Quadrant II - Notes

Paper Code: ECC 102

Module Name: Price discrimination (Meaning & Types)

Module No: 12

Definition of Price Discrimination:

Price discrimination implies charging different prices from different customers or for different units of the same product. In the words of Joan Robinson – "The act of selling the same article, produced under single control at different prices to different buyers is known as price discrimination." Price discrimination is possible when the monopolist sells in different markets in such a way that it is not possible to transfer any unit of the commodity from the cheap market to the dearer market.

Price discrimination is, however, not possible under perfect competition, even if the two markets could be kept separate. Since the market demand in each market is perfectly elastic, every seller would try to sell in that market in which he could get the highest price. Competition makes the price equal in both the markets. Thus, price discrimination is possible only when markets are imperfect.

Types of Price Discrimination

Price discrimination is of many types:

Firstly, it may be personal based on the income of the customers. Doctors and lawyers charge different fees from different customers on the basis of their incomes. Higher fees are charged to rich persons and lower to the poor.

Secondly, price discrimination may be based on the nature of the product. Paperback is cheaper than the deluxe editions of the same book, for the former is bought by the majority of readers and the latter by libraries. Unbranded products, like open tea, are sold at lower prices than branded products like Brooke bond or Lipton tea. Economy size tooth pastes are relatively cheaper than ordinary-sized tooth pastes.

In the case of services too, such price discrimination is practised when off-season rates of hotels at hill stations are very low as compared to the peak season. Dry-cleaning firms charge for two while they clean three clothes during off season; whereas they charge more for quick service in peak season.

Thirdly, price discrimination is also related to the age, sex and status of the customers. Barbers charge less for children's haircuts. Certain cinema halls admit ladies only at lower rates. Military personnel in uniform are admitted at concessional rates in all cinema houses.

Fourthly, discrimination is also based on the time of service. Cinema houses at certain places, like New Delhi, charge half the rates in the noon show than in the afternoon shows.

Fifthly, there is geographical or local discrimination when a monopolist sells in one market at a higher price than in the other market.

Lastly, discrimination may be compartments or for different services. Less is charged for the transportation of coal than for bales of cloth on the same route. State power boards charge low rates for industrial use than for domestic consumption of electricity.

Conditions for Price Discrimination:

For price discrimination to exist certain conditions must be satisfied.

They are:

1. Market Imperfections:

Price discrimination is possible when there is some degree of market imperfection. The individual seller is able to divide and keep his market into separate parts only if it is imperfect. Customers do not move readily from one market to the other because of ignorance or inertia.

2. Agreement between Rival Sellers:

Price discrimination also takes place when the seller of a commodity is a monopolist or when rival sellers enter into an agreement for the sale of the product at different prices to different customers. This is usually possible in the sale of direct services. A single surgeon may charge a high fee for an operation from a rich patient and relatively low fee from a poor patient.

In places where a number of surgeons and physicians practice, they charge their fees according to the income of the patients. The rate of fee is fixed for each category of patient. Lawyers charge from their clients in proportion to the degree of risk or amount of money involved in a law suit. Price discrimination is possible in the case of services because there is no possibility of resale.

3. Geographical or Tariff Barriers:

Discrimination may occur on geographical grounds. The monopolist may discriminate between home and foreign buyers by selling at a lower price in the foreign market than in the domestic market. This type of discrimination is known as "dumping" which can only be successful if the commodities sold abroad can be prevented from being returned to the exporting country by tariff restrictions.

Sometimes transport costs are so high that they act as a safeguard against the return of dumped goods. Geographical discrimination satisfies Pigou's first condition for discrimination 'when no unit of the commodity sold in one market can be transferred to another'.

4. Differentiated Products:

Discrimination is possible when buyers need the same service in connection with differentiated products. Railways charge different rates for the transport of coal and copper. For they know that it is physically impossible for a copper merchant to convert copper into coal for the 'no unit of demand, proper to one market can be transferred to another. It also applies to discrimination based on age, sex, status and income of buyers of services. For instance, a rich man cannot become poor for the sake of getting cheap medical facilities.

5. Ignorance of Buyers:

Discrimination also occurs when small manufactures sell goods made to order. They charge different rates to different buyers depending upon the intensity of their demand for the product. Shoe-makers charge a high price for the same variety from those customers who want them earlier than others. For the same variety of shoes, different buyers are also charged different prices because individual buyers are not in a position to know the price being charged to others.

6. Artificial Differences between Goods:

A monopolist may create artificial differences by presenting the same commodity in different quantities. He may present it under different names and labels, one for the rich and snobbish buyers and the other for the ordinary. Thus, he may charge different prices for substantially the same product. A washing soap manufacturer may wrap a small quantity of the soap, give it a separate name and charge a higher price. He may sell it at Rs.2.50 per kg. as against Rs.2.00 for the unwrapped soap.

7. Differences in Demand:

For price discrimination, the demand in the separate markets must be considerably different. Different prices can be charged in separate markets based on differences of elasticity of demand. Low price is charged where demand is more elastic and high price in the market with the less elastic demand.

Degrees of Price Discrimination:

Prof. Pigou in his ‘Economics of Welfare’ describes three degrees of discriminating power which a monopolist may wield.

They are:

1. Discrimination of the First Degree:

It occurs when a monopolist charges “a different’ price against all the different units of commodity, in such wise that the price exacted for each was equal to the demand price for it and no consumer’s surplus was left to the buyers.” Mrs. Joan Robinson calls it perfect discrimination when the monopolist sells each unit of the product at a separate price. Such discrimination is possible only when the monopolist forces each buyer to offer the maximum price for each unit of the commodity.

As long as the total sum which he was forced to pay did not exceed his estimate of the total utility of that amount of the commodity, the buyer would prefer to purchase rather than go without, so that the price per unit charged to each buyer would represent the average utility of the amount which he purchased.

Thus, under perfect discrimination, a monopolist charges as many prices as ordinates can be drawn from the demand curve or as there are degrees of demand curve. The demand curve d which represents the composite demand curve of all the buyers is the AR curve of the simple monopolist. It becomes the MR curve to the discriminator of the first degree when he charges different prices for different units of the same commodity.

2. Discrimination of the Second Degree:

“It would obtain if a monopolist were able to market and separate prices, in such wise that units with a demand price greater than X were sold at a price X, all with a demand price less than X and greater than Y at a price y and so on.” This is only possible of the demand of each buyer below a certain maximum price is perfectly inelastic.

The state electricity boards practice discrimination of the second degree when they charge a high rate for the first few kws of electricity consumed per month. As more electricity is used, the rate falls for another step or two.

3. Discrimination of the Third Degree:

It occurs when the monopolist divides the buyers of his commodity or service into two or more groups and charges a different price to each group. We take the case of a monopolist who sells his commodity in two separate markets, one a home market and the second a foreign market.

This analysis is based on the following conditions:

(a) The aim of the monopolist is to maximize his profits. He, therefore, produces that output at which his marginal revenue equals marginal cost. Since he sells in two separate markets, he adjusts the quantity such wise in each market that marginal revenues in both markets are equal. Given the marginal cost of producing the commodity, the most profitable monopoly output will be determined at a point where the combined marginal revenue of both the markets equals the marginal cost.

If the marginal revenue is greater in market one than in market two, the monopolist will sell less to market two and shift this quantity to market one. This will tend to raise the price in market two and lower in one, upto a point where marginal revenues in the two markets are equal.

(b) The number of buyers in each market is very large and there is perfect competition among them.

(c) The monopolist's demand curve in each market is downward sloping which implies that his monopoly in selling the commodity is well established in the two markets.

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(e) Lastly, the most important condition for price discrimination is that the elasticities of demand in the two markets must be different. If the elasticities of demand are the same, marginal revenues will also be the same. This follows from the formula MR = AR {E/(R – 1)}.

If AR is the same in each market, elasticity of demand will also be the same in and so will be the marginal revenues in the two markets. In this situation, total revenue will remain the same whatever shifting of output may be done from one market to the other by the monopolist. Thus, there is no need for discrimination.

Therefore, for price discrimination to be profitable the elasticities of demand for monopoly product must be different in the two markets. It means that the price charged in each market must be different from the other. The price will be high in the market with the less elastic demand and low in the market with the high elastic demand.

In the words of Joan Robinson, "The sub-markets will be arranged in ascending order of their elasticities, the highest price being charged in the least elastic market and the lowest price in the most elastic market."

We may conclude that under discrimination of the third degree the monopolist sells his product in two separate markets with different elasticities of demand so that he maximizes his profits when he sells more at a lower price in the foreign market with elastic demand and sells less at a higher price in domestic market with less elastic demand. It follows that when marginal revenues equal and prices differ in the two markets price discrimination is possible and profitable.

Price discrimination allows firms to increase profits by charging individual customers (or groups of customers) different prices for the same goods or services. Depending on the information available and the given circumstances, three types (i.e. degrees) of price discrimination can be applied: first, second and third-degree. First-degree price discrimination occurs when companies charge each customer the maximum amount they are willing to pay for a good or service. Second-degree price discrimination occurs when firms offer different prices depending on the quantity purchased. And finally, third-degree price discrimination occurs when firms charge different prices to different groups of customers.