

ECONOMICS 4



Total Revenue (TR)

The income earned by a seller or producer after selling the output is called the total revenue. In fact, total revenue is the multiple of price and output.

An empty rectangular box with a green border, intended for a definition or formula related to Total Revenue.

Average Revenue (AR)

Average revenue refers to the revenue obtained by the seller by selling the per unit commodity. It is obtained by dividing the total revenue by total output.

An empty rectangular box with a green border, intended for a definition or formula related to Average Revenue.

Marginal Revenue (MR)

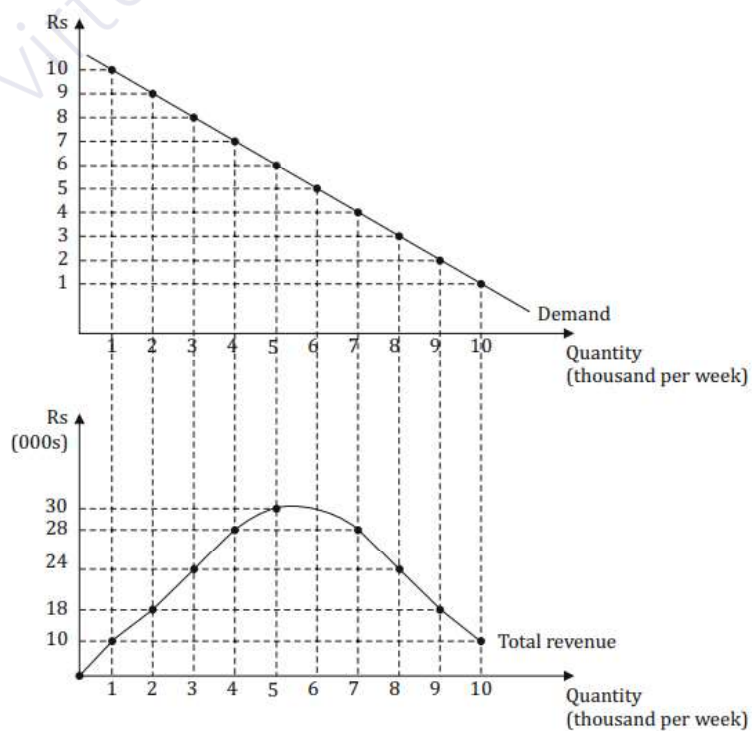
Marginal revenue is the net revenue obtained by selling an additional unit of the commodity. In other words it is the change in total revenue which results from the sale of one more or one less unit of output.

Price	Demand	Total Revenue	Average Revenue	Marginal Revenue
1	10			
2	9			
3	8			
4	7			
5	6			
6	5			
7	4			
8	3			
9	2			
10	1			

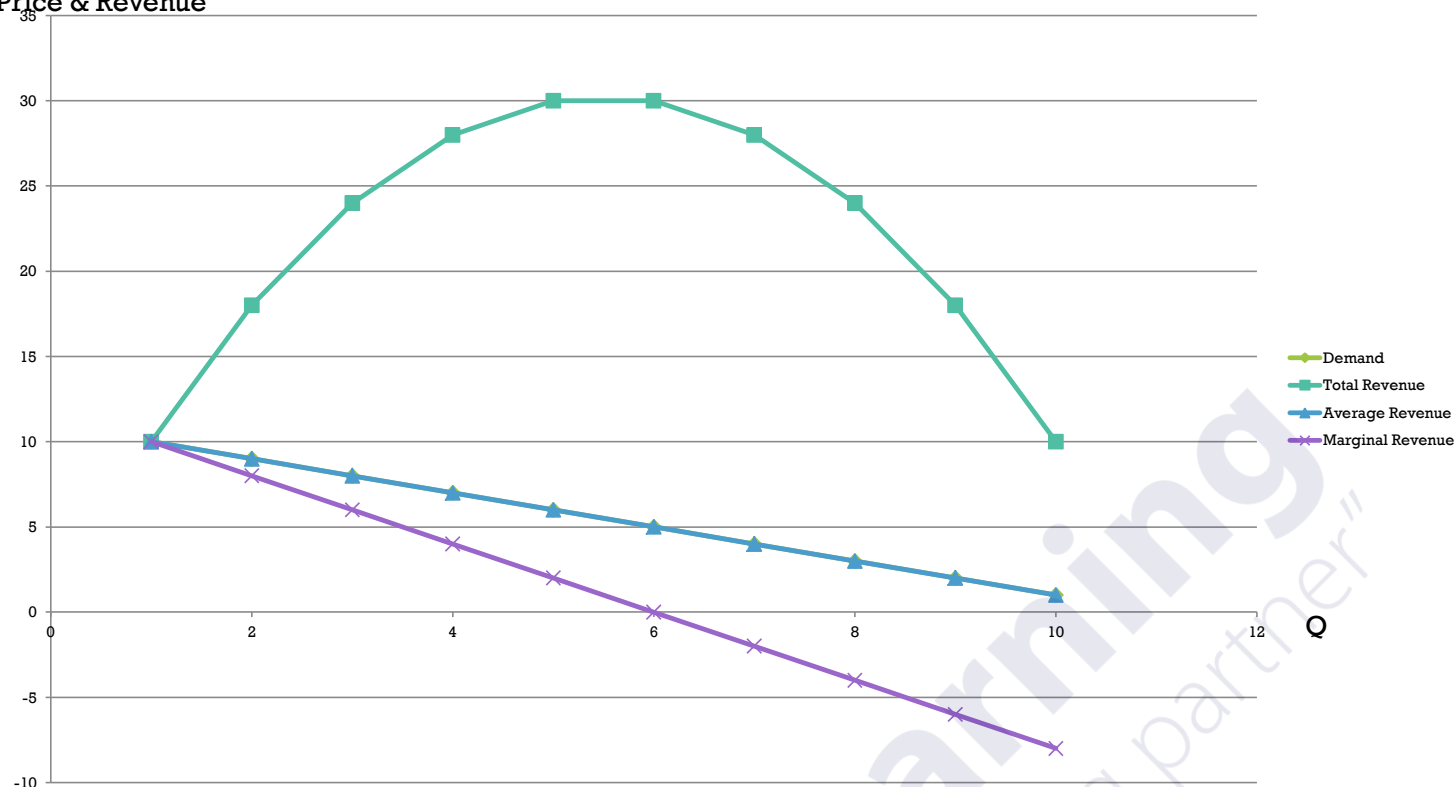
- When the price increase, the total revenue is also increasing means it has inelastic demand
- When the price decrease, the total revenue is also Decreasing means it has inelastic demand
- When the price decrease, the total revenue is increasing means it has elastic demand
- When the price increased, the total revenue is Decreasing means it has elastic demand

• Total Revenue Curve

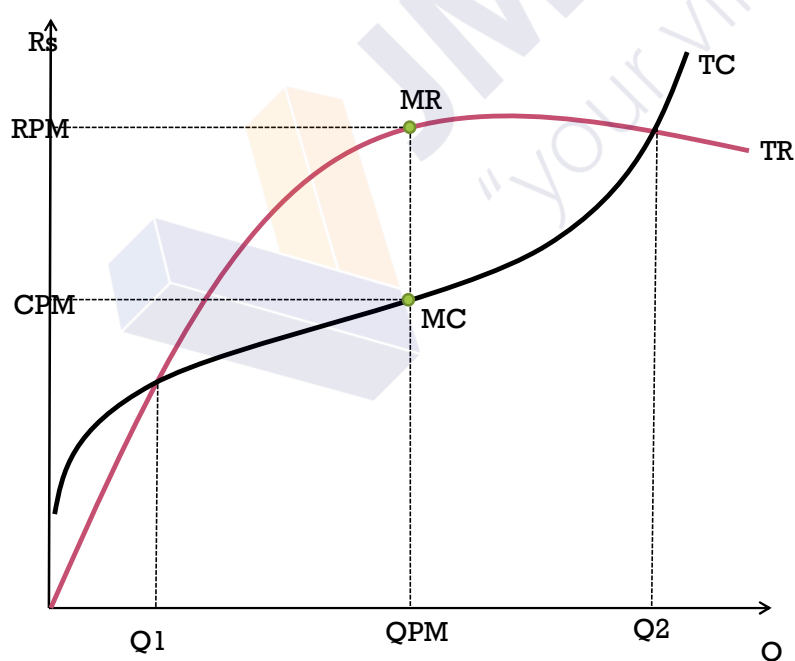
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Price & Revenue



• Total Cost & Total Revenue



- Two break even Qtys –& Which means TC is equal to the TR
- The point of Profit maximization Output is This is the quantity That TR exceeds TC by the greatest Amount.
- The total profit at the QPM is The distance between -
- The slope of the TC curve Means MC Which means The rise in cost in each extra unit produced (MC)
- The slope of the TR curve Means MR Which means The rise in revenue in each extra unit sale (MR)
- AT the QPM qty, the slope of the tangents from TC & TR will be equal. Which means at QPM qty =
- At the profit maximization output, MR is equal to MC ($MR = MC$)

- At Profit maximization output, the addition to total costs from producing the extra unit is (MC) (In the tangent, the slope of the TC curve) equal to the addition to total revenue resulting from selling it (MR) (In the tangent, the slope of the TR curve).
- At the output level **below** Profit Maximization output, the addition to total revenue from selling the extra unit (MR) is greater than the addition to total costs resulting from producing it (MC)
- ($MR > MC$) and so the firm would increase profits by increasing the quantity produced.
- At the output level **above** Profit Maximization output, the addition to total costs from producing the extra unit (MC) is greater than the addition to total revenue resulting from selling it (MR)
- ($MC > MR$) and so the firm would increase profits by reducing the quantity produced

Profit Maximization in different markets

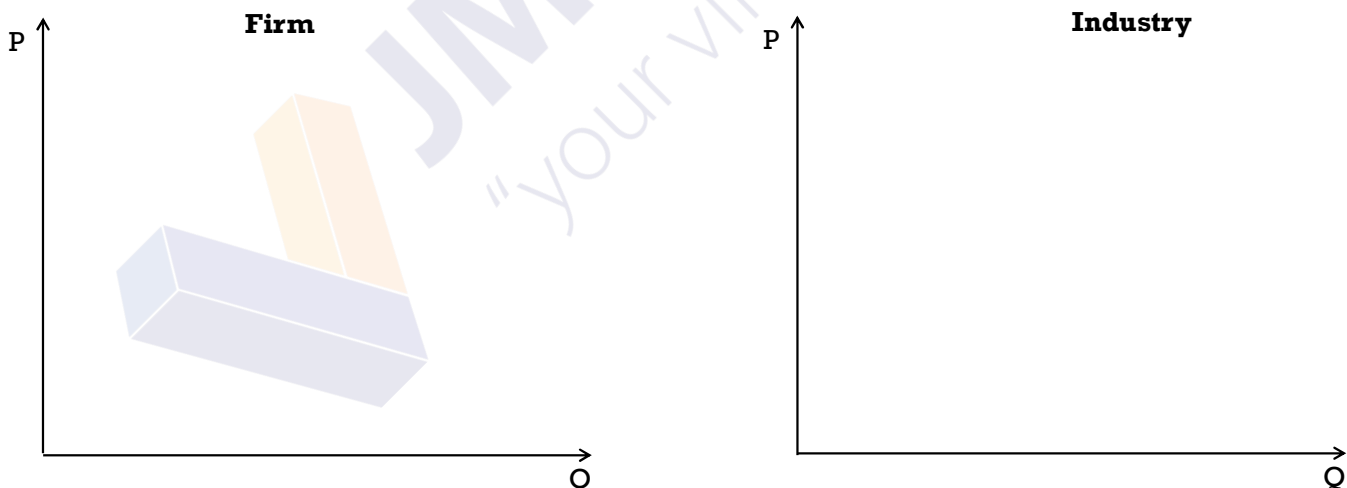
- Perfect Competition market
- Monopoly Market
- Monopolistic Competition
- Oligopoly Market

Perfect competition: a theoretical market structure in which no supplier (or buyer) has an advantage over another and therefore prices are set by open competition.

Characteristics

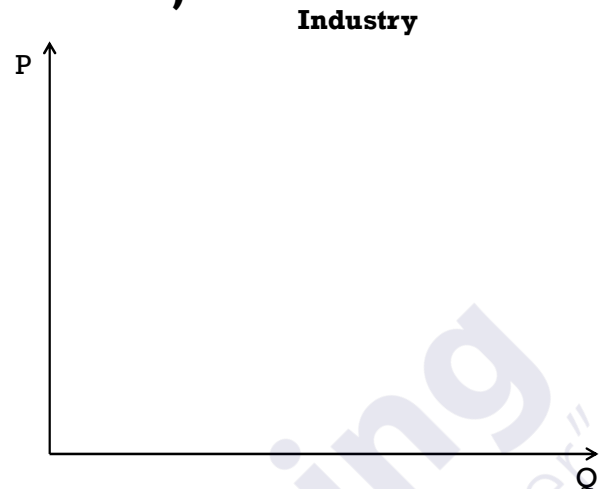
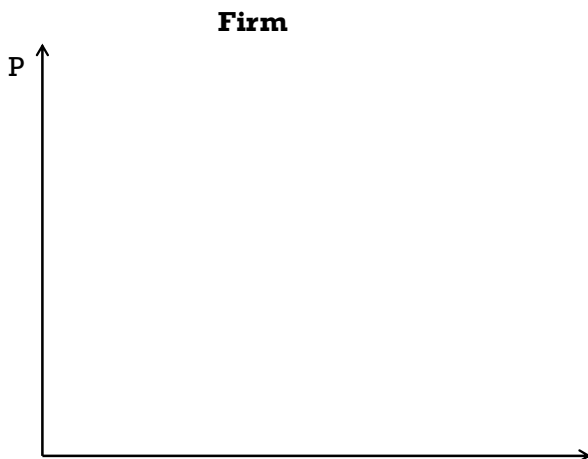
- There are a large number of buyers and sellers in the market.
- Firms are 'price takers', unable to influence the market price individually. Buyers and sellers can trade as much as they want at the prevailing market price, as determined by the interaction of supply and demand.
- Producers and consumers have the same perfect information about the product and the market.
- The product is homogeneous: one unit of the product is the same as any other unit.
- There is free entry of firms into, and free exit of firms out of, the market: there are no barriers to entry. There are also no restrictions on the mobility of factors of production.
- There are no transport costs or information-gathering costs.

PERFECT COMPETITION



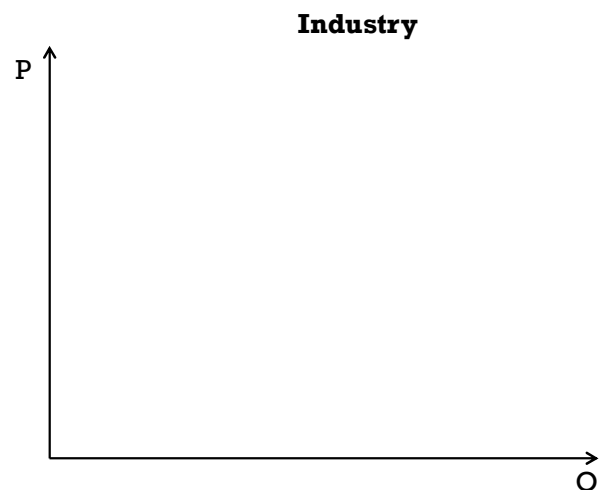
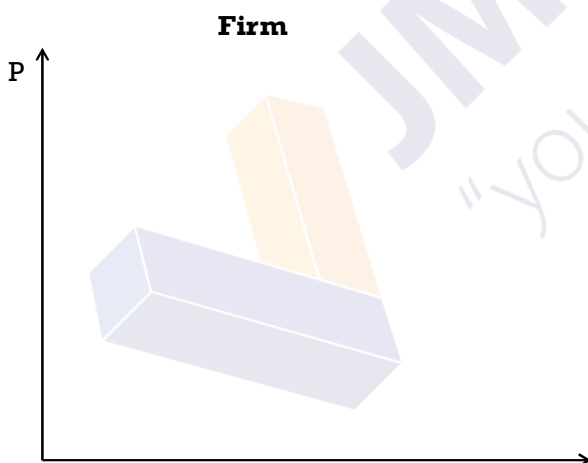
- The market price is set by the supply and demand of the industry
- This sets the market equilibrium price of P1.
- Individual firms are price takers. Their demand curve is perfectly elastic.
- A firm maximises profit at Q1 where $MC = MR$
- At this price firms make normal profits – because average revenue (AR) = average cost (AC)

PERFECT COMPETITION – SHORT RUN (SUPER NORMAL PROFIT)



- Market demand rises from D_1 to D_2 causing the price to rise from P_1 to P_2 .
- Due to the rise in price to P_2 , profits are now maximised at Q_2 .
- A firm's marginal cost (MC) curve is effectively its supply curve
- At Q_2 , (AR is greater than price) and therefore the firm now makes supernormal profit.

PERFECT COMPETITION IN THE LONG RUN



- However, the supernormal profit encourages more firms to enter the market.
- New firms enter (supply increases from S_1 to S_2) until the price falls to P_1 .
- With price at P_1 , profits are maximised at Q_1 and normal profits are made once again ($AR=AC$).

Monopoly

In a monopoly, there is only one firm: the sole producer of a good which has no closely competing substitutes.

The assumptions underlying the model of monopoly are:

- The market has a single supplier, and many consumers. The single supplier controls market supply, and can control price.
- The monopolist can be a price maker through the amount it produces for sale. If it reduces output, the scarcity it causes will drive prices up.
- The product it makes has no close substitutes. Therefore the customer cannot satisfy their needs by switching to a different producer's products.
- The industry has barriers to entry, which prevent new firms setting up and competing for the high prices and profits enjoyed by the monopolist.

Advantages

- (a) Monopolies may be needed to achieve maximum economies of scale. Lower unit costs and lower marginal costs of production often translate into lower prices.
- (b) Monopolies can afford to spend more on research and development, and are able to exploit innovation and technological progress much better than small firms.
- (c) Monopolies may find it easier than small firms to raise new capital on the capital markets, so can finance new technology and new products which enhance growth
- (d) Temporary monopolies can stimulate competition. Large profits will eventually encourage rival firms to break into their market by developing rival products, which might have a better design, better quality or lower price.
- (e) The award of patent rights rewards firms which show entrepreneurial flair and innovation for the risks they have taken and the new products they have made
- (f) There may be greater stability of supply because a monopoly can use its supernormal profits as a cushion against losses if the market suffers a downturn

Disadvantages

- (a) Profit-maximising output is likely to be at a price and output level which give supernormal profits at the expense of the consumer
- (b) Resources are not used in the most efficient way possible, as average costs are not minimised
- (c) If there are no economies of scale, less will be produced and more sold at a higher price than would be the case in a competitive market
- (d) Restrictive practices, such as price discrimination, can be carried out, to increase supernormal profits.
- (e) Monopolies might become slack about cost control or adopt a complacent attitude to innovation, because they are not threatened by competition and can earn supernormal profits.
- (f) Monopolies might stifle competition, by:
 - (i) Taking over smaller competitors who try to enter the market
 - (ii) Exploiting barriers to entry against other firms trying to enter the market
- (g) If in control of a vital resource, monopolies might make decisions which are damaging to the public interest. This is why the government often chooses to put vital industries under state control.
- (h) There might be diseconomies of scale in a large monopoly firm.

Monopoly – Short run & Long Run (Super Normal Profit)



Monopolistic competition

Monopolistic competition is a market structure in which firms' products are comparable rather than homogeneous. Product differentiation gives the products some market power by acting as a barrier to entry. Monopolistic competition is a market structure which combines features of perfect competition and monopoly.

Characteristics

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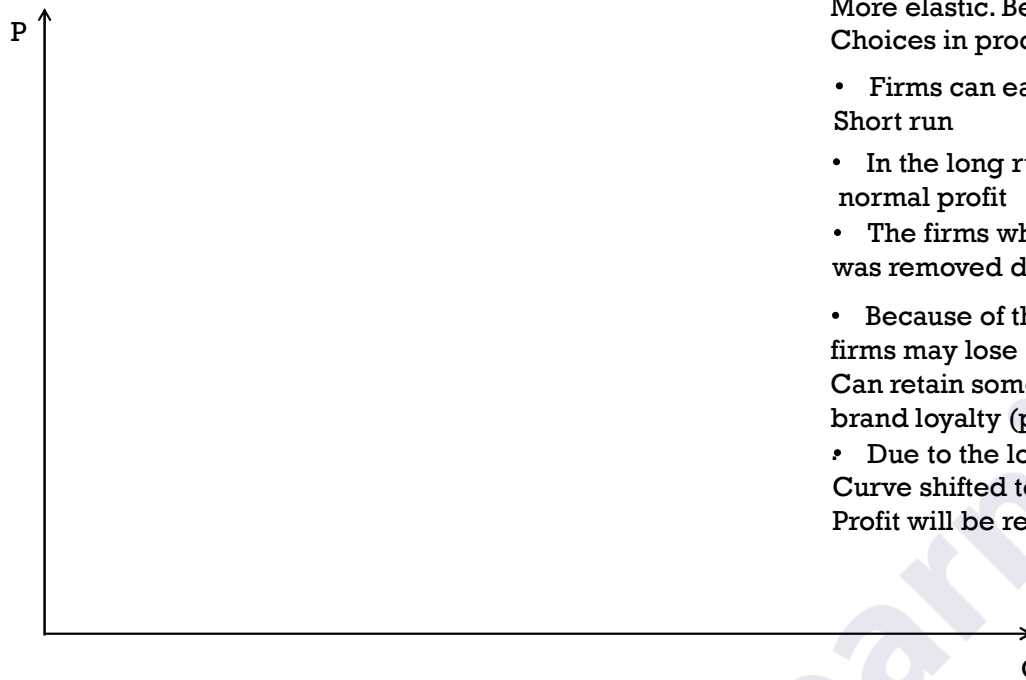
Examples

- The restaurant business
- Hotels and pubs
- Consumer services, such as hairdressing, Saloons

Monopolistic Competition – Short Run – Super Normal Profit

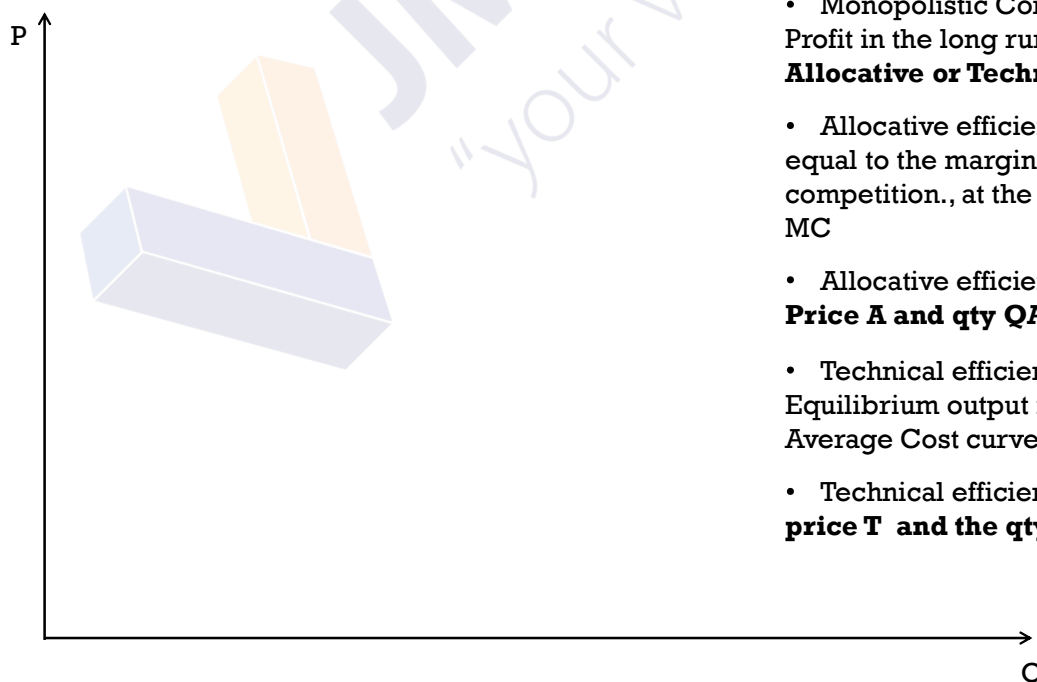


The long-run equilibrium of a firm in monopolistic competition



- Monopolistic Competition Demand Curve is More elastic. Because the customers have Choices in products.
- Firms can earn super normal profit in the Short run
- In the long run the firm will earn only the normal profit
- The firms who earned super normal profit was removed due to new entrants
- Because of the new entrants to the market firms may lose some of customers. But they Can retain some customers because of the brand loyalty (product differentiation)
- Due to the loss of customers, firm demand Curve shifted towards left. Thus super normal Profit will be removed.

The long-run equilibrium of a firm in monopolistic competition



- Monopolistic Competition firm earn normal Profit in the long run. But they cannot achieve **Allocative or Technical efficiency**.
- Allocative efficiency occurs where the price equal to the marginal cost. But in Monopolistic competition., at the Q_1 the price is higher than MC
- Allocative efficiency can be achieved at the **Price A and qty QA**
- Technical efficiency is not achieved because of Equilibrium output is not at the lowest point of the Average Cost curve. QT is higher than Q_1
- Technical efficiency can be achieved at the **price T and the qty QT**

Oligopoly

Oligopoly: a market structure where a few large suppliers dominate the market and there is a behavioural relationship between them; ie they take each others' responses into account when setting price and output.

Oligopoly differs from monopoly in that there is more than one firm in the market, and from monopolistic competition because, in oligopoly, the number of rival firms is small.

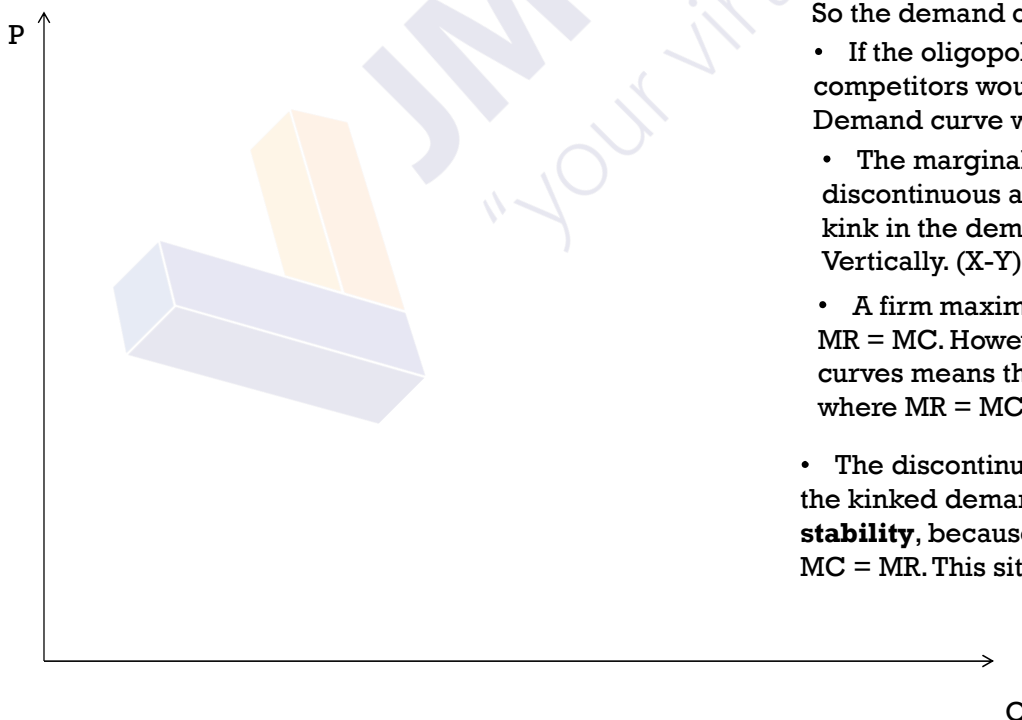
Characteristics

- Few sellers.
- Barriers to entry.
- Interdependence - Oligopoly firms are large relative to the market in which they operate. If one oligopoly firm changes its price or its marketing strategy, it will significantly impact the rival firm.
- Prevalent advertising - Oligopoly firms frequently advertise on a national scale.

Eg:

- (a) Cigarette production
- (b) Mobile telephone provision
- (c) Banking services
- (d) Automobile production
- (e) Airlines

• Oligopoly and the kinked demand curve



- If the oligopolist were to raise his prices above P, his competitors are likely to keep their price lower. So the demand curve would be elastic.
- If the oligopolist were to reduce prices below P, competitors would probably do the same. So the Demand curve would be more towards inelastic.
- The marginal revenue (MR) curve is discontinuous at the output level where there is the kink in the demand curve. So the MR curve falls Vertically. (X-Y)
- A firm maximises its profit at the point where $MR = MC$. However, the discontinuity in the MR curves means that there will be a number of points where $MR = MC$
- The discontinuity in the MR curve resulting from the kinked demand curve causes the **price & output stability**, because there are a range of points where $MC = MR$. This situation is unique to an oligopoly

The success of a price cartel will depend on several factors. – Oligopoly Market

- (a) Whether it consists of most or all of the producers of the product.
- (b) Whether or not there are close substitutes for the product. For example, a price cartel by taxi drivers might lead to a shift in demand for buses and trains, because these are possible substitutes for taxis.
- (c) The ease with which supply can be regulated. In the case of primary commodities, such as wheat, rice, tea and coffee, total supply is dependent on weather conditions and even political events in the producing country.
- (d) The price elasticity of demand for the product. Cartels are likely to be most effective for goods which are inelastic. An attempt to raise prices by cutting output of an elastic good might result in such a large a fall in demand, and such a small rise in price, that the total income of producers also falls.
- (e) Whether producers can agree on their individual shares of the total restricted supply to the market. This is often the greatest difficulty of all.

Description	Perfect Competition	Monopoly	Monopolistic Competition	Oligopoly
Product	Homogeneous	One Good	Differentiated	Homogeneous or slightly differentiated
Number of Firms	Many	One	Many	Very few
Entry and Exit Barriers	Free Entry and Exit	No entry	Free entry and exit	Barriers to entry