

Subject: Microeconomic Theory I

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Sources of Monopoly Power:

Monopoly power of a firm, is its ability to set the price of its product above the marginal cost. We have also seen that, in equilibrium, $p - MC/p$ is equal to $1/e$. This gives us that the smaller the price-elasticity of demand for the product the larger would be the monopoly power of the firm.

The main source of monopoly power, therefore, is the elasticity of demand for the product concerned. Now, the elasticity of demand for a firm's product is determined by three factors.

These are:

- (i) Elasticity of market demand,
- (ii) The number of firms in the market, and
- (iii) The nature of interaction among the firms.

(i) The Elasticity of Market Demand:

In the case of pure monopoly, there is only one firm that produces the product. Here, there is no difference between the elasticity of the firm's demand and the elasticity of market demand. Therefore, in this case, the firm's degree of monopoly power is determined directly by the elasticity of market demand for his product.

However, pure monopoly is rare in the real world. Because, barring exceptions, every product has at least a few close substitutes. In other words, in the real world we often find that a close substitute product-group is produced by a number of firms.

These firms compete over selling their respective products. In the case of each such firm, the elasticity of market demand for the product-group, hereafter called the ‘product’, provides the bottom line for the elasticity of its demand curve.

For example, if at any particular price, the e of the market demand for the ‘product’ be $e^* = 1.5$ (say), then the e for the product of every firm would be at least 1.5. That is, if a firm decreases (or increases) the price of its product by 1 per cent, then the demand for its product would increase (or decrease) by at least 1.5 per cent.

(ii) The Number of Firms:

However, e for the product of a firm belonging to the group of firms that produce the ‘product’, may very well be more than the e^* (here 1.5)—how much more would, of course, depend on the number of firms that produce the ‘product’. Let us see why.

If one among several firms producing the ‘product’, say, firm A, reduces its price by 1 per cent, say, the prices of the other firms remaining unchanged, then the product of A would become relatively cheaper and some of the customers of the other firms would switch over to A.

In this case, demand for the product of A would not only increase, in the first instance, by 1.5 per cent as given by the e^* for the market demand for the product, but it would also increase somewhat more because of the ‘switch-over’ factor.

Similarly, if the price of the product of A increases by 1 per cent, then its demand would decrease not only by 1.5 per cent as given by e^* , but it would also decrease somewhat more because of the ‘switch-over’ factor. For, now, the product of A would become relatively dearer and some of the customers of A would switch over to the close-substitute products of the group.

It is easy to understand from what we have said above that the larger the number of firms in the group, the more would be the strength of the ‘switch-over’ factor. That is, the larger the number of firms, the more would be the e for the product of A.

We may conclude then that the number of firms producing the ‘product’ is a determinant of the elasticity of demand for a firm’s product and the latter, in its turn, is a determinant of the degree of its monopoly power.

We may say then that the smaller (larger) the number of firms producing the close-substitute products, the smaller (larger) would be elasticity of demand for the product of a particular firm and the larger (smaller) would be the degree of its monopoly power (which is equal to $1/e$)

We therefore have come, to an interesting conclusion that since in the case of pure monopoly, the number of firms is only one, and since the e of the pure monopolist is equal to the bottom line e which is e^* , the degree of monopoly power of a pure monopolist is the largest, i.e., it is larger than the monopoly power of a firm in a 'non-pure' monopolistic situation.

(iii) The Interaction among Firms:

If there are several firms producing the close-substitute products, called the 'product', then the monopoly power enjoyed by each of them would depend upon the interactions among them. If the firms compete aggressively, then they would undercut one another's prices in order to increase their respective market shares.

Such aggressive competition among the firms may drive the prices of the products down nearly to the level of competitive price. In this case, $p - MC$ would also be driven down and the degree of monopoly power of the firms would be relatively small.

On the other hand, the firms might decide not to compete among themselves, rather they might collude. In this case, collusion among the firms would restrict their outputs and increase their prices. So here they would have relatively high $p - MC$ and the degree of their monopoly power would also be high.

Collusion may go to such a length that the firms may behave almost like one firm (giving rise to a multi-plant monopoly). In such a case, the degree of monopoly power would be the highest possible (approaching $1/e^*$).

We may conclude then that the monopoly power of a firm may arise from three sources.

These are:

- (i) Elasticity of market demand for the product,
- (ii) The number of firms, and
- (iii) The nature of interaction among firms.

Books

1. Pindyck and Rubinfeld with Mehta (2005), Microeconomics- latest available Edition in market.
2. D.N Dwivedi (2016), Microeconomics Theory and Application-- latest available Edition in market.
3. Walter Nicholson, Microeconomic Theory, Tenth Edition , Thomas Learning Newyork
4. Koutsoyiannis, A., Modern Microeconomics, Macmillan, London.