MANAGERIAL ECONOMICS

Prof. Trupti Mishra
Shailesh J. Mehta School of Management,
IIT Bombay

Lecture No - 33 : Oligopoly

Recap from last Session

Features of Oligopoly
Non-collusive models of oligopoly

Session Outline

Collusive models of oligopoly

Collusive Oligopoly

Collusion – rival firms enter into an agreement in mutual interest on various accounts such as price, market share etc
Explicit collusion - when a number of firm enter into such agreement formally
Tacit Collusion – collusion which is not avert.

Collusive Oligopoly

- Most commonly found form of explicit collusion is known as cartels.
- The aim of such collusion is to reduce competition and increase profits of individual members.
- Governments do not encourage collusions because it creates like monopoly.

Cartel

- It imply direct agreement among competing Oligopolist with the aim of reducing uncertainty.

- The aim of cartel is the maximization of joint profit.

- The firms appoint a central agency, to whom they delegate authority to decide not only the total quantity and the price but also the allocation of production among the members of the cartel and the distribution of joint profits among them.

Cartel

- The central agency has full information about the cost function of the firms.
- It is assumed that all members produce identical products.

Centralized Cartel

- Cartel aiming at joint profit maximization – it is one in which cartelization is perfect .
- It is an arrangement by all members , with the objective of maximizing joint profits.
- In such type of arrangement the product is essentially homogeneous and centralized body decides on the pricing of the product.

Centralized Cartel

- Price is decided by association on the basis of summation of all firms' cost and demand function – individual firm is price taker.
- However when there is large number of firms and size of market is small, it is difficult to sustain the cartel and there is every possibility that some firms may deviate from cartel price and thus cheat other members.

Centralized Cartel

- Mistakes may arise in the estimation of the market demand
- Mistake may also arise in the estimation of MC.
- Existence of high cost firm sometimes set an obstacle towards joint profit maximization. If the csot curve of the firm lies wholly above the equilibrium MC, profit maximization requires that high cost firm should close down which is not possible.
- A cartel may not also maximize for fear of government intervention or fear of entry.
- To maintain good image, they may not maximize profit.

Cartel

- Market sharing Cartel:

  This form of collusion is more common in practice because it is more popular. The firms agree to share the market , but keep a considerable degree of freedom concerning the style of their output , their selling activities and other decisions.

Market sharing Cartel

Non-Price competition agreement

- In this form of "loose" cartel, the member firms agree on a common price , at which each of them can sell any quantity demanded.
- The price is set by bargaining, with the low cost firm pressing for a low price and high cost firm for high price.
- The agreed price must be such as to allow some profits to all members.

Market sharing Cartel

Non-Price competition agreement

- The firms agree not to sell at a price below the cartel price, but they are free to vary the style of their product and their selling activities.
- Firms compete on a non-price basis.
- By keeping their freedom regarding the quality and appearance of their product, as well as advertising and other selling policies, each firm hopes that it can attain a higher share of market.

Market sharing Cartel

Sharing of the market by agreement on Quotas

- Sharing of the market is the agreement on quotas, that is, agreement on the quantity that each member may sell at the agreed price.
- If the firms have identical costs, the monopoly solution will emerge with the market being shared equally among member firms.
- However, if costs are different , the quotas and shares of the market will differ.

Market sharing Cartel

Sharing of the market by agreement on Quotas

- Allocation of quota-share on the basis of costs is again unstable.
- Shares in case of cost differential are decided by bargaining.
- The final quota of each firm depends on the level of its cost as well as on its bargaining skill.
- Quotas are decided on the basis of past level of sales and productive capacity.

Market sharing Cartel

The main problem with this type of collusion is the assumption that all firms face the same cost functions, therefore sustainability of such a cartel is very unstable.

Factors – Formation and sustainability of Cartel

- Number of firms in the industry
- Nature of product
- Cost Structure
- Charactaristics of Sales

Opec Cartel

- Oil producing countries
- Negotiate production quotas
- Incentive to deviate from quota and produce more.
- Overproduction causes prices to drop. All OPEC members suffer from low prices

- Punishment for overproduction: one country-typically Saudi Arabia-temporarily increases production and causes priced to drop even more. Every members suffers from lower profits, but original deviator is punished

Session References

Micro Economics :ICFAI University Press
Managerial economics – Geetika, Ghosh and Choudhury
Principle of Economics – Karl Case and Ray Fair
Managerial Economics – D N Dwivedi