Market Structures and Pricing

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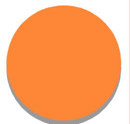
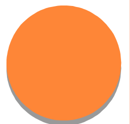
Pricing

- Important managerial decision
- It affects total Revenue and Cost- hence affects Profit
- How??
  - Price affects Revenue because R= Price X Qty sold
  - Price affects Cost because Cost depends upon volume of production which is guided by demand and Demand is the function of Price of a product



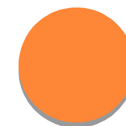
Determinants of Price

- Demand
- Cost of Production
- Objective of the firm
- Government Policy
- Nature of Competition



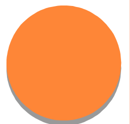
Market Structures and Measuring Market Concentration

- Lerner Index-
  - The mark up ratio of difference between price and MC and price is actually used to measure market power
  - LI = (P-MC)/P
  - LI lies between zero to one – The greater the index higher is the monopoly power
- Herfindahl-Hirschman Index –
  - It is calculated by squaring the share of entire market by each firm in the industry and then summing across all firms in the industry
  - The value of the index ranges from 0 to1
  - Higher value of HHI index implies greater market power possessed by large firms
  - Decrease in index suggests loss of pricing power and increase in competition



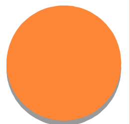
Market Structure and Pricing

- **Pricing under Perfect Competition**
  - Presence of large number of buyers & Sellers
  - Homogenous Product
  - Freedom of Entry and Exit
  - Perfect knowledge
  - Perfectly elastic demand curve
  - Perfect mobility of factors of production
  - No governmental Intervention
  - ***Firm is a Price taker- Hence it can only adjust quantity at a fixed price (market price)***



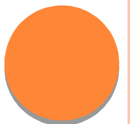
Pricing

- Market Price is determined based on aggregate *industry* demand and supply
- Firm may make Profit, loss or Breakeven in the short run based on whether it can produce output at a cost lower than the level of market price
- In the long run, due to free entry & exit , firm may break even or make normal profits- How?
  - If firms attract supernormal profits, new entrants will increase the supply and lower the price. When firms make losses, loss makers exit the market resulting in shortage of supply, which increases the market price



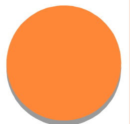
Pricing under Imperfect Competition

- Pricing under Monopoly
  - Single Seller
  - Large number of buyers
  - Single Product
  - No difference between industry and firm
  - Independent decision making
  - Restricted entry and exit



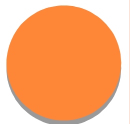
Price and output decision in the short run

- Just like Perfect Competition, Monopoly firm may make Profit, Loss or Break even in the short run – Why Loss or Break even??
  - In early years of operations when costs are high
  - Also in short run size of the market may be small therefore to sell all its output, firm may suffer losses
  - low price may be charged to keep competitors out of the market
  - Govtmay impose taxes on monopoly products which may increase cost
- As the demand curve is downward sloping, the incremental price for each additional unit sold will go on decreasing, Hence, Price= MR only for first unit of output
- For all other units of output, MR < Price or AR



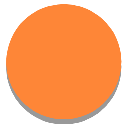
Price and output decision in the Long run

- In the long run, Monopoly firm could make profits due to entry and exit barriers
- Monopoly firm will not make losses as it will try to reduce cost or else exit
- Monopoly firm may break even in the long run because
  - When it starts making profit, it may attract new entrants, and high prices may even help the entrant to survive
  - Hence, to eliminate competition, firm may lower the price and break even instead of earning profit



Price and Output relationship under Oligopoly

- Pricing under Oligopoly
  - Few sellers
  - Products may be differentiated or homogenous
  - Restricted entry and exit
  - Interdependent decisions regarding Price and Output



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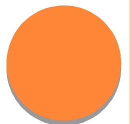
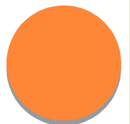
- Price output relationship under oligopoly is a very complex phenomenon as each firm's demand is not only affected by its own price or advertisement or quality but also affected by price of rival products, their quality, packaging, promotion and placement



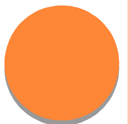
CournotModel

- AugustinCournotillustrates market situation under Oligopoly with example of 2 firms
- The crux of this model is that the firms ignoreinterdependanceand take price output decisions independently in the market
- Assumptions-
  - Each firm aims at maximizing profit i.e. MC = MR
  - Each firm decides its price assuming that other firm's output is given
  - Firms sell their entire output at the price determined by their own demand curves



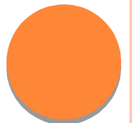
Stackelberg'sModel

- Developed by German Economist, H.V.Stackelberg
- Also known as Leader Follower model
- One of the player is sophisticated which determines the reaction curve of the rival and incorporates it in its own profit function
- Therefore the naïve firm acts like a follower of the sophisticated leader who acts like a monopolist



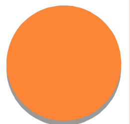
Collusion Model- Cartel

- This model realizes that oligopoly firms depend upon each other for their price output decision
- They enter into an agreement for Price and Output levels
- When in collusion- firms can act like Monopolists and extract maximum from their customers
- Hence firms can price their products so as to maximize the total profits of the industry
- Not legal in many countries



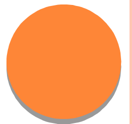
Price Discrimination

- It is the practice of discriminating among the buyers on the basis of price charged for the same product or service
- A seller charges different prices to maximize Revenue
- The greater the imperfection in the market, the higher is the possibility of price discrimination
- Prerequisites to Price Discrimination:
  - Market Control
  - Division of market
  - Different elasticity



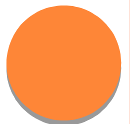
Bases of Price Discrimination

- Personal
  - Personal
  - Demographical
  - Paying capacity
  - Need
- Geographical
- Time
- Purpose of use



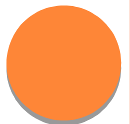
Degrees of Price Discrimination

- First Degree
  - A pricing scheme that makes each consumer pay the maximum amount that he is willing to pay
    - E.g. Auctions
- Second Degree
  - The price is based on volume of purchase
    - Quantity discounts on products
- Third Degree
  - When seller divides consumers on different bases in such a way that each group is a separate market and then charges price based on different priceelasticitiesof different groups
    - E.g: different rates of tickets for different seats in a movie theatre, studentconcessinos



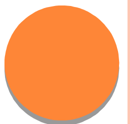
Product Pricing – Competition based Pricing

- Penetration Pricing
  - Firm planning to enter a new market dominated by existing players
  - Charging lower price than the ongoing price
- Entry Deterring Pricing
  - Price is kept low to make market unattractive for new entrants
  - Existing small players also may not be able to survive with high average cost
- Going Rate Pricing
  - Players follow prevailing market price
  - Dominant firm fixes the price and others follow it



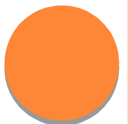
Product Pricing- Based on Cost

- Cost plus Pricing
  - Price = Average Cost+ Profit margin
- Marginal Cost Pricing
  - Fixing price based on variable cost alone
- Target return Pricing
  - Producer rationally decides the minimum rate of return that product should earn



Product Pricing based on Objectives of the firm

- Price that Maximizes Profit – Mark up pricing
- Price that Maximizes Sales- Marginal cost pricing



Product Pricing- life cycle based

- Different pricing for a product at different stages of lifecycle
- Price Skimming
- Product bundling
- Perceived value pricing