Business Economics

UNIT IV – Pricing

Course Code: F010101T

Unit	Topics	No. of Lectures Total=30
I	Introduction to Business Economics: Nature and Scope of Business Economics, its relationship with other subjects. Fundamental Economic Tools-Opportunity cost concept, Incremental concept, Principle of time perspective, discounting principle and Equi-marginal principle.	6
II	Demand Analysis: Concept of Demand & its determinants. Price, Income & Substitution effects, Elasticity of demand: meaning, types, measurement and significance in managerial decisions, Revenue concepts, Concept of demand forecasting andmethods of demand forecasting.	8
III	Production and Cost Analysis: Meaning, Production function, Law ofvariable proportion and laws of return to scale, Various cost concepts and classification, Cost output relationship in short run & longrun, Cost curves, Economics and diseconomies of scale.	7
IV	Pricing: Nature of market, Types of markets and their characteristics, Pricing under different market structures–Perfect, Monopoly, Oligopoly and Monopolistic competition, Price discrimination under monopoly competition. Profit Management & Inflation: Profit, Functions of profit, Profit maximization, Break even analysis. Elementary idea of Inflation	9

Suggested Readings:

1. Varsney & Maheshwari, Managerial Economics
2. Mote Paul & Gupta, Managerial Economics: Concepts & cases
3. D.N.Dwivedi, Managerial Economics
4. D.C.Huge, Managerial Economics 5.
5. Peterson & Lewis, Managerial Economics

MARKET

- Place or an area where buyers and sellers generally meet so as to buy and sell a particular commodity.

- Any effective arrangement for bringing buyers and sellers into contact with one another is defined as a market in economics

- ‘Market’ does not refer to a specific place. Rather, it is a mechanism through which buyers and sellers come into contact with each other and buy and/or sell goods at mutually agreed prices.

Characteristics of Market

(a) Buyers and Sellers: Buyers and sellers must come into contact with each other for a market to exist.

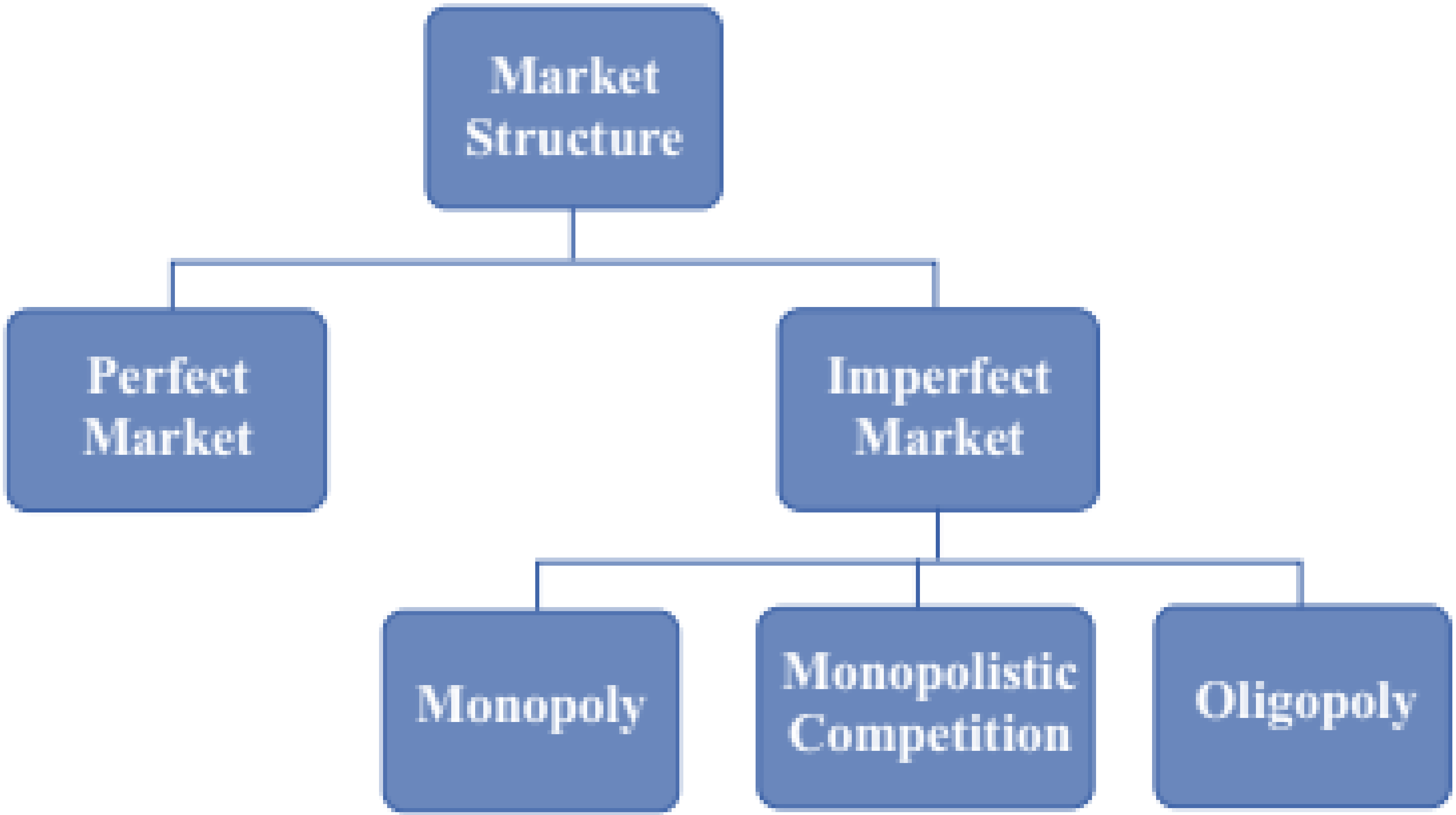
(b) Area: Market is not limited to a particular place. Today, in the age of Internet, we have a rapidly growing online market which is not limited to any geographical area. A buyer can place order to buy a good online. So modern Market exists physically and virtually.

(c) Commodity: The transaction between buyer and seller has to be over some good or service.

(d). Interaction: There should be free interaction between buyers and sellers so that only one price is agreed upon for the commodity.

Characteristics of Market

(e) Money transaction: Money is the mediums of exchange in the modern day world. Consumers pay money to the seller to buy goods as services in the market. So money and market are inseparable.


Market Structure
Perfect Market
Imperfect Market
Monopoly
Monopolistic Competition
Oligopoly

PERFECT COMPETITION

- A market is said to be perfect when there is a large number of buyers and sellers of the product and there is a complete absence of rivalry among the firms. The firms sell products which are homogeneous.

Features of Perfect Competition

(1) Large number of buyers and sellers. The number of buyers and sellers is so large that no individual buyer or seller can influence the market price and output by his independent action. The reason for this is that every buyer and seller purchases or sells a very insignificant amount of the total output.

(2) Homogeneous products. A firm produces a product which is accepted by customers as homogeneous or identical. The assumptions of large numbers of sellers and buyers and of product being homogeneous indicate that a single firm is a price-taker. Demand curve or average revenue curve is infinitely elastic, i.e., demand curve is horizontal straight line parallel to output axis. Therefore, a firm under perfect competition sells any amount of output at the prevailing market price.

Features of Perfect Competition

(3) Free entry and exit of the firms. Every firm is free to join or leave the industry. If the industry is making profits new firms can enter the market to share these profits. Similarly, if the industry suffers losses the individual firms can quit the market.

(4) No government regulation. There is no government interference in the market in the form of taxes, subsidies, rationing of essential goods etc.

(5) Uniform price. At a particular time uniform price of a commodity prevails all over the market.

Features of Perfect Competition

(6) Perfect knowledge of market conditions. Buyers and sellers have full knowledge of the price at which transactions take place in the market.

(7) Firm is a Price taker

Perfectly Elastic Demand Curve

- The demand curve of a perfectly competitive firm is perfectly elastic. If a particular firm decides to charge a price higher than the existing market price, its demand will be reduced to zero.
- This is because buyers have perfect knowledge about the product and the prevailing market price and they are indifferent about a particular firm; if one firm increases the price, buyers would promptly move away from this firm and shift over to its rival firms.
- On the other hand, if a firm tries to gain advantage of increased demand by lowering the price, its demand would increase to infinity. Either of these would lead to a perfectly elastic demand curve.

Perfectly Elastic Demand Curve

- Under perfect competition all the units are sold at the same price. As a result the Average Revenue comes equal to the price per unit of the commodity. Also each additional unit is also sold at the same price per unit which makes Marginal Revenue also equal to the price per unit of the commodity.

- MR is the revenue by selling one additional unit.

- AR = TR/Q = PQ/Q = P

- AR = MR = P FOR PERFECT MARKET

Perfectly Elastic Demand Curve

- The market demand curve for the whole industry is a standard downward sloping curve, which shows alterative combinations of price and output available to the buyers, such that an individual buyer is able to get the maximum amount of output at each existing price, at a given time. Definitely, the buyer would demand more of the product at lower prices, and less at higher prices, other things remaining equal.
- The market demand curve is the horizontal summation of individual demand curves. The demand cure for an individual firm is a horizontal straight line showing that the firm can sell infinite volume of out at the same price

Perfectly Elastic Demand Curve

- The marker supply curve is upward sloping, giving various combinations of price and output it shows the maximum output any firm is willing to produce and supply at each specified price, at a given time Firms definitely are willing to sell larger quantities of output at higher prices, and lower quantities at lower prices, other things remaining constant.
- The market supply curve is the horizontal summation of all the individual supply curves of the firms. In Figure 10.2 market equilibrium is reached at the point of intersection of the market demand an market supply curves, at E, equilibrium output for the industry is given at Q*

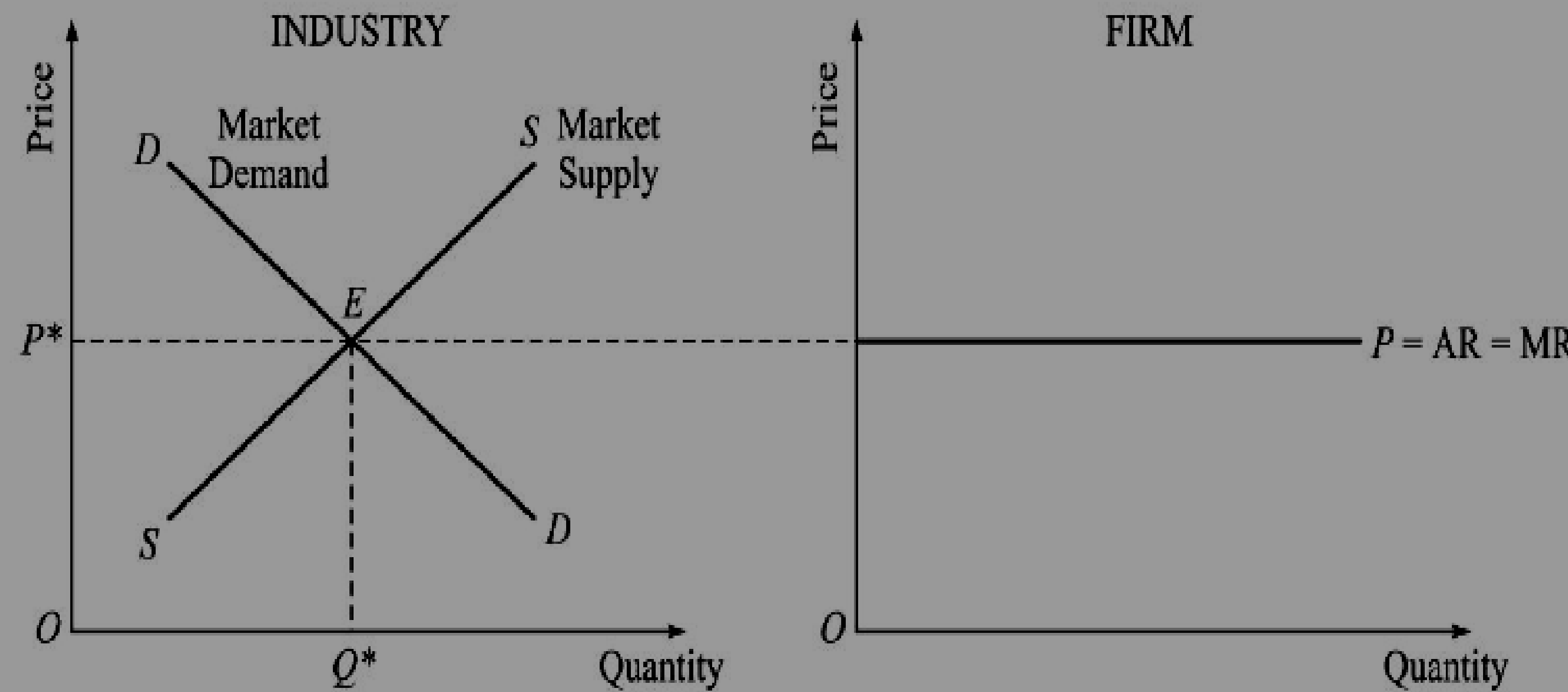


Fig. 10.2 Demand Curves of Industry and Firm

Perfectly Elastic Demand Curve

- Each perfectly competitive firm, being a price taker, takes the equilibrium price from the market as given at P. Since a firm can sell all it wants at this price, it faces an infinitely elastic demand curve for its product.
- Such a shape of the demand curve also implies that the firm can sell not even a single unit of its product at even a slightly higher price. It is not worthwhile for the firm to offer any quantity at a lower price either, since it can sell as much as it wants at the prevailing market price.
- This would imply that Total Revenue of a firm would increase at a constant rate, i.e. Marginal Revenue would be constant. In other words Average Revenue will be equal to Marginal Revenue. Hence, the demand curve of the firm will be a straight horizontal line, showing perfect elasticity of demand, and this infinitely elastic demand curve, drawn at market price, coincides with the AR and MR curves.

SHORT RUN EQUILIBRIUM

- In the short run, an individual firm under perfect competition may either earn super normal profit, or normal profit, or can incur losses. This depend on the position of the shor run cost curves. These three possibilities are shown by the three short run equilibriums positions of a competitive firm.
- The point of market equilibrium is amazed by the intersection of market demand curve and market apply curve at point E, An individual firm takes the equilibrium price P* as given, and faces an infinitely elastic demand curve given by P = AR =MR as shown in Figure 10.2.

Case of Supernormal Profit

- In the short run a perfectly competitive firm can earn supernormal profits (when revenue exceeds cost). The Average Cost (AC) and Marginal Cost (MC) curves are the usual short run cost curves. As the firm maximises profits at the point where MR is equal to MC and also where MC cuts MR from below, the point of equilibrium of the firm in Figure 10.3 is at point E; output at this price OQ* So, by selling OQ* equilibrium output at equilibrium price P* the total revenue earned by the firm is rectangular area OP*EQ* area below the AC curve, since TR = AR *Q) To produce this output the total cost incurred by the firm is given as rectangular area oabQ* area below the AC curve, since TC = AC *Q). Therfore profit earned by the firm is given by the rectangular region AP*EB. This is the super normal profit earn by the firm in short run, because the ruling market price P* is greater than average cost

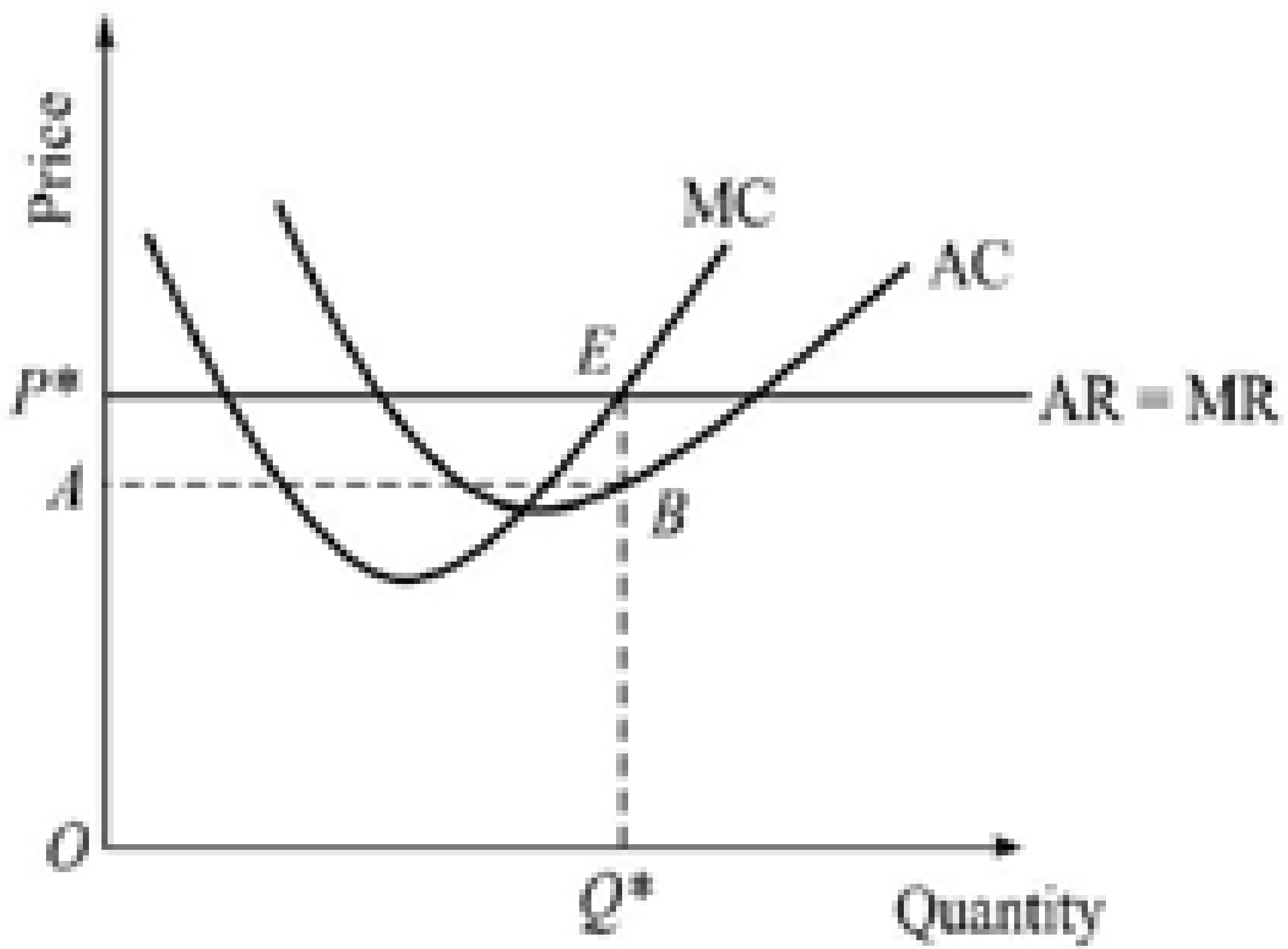


Fig. 10.3 Supernormal Profit in the Short Run

Case of Normal Profit

- Not all firms earn supernormal profits in the short run; some of them may also earn normal profits (when revenue is equal to cost). As in the previous case, equilibrium of the firm is shown at E in Figure 10.4, the output that maximises profit is OQ*. Total revenue earned by the firm by selling OQ* is the rectangular area OP* EQ*. Similarly, the total cost of producing OQ* is also given by the res OP* EQ*. Profit is thereby nil, in other words, the firm makes normal profit and actually ends: producing at the break-even level of output. This situation occurs because the average cost curve is tangent to the average revenue line.

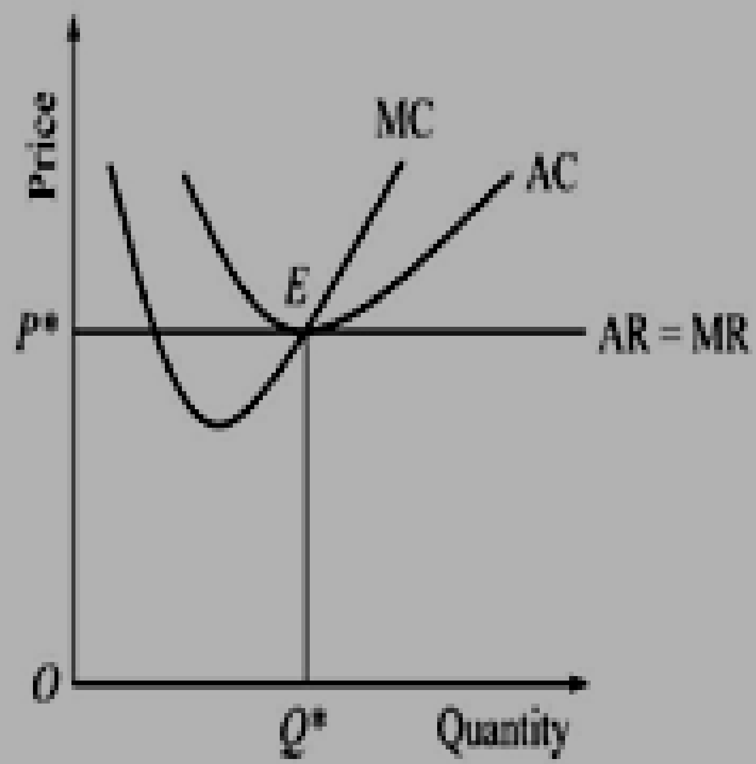


Fig. 10.4 Normal Profit in the Short Run

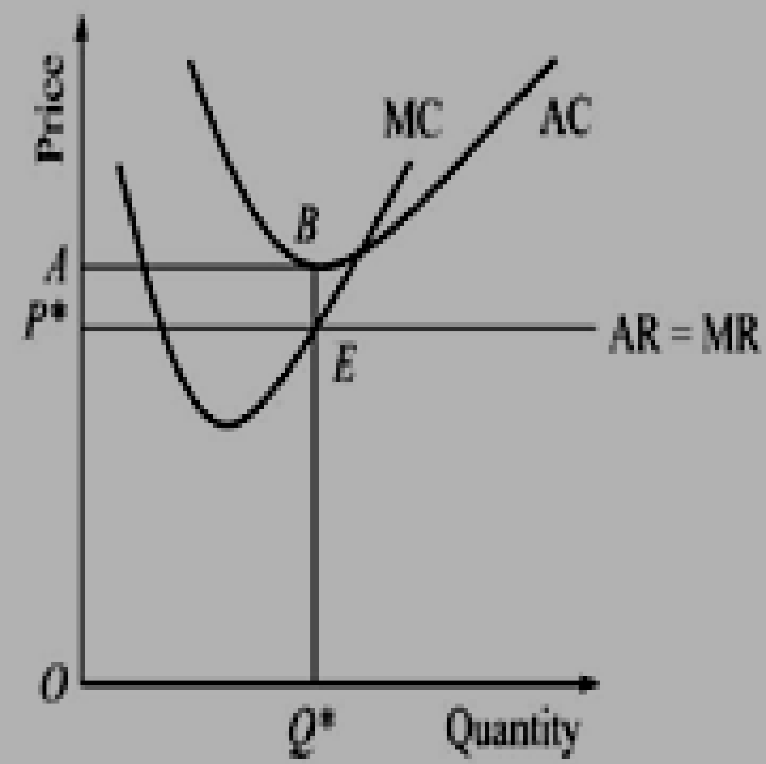


Fig. 10.5 Loss in the Short Run

Meaning of Monopoly

- The word monopoly has been derived from the combination of two words i.e., ‘Mono’ and ‘Poly’.
- Mono refers to a single entity and poly to control.
- In this way, monopoly refers to a market situation in which there is only one seller of a commodity.

Meaning of Monopoly

- There are no close substitutes for the commodity that monopoly firm produces and there are barriers to entry. The single producer may be in the form of individual owner or a simple partnership or a joint stock company. In other words, under monopoly there is no difference between firm and industry.

Definition

- “Monopoly is a market situation in which there is a single seller. There are no close substitutes of the commodity it produces, and there are barriers to entry”.

  -Koutsoyiannis

- “Under pure monopoly there is a single seller in the market. The monopolist’s demand is market demand. The monopolist is a price-maker. Pure monopoly suggests no substitute situation”.

  -A. J. Braff

Characteristics of Monopoly

1) Single Seller: There is only one seller; he can control supply of his product. But he cannot control demand for the product, as there are many buyers.

2) No close Substitutes: There are no close substitutes for the product. Either they have to buy the product or go without it.

3) Control over price: The monopolist has control over the supply and thereby on price. Sometimes he may adopt price discrimination. He may fix different prices for different sets of consumers.

Characteristics of Monopoly

4) Very High Barrier to Entry: There is no freedom to other producers to enter the market as the monopolist is enjoying monopoly power. Barriers for new firms to enter are strong. There are legal, technological, economic and natural obstacles, which may block the entry of new producers.

5) No difference between Firm and Industry: Under monopoly, there is no difference between a firm and an industry. As there is only one firm, that single firm constitutes the whole industry.

Characteristics of Monopoly

- **Shape of Demand Curve:** Since a monopolist has full control over the price, therefore, he can sell more by lowering the price. This makes the demand curve downward sloping.

- Price determine by the Seller : Price Maker

Price Discrimination

- Having considerable control over the market on account of being single seller with no entry of other firms, the monopolist can exercise policy of price discrimination, it means that the monopolist can sell different quantities of the same product to a consumer at different price or same quantity to different consumers at different prices by adjudging the standard of living of the consumer.

Causes of Monopoly

1) Natural: A monopoly may arise on account of some natural causes. Some minerals are available only in certain regions. For example, South Africa has the monopoly of diamonds; nickel in the world is mostly available in Canada and oil in Middle East. This monopoly is caused by natural availability of resources.

2) Technical: Monopoly power may be enjoyed due to technical reasons. A firm may have control over raw materials, technical knowledge, special know-how, scientific secrets and formula that enable a monopolist to produce a commodity, e.g., Microsoft Internet Explorer

Causes of Monopoly

3) Legal: Monopoly power is achieved through patent rights, copyrights and trade marks by the producers. This is called legal monopoly. Eg Pharmaceutical company investing in new formula new R&D. hence protection to pharma company to sell their composition for particular time period.

4) Large Amount of Capital: The manufacture of some goods requires a large amount of capital or lumpiness of capital. All firms cannot enter the field because they cannot afford to invest such a large amount of capital. This may give rise to monopoly. power generation plant

Causes of Monopoly

- State: Government will have the sole right of producing and selling some goods. They are State monopolies. For example, in India we have public utilities like electricity, railways, postal service, water supply. These public utilities are generally run by the State.

DEMAND AND REVENUE CURVES UNDER MONOPOLY

- The demand curve facing the whole industry under Monopoly is sloping downward.

DEMAND AND REVENUE CURVES UNDER MONOPOLY

- An individual firm under perfect competition does not face a downward-sloping demand curve. But in the case of monopoly one firm constitutes the whole industry.

- Therefore, the entire demand of the consumers for a product faces the monopolist. Since the demand curve of the consumers for a product slopes downward, the monopolist faces a downward sloping demand curve.

DEMAND AND REVENUE CURVES UNDER MONOPOLY

- Consider Fig. 10.1. DD is the demand curve facing a monopolist. At price OP the quantity demanded is OM, therefore he would be able to sell OM quantity at price OP. If he wants to sell a greater quantity ON, then he has to price it OL. If he restricts his quantity to OG, the price will rise to OH.

DEMAND AND REVENUE CURVES UNDER MONOPOLY

- Thus, every quantity change by him entails a change in price at which the product can be sold. The problem faced by a monopolist is to choose a price quantity combination which is optimum for him, that is, which yields him maximum possible profits. Demand curve facing the monopolist will be his average revenue curve.

- Thus, the average revenue curve of the monopolist slopes downward throughout its length. Since average revenue curve slopes downward, marginal revenue curve will lie below it. This follows from usual average-marginal relationship. The implication of marginal revenue curve lying below average revenue curve is that the marginal revenue will be less than the price or average revenue.

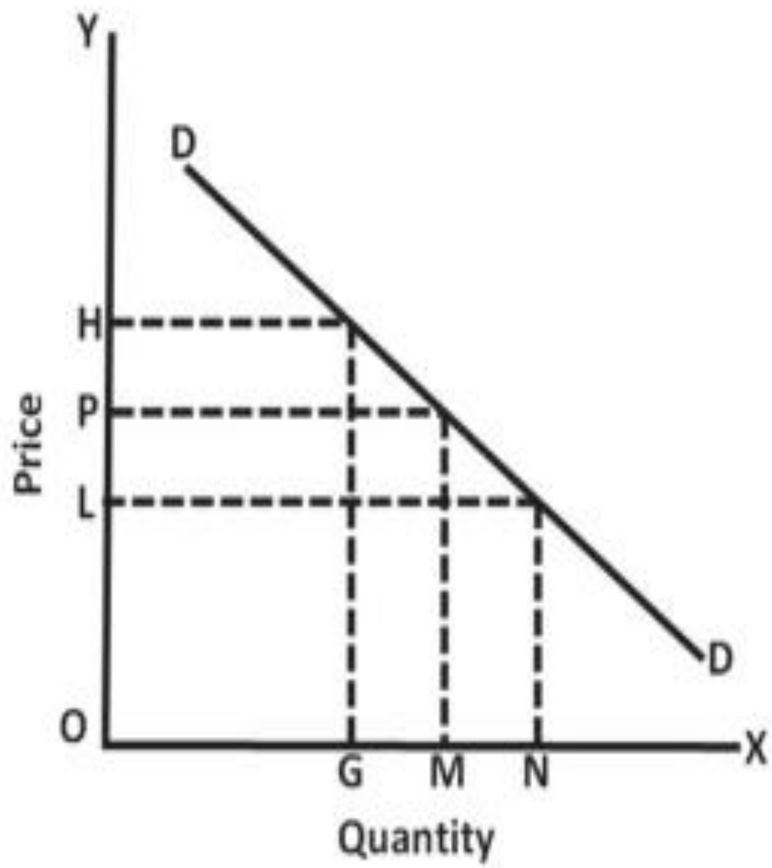


Fig. 10.1: Demand Curve of Monopolist slopes downwa

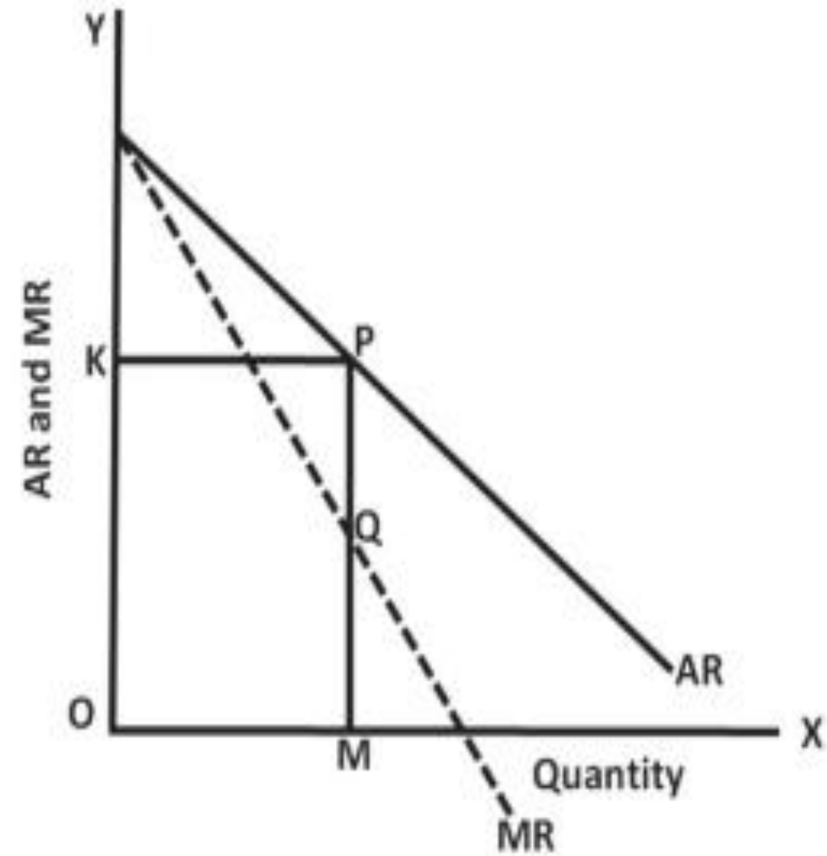


Fig. 10.2: Marginal and Average revenue curves under monopoly

DEMAND AND REVENUE CURVES UNDER MONOPOLY

- When monopolist sells more, the price of his product falls; marginal revenue therefore must be less than the price. In Fig. 10.2, AR is the average revenue curve of the monopolist and slopes downward. MR is the marginal revenue curve and lies below AR curve. At quantity OM, average revenue (or price) is MP and marginal revenue is MQ which is less than MP. The same can be shown by a numerical example in the Table 10.1 below:

Table 10.1 : Computation of MR for given AR

Price P=AR	Quantity (q)	TR= P*Q	MR= Δ TR/Δ q
11	0	0	-
10	1	10	10
9	2	18	8
8	3	24	6
7	4	28	4
6	5	30	2
5	6	30	0
4	7	28	-2