

ECONOMICS

4th semester

Paper - C8T

Micro Economics

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Monopolistic Competition

Qr. What do you mean by monopolistic competition?

Ans. We observed that monopolistic competition is a market structure with the large number of firms selling close substitutes, differentiated externality through packaging, appearances, brand names, etc. Product differentiation of this type is created deliberately by producers either to gain an edge over their rivals or to acquire some monopoly power. The objective is a higher market share or a higher profit margin.

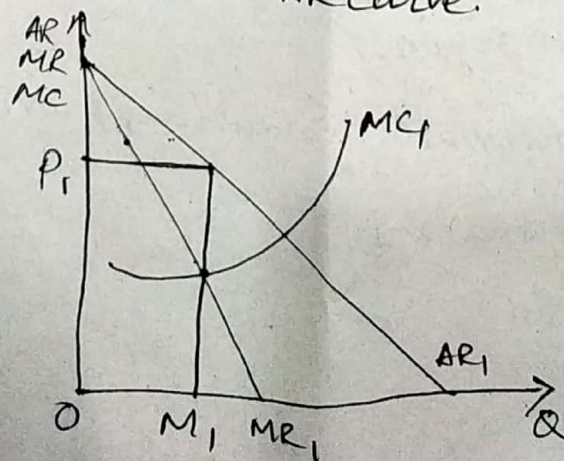
Tobacco and toothpaste industries provide examples of monopolistic market.

Q2. Show with the help of a diagram how a typical firm in monopolistically competitive market would reach its equilibrium with new firms entering the market.

Ans. We have to find out two conditions of equilibrium under monopolistic competition. The first is the equilibrium condition of a firm and the second is the equilibrium condition of the industry or group.

The term industry is used in the case of homogeneous product. But in the case of differentiated products the term group is used. The firm will be in equilibrium when it maximises profits and the industry will be in equilibrium when each firm within the group is in equilibrium earning normal profits and there's no tendency to enter into or exit from the group.

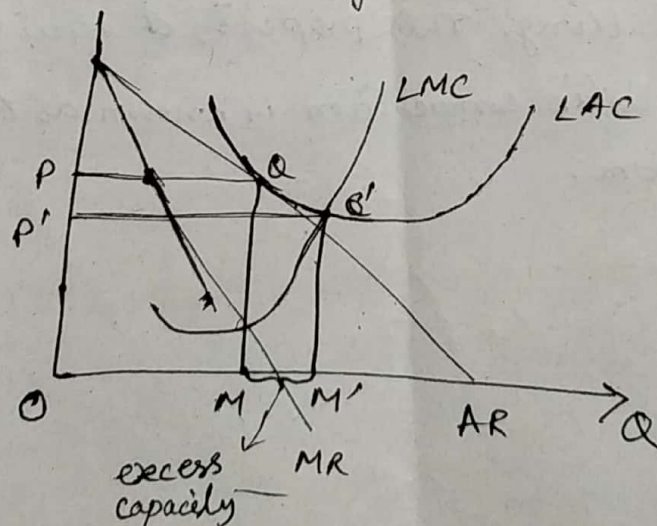
Let us the first condition consider the equilibrium of a single firm. A single firm may be regarded as a monopolist. Its AR curve is downward sloping and the MR curve lies below the AR curve.



The firm will be in equilibrium where $MR = MC$ to maximise profits. In figure let AR_1 and MR_1 be the AR and MR curves of the first firm and MC_1 be MC curve of the that firm. The equilibrium output level is OM , and the equilibrium price level is OP_1 . Industry equilibrium is possible when each firm is earning only normal profits, when $AR = AC$ for each firm.

This is because if the existing firms earn more than normal profits new firms will enter into the industry.

Entry will continue until all firms earn only normal profits. The situation of group equilibrium can be analysed in terms of figure.



This diagram the firm is in equilibrium at point Q where the AR curve is tangent to the LAC curve and the output level is OM . It can be proved that at the output level where AR

is tangent to AC, MR must also be equal to MC.

We know that $MR = AR + q \cdot \frac{dAR}{dq}$ and $MC = AC + q \cdot \frac{dAC}{dq}$.

Where q is the level of output is the same, If $AR = AC$ and if $\frac{dAR}{dq} = \frac{dAC}{dq}$.

Therefore, AR is tangent to AC, MR will be equal to MC.

Note that each firm will be in equilibrium at a point on the AC curve which is to left its minimum point Q' . The lowest point of the AC curve, where the level of output is OM' and the price is OP' , The equilibrium point under monopolistic competition (e) must be at the falling portion of the AC curve because here AR is falling. This property of equilibrium under monopolistic competition is known as the excess capacity theorem.

Monopoly Power

● ~~Profit~~ Lerner's degree of monopoly power = $\frac{P - MC}{P}$

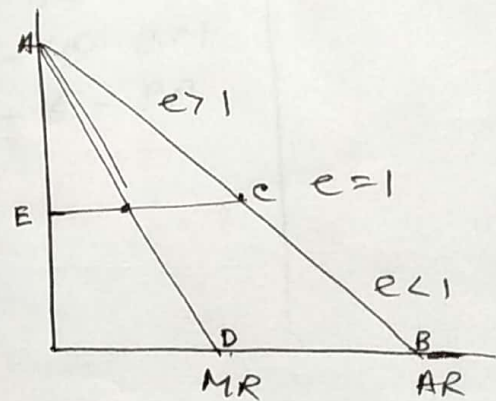
Profit maximisation, $MC = MR$ and this formula becomes $= \frac{P - MR}{P}$, we know $MR = P \left(\frac{e-1}{e} \right)$, e is the price elasticity of demand.

$$\begin{aligned} \text{Monopoly Power} &= \frac{P - P \left(\frac{e-1}{e} \right)}{P} = \frac{P \left[1 - \left(1 - \frac{1}{e} \right) \right]}{P} \\ &= 1 - 1 + \frac{1}{e} = \frac{1}{e} \end{aligned}$$

= inverse of the elasticity of demand.

The degree of monopoly varies inversely with the elasticity of the demand for the good.

NOW, TR is maximum where the elasticity of demand is equal to unity ($e=1$) and $MR=0$. When the elasticity of demand is less than 1 ($e < 1$), MR is negative. \odot



Therefore, higher price is ~~set~~ set in a less elasticity and lower price in a more elastic. It is clear that when $TC=0$, the monopoly will not operate on that portion of the demand curve where the elasticity of demand is less than unity ($e < 1$).