Pricing

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Pricing Rule Under Monopoly

- If the firm can estimate the demand and the cost function then the pricing rule is simple

$$P = \frac{MC}{1 - \frac{1}{E_p}}$$

- Most of the time the Firm will not have the estimate of the demand function because it is costly to do a market survey.
- The Managers of the firms will have a rough estimate of
  - The marginal cost
  - Crude estimate of the demand elasticity
- Given this rough estimate the price charged by the monopolist will be

$$P = MC\left[\frac{E_p}{E_p - 1}\right]$$

$$P = MC \times K$$

Where K is the mark-up

Rules of Mark Up

- Higher the elasticity of the product lower is the markup.
- Higher the MC higher is the price

Increasing profit beyond MR=MC

- Price Discrimination: When firm charges different prices for different customer for same good then it is referred as price discrimination
- There are three types of price discrimination
- First Degree Price Discrimination: Each customer is charged the amount of price s/he is willing to pay.
- Example-car dealers: In car dealership the sticker prices will above the market price
- By following this strategy the entire consumer surplus is appropriated by the seller

Second Degree Price-Discrimination

- When the firm might not know the exact demand schedule or when it is not possible to post continuous schedule of prices then the firm might practice second degree price discrimination
- Discrete schedule of declining prices for different range of quantities
- Very common among electric utility company, mobile phone
- Example

Third Degree Price-Discrimination

- Demand for the commodity varies significantly across different demographic group
- For 3^{rd} degree PD to exist the firm should be able to recognize different market and there should be no consumer arbitrage

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\begin{aligned}
\pi &= P_1(Q_1)Q_1 + P_2(Q_2)Q_2 - C(Q_1 + Q_2) \\
MR_1 &= MR_2 = MC \\
P_1\left[\frac{E_1 - 1}{E_1}\right] &= P_2\left[\frac{E_2 - 1}{E_2}\right]
\end{aligned}
$$

- Show that if $E_1 > E_2$ then $P_1 < P_1$
- This implies that consumer with more elastic demand should be charged less
- Example stores offers student discount, Hotels offering senior citizen discount

Example

- Bicycle market segmented by male and female market.
- Why ketchup bottles sold in restaurant and other places are marked as "Not for Retail Sale"
- Difference between "Free On Board" and "Cost and Freight" prices

Two-Part Pricing

- Firms Charges a fixed fee for the right to purchase the good and then per unit charge for each unit purchased
- The aim of the fixed fee is to extract the consumer surplus.
- Unlike third degree price discrimination the TP pricing do not requires that different customer should have different demand elasticities.

Peak Load Pricing

- There are some goods where the demand of the good varies according to the time of the day.
- Example electricity usage, telephone usage
- By charging different prices at different time of the day the firm can increase the profit

Dumping Policy

- This is a form of International price discrimination where the prices charged in the foreign country is less than the domestic country for the same variety of Good.
- A strictier definition of dumping is that it occurs when the exporters sells merchandize in the importing country less than the cost of production
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