Price discrimination essay

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The main reason to carry on economic functions of a firm is profit maximization. In the way to the profit maximization main variable is the marginal cost of the products they sell. Therefore when pricing the product they consider the marginal cost first and set their pricing policies accordingly. When the other factors are same to sell low marginal cost products for low price; high marginal cost products for high price is expected. But in some cases the same marginal cost products can be sold for different price. There could be other reasons behind this behavior which seems economically unfounded. This behavior defined as the price discrimination to the consumer or competitor firms, functioning of the market, to the society wealth, enter exit to the market, to consumer surplus, the effective distribution of the market, and some positive and negative effect on the wealth of the society is unavoidable.

The aim of this article is to define the price discrimination and express its effects on the markets.

Introduction

In today's economies where product and service competition is dense, to sell products and services to consumers in the way as expected by the company has become harder but at the same time necessary compared to the past. It has become unavoidable for the firms to use various pricing strategies alongside with the classical selling strategies to reach this goal.

In today's economic conditions in which the markets being far from full competitive state resulted the firms functioning in this market to become more or less a price-maker. For this reason, one of the ways for the firms

that aim to increase the total income thus the total profit can use is, to implement different pricing for consumers with different specialties instead of applying the same pricing for all the consumer groups. Because the consumers having different income levels, taste and choice cause them to have a desire to pay different price for the product in question. One of the pricing strategies foresees different pricing for different consumer groups is price discrimination.

There are three kinds of pricing discrimination which can be defined as selling of the products which have a similar cost structure to different costumer groups with different pricing; as first degree price discrimination, second degree price discrimination and third degree price discrimination.

The main goal of using pricing variation in which the consumers are separated into subgroups according to their elasticity of demand; is to increase the profit of the firm by canalizing the surplus of consumers to the producers.

Price Discrimination

The implementation of price discrimination will bring the firm that aims to maximize the profit in an advantageous position in the market. This advantage, generated from the desire of consumers that have different taste and income who are willing to pay different price for two products produced with approximately same marginal cost by the firm. In the markets there is always a lack of information between the firms and consumers. Same as the consumers won’t know about details such as the firm’s cost structure, profit state, legal foundation; the firms too don’t know about the consumers taste

and choice and maximum price they are willing to pay for a product. But the firms, by starting with the observable characteristics of consumers, can categorize them as employed-unemployed, retired-uninsured, full-time student, living in city or urban areas. These characteristics give the firm the opportunity to characterize the consumers and to offer different pricing implementation (Dobbs, 2000).

Despite the possibility there are many and large definitions exist for price discrimination; it won't be wrong to define it as a situation to sell the same product with different price to different customers (Hirschey & Pappas, 1998). According to Stigler the price discrimination is described as the selling of the same product for two or more different price and over the marginal cost (Varian, 1989).

To understand the price discrimination, the reasons to do it should be put forward. To determine why the firms apply to this road will explain the economical reason of this behavior. First one of these reasons, besides the monopolist pricing implemented by the dominant company in the market by price discrimination to achieve the whole consumer rant and thus maximize the profits. It's been assumed that this way of price discrimination doesn't have any negative effect on the society's wealth. Because the firm will sell more products for different price by price discrimination and the market will benefit from this present situation.

On the other hand, price discrimination will make it possible to sell similar products in different regions with different pricing. However, this situation

raises the possibility of arbitrage between regions. Some countries such as the European Union are measuring in the direction of this state of affairs.

Thirdly, the dominant firm which has the low cost advantage can push the competing firms out of the market by implementing price discrimination and can become the monopoly in market conditions. Considering the monopoly which arises from the scale economy called natural monopoly, it can be said that the price discrimination gives the advantage to become natural monopoly to the firm which have a low cost structure.

Conditions for Price Discrimination

It is well known that to sell the same or similar products to groups of different consumer will be possible with the fulfillment of specific conditions. Otherwise, people are rational, the wont be willing to pay more for the same product. In this context, the most important conditions to consider are incomplete competition, price flexibility, and arbitrage. The company operates in the market for successful price discrimination through a certain degree of market power in that market demand should be the negative slope of the market demand curve. Because it won't be possible for a firm to implement price discrimination in a fully competitive market where buyers and sellers are price-takers (Philps, 1983).

From the moment when the firm is able to sell the product over marginal cost it will be possible to implement price discrimination. Moreover, to sell the product which is being sold over marginal cost for a discount price to all consumer groups would have negative effect on the price discrimination. The way to be able to decrease the price for a definite group by the firm passes

through the ability to different that group from the rest of the consumers (Varian, 1989).

Another prerequisite for price discrimination to become efficient and profitable is the necessity of to have the price flexibility of consumer groups to buy the products for different pricing. Because elasticity is the bargaining power of the consumer and it cannot be thinkable that the same consumer groups with the same bargaining power would buy the same product with different pricing (Colberg & Forbush, 1986). To sell the same product in different markets with different price elasticity will increase the profit for the firm. In this situation the marginal income from selling the same product for different price in different markets would be different size for different markets. In this case the firm has the ability to increase its profit by selling less in the markets where demand elasticity and marginal income is lower, more in markets where demand elasticity and marginal income is higher (Robinson, 1964).

After dividing the markets according to consumers’ specialties, to prevent the arbitrage which can be explained as buying from the cheap markets selling in expensive markets by the consumer is another factor which is necessary for the price discrimination to succeed. Dividing the markets into sections according to the consumers’ elasticity and the consumer group with lower elasticity buying the product will have an effect on increasing the firms’ profit. On the other hand higher elasticity group will be able to buy the product lower price and thus leave the firm less profit. The possibility of selling the product to non-elasticity group by the high elasticity group will prevent the non-elasticity group buying from the firm and thus will reduce

the firms' profit (Lipsey, Cournat, & Purvis, 1994). Therefore profitable price discrimination is depends on the conditions of the arbitrage in between the markets. To effective implementation of price discrimination the markets have to be separated and the arbitrage should be expensive or illegal (Ekelund & Hebert, 1999).

If the above-mentioned conditions are not met it's not possible for the company to have profit increase by implementing price discrimination.

Forms of Price Discrimination

In the full competitive markets because of the atomisite and mobility conditions of the market firms don't have the power to determine pricing policies. For this reason they accept the market price as it is, meaning they are price buyers. But in practice it's almost impossible reach full competitive market conditions and most markets function in less competitive conditions. This means that the firms have power to play on the price in a certain amount. The firms which have a goal of maximizing their profit can elude the one price and can ask different price for the same product or different price for one customer depending on the amount. There are three kind price discrimination which can be defined as first degree price discrimination second degree price discrimination and third degree price discrimination.

First Degree Price Disrimination

In the implementation of the first degree price discrimination every consumer demand conditions are known and therefore the maximum price the costumer is willing to pay is known. Therefore the firm is implementing a different price for each costumer. The different price implementation for

each costumer will be equal to the maximum price asked for the product and there will be no producer surplus for the costumer (ParasÄ±z, 2002).

First degree price discrimination will cause the monopolistic firm to obtain the producer surplus and tare lost caused by the implementation of a single pricing as profit. In this way the firm will be able to produce until the marginal cost will be equal to marginal income, in other words to be effective as a full competitive firm. For this kind of price implementation, which there is not many examples in real life, typical examples would be tailoring and barbering which depend on handcraft.

Second Degree Price Discrimination

The second degree price discrimination, which has more areas of use in real life compared to first degree price discrimination, depends on big or wholesale purchasing principle. In the second degree price discrimination when the amount of purchasing is increased the price is reduced (Moyer & McGuigan, 1993).

In this application, the measure of the price discrimination is not the maximum price that consumers are willing to pay but the quantity of the purchased goods. In second degree price discrimination unit price is decreased when the amount of the products bought is increased. The second degree price discrimination is supporting spending (Ünsal, 2000).

The firms which provide public service such as electricity, gas, water are widely using the second degree price discrimination. In this kind of implementation consumers, while paying more for electricity used in their homes, pay less for electricity used in trading firms and industry (Hirschey &

Pappas, 1998). When compared to the first degree price discrimination, in the second degree of price discrimination it will not be possible to achieve whole of consumer surplus but most of it obtained by the firms (Ünsal, 2000).

Third Degree Price Discrimination

In price discrimination the most common use area is third degree price discrimination. The foundation of this implementation is to divide the market according to the price elasticity into subgroups and to sell products to different groups with different pricing. In this imply main thing is not the quantity of the product bought by the consumer, to discriminate according to the spending consumer group willing to buy the products relative price elasticity (Koch, 1974). In third degree price discrimination firms divide the consumers into groups based on number of the household, trade, industrial, company users, social statue, personal tastes, the area of use of the product and other factors and implement different pricing for these groups (Moyer & McGuigan, 1993).

In the price discrimination which will be implemented by the firm which has a power to determine the price, the subdivided markets' price elasticity and the price of the selling product in that market a negative correlation is expected. In the high elasticity sub-market the product is sold for a lesser price; in the less elasticity sub- market the product is sold relatively higher (Moyer & McGuigan, 1993).

Effects of Price Discrimination on Market Mechanism

The main reason to carry on economic functions of a firm is profit maximization. In the way to the profit maximization main variable is the marginal cost of the products they sell. Therefore when pricing the product they consider the marginal cost first and set their pricing policies accordingly. When the other factors are same to sell low marginal cost products for low price; high marginal cost products for high price is expected. But in some cases the same marginal cost products can be sold for different price. There could be other reasons behind this behavior which seems economically unfounded. This behavior defined as the price discrimination to the consumer or competitor firms, functioning of the market, to the society wealth, enter exit to the market, to consumer surplus, the effective distribution of the market, and some positive and negative effect on the wealth of the society is unavoidable (Armstrong, 2007).

The firm which has a particular market power while the other factors are constant (ceteris paribus), the marginal cost of the product will come to balance at the point where it is equal to the marginal income of the product. In figure 1-a as shown at the rest point (q1) amount of product will be sold for p1 price. Thus P1Bq10 area selling income will be obtained. In this case AP1B area consumer surplus; BCF area tare loss will be materialized.

The firm when sell the product to each costumer willing to pay the maximum price for that product and figure 1-b shown first degree price discrimination the firm will wholly obtain the consumer rant and loss of tare. In the market the products will be produced same as the full competitive market and when selling tare loss won’t happen during sale. It can be said that in a market

when the firm is effectively implementing price discrimination it will cause the increase of the market effectiveness and eliminate the tare loss.

As it can be understood from the figure, before the price discrimination the firm was selling q1 amount of product for p1 price. Meaning in the market total of q1 product was being sold. After the price discrimination the total produce in the market will be q6. The price discrimination is increasing the output amount, when effectively coordinated will cause to produce same as a full competitive market. The consumers having different needs determine the maximum price they can pay for a product differs and thus the price elasticity to be different also. For example let's assume when the price elasticity is higher in one submarket the price of a product can be sold to be 5 lira. Same product can find a buyer in the submarket with the price elasticity is less can find a buyer for 10 lira. The firm which is the producer for these two submarkets should decide about the pricing. If it goes to single pricing and declare the price for the two markets are 5 lira it will be lose the extra profit can be obtainable form the lesser elasticity market. On the other hand by declaring the price 10 lira it won't be able to make any sale at the higher flex market. The product won't sell at any price higher than 5 lira in the high elasticity market. So it will cause the firm withdraw from higher elasticity market and in that high elasticity submarket won't be able to sell the product. Therefore dividing of the market into subgroups by considering the consumer group differences and in these markets to sell the different priced products will cause the rise of the profit of the firm and prevent of closing of the higher elasticity market. From this it can be said that the price

discrimination is playing an effective role in continue of markets when implemented effectively (Armstrong, 2007).

Conclusion

As the market gets away from the fully competitive market conditions, the difference between the market price and the marginal cost increases. Then, this causes the market effectiveness to decrease. Another way to increase the market effectiveness in which markets it is impossible to increase the competition by increasing the number of firms is to implement the price discrimination. Price discrimination can increase the output, decrease total weight loss incase monopoly. Price discrimination can also decrease price at low income market and bars this market to shut down. As a result price discrimination can increase market efficiency (Armstrong, 2007).