Oligopolies

Chapter 13-

Characteristics Oligopoly

- Oligopolies are made up of a small number of mutually interdependent firms.
- Each firm must take into account the expected reaction of other firms.

Models of Oligopoly Behavior

- No single general model of oligopoly behavior exists.
- Two models of oligopoly behavior are the cartel model and the contestable market model.

The Cartel Model

- A cartel is a combination of firms that acts as if it were a single firm.
- A cartel is a shared monopoly.
- In the cartel model, an oligopoly sets a monopoly price.
The Cartel Model

• If oligopolies can limit the entry of other firms and form a cartel, they can increase the profits going to the firms in the cartel.

The Cartel Model

• The cartel model of oligopoly: Oligopolies act as if they were monopolists, that have assigned output quotas to individual member firms, so that total output is consistent with joint profit maximization.

Implicit Price Collusion

• Formal collusion is illegal in the U.S. while informal collusion is permitted.
• Implicit price collusion exists when multiple firms make the same pricing decisions even though they have not consulted with one another.

Implicit Price Collusion

• Sometimes the largest or most dominant firm takes the lead in setting prices and the others follow.
Cartels and Technological Change

- Cartels can be destroyed by an outsider with technological superiority.
- Thus, cartels with high profits will provide incentives for significant technological change.

Why Are Prices Sticky?

- Informal collusion is an important reason why prices are sticky.
- Another is the kinked demand curve.

Why Are Prices Sticky?

- When there is a kink in the demand curve, there has to be a gap in the marginal revenue curve.
- The kinked demand curve is not a theory of oligopoly but a theory of sticky prices.

The Kinked Demand Curve
The Contestable Market Model

- According to the *contestable market model*, barriers to entry and barriers to exit determine a firm’s price and output decisions.
  - Even if the industry contains only one firm, it could still be a competitive market if entry is open.

Comparing the Contestable Market and Cartel Models

- The stronger the ability of oligopolists to collude and prevent market entry, the closer it is to a monopolistic situation.
- The weaker the ability to collude is, the more competitive it is.
- Oligopoly markets lie between these two extremes.

Strategic Pricing and Oligopoly

- Both the cartel and contestable market models use *strategic pricing decisions* – firms set their price based on the expected reactions of other firms.
New Entry as a Limit on the Cartelization Strategy

- The threat from outside competition limits oligopolies from acting as a cartel.
- The newcomer may not want to cooperate with the other firms.

Price Wars

- Price wars are the result of strategic pricing decisions gone wild.
- Sometimes a firm engages in this activity because it hates its competitor.

Price Wars

- A firm may develop a predatory pricing strategy as a matter of policy.

Predatory pricing strategy involves temporarily pushing the price down in order to drive a competitor out of business.

Game Theory and Strategic Decision Making

- Most oligopolistic strategic decision making is carried out with explicit or implicit use of game theory.
- Game theory is the application of economic principles to interdependent situations.
Game Theory and Strategic Decision Making

• The prisoner’s dilemma is a well-known game that demonstrates the difficulty of cooperative behavior in certain circumstances.

In the prisoner’s dilemma, where mutual trust gets each one out of the dilemma, confessing is the rational choice.

Prisoner’s Dilemma and a Duopoly Example

• The prisoners dilemma has its simplest application when the oligopoly consists of only two firms—a duopoly.

• By analyzing the strategies of both firms under all situations, all possibilities are placed in a payoff matrix.

A payoff matrix is a box that contains the outcomes of a strategic game under various circumstances.
Duopoly and a Payoff Matrix

- The duopoly is a variation of the prisoner's dilemma game.
- The results can be presented in a payoff matrix that captures the essence of the prisoner's dilemma.
Oligopoly Models, Structure, and Performance

- Oligopoly models are based either on structure or performance.
- The four-fold division of markets considered so far are based on market structure.
- *Structure* means the number, size, and interrelationship of firms in the industry.

Oligopoly Models, Structure, and Performance

- A monopoly is the least competitive, perfectly competitive industries are the most competitive.

Oligopoly Models, Structure, and Performance

- The contestable market model gives less weight to market structure.
  Markets in this model are judged by performance, not structure.
  Close relatives of it have previously been called the barriers-to-entry model, the stay-out pricing model, and the limited-pricing model.

Oligopoly Models, Structure, and Performance

- There is a similarity in the two approaches. Often barriers to entry are the reason there are only a few firms in an industry. When there are many firms, that suggests that there are few barriers to entry. In the majority of cases, the two approaches come to the same conclusion.