VIVEKANANDA COLLEGE
THAKURPUKUR
KOLKATA-700063

NAAC ACCREDITED 'A' GRADE

Topic: MONOPOLISTIC COMPETITION AND GROUP EQUILIBRIUM

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Name of the Teacher: SUBRATA KUMAR KUNDU

Name of the Department: ECONOMICS

MONOPOLISTIC COMPETITION

Monopolistic Competition refers to that market Organisation in which there are many sellers (as in perfect competition) of a differentiated (closely related or similar but not identical) product, It contains elements of both monopoly and perfect competition. It is akin to perfect competition in that number of sellers is sufficiently large so that actions of individual have no perceptable influence upon her competitors. The monopoly element results from product differentiation so that each sellers has same degree of control over the price he charges and thus faces a negatively sloped demand curve. In monopolistic competition there are various monopolist competing with each other. However the existance of many close substitutes severely limits his 'monopoly' power and results in a highly elastic demand curve.

The distinguishing feature of monopolistic competition which makes it as a blended of competition and monopoly is the differentiation of the product. Here the products are not identical as in is perfect competition but neither are they only remote substitutes as in monopoly. The products of various firms are fairly similar (but not same) and serve as close substitutes of each other.

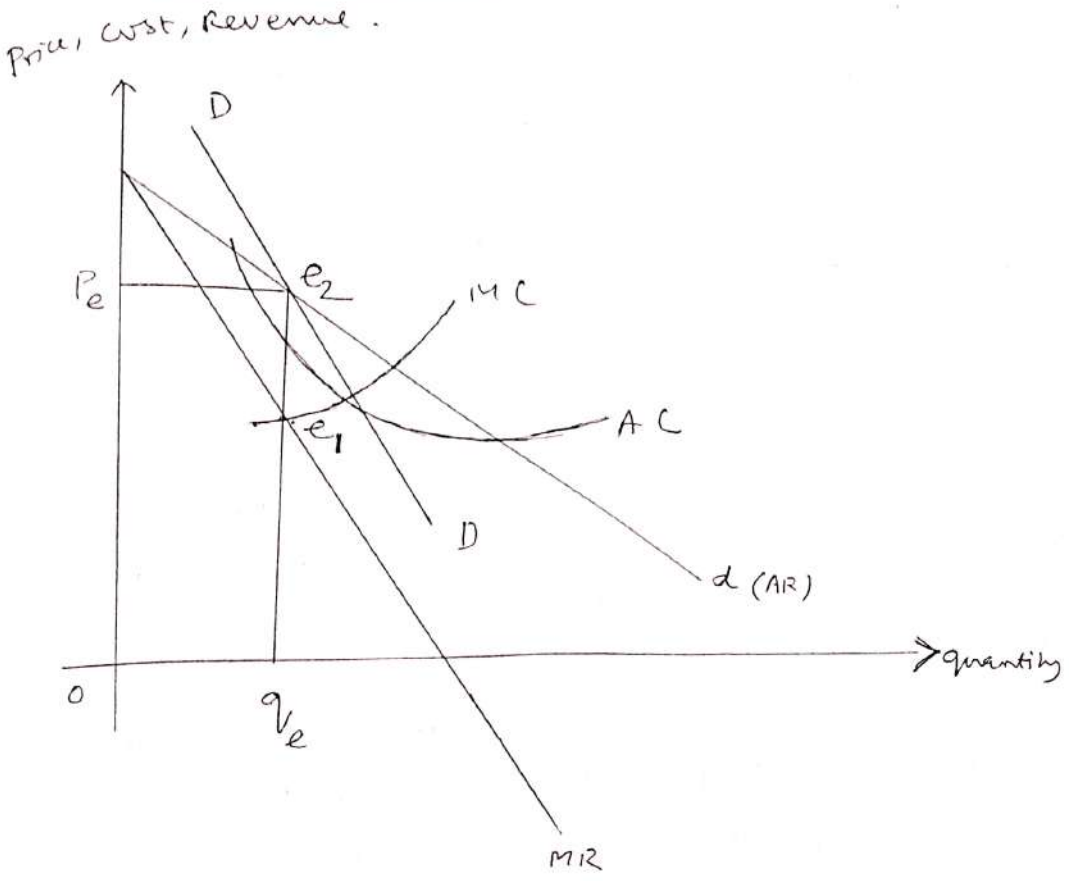
Product differentiation in monopolistic competition implies ——— quantity changes, technical changes, new design or better materials, a new package or container, prompt or courteous service, different location, product differentiation given rise to a negatively sloping demand curve for the product of the individual firm. If the firm increases his price he will lose some but not all of its customers, while if it reduces its price it will increase its sales by attracting some customers from other firms.

The demand curve is fairly elastic because of the assumption of large number of sellers in the group. Since the firm is one of a very large number of sellers, if reduces price the increase in its

sales will produce loss of sales distributed more or less equally over all other firms, so that each one of them will suffer a negligible loss in customers with the result that all the other firms would not readjust their prices in retaliation. Thus the demand curve facing an individual firm, demand is called subjective or imagined demand curve, which is drawn on the assumption that competitors will not react to change in the particular firm's price.

Let us now introduce a second demand curve —— market demand curve or proportional demand curve which shows the demand or sales of the product of a firm when the prices of all firms in the product group move simultaneously in the same direction and by the same amount so that they are always identical with each other clearly, the market demand curve DD is steeper than subjective demand curve dd, because the actual sales from a reduction in P are smaller than expected on the basis of demand as all firms reduce their price and expand their own sales simultaneous. A shift in the market demand curve is caused by entry of new firms or exit of existing firm, from the industry and shows a decline or an increase in the share of the firm.

Short run Equilibrium



A producer under monopolistic competetion work on the principle of profit maximisation. The firm will fix price and output at which marginal cost equals marginal revenue. In the figure below the profit maximising output is Oq_e and the price is OP_e. Since we assume that all producers are alike in respect of demand and cost conditions, all will be selling at a price OP_e. In equilibrium MR curve of each firm must be equal to MC at an output such that the market price at that output is on market demand curve DD.

The short run equilibrium in monopolistic competition has two characteristics ——

(i) each firm fixes output at which MR = MC

(ii) Subjective demand curve dd intersect market demand curve DD at the output chosen by the firm.

Group Equilibrium

Product differentiation creates difficulties in the analytical treatment of the industry which refers to a collection of firms producing homogeneous products. The ~~word industry~~ word industry lose its significance under monopolistic competition. Prof. Chamberlin, therefore has used the word 'group' which means "a number of producers whose goods are fairly close producers whose goods are fairly close substitutes".

An individual producer in the 'group' cannot be treated in complete isolation from his rivals producing close substitutes, since the demand for his product depends upon the nature and price of the close substitutes. The long run equilibrium of the firm in the context of the whole 'group' of firms (hence group equilibrium) can be discussed under two condition —

(a) When fresh entry into the group is not necessary

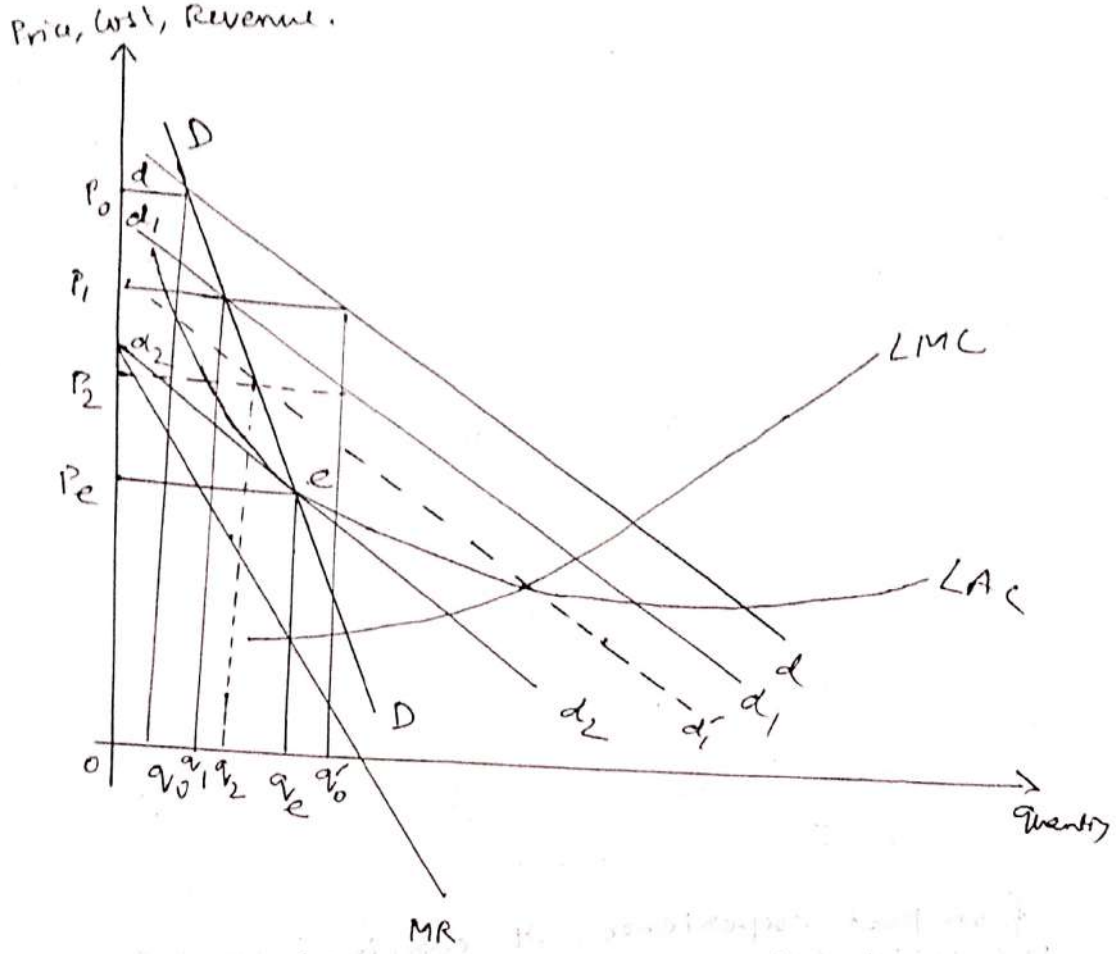
(b) When entry is permitted.

In order to make the analysis simple some heroic assumption have been made,

Firstly, the uniformity assumption which states that both demand and cost curves for all the products, are uniform through out the group.

Secondly, the symmetry assumption which means that an individual actions regarding price and output adjustment will have a negligible effect upon his numerous competitors so that they will not think of retaliation of regarding their prices and output.

Case I > Long run equilibrium when Optimum number of firms already exist ——

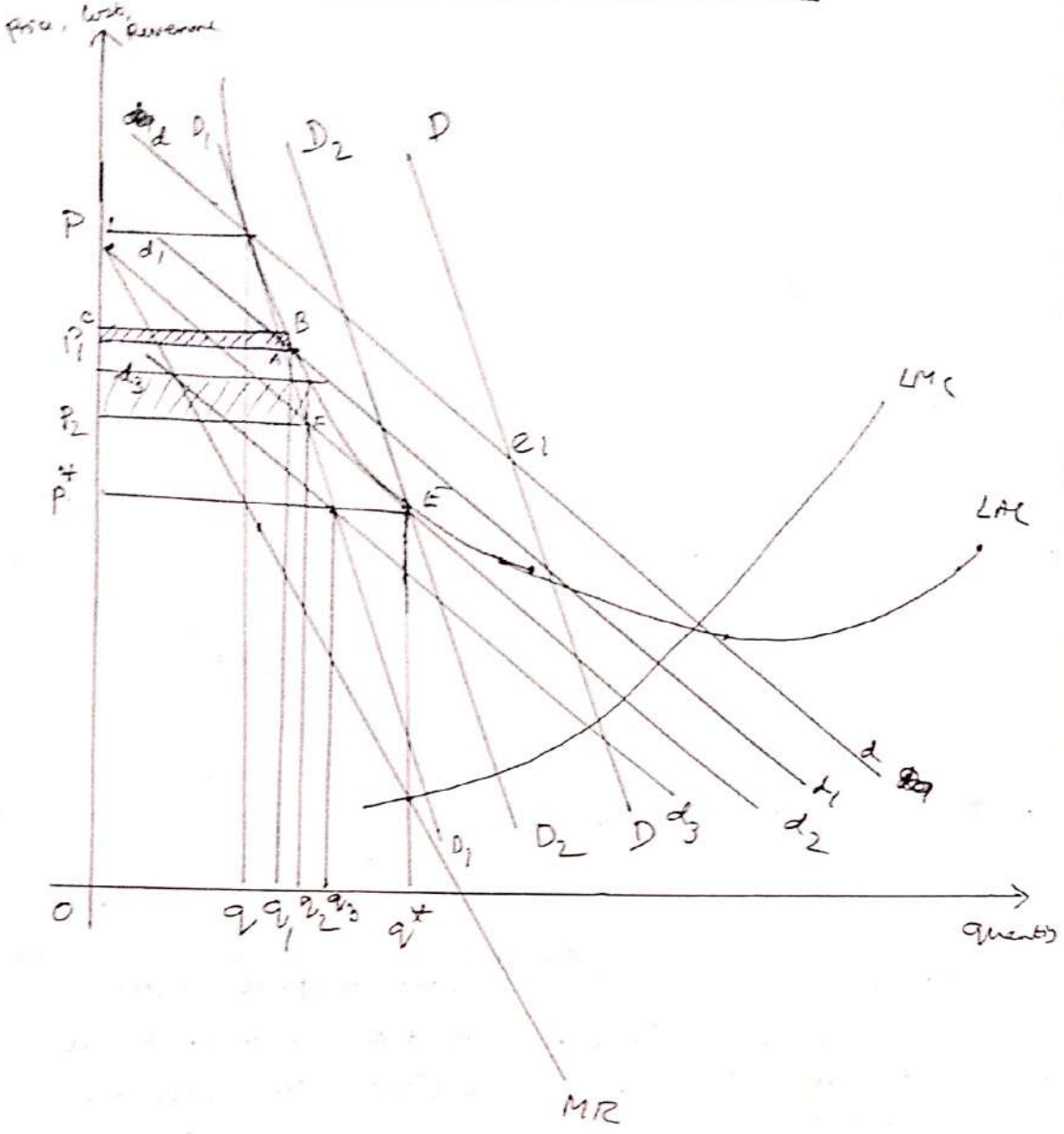


Assume that the firm is at the non equilibrium position defined by price P_0 and quantity q_0. The firm in an attempt to maximise profit, lowers the price at P_1 expecting to sell q_0', on the basis of his demand curve. ~~dem~~ This level of sales is not actually realised, because all other firms, faced the insentive to act in the same way simultaneously. Since all firms simultaneously reduce their price to P_1 the subjective demand curve dd shift to d_1d_1 and the typical firm instead of selling the expected quantity $0q_0'$, sells smaller quantity $0q_1$ and the shifted demand curve d_1d_1 and along the share curve DD. Hence, according to the model, the firm does not learn

from past experience. It continues to behave on the assumption that the new demand curve d₁d₁ will shift further and hence the firms lower the price to OP_2 in order to maximise profit. But instead of expected sales OQ_1', the firm actually sales OQ_2 because all firms act identifically and reduce price to OP_2. The process stops when the subjective demand curve shifts to d_2d_2 which becomes tangent to LAC at point e where DD curve intersects d_2d_2. Thus equilibrium price and quantity in the long run OQ_e and OP_e respectively. At this level of output is OQ_e and price OP_e respectively. In this case

MR=MC and Price = LAC.

Case II > Price Competition and free entry



Long run equilibrium of the firm may be achieved both by price adjustments of the existing firm and by new entry.

Let us assume that at point e_1 profits are abnormal, new firms are attracted. Initial DD shifts to D_1D_1 at e_2. D_1D_1 is tangent to LAC and normal profits are earned. But the situation at e_2 is quite unstable since there is a possibility of increased profit by a producer by price cutting as is evident from the subjective demand curve dd through e_2 on D_1D_1. Thus by reducing price to P_1, a firm may expect to increase sales along demand and therefore to increase profit. But each firm has exactly the same incentive and all firms reduce their prices to P_1. As all firms act similarly, the subjective demand curve shifts produced with a total loss equal to the shaded area ~~ABCE~~ ABCP_1. Thus since all firms will cut prices,

they will move down, the market demand curve D_1D_1 with the result that their hopes of getting more projects through price cutting will not be realised. However we assume that firms does not learn from past experience and so as the subjective demand curve lies above LAC, it believes that it can obtain positive profit by price cutting. If a firm reduces price to P_2, it will expect to increase profit by increasing sales along d_1d_1; but as all firms reduce their price to P_2, the subjective demand curve shifts to d_2d_2 and all will incur loss. Now a firm thinks further that by cutting price to p^*, it can avoid loses and cover its cost fully. But since each and all will cut price to p^*, the subjective demand curve will d_3d_3 the sales of each will be q_3 as is individual lay curve D_1D_1. But with d_3d_3 curve draw through F, the firm cannot hope to diminish

loses and a lower limit to price cutting is reached. Since in practice at point F, all are making losses, some firm will leave the group in the long run and the accordingly the surviving firms will have a larger share. The market demand curve D_1D_1 moves to the right together with subjective demand curve d_3d_3. Exit will continue until subjective demand curve d_2d_2 becomes tangent to the LAC curve and market demand curve D_2D_2 cuts the subjective demand curve d_2d_2 at the point of tangency E. Equilibrium is the stable at E with normal profit earned by all firms and no entry or exit taking place. The equilibrium price p^* is unique and each firm has a share equal to q^*