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Monopoly

Main Features of Monopoly

1. There is only *one seller* of a particular good or service.
2. *Rivalry* from the producers of substitutes is so remote as to be *insignificant.* This implies that the cross-elasticity of demand between the monopolist's product and any other product is low.
3. As a result, *the monopolist is in a position to set the price himself.*[1] In fact, monopoly implies market power.

The strength of a monopolist lies in his power to raise his prices without frightening away all his customers. How much he can raise them depends *on the elasticity of demand for his particular product.* This, in turn, depends on the extent to which *substitutes* for his products are available. *And in most cases, there is rather an infinite series of closely competing substitutes.* Even exclusive monopolies like railways or telephones must take account of potential competition by alternative services. An undue increase in rates may lead to substitution of railways by motor transport and of telephone calls by telegrams. *The closer the substitute and the greater the elasticity, therefore, of the demand for a given manufacturer's product, the less he can raise his price* without frightening away his customers. In fact, *two conditions* are necessary to make a monopolist strong: (*i*) *A gap in the chain of substitutes*, and (*ii*) possibility of *securing control over all the close substitutes.* In fact, *it is very difficult to draw a line between* what is and what is not a monopoly. The truth is that there is a *continuous gradation* between competition and monopoly, just as there is between light and darkness, or between health and sickness.

Market Structure Characteristics of Monopoly	
Number and size distribution of sellers	Single seller
Number and size distribution of buyers	Unspecified
Product differentiation	No close substitutes
Conditions of entry and exit	Entry prohibited or difficult

Causes of Monopoly

Monopoly may arise due to the following causes:

1. The Government may grant a licence to any particular person or persons for operating public utilities like a gas company, an electricity undertaking or a tram company. In public utility services, economies of scale are so striking that it seems almost inconceivable to have several firms performing the same service. Again, the Government may reserve the right of foreign trade in any commodity for itself, or may give this right to any other person. In all these cases, the statutory grant of special privileges by the State creates monopoly condition.

2. A producer may possess certain scarce raw materials, patent rights, secret methods of production, or specialised skill which might give him monopoly power. For example, Hoechst held a monopoly for some time in oral medicines for diabetes because they were the first to find out the methods of reducing blood sugar by an oral dose.
3. The necessity of having large resources, as is the case where the minimum efficient scale of operations is very large, may often create monopoly. For example, it is so for making some chemicals. In fact, monopoly tends to arise in industries characterised by decreasing long-run costs.
4. Ignorance, laziness and prejudice of the buyers may create monopoly in favour of a particular producer.

(2)

Revenue and Costs of Monopolists

Average Revenue. If a monopolist raises his price slightly, he will sell less, but there will still be some buyers of his product. *He can increase his sales only by reducing his price*. His average revenue (demand) curve will slope downwards to the right. It shows that larger quantities can be sold at lower prices, whereas smaller quantities can be sold at higher prices.

Marginal Revenue and the Sale Value of the Incremental Output. Under pure competition, both marginal revenue and the sale value of the incremental output are identical. But this is not so in the case of monopoly. To sell additional units, a monopolist will have to reduce his price. *This reduction in price will apply both to old and new customers*. Let us assume that a shirt manufacturer retails his shirts at Rs. 40 per unit. Total sales are 1,000 shirts. To sell 1,100 shirts, he reduces his price to Rs. 38. The sale value of the incremental output will be Rs. 3,800, the marginal revenue will be Rs. 1,800 only. *Thus under monopoly conditions marginal revenue will always be less than the sale value of the incremental output*. After a certain stage, the marginal revenue may even be negative.

Profit-Maximizing Price and Output in the Short Run

Demand and cost curves for a monopolist are shown in Figure [redacted]. As with the perfectly competitive firm, the cost curves depict first decreasing and then increasing average costs.

Because they face a horizontal demand curve, managers of firms in a perfectly competitive world have no control over price. They simply choose the profit-maximizing output. However, because the monopolist has a downward-sloping demand curve, as shown in Figure [redacted], managers must recognize that their output decisions can influence price and vice versa. Because price must decrease in order to increase sales, an increase in output will require that the firm sell at a lower price. The effect of output changes on total revenues depends on the marginal revenue curve shown in Figure [redacted]. If marginal revenue is negative, total revenue is reduced by the increased output.

The criterion for maximizing profits is the same for the monopolist as for firms in perfect competition—output should be increased until the additional revenue equals the marginal cost. For the competitive firm, the price is unaffected by output, so the decision criterion is to produce until price equals marginal cost. For the monopolist, the

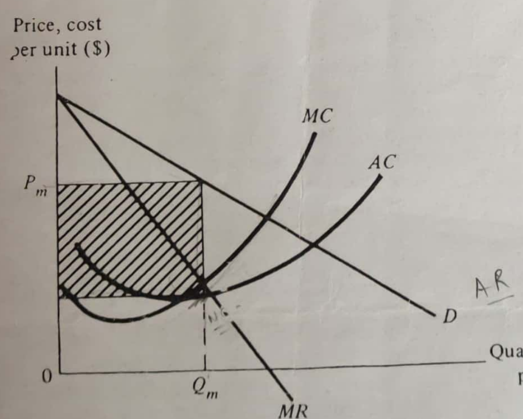

FIGURE [redacted] Profit-Maximizing Price and Output for a Monopoly

equivalent criterion is to produce at Q_m in Figure [redacted], where marginal revenue equals the marginal cost. At this output, the monopolist charges what the market will allow, as indicated by the demand curve. In Figure [redacted], this price is P_m.

Disadvantages of Monopoly

1. When a monopolist exercises the market power by restricting supplies, he will become richer than he would have been if he had no market power. And he will do so at the expense of those who consume his product.
2. Consumer choice is restricted. Indeed consumer will depend on the monopolist's decisions not only as regards price, but also on such matters as the amount and direction of research and development in the industry, the services offered and the continuity of supply.[2]
3. The absence of competition means that there will be no pressure on the monopolist firms to be as economical as feasible, *i.e.*, to keep down cost. Wasteful costs tend to be reflected in higher prices.
4. The exercise of monopoly power causes resources to be misallocated from society's point of view. As the monopolist restricts output, his output is too small. He employs too little of society's resources. As a result, too much of these resources may go into the production of goods with low consumer preferences. Thus resources are misallocated.
5. A firm enjoying monopoly position in a strategic sector may provide too big a risk for the economy. For example, it has been pointed out that putting all the power engineering facilities in one company, *i.e.*, BHEL, is full of risks, as any natural or man-made causes of slow-down or stoppage of production would give severe setback to the economy.

Difference between Monopoly and Perfect Competition

The salient points of difference between monopoly and perfect competition are:

1. Under perfect competition, price is determined by forces of demand and supply and one individual seller has no control over the market price whereas under monopoly, the seller is in a position to manipulate his output to control the price to his advantage.
2. Unless deterred by (*i*) apprehension of Government regulation, and (*ii*) adverse public opinion, a monopolist would tend to (*a*) sell at a price higher than what would prevail under perfect competition, and (*b*) put less of his product on the market.
3. Advertising may be profitable to the monopolist inasmuch as it may shift his demand curve to the right and thus more than offset the addition to cost resulting from the expense of advertising. In perfect competition, no useful purpose is served by advertising as it has negligible effects.

Measures of Monopoly Power

Several economists have given different measures of monopoly power. These are discussed below:

(1) Lerner's Measure

According to Lerner, the difference between price and marginal cost measures the degree of monopoly power. In other words, a seller's monopoly power depends upon his ability to sell the commodity at a price above its marginal cost.

A perfectly competitive seller enjoys no monopoly power and in his case Price = Marginal cost (or $P - MC = 0$). But as monopoly power emerges, $P - MC$ becomes greater than zero and as the power increases the gap between price and MC increases. Thus, the degree or index of monopoly power can be measured as being equal to: $P = \frac{MC}{P}$.
For instance, if price is Rs. 20 and marginal cost is Rs. 12, the degree of monopoly power is $\frac{20 - 12}{20} = 0.4$.

Lerner also relates the monopoly power to price-elasticity of demand. Accordingly, higher the price-elasticity of demand, smaller is the degree of monopoly power. Also, the degree of monopoly power is the reciprocal of the price-elasicity of demand. That is, if elasticity is 2, the degree of monopoly is $\frac{1}{2}$.

(2) Bain's Measure

Bain measures degree of monopoly power in terms of supernormal profits. The supernormal profits are equal to $(P - AC)Q$ where P = Price, AC = average cost and Q is output.

(3) Rothschilds' Measure

Rothschilds defines degree of monopoly power, in terms of the proportion of the slopes of the firm's and industry demand curves. That is, degree of monopoly power

$$= \frac{\text{Slope of the firm's demand curve}}{\text{Slope of the industry's demand curve}}$$

In pure monopoly, firm's demand curve is the same as industry's demand curve. Hence degree of monopoly is equal to unity. On the other hand, under perfect competition, where the firm's demand curve is a straight line, its slope is zero and the degree of monopoly will be zero.

(4) Triffin's Measure

Triffin measures degree of monopoly power in terms of price cross-elasticity of demand. Price cross-elasticity of demand means the extent of substitution between the products of two firms when one of them changes the price of its product. If cross-elasticity of demand is zero, this implies that the firm has an absolute monopoly power.