same price. Other contract details like delivery date, price and quantity are negotiated bilaterally by the parties to the contract. The forward contracts are normally traded outside the exchanges. The salient features of forward contracts are as follows:

- They are bilateral contracts and hence exposed to counter party risk.
- Each contract is custom designed, and hence is unique in terms of contract size, expiration date and the asset type and quality.
- The contract price is generally not available in public domain.
- On the expiration date, the contract has to be settled by delivery of the asset.
- If the party wishes to reverse the contract, it has to compulsorily go to the same counter party, which often results in high prices being charged.

7.2.2 Futures Contract

A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Unlike forward contracts, the futures contracts are standardised and exchange traded. To facilitate liquidity in the futures contracts, the exchange specifies certain standard features of the contract. It is a standardised contract with standard underlying instrument, a standard quantity and quality of the underlying instrument that can be delivered, (or which can be used for reference purposes in settlement) and a standard timing of such settlement. A futures contract may be offset prior to maturity by entering into an equal and opposite transaction. Majority of the futures transactions are offset this way.

The standardised items in a futures contract are as follows:

- Quantity of the underlying
- Quality of the underlying
- The date and the month of delivery
- The units of price quotation and minimum price change
- Location of settlement

Forward contracts	Futures contracts
Not traded on an exchange	Traded on an exchange
Private, and are negotiated between parties	Use a clearing house which provides protection for both parties
Involve no margin payments as mutual good will is the basis for contracting	Require a margin to be paid as good-faith money
Used for hedging and physical delivery	Used for hedging and speculating
Terms of the contract are dependent on the negotiated contract	Terms of the contract are standardised and published by the exchange
Not transparent as they are private deals	Transparent and are reported by the exchange
Contracts are settled by physical delivery	Most contracts (almost 98%) are cash settled: only 2% settled by actual delivery

Table 7.1 Distinction between forward contracts and futures contracts

Futures Terminology:

- Spot price: The price at which an asset trades in the spot market.
- Futures price: The price at which the futures contract trades in the futures market.
- Contract cycle: The period over which a contract trades. The commodity futures contracts on the exchanges have one-month, two-month and three-month expiry cycles.
- Expiry date: It is the date specified in the futures contract. This is the last day on which the contract will be traded, at the end of which it will cease to exist.
- Delivery unit: The amount of asset that has to be delivered under one contract. For instance, the delivery unit for futures on Long Staple Cotton on the NCDEX is 55 bales. The delivery unit for the Gold futures in MCX contract is 1 kg.
- Basis: Basis can be defined as the futures price minus the spot price. There will be a different basis for each delivery month for each contract. In a normal market, basis is positive. This reflects that futures prices normally exceed spot prices.
- Cost of carry: The relationship between futures prices and spot prices can be summarised in terms of what is known as the cost of carry. This measures the storage cost plus the interest that is paid to finance the asset less the income earned on the asset.

- **Initial margin:** The amount that must be deposited in the margin account at the time a futures contract is first entered into is known as initial margin.
- **Marking-to-market (MTM):** In the futures market, at the end of each trading day, the margin account is adjusted to reflect the investor's gain or loss depending upon the futures closing price. This is called marking to market.
- **Maintenance margin:** This is somewhat lower than the initial margin. This is set to ensure that the balance in the margin account never becomes negative. If the balance in the margin account falls below the maintenance margin, the investor receives a margin call and is expected to top up the margin account to the initial margin level before trading commences on the next day.
- **Short position:** The sale of a security or commodities futures not owned by the seller at the time of the trade. Short sales is usually made in anticipation of a decline in the price.
- **Long position:** Owning a commodity with an anticipation of increase in prices.

Options trading

An option gives the holder of the option the right to do something, but the holder does not have the obligation to exercise this right. In contrast, in a forward or futures contract, the two parties have committed themselves to the act of buying and selling. Whereas it costs nothing (except margin requirements) to enter into a futures contract, the purchase of an option requires an upfront payment.

7.3 Commodity Exchanges and Futures Trading

A commodity exchange is an association or a company or any other body corporate, that is organising futures trading in commodities. A commodity futures contract is a contractual agreement between two parties to buy or sell a specified quantity and quality of commodity at a certain time in future at a certain price agreed at the time of entering into the contract on the commodity futures exchange.

7.3.1 Structure of Commodities Exchange

A commodities exchange is formed with the following objectives:

- To create a platform for the market participants.
- To bring professionalism and transparency into commodity trading.
- To inculcate best international practices like de-modularisation, technology platforms, low-cost solutions and information dissemination without noise, etc. into the trade.
- To provide nationwide reach and consistent offering.
- To bring together the entities that the market can trust.

7.3.2 Exchange Membership

Membership of exchanges is open to any person, association of persons, partnerships, cooperative societies, companies, etc., that fulfills the eligibility criteria set by the exchange. All the members of the exchange have to register themselves with the competent authority before commencing their operations. The members of exchanges fall into two categories such as Trading Cum Clearing Members (TCM) and Professional Clearing Members (PCM).

- **Trading cum Clearing Member:** An individual or corporate can be admitted by the Commodity Exchange as a Trading-Cum-Clearing Member (TCM) conferring upon them a right to trade and clear through the clearing house of the Commodity Exchange. Moreover, the member may be allowed to make deals for themselves (proprietary positions) besides trading on behalf of registered approved/authorised users and to clear/settle them.
- **Professional Clearing Member (PCM):** Any Financial Institution or Bank, which is registered as PCM is conferred the right only to clear and settle trades through the clearing-house of the exchange. They may clear and settle trades of such members of the exchange who choose to do so through that PCM.

7.3.3 Participants in the Futures Trading

There are the following three types of participants in futures trading namely hedgers, speculators, and arbitrageurs.

- **Hedgers:** A person who makes investment in order to reduce the risk of adverse price movements in a commodity, by taking an offsetting position in a related commodity, such as long and short position is called as hedger. Hedgers could be government institutions, private corporations like financial institutions, trading companies and even other participants in the value chain, for instance farmers, extractors, ginners, processors, etc., who are influenced by the commodity prices.
- **Speculators:** Speculators are participants who wish to bet on future movements in the price of an asset. Futures and options contracts can give them leverage; that is, by putting in small amounts of money upfront, they can take large positions on the market. As a result of this leveraged speculative position, they increase the potential for large gains as well as large losses.
- **Arbitrageurs:** Arbitrageurs work at making profits by taking advantage of discrepancy between prices of the same product across different markets. If, for example, they see the futures price of an asset getting out of line with the cash price, they would take offsetting positions in the two markets to lock in the profit.

7.4 Evolution of Futures Trading

Forward Market Commission (FMC) is a regulatory authority for all Commodity Derivatives Exchanges in India, which is overseen by the Ministry of Consumer Affairs and Public Distribution, Government of India. It is a statutory body set up in 1953 under the Forward Contracts (Regulation) Act, 1952. The functions of the Forward Markets Commission are as follows:

- To advise the Central Government in respect of the recognition or the withdrawal of recognition from any association or in respect of any other matter arising out of the administration of the Forward Contracts (Regulation) Act 1952.
- To keep forward markets under observation and to take such action in relation to them, as it may consider necessary, in exercise of the powers assigned to it by or under the Act.
- To collect whenever the Commission thinks it necessary, to publish information regarding the trading conditions in respect of goods to which any of the provisions of the act is made applicable, including information regarding supply, demand and prices, and to submit to the Central Government, periodical reports on the working of forward markets relating to such goods.
- To make recommendations generally with a view to improving the organisation and working of forward markets.
- To undertake the inspection of the accounts and other documents of any recognised association or registered association or any member of such association, whenever it considers it necessary.

7.5 Commodity Exchanges at Global and National level

The Government, in order to make the commodities market more transparent and efficient, has accorded approval for setting up of national level multi commodity exchanges. Accordingly, three national-level exchanges are there which deal in a wide variety of commodities and which allow nation-wide trading.

Today, commodity exchanges are offering spectacular growth opportunities and advantages to a large cross section of the participants including Producers/Processors, Traders, Corporate, Regional Trading Centres, Importers, Exporters, Cooperatives and Associations.

7.5.1 National Commodities Derivatives Exchange (NCDEX)

NCDEX is a nation-level, technology driven de-mutualised on-line commodity exchange with an independent Board of Directors and professionals. It is a professionally managed by ICICI Bank, LIC, NABARD and (NSE). NCDEX is a public limited company incorporated on April 23, 2003 under the Companies Act, 1956.

7.5.2 Multi Commodity Exchange (MCX)

MCX an independent and de-mutualised multi commodity exchange established on November 2003. It has permanent recognition from Government of India for facilitating online trading, clearing and settlement operations for commodity futures markets across the country. Key shareholders of MCX include Financial Technologies (I) Ltd., State Bank of India & Associates, Fidelity International, National Stock Exchange of India Ltd. (NSE) and National Bank for Agriculture and Rural Development (NABARD).

7.5.3 National Multi Commodity Exchange of India Limited

National Multi Commodity Exchange of India Limited (NMCEIL) is the first demutualised, Electronic Multi-Commodity Exchange in India. On 25th July, 2001, it was granted approval by the Government to organise trading in the edible oil complex. It has operationalised from November 26, 2002. It is being supported by Central Warehousing Corporation Ltd., Gujarat State Agricultural Marketing Board and Neptune Overseas Limited. It got its recognition in October 2002. Apart from these national exchanges, there are other regional commodities exchanges in India.

7.6 Exchange Transactions

There are three components in exchanges transaction trading, clearing and settlement. They are discussed in the paragraphs below.

7.6.1 Trading

The trading system on the electronic exchanges provide a fully automated screen-based trading for futures on commodities on a nationwide basis as well as an online monitoring and surveillance mechanism, which is called as terminal. It supports an order driven market and provides complete transparency of trading operations. The system supports an order-driven market, where orders match automatically. Order matching is essentially on the basis of commodity, its price, time and quantity. All quantity fields are in specified units and price in rupees. The exchange specifies the unit of trading and the delivery unit for futures contracts on various commodities. The exchange notifies the regular lot size and tick size for each of the contracts traded from time-to-time.

When any order enters the trading system, it is an active order. It tries to find a match on the other side of the book. If it finds a match, a trade is generated. If it does not find a match, the order becomes passive and gets queued in the respective outstanding order book in the system. Electronic recording is done for each trade and this provides the possibility for a complete audit trail, if required. How to invest/trade in commodities exchange? The following diagram should give an investor/trader clear understanding of how to go about investing/trading in commodities market. The prerequisite for trading in commodities markets are explained below.

Client code

The client who is interested to trade in commodity exchanges has to open a trading account with a commodity broker by signing the client agreement form. The broker in turn submits the details to the TCM and PCM of the exchanges. The validity of client agreement will be verified in the exchanges and specific client code is allotted to trade in the exchanges.

Depositing initial margin

An initial amount has to be deposited by a customer at the time of entering into a contract, which is termed as initial margin. The initial margin will differ based on the commodities. The exchanges fix the margin for each commodity and it is a small percentage (5-6%) of the value of the lot.

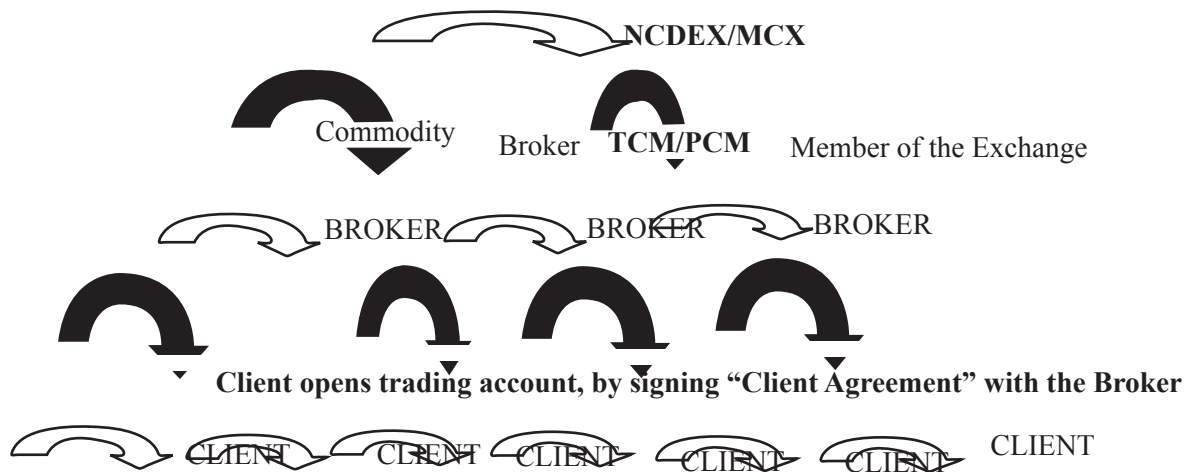


Fig. 7.1 Procedure for opening client-trading account
 (Source: <http://www.manage.gov.in/pgdaem/studymaterial/aem202.pdf>)

Trading process

The next step is trading in the exchange terminal. The client has to place his trade with broker through NCDEX/MCX terminals. The trade placed at brokers terminal is submitted to the exchange terminal. When any order enters the trading system, it is an active order. It tries to find a match on the other side of the book. If it finds a match, a trade is generated. From the exchange terminal, the trade confirmation is sent to the broker and broker in turn gives the trade confirmation to the client.

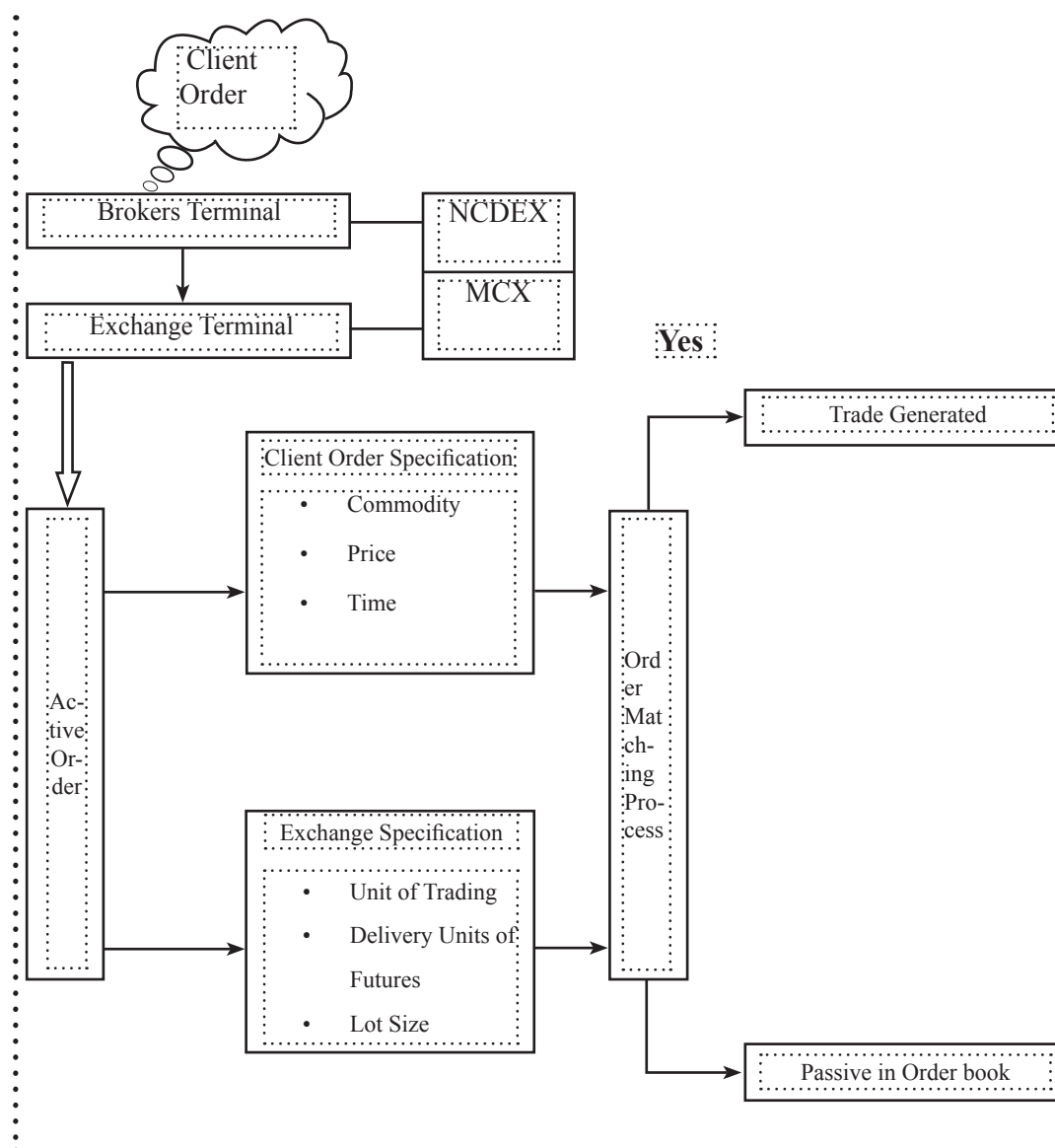


Fig. 7.2 Trading system for futures on commodities

(Source: <http://www.manage.gov.in/pgdaem/studymaterial/aem202.pdf>)

Daily exchanges calculate the difference of the entry value and closing price of the particular date. If the difference is positive, the exchanges credit that particular amount into the client account. In case the difference is negative, the exchanges deduct that particular amount from the credit account. If the account does not have balance then pay in request is sent to the clients.

7.6.2 Clearing

National Securities Clearing Corporation Limited (NSCCL) undertakes clearing of trades executed on the exchanges. The settlement guarantee fund is maintained and managed by exchanges. Only clearing members including Professional Clearing Members (PCMs) are entitled to clear and settle contracts through the clearing house. At exchanges, after the trading hours on the expiry date, based on the available information, the matching for deliveries takes place firstly, on the basis of locations and then randomly, keeping in view the factors, such as available capacity of the vault/warehouse, commodities already deposited and dematerialised and offered for delivery, etc. Matching done by this process is binding on the clearing members. After completion of the matching process, clearing members are informed of the deliverable/receivable positions and the unmatched positions. Unmatched positions have to be settled in cash. The cash settlement is only for the incremental gain/loss as determined on the basis of final settlement price.

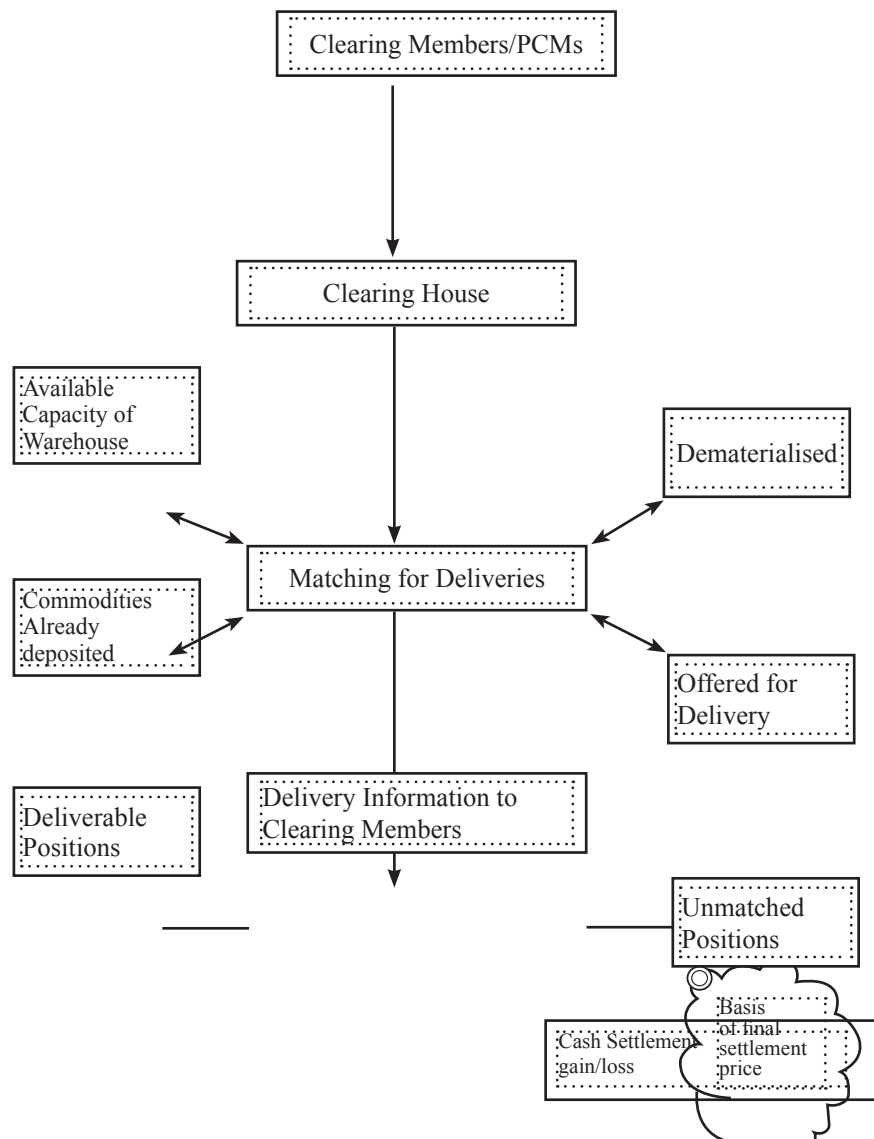


Fig. 7.3 Clearing process

(Source: <http://www.manage.gov.in/pgdaem/studymaterial/aem202.pdf>)

7.6.3 Settlement

Futures contracts have two types of settlements, namely the MTM settlement, which happens on a continuous basis at the end of each day, and the final settlement, which happens on the last trading day of the futures contract. On the exchanges, daily MTM settlement and final MTM settlement in respect of admitted deals in futures contracts are cash settled by debiting/crediting the clearing accounts of CM (Clearing Member) with the respective clearing bank. All positions of a CM, either brought forward created during the day or closed out during the day, are marked to market at the daily settlement price or the final settlement price at the close of trading hours on a day. On the date of expiry, the final settlement price is the spot price on the expiry day. The responsibility of settlement is on a trading cum clearing member for all trades done on his own account and his client's trades.

A professional clearing member is responsible for settling all the participants' trades, which he has confirmed to the exchange. On the expiry date of a futures contract, members submit delivery information through delivery request window on the trader workstations provided by the exchanges for all open positions for a commodity for all constituents individually. Exchanges on receipt of such information match the information and arrive at a delivery position for a member for a commodity. The seller intending to make delivery takes the commodities to the designated warehouse. These commodities have to be assayed by the exchange specified assayer. The commodities have to meet the contract specifications with allowed variances. If the commodities meet the specifications, the

warehouse accepts them. Warehouse then ensures that the receipts get updated in the depository system giving a credit in the depositor's electronic account. The seller then gives the invoice to his clearing member, who would courier the same to the buyer's clearing member. On an appointed date, the buyer goes to the warehouse and takes physical possession of the commodities.

7.7 Futures Trading and Agricultural Marketing

The futures market has emerged as one of the pivotal determinant of agricultural commodity production system and serving as a platform for discovering market prices in the recent past. Here, farmers selling a future contract and committed to deliver their produce at future date (may be after harvest of the produce, e.g., wheat, corn, groundnut, soya, etc.,) not to any buyer, directly, but to the clearing house of futures exchange. In this type of trading, the future prices are viewed as bench mark for farmers as well as to traders. They support the farmer's choice of raising crops and decision-making of marketing produce as regards to the following :

- Which crop to grow?
- When to market?
- When to switch from one crop to another?
- Cope with agro climatic conditions.
- Input availability management.
- Above all, it facilitates the farmers, to decide on the most appropriate time to sell their produce and enable to get better price realisation.

Under some circumstances, the futures will advantageous to the stake holders of the system. They are described as follows.

- There are agricultural commodities, whose production is seasonal, location/region specific, but consumption is throughout the year and even seen nationwide. In such cases, traders and stockiest invariably carry risk of price changes in such commodities. These kinds of issues greatly supported futures trading, by helping to even out prices of seasonal commodities through the year.
- This trading system also helps in deciding the level of farm diversification. Being market driven, futures trading help growers in their diversification decision. Commodities that have a good market value are traded on the futures market and farmers with fair knowledge on this perspective can decide on diversifying their farm as per the market demand.
- The price of a certain crop fluctuates; it is a win-win situation for a farmer as he can hedge his risk in futures platform.
- The organised and unorganised retailers at the delivery end would use this platform for the procurement purposes and can think of effective logistic services.

7.7.1 What is Required from the Extension Side?

Extension functionaries have a great deal to provide adequate knowledge and empowerment on futures trading to farmers , that will help them to get better prices for the produce. The periodical monitoring of market intelligence reports and advisory from the credible sources like DEMIC, etc., would help the extension system to provide useful market-led agriculture.

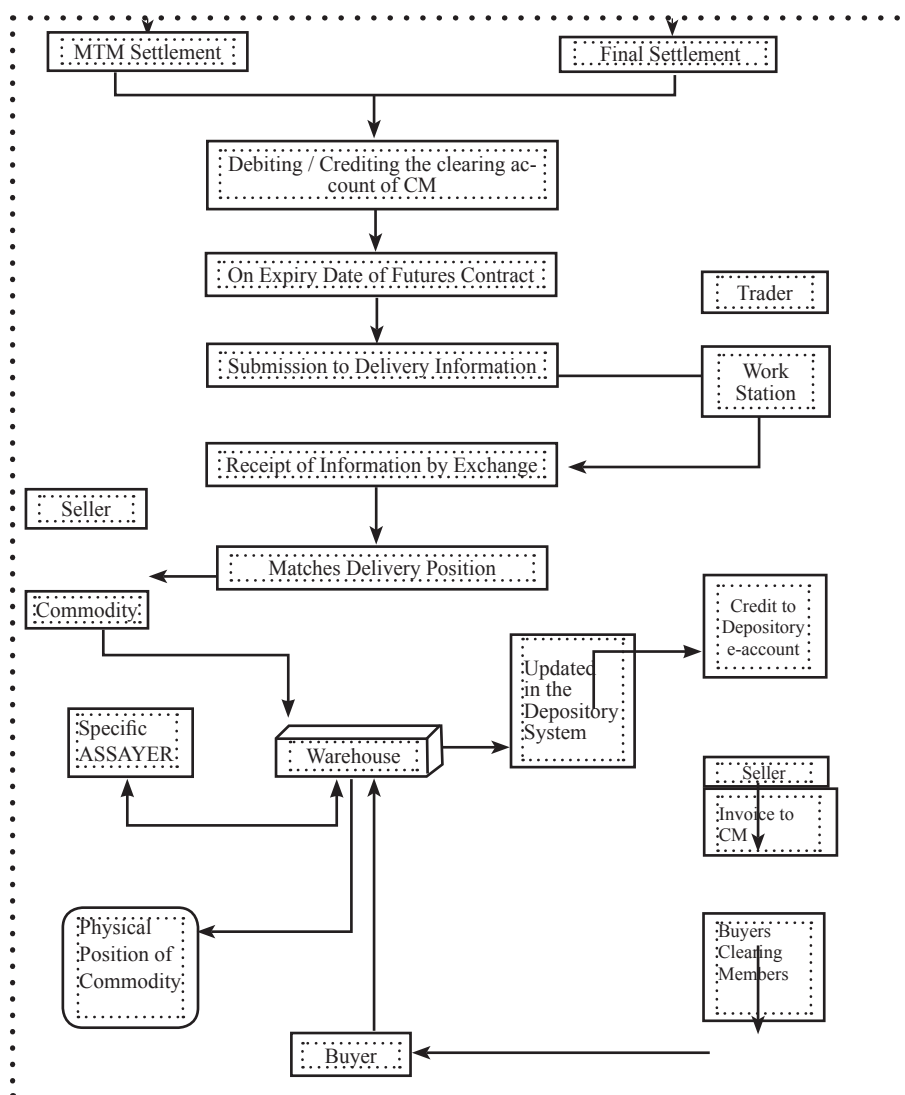


Fig. 7.4 The periodical monitoring of market intelligence reports
 (Source: <http://www.manage.gov.in/pgdaem/studymaterial/aem202.pdf>)

Summary

- Derivative is a product whose value is derived from the value of one or more underlying variables or assets in a contractual manner.
- Derivative markets can broadly be classified as commodity derivative market and financial derivatives markets.
- A futures contract is an agreement between two parties to buy or sell the underlying asset at a future date at a future price.
- A forward contract is an agreement to buy or sell an asset on a specified date for a specified price.
- A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price.
- A futures contract may be offset prior to maturity by entering into an equal and opposite transaction.
- A commodity exchange is an association or a company or any other body corporate that is organising futures trading in commodities.
- Membership of exchanges is open to any person, association of persons, partnerships, cooperative societies, companies, etc.
- Any Financial Institution or Bank, which is registered as PCM is conferred the right only to clear and settle trades through the clearing-house of the exchange.
- Arbitraders work at making profits by taking advantage of discrepancy between prices of the same product across different markets.
- The Government, in order to make the commodities market more transparent and efficient, has accorded approval for setting up of national-level multi commodity exchanges.
- NCDEX is a national-level, technology driven de-mutualised on-line commodity exchange with an independent Board of Directors and professionals.
- National Multi Commodity Exchange of India Limited (NMCEIL) is the first demutualised, Electronic Multi-Commodity Exchange in India.
- When any order enters the trading system, it is an active order.
- The client who is interested to trade in commodity exchanges has to open a trading account with a commodity broker by signing the client agreement form.
- National Securities Clearing Corporation Limited (NSCCL) undertakes clearing of trades executed on the exchanges.
- Futures contracts have two types of settlements, such as the MTM settlement, which happens on a continuous basis at the end of each day, and the final settlement, which happens on the last trading day of the futures contract.
- The futures market has emerged as one of the pivotal determinant of agricultural commodity production system and serving as a platform for discovering market prices in the recent past.

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Self Assessment

1. Future contracts have _____ type of settlements.
 - a. three
 - b. four
 - c. five
 - d. two
2. The trade placed at brokers terminal is submitted to the _____ terminal.
 - a. exchange
 - b. simulation
 - c. customers
 - d. government
3. Which of the following is not one of the components of the exchange transactions?
 - a. Settlement
 - b. Trading
 - c. Clearing
 - d. Indexing
4. Which of the following statement is false?
 - a. To facilitate liquidity in the futures contracts, the exchange specifies certain standard features of the contract.
 - b. Financial derivatives market trade contracts that have a financial asset or variable as the underlying.
 - c. Longer dated options are called warrants and are generally traded over the counter.
 - d. Puts 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.
5. How many types of options are there?
 - a. Four
 - b. Two
 - c. Three
 - d. Eight
6. _____ is a product whose value is derived from the value of one or more underlying variables or assets in a contractual manner.
 - a. Derivative
 - b. Equity
 - c. Bond
 - d. IPO
7. Which of the following derivatives markets trade contracts that have a financial asset or variable as the underlying?
 - a. Secondary
 - b. Commodity
 - c. Financial
 - d. Primary

8. A _____ contract is an agreement to buy or sell an asset on a specified date for a specified price.
- Forward
 - Backward
 - Direct
 - Indirect
9. _____ sales is usually made in anticipation of a decline in the price.
- Long
 - Direct
 - Short
 - Indirect
10. Which of the following statement is true?
- Long sales are usually made in anticipation of a decline in the price.
 - Basis can be defined as the futures price plus the spot price.
 - The amount that must be deposited in the margin account at the time a futures contract is first entered into is known as final margin.
 - National Multi Commodity Exchange of India Limited (NMCEIL) is the first demutualised, Electronic Multi-Commodity Exchange in India.

Chapter VIII

Futures Exchange and Risk Management

Aim

The aim of this chapter is to:

- introduce future exchange
- explain price risk and its causes
- elucidate hedging, advantages and limitations of hedging

Objectives

The objectives of this chapter are to:

- explicate methods of handling price risk
- enlist types of hedging-long hedge
- define hedging

Learning outcome

At the end of this chapter, you will be able to:

- distinguish methods of tackling price risks
- identify causes of price risk
- understand short hedge and cross hedge and hedge ratio

8.1 Price Risk

Risk has always been a part of agriculture. The rate of price volatility in agricultural produce would create uncertainty and risks, which could hamper the performance of the agricultural sector and negatively impact the income and welfare of the farmers. Besides, it will have a negative impact on overall economic growth, income distribution and poverty alleviation. Therefore, understanding agricultural risks and the ways for managing it becomes important.

Price volatility is perhaps the most pressing issue faced by the producers of primary commodities. Agricultural production implies an expected outcome or yield to achieve the expected returns. Variability in outcomes from those, which are expected, poses risks to the ability to achieve financial goals. In this context, 'Price risk' is basically the risk that returns from the investment in physical agricultural goods or commodities, that will be reduced or lost due to a fall in the future market price of the commodity owned.

Here it is important to understand the difference between risk and variability. It is well known that agricultural prices vary from month to month and year to year. However, if the variations were predictable, farmers would face no price risk. There are many numbers of risks that are associated with the agricultural commodities, especially at the production, storage, transport, marketing and processing stages. Hence, it becomes important to identify the cause for price risks and manage them.

8.2 Causes of Price Risks

There are many causes of price risks, some of them are explained below.

8.2.1 Production Risks

As the demand for agricultural products is inelastic, supply shocks caused due to production variations are magnified in price variations. Agricultural production risks may be due to those arising out of weather related factors, pests or diseases, farm and management practices, genetics, machinery efficiency, quality of inputs and also due to risks from variable prices.

8.2.2 Financial or Credit Risk

Farm credit has always been an important factor in improving agricultural productivity and strengthening the rural economy. However, complicated operational mechanism of farm credit services, high transaction costs, uncomfortable repayment schedules, higher interest rates, lower access to credit, heavy reliance on money lenders, insolvency problems, etc., have increased the associated price risks of the commodities.

8.2.3 Institutional Risks

If Government policy framework may come unwarranted, that would create a profound impact on the prices. The government intervention sometimes instead of protecting may result in distortion of trade, as it does not let the natural market forces of supply and demand in identifying the prices. E.g., Reform measures like restriction on storage and movement of produces, direct price support measures, subsidies, etc.

8.2.4 Market Linked Risks

In a developing economy like India, wild swings in market prices due to supply and demand factors arise due to nascent nature of such markets. Lack of participation, non-availability or low-dissemination of market information, infrastructure bottlenecks, market structure, etc., tends to increase the price risks.

8.3 Methods of Tackling Price Risks

Price risks may be handled in any one of the following ways. They may be:

- Retained – Holding the risk, that is taking no protection for the downside risk.
- Avoided – Risks can be avoided fully by going for a totally new venture.
- Reduced – Risks can be reduced or mitigated by different possible ways in order to get some assured income.

Self-insurance

Here the farmers use the previous period's accumulated savings to protect themselves against uncertainties that they cannot control.

Crop storage

It is a means of avoiding seasonally low prices when there is expectation of price-fall in the season and adequate price rise later. However, financial resources and storage space are required, which may limit the scope of this kind of risk management.

Diversification

It is the combination of different production processes, so that low income in one will be compensated by higher income from other enterprises. It can include growing of different crops or different types of the same crop, mixed farming with combining crops and livestock, etc. E.g., Farm diversification and Nonfarm diversification.

Taking credit

The farmers may lean on to credit given by government banks, cooperative societies, commercial banks, micro financial institutions, etc., as well as money lenders. If collateral is insisted on advancing of the loan, then this measure may not be feasible for poor farmers.

Contract farming

Contract farming is normally associated with vertical integration, where an agribusiness firm coordinates all aspects of a producer from production to obtaining the end produce. Here, a stable market or price is guaranteed for the produce. E.g., Contract farming promoted by Appachi cotton.

Crop insurance

Insuring a crop against the risks basically gives protection against the natural perils. E.g., Insuring the Paddy crops under modified NAIS as loanee farmer as well as non loanee farmers.

Hedging in futures

Here, the risk adverse producers can buy protection from the risk taking speculators looking for profit. It involves establishing a position in the futures market that is equal and opposite of a position in the physical or spot market.

Strategy	Advantages	Limitations
Self-insurance	Protects from risks	Taken after risk occurs, results in reduction of assets.
Crop storage	Increased returns	Crop damage during storage. Requires adequate financial resources to meet storing costs.
Diversification	Reduces year to year variations in income	Capital investment required is increasingly higher.
Taking credit	Helps to cope with risks	Limited access of credit to most farmers.

Contract farming	Assured income as per the conditions of the contract	There are chances of either the farmers or contractors defaulting. The producer loses the opportunity of benefiting from upside price potential. Contracts may not be consistent with the producer's goals and risk tolerance.
Crop Insurance	Covers against losses	Operational inefficiencies delay the process.
Hedging	Protects against risks	Less awareness among producers or farmers. If there is a chance for upside price potential it cannot be taken advantage of. Involves basic risk.

Table 8.1 Advantages and limitations of risk management strategy

8.4 Hedging

Hedging is defined as, “the establishing of a position in the futures market that is equal and opposite the position, or intended position, in the cash market with an objective of transferring cash price risk.”

Hedging can be elaborated as follows:

- Taking a position in the futures market that is opposite to a position in the physical market (i.e., buying in futures markets the quantity sold in spot markets and vice versa, thus offsetting any loss attained in one market by a gain in the other market).
- Reduces or limits risks associated with unpredictable changes in price.
- The objective behind this mechanism is to offset a loss in one market with a gain in another.
- A temporary substitution of futures market transaction for a planned cash market transaction.

The goals of hedging are as follows:

- Reducing the underlying volatility of your cash flows.
- Minimising the probability of large losses.

Hedging is based on the following assumptions:

- The future and cash commodity prices move up and down together, i.e., the basis of price changes remains unchanged.
- The mechanics of hedging includes the making of simultaneous transaction, but of opposite nature, in the futures and cash markets.

Who could be the hedgers?

Hedgers could be Government institutions, private corporations like financial institutions, trading companies and even other participants in the value chain, for instance, farmers, extractors, ginners, processors, etc., who are influenced by the commodity prices.

8.5 Advantages of Hedging

There are many advantages of hedging; few of them are listed below:

- It protects the hedger from sustaining loss and enables him to earn a normal trade profit.
- Hedging enables to keep the trade margins at a lower level to risks.
- It facilitates the financing of inventories of stored commodities to the maximum possible extent.

8.6 Limitations of Hedging

There are some limitations of hedging listed below:

- In reality, hedging is not quite simple and straightforward and is not perfect.
- Hedging can only minimise the risks, but cannot fully eliminate it.
- The asset whose price is to be hedged may not be exactly the same as the asset underlying the futures contract.
- Often, the hedge may require the futures contract to be closed out well before its expiration date. This could result in an imperfect hedge.
- The expiration date of the hedge may be later than the delivery date of the futures contract. When this happens, the hedger would be required to close out the futures contracts entered into and take the same position in futures contracts with a later delivery date. This is called a rollover.
- Hedges can be rolled forward many times. However, multiple rollovers could lead to short-term cash owned problems.

8.7 Warehouses and Warehousing

The production of most of the agricultural goods is seasonal, though their consumption takes place throughout the year. This phenomenon has led to the growth of warehousing concept, where goods are physically stored till the time of consumption or sales. The warehousing concept has assumed immense importance after the recent developments in the market like increase in futures trading at the exchanges, increased role of banks and other institutions in agricultural trading in the context of liberalisation of the Indian markets in the WTO regime.

A warehouse is a location with adequate facilities where volume shipment is received from a production center, broken down, reassembled into combinations representing a particular order or orders, and shipped to the customer's location or locations. In other words, a warehouse is a scientifically designed storage structure technically designed to protect the quality and quantity of the stored produce.

Warehousing may be defined as a function, which involves assuming the responsibility for quality and quantity of the stored goods in the warehouses. Thus, warehousing involves the technical aspects related to designing safe and sound structures as per the type of goods to be stored and the prevailing conditions around the storage structures. Warehousing also involves having the knowledge of safekeeping of grains while they are inside the warehouses through techniques like fumigation and record keeping related to transfer of goods inside and outside the warehouses.

8.8 Functions of Warehouses

The functions of warehouse are discussed in the paragraphs given below:

Receive the material

After receiving the material, few things are very important to do. These are explained below.

Store the material properly

Provide the right and adequate storage and preserve the material properly. Ensure that the materials do not suffer from damage, pilferage or deterioration.

- Mixing/Repacking of material
- Deliver the material to right place
- Keep the records perfectly in discipline
- Arranging transport

Arranging finance

The materials stored in the warehouses are recognised as safe collaterals by various banks and about 75% of the value of the produce may be financed.

Price stabilisation and market intelligence

Warehouses provide an opportunity to the farmers and the traders to store the produce, when the prices are too low. They also sometimes become information suppliers on the price trends through the data on offloading. Thus, they help the prices to stabilise through controlling excessive supplies in the market.

8.9 Classification of Warehouses

Warehouses are classified on the basis of various factors, which are explained in the paragraphs given below:

8.9.1 On the Basis of Type of Commodities Stored

- General warehouses are ordinary warehouses used for storage of most food grains, fertilisers, etc.
- Special commodity warehouses are warehouses, which are specially constructed for the storage of specific commodities like cotton, tobacco, wool and petroleum products.
- Refrigerated warehouses/Cold storages: These are warehouses in which low temperature is:
 - Private warehouses: These are owned by individuals, large business houses or wholesalers for the storage of their own stocks. They also store the products of others for a rent.
 - Public warehouses: These are the warehouses, which are owned by the government and are meant for the storage of goods.

In India, Central Warehousing Corporation (CWC) and State Warehousing Corporations (SWC) are the government organisations, which have the mandate of building and operating warehouses all across the country. The CWC was established as a statutory body in New Delhi on 2nd March 1957. CWC provides safe and reliable storage facilities for about 120 agricultural and industrial commodities.

Separate warehousing corporations have been also set up in different States of the Indian Union. The areas of operation of the State Warehousing Corporations are centres of district importance. The total share capital of the State Warehousing Corporations is contributed equally by the concerned State Govt. and the Central Warehousing Corporation. Apart from CWC and SWCs, the Food Corporation of India has also created storage facilities. The Food Corporation of India is the single largest agency which has a capacity of 25.2 million tons maintained as per requirements and are meant for such perishable commodities as vegetables, fruits, fish, eggs and meat

8.9.2 On the Basis of Ownership**Bonded warehouses**

These warehouses are specially constructed at a seaport or an airport and accept imported goods for storage till the payment of customs by the importer of goods. These warehouses are licensed by the government for this purpose. The goods stored in this warehouse are bonded goods.

Type of Warehouse	Capacity in Million Metric Tons
CWC	10.27
SWC	25
FCI	25.2
Private Warehouses available for hire (Estimated)	10
Private Warehouses used for self use (Estimated)	20

Table 8.2 Capacity of different types of warehouses in India

The extent of warehouse facilities available are very less in India as argued by experts in commodity trading and there is a need to create further investment in the sector. The 11th plan says that a further capacity of 35 million tons should be created in the warehousing sector.

8.10 Warehouse Receipt

A warehouse receipt is simply a document stating the ownership of a commodity. It is a warrant issued by the warehouse to the person depositing the goods/produce in the warehouse stating the following:

- Specified quantity, quality and grade of produce stored
- Warehouse location, storage fee, etc.
- Date of issue
- Approximate value of the produce indicating the present price

Warehouse receipts are issued by all approved warehouses after quality certification of the stored goods. The warehouse receipt can perform various functions. It converts agricultural produce or other inventory to a tradeable warrant, which can be sold or used to raise a loan and even used for delivery against a derivative instrument like futures contract. Different banks have different guidelines for providing loans against the stored produce. The amount of loan advanced depends on the market price, minimum support price and the guidelines issued by the bank. The interest charged also depends on the norms of the bank for that type of commodity. The other charges may involve collateral management charges and other fixed charges as stipulated by the banks. By and large there are two systems prevalent.

8.10.1 Hypothecation/Pledge of Stocks

This system is prevalent mostly for the small private warehouses where the entire warehouse is occupied with material belonging to a single entity. The material deposited in the warehouse is pledged /hypothecated as security. Once the loan is repaid after negotiations with the buyer, the borrower is free to express his control over the stocks. This scheme is also popular as ‘Produce Marketing Loan’ Storage receipts. It is a term closely associated with pledge financing, which is most common for private godowns/ private licensed warehouses. These receipts are issued by collateral managers of an agency known to the bank who will have control over the commodity by lock-key method. In this way, the bank finances the depositor only if the collateral manager approves the stock through the storage receipt.

8.10.2 Warehouse Receipt System

This is the most popular system where the financing is done based on warehouse receipt issued by the warehouse. The warehouse receipt duly endorsed in favour of the bank is to be deposited at the bank and the material is released once the bank receives the payment from the buyer. It is felt by various industry analysts that warehouse receipt based funding has tremendous growth potential in India. With the priority sector lending norms making it mandatory for banks to advance 18% of loans to agriculture, warehouse based receipt financing is being considered as the next big opportunity in catering for the agricultural sector. The Planning Commission has also recently reinforced its commitment to double the farm sector’s growth from a low 2% per annum to 4% a year during the 11th Five Year Plan. The government is now keen to break the logjam of low production and productivity of the farming sector by beefing up infrastructure and irrigation sectors simultaneously. Therefore, in the near future agricultural commodities will flow more steadily from farms. The management of these commodities will prove to be both a challenge and an opportunity for banks and warehousing companies.

8.11 Collateral Management and its Functions

The word collateral is synonymous with ‘security’ or goods pledged against the loan advanced. It may be defined as a third-party commitment accepted by the collateral taker to secure an obligation of the collateral provider. In the context of warehouse based financing, the obligation is the amount lent and the collateral is the goods stored. The need of collateral is intended to protect against performance risk of counter party, i.e., the risk of non-repayment of loan. Collateral Management involves managing the collateral on behalf of the collateral taker. The collateral is the only security, which provides protection against the financing done by the financial institution in case of warehouse financing; collateral management has developed into a highly specialised technique. Collateral management basically

involves management of risk associated with maintaining the value of the collateral. It therefore is associated not only with physically maintaining the quality and quantity of the stored products in the warehouses, but also mitigating risks associated with fluctuations in prices of various commodities.

Thus, collateral management deals with the following:

- Storage and preservation: Scientific storage and preservation is the first step towards keeping the quality and quantity of the collateral.
- Testing and certification: Timely testing helps to mitigate the quality risks that are ever-present in the commodities.
- Market intelligence for price risk management: Development of price prediction models based on information on spot and futures prices, market arrivals and market trends to enable decisions on the timing of the sale.
- Price risk hedging: Minimisation of the price risk exposure of the collateral through futures and options trading at the national and international commodity exchanges.
- Developing market linkages: Prefixed buying and selling arrangements between buyers and sellers is also a very useful technique to protect the collateral from any un-expected fall in the prices.
- Insurance
- Stock documentation and Information repository

Collateral management is also very important, when the warehouses are linked to commodity exchanges. Collateral management ensures efficient and risk-free physical delivery systems. In the recent past we have seen increased integration of collateral management and commodity exchanges. Companies like National Bulk Handling Corporation (NBHC) and National Collateral Management Services Limited (NCMSL) have developed as specialised agencies, which provide complete solutions related to Collateral Management.

8.12 Dematerialisation of Warehouse Receipts and Linkage of Warehousing with Futures Trading

The concept of dematerialisation has been developed with a view to increasing the efficiency of settlement of trades on stock exchanges and improving settlement efficiency. The concept involves holding shares in electronic form with a depository and transacting the same on-line without any signatures. With the increase in activity in the commodities futures market and establishment of national-level screen-based multi-commodities exchanges, need for an efficient settlement system in that market is felt. Broadly, a commodity futures contract may be settled either by cash or by delivery of the commodity depending upon the terms of the trade, demand of the buyer and rules of the exchange.

If the trade is expected to be settled by way of delivery of the commodity, the clearing house of the commodity exchange will receive warehouse receipts from the seller instead of actual commodities and pass such warehouse receipts over to the buyer. In case of national commodity exchanges, buyers and sellers could operate from different parts of the country and if warehouse receipts are in physical form, the warehouse receipts have to be delivered across the country from the seller to the buyer, which could lead to systemic inefficiencies. Either the original depositor or the holder in due course (transferee) can claim the commodities from the warehouse for negotiable warehouse receipts. Warehouse receipts in physical form suffer all the disadvantages of the paper form of title documents. Some of these limitations are as follows:

- Need for splitting the warehouse receipt in case the depositor has an obligation to transfer only a part of the commodities.
- Need to move the warehouse receipt from one place to another with risk of theft/ mutilation, etc., if the transferor and transferee are at two different locations.
- Risk of forgery

Drawing lessons from the depository system for securities, depositories, such as NSDL and CDSL exchanges have worked out a scheme to extend depository services for settling trades in commodity futures. Investors trading in commodity futures may avail depository services for receiving and delivering warehouse receipts. A demat account for commodities has to be opened with empanelled DPs (Depository Participants).

Warehouses that have entered into an agreement with depositories and commodity exchanges can issue depository eligible warehouse receipts. For example, NSDL has agreements with two multi-commodity exchanges, viz., National Commodity & Derivatives Exchange Limited (NCDEX) and Multi Commodity Exchange of India Limited (MCX) and few warehouses that hold designated commodities in their custody. The warehouse receipts in demat form can be used to give delivery and also physical delivery of goods can be obtained against warehouse receipts credited in the demat account, through prescribed procedures. In fact, the smooth functioning of commodity exchanges is enabled through electronic warehouse receipts increasing the association between the warehousing and futures trading. This is enabled through the following:

- Ease in settlement of the contract through physical delivery.
- With a good networking of warehouses, delivery can be taken at any location. This would encourage hedge participation in the exchanges.
- Better integration of spot and futures market increasing the efficiency of futures market.
- Better information on crop fundamentals like stock positions helps to reduce risk of excess volatility in prices.

Extension professional: How to use this knowledge?

Having studied the warehouse and warehouse receipts advantages, as extension personnel, we can educate farmers about the following issues:

- Where the farmers can store their surplus produce?
- Procedure to store the products,
- What organisation available for storing the products?
- How NWR can effectively be used to tackle the price risks etc.,?
- Additional advantages of NWR, etc.

Summary

- Risk has always been a part of agriculture.
- Price volatility is perhaps the most pressing issue faced by the producers of primary commodities.
- As the demand for agricultural products is inelastic, supply shocks caused due to production variations are magnified in price variations.
- Agricultural production risks may be due to those arising out of weather-related factors, pests or diseases, farm and management practices, genetics, machinery efficiency, quality of inputs and also due to risks from variable prices.
- Farm credit has always been an important factor in improving agricultural productivity and strengthening the rural economy.
- In a developing economy like India, wild swings in market prices due to supply and demand factors arise due to nascent nature of such markets.
- Hedging is defined as, “the establishing of a position in the futures market that is equal and opposite the position, or intended position, in the cash market with an objective of transferring cash price risk.
- Hedgers could be Government institutions, private corporations like financial institutions, trading companies and even other participants in the value chain, for instance, farmers, extractors, ginners, processors, etc., who are influenced by the commodity prices.
- The production of most of the agricultural goods is seasonal, though their consumption takes place throughout the year.
- The materials stored in the warehouses are recognised as safe collaterals by various banks and about 75% of the value of the produce may be financed.
- Warehouses provide an opportunity to the farmers and the traders to store the produce, when the prices are too low.
- In India, Central Warehousing Corporation (CWC) and State Warehousing Corporations (SWC) are the government organisations, which have the mandate of building and operating warehouses all across the country.
- The material deposited in the warehouse is pledged /hypothecated as security. Once the loan is repaid after negotiations with the buyer, the borrower is free to express his control over the stocks.
- Collateral Management involves managing the collateral on behalf of the collateral taker.
- Collateral management is also very important, when the warehouses are linked to commodity exchanges.
- Warehouses that have entered into an agreement with depositories and commodity exchanges can issue depository eligible warehouse receipts.
- The warehouse receipts in demat form can be used to give delivery and also physical delivery of goods can be obtained against warehouse receipts credited in the demat account, through prescribed procedures.

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Self Assessment

1. _____ has always been an important factor in improving agricultural productivity and strengthening the rural economy.
 - a. Farm credit
 - b. Transaction costs
 - c. Money lenders
 - d. Price risks

2. _____ against the risks basically gives protection against the natural perils.
 - a. Credit
 - b. Contract farming
 - c. Insuring a crop
 - d. Hedging

3. The establishing of a position in the futures market that is equal and opposite the position, or intended position, in the cash market with an objective of transferring cash price risk is called as _____.
 - a. Farming
 - b. Cultivating
 - c. Management
 - d. Hedging

4. Which of the following limits risks associated with unpredictable changes in price?
 - a. Insurance
 - b. Contract
 - c. Hedging
 - d. Protection

5. _____ is a location with adequate facilities where volume shipment are received from a production center.
 - a. A warehouse
 - b. Store
 - c. Farm
 - d. CWC

6. Which of the following are specially constructed at a seaport or an airport and accept imported goods for storage till the payment of customs by the importer of goods?
 - a. Commodity store
 - b. Bonded warehouses
 - c. Private warehouses
 - d. Public warehouses

7. Match the following

1. Private warehouses	A. Specially constructed for the storage of specific commodities
2. Public warehouses	B. Low temperature
3. Refrigerated warehouses	C. Owned by individuals
4. Special commodity warehouses	D. Owned by the government

- a. 1-C, 2-D, 3-B, 4-A
- b. 1-D, 2-A, 3-C, 4-B
- c. 1-C, 2-D, 3-A, 4-B
- d. 1-B, 2-C, 3-D, 4-A

8. _____ is simply a document stating the ownership of a commodity.

- a. A warehouse repository
- b. A warehouse store
- c. A warehouse channel
- d. A warehouse receipt

9. Scientific storage and preservation is the first step towards keeping the quality and quantity of the _____.

- a. commodities
- b. collateral
- c. sale
- d. price

10. _____ between buyers and sellers is a very useful technique to protect the collateral from any unexpected fall in the prices.

- a. Stock documentation and information repository
- b. Minimisation of the price risk
- c. Prefixed buying and selling arrangements
- d. Collateral management

Case Study I

Sourcing from Smallholders

Introduction

The soaring demand for agricultural products projected over the coming decades is the main driver behind renewed interest in developing country agriculture. It has been further fuelled by growing demand for energy at the global level, and by the growing middle classes at the local level. In addition, global trade standards are requiring increasing levels of transparency, a trend driven by consumer demands to know where products come from and how they have been produced. This can be achieved only by working more closely with smallholders.

Growth in Food Markets in Developing Countries

By 2050, the population of developing countries is expected to rise by two billion people. Income levels of parts of the population will rise dramatically, creating a vibrant new middle class. The global middle class that currently numbers 1.8 billion people is estimated to grow by 3 billion people during the next 20 years. By this time, a projected 70% of the global population will live in cities. As the world's urban and wealthier share of the population grows so will the demand for high-quality and highly nutritious food also grows. Annual meat production will have to rise by 200 million tonnes, to a total of 470 million tonnes. Companies looking for sustained growth must find a way to enter these markets today. Already, the rapid spread of local supermarket chains is changing the face of local food markets. Ultimately, these entities will rely on local sourcing for most of their product portfolio, so as to increase affordability, quality and their own margins.

Global Energy Demand Continues to Increase

Energy derived from crops such as maize and sugar is increasingly replacing fossil fuels helping to mitigate climate change. At a global level, biofuel production is likely to grow by 6.3% to 8.3% annually for the next two decades. Vast areas of land have already been dedicated to energy crops, with over 10% of the global maize and oil plant harvest and over 20% of the global sugar cane harvest used for biofuel production today.

This trend is likely to continue. In Indonesia, 18 million hectares of forest have been cleared for palm oil production over the past 25 years. These crops are often produced on large monoculture plantations, increasing the potential for social conflict along with the risk of pests. Working with smallholders can help solve these problems, particularly where smallholders are able to increase both overall production and where income and food security is not compromised as a result.

Transparency and Traceability are Increasingly Critical

National and regional trade regulations, global trade standards as well as retailers and their consumers require that the production of food and other products be documented and controlled for quality at each and every step. For agribusiness, food, cosmetics and pharmaceutical companies, as well as any others involved in buying agricultural products, it is no longer enough simply to procure products on the open market. Instead, smallholders need to be fully integrated into these global value chains, and like all other players in the chain, they need to be certified and monitored in order to ensure that their production complies with the relevant standards.

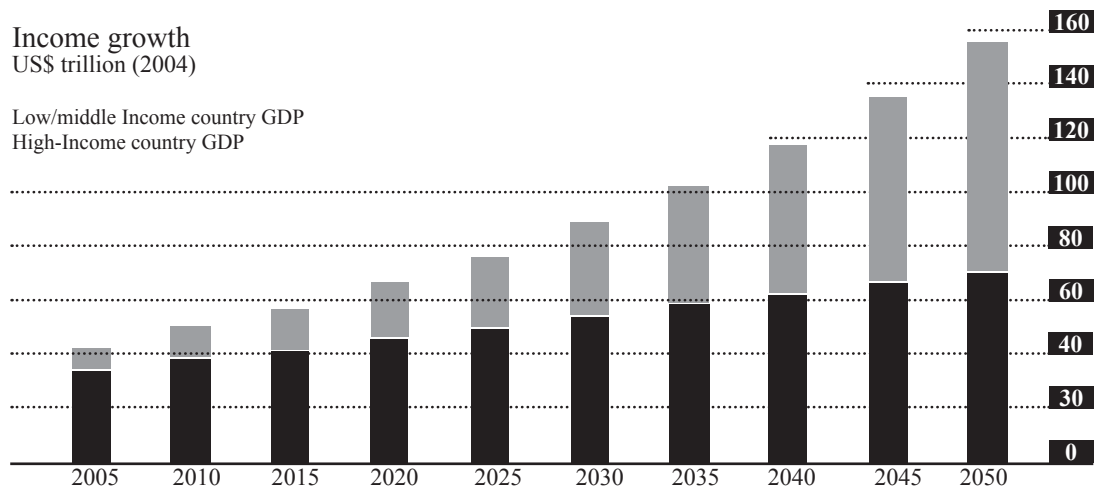


Fig. 1 Income growth

Consumers are Increasingly Interested in Production Processes

Demand for fair, organic and sustainable products continues to grow significantly faster than the mainstream market. A study across eight countries including Brazil, China and India showed that these product characteristics are important to more than half of consumers. Fair trade sales are expected to reach US\$9 billion in 2012 and US\$20 billion to US\$25 billion by 2020.

The global organic food market is projected to have a value of US\$88 billion in 2015, which would represent an increase of 48% since 2010. In addition, a wealth of other standards related to the social and environmental aspects of production are being used both as consumer marketing tools and for quality and safety management. Indeed, the relevance of social and environmental issues is increasingly extending beyond the niche of ethical consumers, and is today clearly on the rise even within the mainstream market. Furthermore, sustainable practices help companies to maintain their license to operate within a given market. Companies able to show that smallholders benefit directly and substantially from doing business with them enhance the foundations for their own long-term success both locally and in industrialised countries through improved reputation, increased brand recognition, customer and employee loyalty, and access to political decision-makers.

Global survey among consumer across 8 countries

% respondents “agreeing” or “strongly agreeing”

“How important are the following factors/ descriptors to you when considering purchasing a product or service?”



“I am willing to pay more for a product that is...”

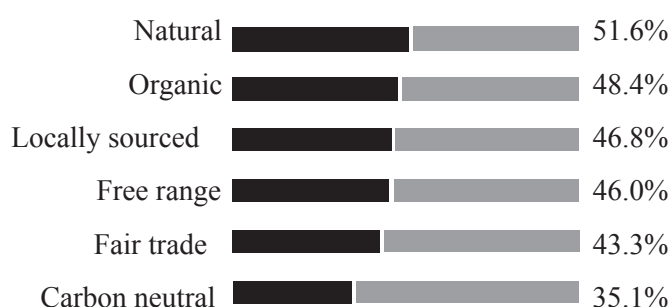


Fig. 2 Preferred characteristics of products

(Source: http://www.agribusiness-with-smallholders.net/fileadmin/user_upload/publications/Guide-Growing_Business_with_Smallholders_large.pdf).

Source: Gradl, C., Kukenshoner, C., Schmidt, J. & Martínez, C. S., *Growing Business with Smallholders*. [Pdf] Available at: <http://www.agribusiness-with-smallholders.net/fileadmin/user_upload/publications/Guide-Growing_Business_with_Smallholders_large.pdf> [Accessed 9 May 2013]).

Questions

1. Which source of energy is replacing fossil fuels?

Answer

Energy derived from crops such as maize and sugar is increasingly replacing fossil fuels helping to mitigate climate change.

2. What is the estimation of the global organic food market in 2015?

Answer

The global organic food market is projected to have a value of US\$88 billion in 2015, which would represent an increase of 48% since 2010.

3. Why sustainable practices are important?

Answer

Sustainable practices help companies to maintain their license to operate within a given market.

Case Study II

The Opportunity in Sustainable Agriculture

Introduction

Agriculture has a significant environmental dimension. Different agricultural practices can either harm or contribute to aspects of the environment, such as biodiversity, the climate and water supplies. Smallholders are both affected by and contribute to climate change and environmental degradation.

Smart business models can turn these challenges into areas for growth. Smallholders depend strongly on a stable climate and regular rainfall patterns. The incidence of extreme weather events due to climate change is already increasing, and developing countries have been hardest hit. The drought at the Horn of Africa in 2011 is but one example of the harsh effects failing rains can have on smallholders. In some African countries, yields from rain-fed agriculture are projected to fall by as much as half by 2020, while rainfall and foods are likely to increase in other regions.

Through integrated land management systems, irrigation systems, agro forestry and more resilient varieties, companies can effectively respond to the challenge and provide an attractive value proposition for smallholders and their business partners.

Certain agronomic practices can help to reduce or avoid carbon emissions, enabling access to carbon trading schemes. Agriculture and forestry today contribute 30% of global greenhouse gas emissions. Zero tillage production, growing rice without coding and hence methane emissions and bio-digesting animal waste are just a few of the solutions already acknowledged by carbon trading schemes.

Total greenhouse emissions by sector

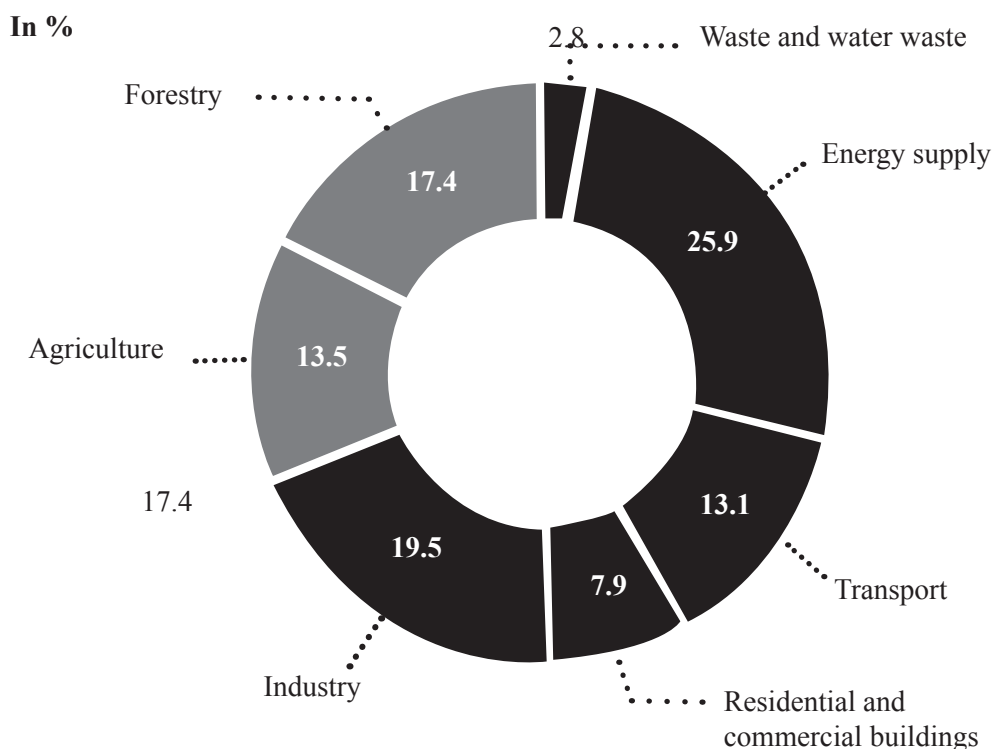


Fig. 1 Total greenhouse emissions by sector

(Source: http://www.agribusiness-with-smallholders.net/fileadmin/user_upload/publications/Guide-Growing_Business_with_Smallholders_large.pdf)

Sadia, one of the world's leading producers of chilled and frozen foods, has introduced a programme for more than 3,500 pork producers to reduce carbon emissions and win access to carbon credits from the U.N. Clean Development Mechanism (CDM). The UN-REDD Programme short for Reducing Emissions from Deforestation and Forest Degradation provides financial incentives to avoid deforestation and forest degradation. A newer version, REDD +, targets additional benefits, such as biodiversity conservation and poverty alleviation.

Revenues from these markets can co-finance inclusive agribusiness investments. In addition, maintaining forests and trees can enhance the quality of products such as cocoa or coffee by allowing plants to be grown in the shade. Sustainable agriculture can maintain high productivity levels through the long-term. An estimated 12 million hectares of land, with a potential to produce 20 million tonnes of grains, are lost every year due to land degradation associated with deforestation, poor farming practices, inappropriate irrigation, or overgrazing. Agricultural activities can also damage water quality and reduce water availability. However, there is an opportunity to “leapfrog” the environmentally unsustainable agriculture systems developed in industrialised countries and move straight to integrated systems that manage natural resources effectively and sustainably.

Sustainable agricultural practices can increase the cost effectiveness of inclusive agribusiness in the long run. Since these practices are often labour intensive, smallholders are in a privileged position to apply them.

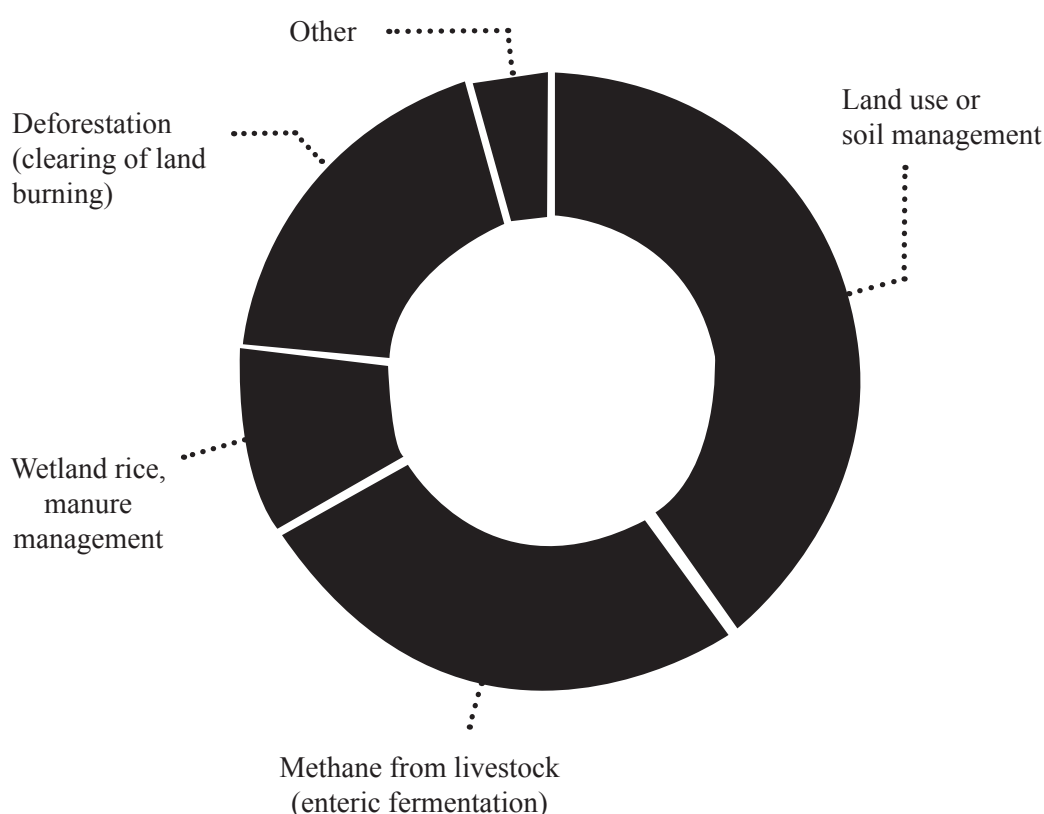


Fig. 2 Greenhouse gas emissions from agriculture and land use

(Source: http://www.agribusiness-with-smallholders.net/fileadmin/user_upload/publications/Guide-Growing_Business_with_Smallholders_large.pdf)

(Source: Gradl, C., Kukenshoner, C., Schmidt, J. & Martínez, C. S., Growing Business with Smallholders. [Pdf] Available at: <http://www.agribusiness-with-smallholders.net/fileadmin/user_upload/publications/Guide-Growing_Business_with_Smallholders_large.pdf> [Accessed 9 May 2013]).

Questions

1. How much agriculture and forestry have contributed to greenhouse gas emissions?
2. Who can increase the cost effectiveness of inclusive agribusiness in the long run?
3. Who can help to reduce or avoid carbon emissions, enabling access to carbon trading schemes?

Case Study III

Group Marketing

Case of Vegetable and Fruit Promotion Council Keralam (VFPCCK)

Kerala Horticulture Development Programme (KHDP) is the precursor to the farmer-led company known as Vegetable and Fruit Promotion Council of Kerala. It has explored the feasibility of introducing SHG in agricultural sector with empowerment intervention model. Vegetable and Fruit Promotion Council Keralam (VFPCCK) is an ISO 9001-2000 certified company registered under section 25 of Indian Companies Act 1956 and has been established to bring about overall development of fruit and vegetable sector in Kerala and established in 2001. At present 260 VFPCCK Swasraya Karshaka Samithis are functioning in across Kerala. About 98460 MT of produce worth Rs.157.54 crores were traded by these SKS during the financial year 2010-11.

Organisational setup: The Director Board with 11 members is chaired by the Minister for Agriculture, Government of Kerala, and acts as the governing body of the Council. The board members include senior Government officials like Agricultural Production Commissioner, Secretary (Finance), Chief Executive Officer of VFPCCK, four persons including a woman to be elected from the SHGs and one representative each from participating banks, national agency in horticulture and European Union.

Objectives

To improve the livelihood of vegetable and fruit farmers by empowering them in production, value addition and marketing as a profitable venture in a sustainable way are the objectives of this study. Innovative concepts developed and implemented by VFPCCK are as follows:

- Master farmers: Farmers empowered to disseminate information related to production, credit and marketing to fellow farmers of their designated group.
- Office-less extension: It has periodical planned fixed schedule of farm and home visit by the Extension professional, supplemented with mass awareness programmes like campaigns and demonstrations.
- Group marketing: A group of 7 to 15 neighbouring SHGs will constitute a Field Centre (FC), wherein the SHG farmers bring their produce to a common place for marketing and traders will procure the produce directly from the farmers.
- Participatory credit: VFPCCK signed an MOU with 11 banks in the State for disbursement of credit based participatory credit planning session to farmers ,facilitates members for easy and timely access of credit.
- Participatory Technology Development: The experimental capacities of the farmers are enhanced through PTD approach and empower to solve their problems by themselves.

Concept of Group Marketing

The concept of group marketing was developed with focus on empowering and facilitating the farmers to take more effective decisions for marketing of their produce. It provides SHG farmers better access to markets and therefore a greater share in the consumer's rupee.

Clustering of SHG – Market Centric Approach

Under group marketing, 10-15 Self Help Groups (SHGs), numbering about 250-300 farmers, come together under the banner of Swasarya Karshaka Samithi (SKS) and trade their produce collectively. How the group marketing concept is being worked in VFPC is explained below:

- A group of 7 to 15 neighbouring SHGs will constitute a Field Centre (FC), wherein the SHG farmers bring their produce to a common place for marketing.
- Traders are coming to the Field Centers and this will increase the bargaining power of the member farmers.
- The Market Information Centres (MIC) associated with VFPC provides the daily market prices of banana and all other vegetables collected from different markets in Kerala and even outside.
- It also provides account books and platform weighing scale to Field Centres.
- After evaluating the performance at different stages periodically, FCs are elevated to Swasarya Karshaka Samithis (SKS).
- Each SKS provided with stage-by-stage various other supports like additional platform weighing scale, furniture, telephone, major expense reimbursement for a year, land and building.

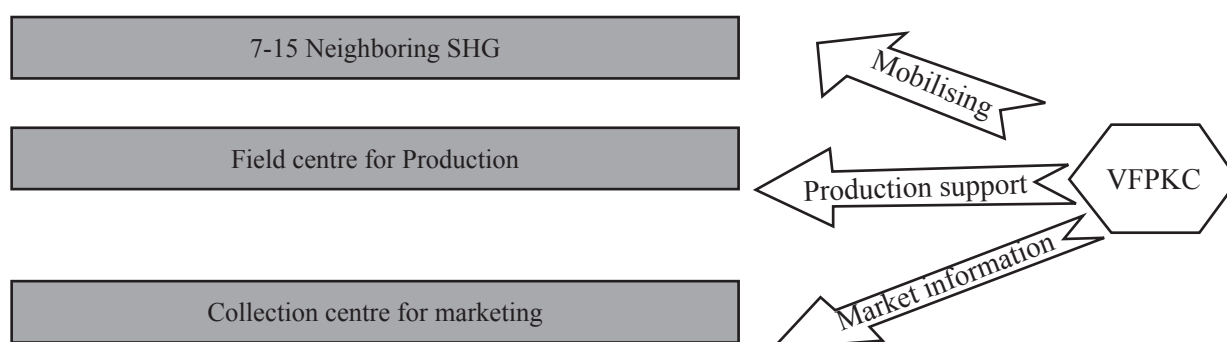


Fig. 1 VFPC

Advantages of group marketing:

- Helps them to reduce transportation expenses and save time.
- As weighing is done by farmers it ensures transparency and accuracy.
- The loading/unloading of produce is done by the farmers themselves ensuring careful handling of the produce.
- Guaranteed prompt payment within the prescribed period due to collective effort in recovery from among debtor traders.
- Assures the fair profit and eliminate the traders lobby and improve the bargaining power for farmers.
- Helps the farmers to have a good volume of transaction of produce and negotiate with the wholesalers in order to 'optimise their returns'.
- Large volumes of produce, induces traders to buy from the Swasarya Karshaka Samithis.

Infrastructural Supports from VFPC

Adequate and timely training is ensured for the Marketing Master Farmer committee members. The VFPC extends the stage-by-stage support as indicated below.

Stage of Farmer Market	Supports from VFPCCK	Time of Support
Phase I (Bulking phase)	One Platform balance, One set of account books.	Date of initiating bulking point
Phase II (After up gradation)	Telephone, Furniture, Almirah, plastic chairs, Reimbursement of Audit fees, Rent, Secretary's salary (for 1 year)	After the first audit
Phase III (Minimum sales turnover of Rs.15 lakhs/ annum and other eligibility)	Land and building for markets	After one year

Table 3.1

(Source: <http://www.manage.gov.in/pgdaem/studymaterial/aem202.pdf>)

Source: *Agri-Business and Entrepreneurship Development*. [Pdf] Available at: <<http://www.manage.gov.in/pgdaem/studymaterial/aem202.pdf>> [Accessed 8 May 2014]).

Questions

1. Write the organisational setup for Vegetable and Fruit Council Keralam (VFPCCK)
2. What is the importance of group marketing?
3. Write the concept of group marketing.

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Self Assessment Answers

Chapter I

1. b
2. a
3. a
4. d
5. c
6. b
7. d
8. c
9. a
10. a

Chapter II

1. a
2. a
3. b
4. d
5. c
6. b
7. a
8. a
9. c
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Chapter III

1. c
2. a
3. d
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5. b
6. a
7. b
8. d
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Chapter IV

1. a
2. b
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5. a
6. a
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8. d
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Chapter V

1. a
2. d
3. d
4. b
5. c
6. a
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8. c
9. a
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Chapter VI

1. b
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6. a
7. a
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Chapter VII

1. d
2. a
3. d
4. d
5. b
6. a
7. c
8. a
9. c
10. d

Chapter VIII

1. a
2. c
3. d
4. c
5. a
6. b
7. a
8. d
9. b
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