Pricing of the First Degree

Robert Nutter (Watford Girls Grammar School) examines whether an ebay auction is a prime example of first degree price discrimination

What is price discrimination?

Price discrimination can be defined as a situation when a firm, usually one with monopoly power, charges different prices to different consumers for the same product or service. Although examples of price discrimination are common in the real world these are mainly classified as **second degree** and **third degree** in nature.

Lower prices charged to children to watch football matches, cheap off-peak rail tickets, cheaper telephone calls after 6.00pm are well known as a means of raising revenue and profit or sometimes to spread demand away from overloaded infrastructure.

Perfect price discrimination

However, **first degree** or **perfect price discrimination** describes a situation in which a monopolist knows exactly the willingness to pay of each consumer and can charge each a different price.

In this case, the monopolist charges each customer exactly his/her willingness to pay thus capturing the entire **consumer surplus** and converting it to **revenue and profit**.

Assuming that the monopolist will only offer a product for sale at a price above its **marginal cost** each consumer is charged the maximum he or she is willing to pay. Can an example of this be found in the real world?

Bid for perfection

An ebay auction might go part way to providing an example of this type of price discrimination.

Assume an ebay seller has bought 30 rare CDs that are not currently available through normal **distribution channels**. The CDs have each been bought for £15 and the seller puts them on ebay with a minimum bid that must be above the marginal cost (£15). Assume that the bid is contested by 50 potential buyers all bidding above £15 - so that at the close of bidding all of the bidders have gone as high as they are prepared to go.

The seller will supply the CDs to the top 30 bidders having captured the entire consumer surplus in this particular market.

This is not a watertight example of first degree price discrimination, but the seller through an ebay auction has probably made more profit than if the CDs were each sold at a single price.

In addition every single successful bidder is paying a different price for their CD. Hence in this type of price discrimination the **demand curve** is actually the **marginal revenue curve** as in such an auction the price does not have to be lowered to sell additional units of the product.

Auction pricing - methods

Several types of online auctions are possible. In an English auction the initial price starts low and is bid up by successive bidders. In a Dutch auction, multiple identical items are offered in one auction, with all winning bidders paying the same price - the highest price at which all items will be sold. Almost all online auctions use the English auction method.

Sources: Ebay, Wikipedia