Price Discrimination
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If a firm has no market power, it faces a perfectly elastic demand curve (Kreps, 1990), a horizontal curve at the market price. Thus, the quantity demanded by consumers for these goods or services depends on the market price. The levels of supply and demand determine the market price. The elasticity of demand relates to the change in the quantity demanded when the price changes, so it is the price elasticity of demand.

Market power means that the firm faces a downward-sloping demand curve for its products or services. Monopolies and oligopolists face a downward demand curve and can price discriminate; competitive firms are price takers and cannot price discriminate, because of the large number of substitute products and services available in the market.

The Department of Justice Antitrust Division notes that "Economists use both 'market power' and 'monopoly power' to refer to the power of a single firm or group of firms to price profitably above marginal cost." Marginal cost (MC) is the increase in cost for an added unit of output.

Varian (1989) noted that price discrimination is one of the most prevalent forms of marketing practices. He uses Stigler's (1987) definition of price discrimination; that is, it is present when two or more similar goods or services are sold at prices that are in different ratios to MC. Varian argues that three conditions are necessary for price discrimination to be a viable solution to a firm's pricing problem. First, the firm must have some market power; second, the firm must have the ability to sort customers; and third, the firm must be able to prevent resale.

Cornel Law School notes that "Price discrimination refers to charging different customers different prices for the same good or service. The Sherman Antitrust Act, Clayton Antitrust Act, and Robinson-Patman Act outlaw price discrimination when the intent of that discrimination is to harm competitors."

According to the Federal Trade Commission, "A seller charging competing buyers different prices for the same "commodity" or discriminating in the provision of "allowances" — compensation for advertising and other services — may be violating the Robinson-Patman Act. This kind of price discrimination may give favored customers an edge in the market that has nothing to do with their superior efficiency. Price discriminations are generally lawful, particularly if they reflect the different costs of dealing with different buyers or are the result of a seller's attempts to meet a competitor's offering."

Price discrimination differs from competitive pricing. Competitive pricing is based on the prices being offered by the competition. Competitive firms are price takers they cannot price-discriminate. Thus, in a competitive market, firms attempting to price-discriminate will lose customers because there are many other competing firms offering similar products or services; but monopolies and oligopolies can price discriminate because consumers are limited to a single seller or a small number of firms that control the market.

Henderson and Quandt (1980) noted that the monopolist can increase profit by selling at more than one price and that price discrimination is only feasible if buyers are unable to purchase the product at the lower price; otherwise, arbitrageurs would buy in the low-price market and resell in the higher price market at a profit, and thereby equalize the prices in all price blocks/tiers (Hirshleifer, 1980).

Price discrimination is where the monopolist charges a high price, p_1, for some initial quantity, q_1, and a lower price, p_n, for additional q_n units taken thereafter (Hirshleifer, 1980). Hirshleifer notes that the intent is to capture for the seller a portion of the Consumer Surplus that would otherwise go to the buyer. The Consumer Surplus is the area beneath the demand curve, d, and above the price line, p_n, as shown in Figure 1, Block Sales Quantities, below.

Figure 1- Block Sales Quantities

Revenue increases when the monopolist seller captures most of the buyer's Consumer Surplus. If we assume that the MC and the marginal revenue (MR) intersect at p_3 and q_3 which leads to the determination of the optimal monopoly price, p_3, then the red shaded area under the demand curve, d, and above the price line, p_3, is the Consumer Surplus, the buyer's gain. The MR is the income gained by selling one additional unit product or service.

If the buyer purchases all the blocks (0-q_1, q_1-q_2, and q_2-q_3), price discrimination reduces the buyer's Consumer Surplus to the aggregate of the white triangles in Figure 1, and the seller's revenue increases by $p_1Xq_1 + p_2Xq_2$, making the seller better off in this idealized situation (Hirshleifer, 1980).

However, if the seller is in a competitive market, the income and price effects would reduce the buyer's demand for additional units. Hirshleifer (1980) argues that other sellers of similar products will be able to undercut the higher price sales of the seller using multipart pricing and take away some customers.

In a perfectly competitive market, no vendor of a good or service has any particular advantage in selling to any consumer and no consumer would knowingly pay a higher price to one vendor of the good or service knowing that the good or service can be obtained from another vendor at a lower price (Kreps, 1990). Kreps notes that equilibrium in a perfectly competitive market is given by the price p for the good or service. Therefore, the strategy of price discrimination in a competitive market will cause the price-discriminating firm to lose customers.

Finally, in the long run, firms will depart the industry if, at the equilibrium price, they are sustaining losses. Thus, competitive firms need to understand and minimize production costs. Additionally, the ability of a firm to control the quality of the goods or services produced is a critical factor in reducing costs, retaining customers, and increasing sales.

Winston (1990) notes that quality comes not from inspection but from improvement of processes. He argues that as the firm improves services and abilities, improves quality, and reduces waste it will minimize production costs. Furthermore, Winston notes that Juran stressed conformance to specifications and that successful firms never stopped at meeting specifications.

According to Winston (1990), service quality is measured by what is not there rather than what is there, and claims that this is referred to as "gap analysis." He notes that Deming's first point is to create a constancy of purpose for the improvement of products and services.

The American Society for Quality defines ISO 9000 as a set of international standards on quality management and quality assurance developed to help firms effectively document the elements needed to maintain an efficient quality system. They are not specific to any one industry and can be applied to organizations of any size.

Conclusion

Sellers in competitive markets attempting to use the strategy of price discrimination often believe that they are enhancing their revenues by taking away the buyers' Consumer Surplus. However, as the buyers gain information on the seller's strategy, the buyer will move away to sellers who are price takers. Additionally, two critical elements of pricing are quality control and cost minimization which can be optimized through system and process analyses.

References

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