Monopolistic competition

Chapter 13-1

Laugher Curve

In Canada, there is a small radical group that refuses to speak English and no one can understand them. They are called “separatists.”

Laugher Curve

In the United States we have the same kind of group. They are called “economists.”

— Nations Business

Introduction

- Market structure is the focus real-world competition.
- *Market structure* refers to the physical characteristics of the market within which firms interact.
**Introduction**

- Market structure involves the number of firms in the market and the barriers to entry.

**Perfect competition**, with an infinite number of firms, and **monopoly**, with a single firm, are polar opposites.

- Monopolistic competition and **oligopoly** lie between these two extremes.

**Monopolistic competition** is a market structure in which there are many firms selling differentiated products.

- There are few barriers to entry.

**Oligopoly** is a market structure in which there are a few interdependent firms.

- There are often significant barriers to entry.
Problems Determining Market Structure

- Defining a market has problems:
  - What is an industry and what is its geographic market -- local, national, or international?
  - What products are to be included in the definition of an industry?

Classifying Industries

- One of the ways in which economists classify markets is by cross-price elasticities.
  - Cross-price elasticity measures the responsiveness of the change in demand for a good to change in the price of a related good.

Classifying Industries

- Industries are classified by government using the North American Industry Classification System (NAICS).
  - The North American Industry Classification System (NAICS) is a classification system of industries adopted by Canada, Mexico, and the U.S. in 1997.

Classifying Industries

- When economists talk about industry structure the general practice is to refer to three-digit industries.
  - Under the NAICS, a two-digit industry is a broadly based industry.
  - A three-digit industry is a specific type of industry within a broadly defined two-digit industry.
### Two- and Four-Digit Industry Groups

<table>
<thead>
<tr>
<th>Two-Digit Sectors</th>
<th>Three-Digit Subsectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>44-45 Retail trade</td>
<td></td>
</tr>
<tr>
<td>48-49 Transportation</td>
<td>and warehousing</td>
</tr>
<tr>
<td>51 Information</td>
<td>513 Broadcasting and telecommunications</td>
</tr>
<tr>
<td>52 Finance and Insurance</td>
<td></td>
</tr>
</tbody>
</table>

### Determining Industry Structure

- Economists use one of two methods to measure industry structure:
  - The concentration ratio.
  - The Herfindahl index.

### Concentration Ratio

- The *concentration ratio* is the value of sales by the top firms of an industry stated as a percentage of total industry sales.

### Concentration Ratio

- The most commonly used concentration ratio is the four-firm concentration ratio.
- The higher the ratio, the closer to an oligopolistic or monopolistic type of market structure.
The Herfindahl Index

- The Herfindahl index is an index of market concentration calculated by adding the squared value of the individual market shares of all firms in the industry.

- The Herfindahl index gives higher weights to the largest firms in the industry because it squares market shares.

- The Herfindahl Index is used as a rule of thumb by the Justice Department to determine whether a merger be allowed to take place.

- If the index is less than 1,000, the industry is considered competitive thus allowing the merger to take place.

Concentration Ratios and the Herfindahl Index

<table>
<thead>
<tr>
<th>Industry</th>
<th>Four-firm concentration ratio</th>
<th>Herfindahl index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat products</td>
<td>35</td>
<td>393</td>
</tr>
<tr>
<td>Breakfast cereal</td>
<td>82</td>
<td>2,445</td>
</tr>
<tr>
<td>Book printing</td>
<td>32</td>
<td>364</td>
</tr>
<tr>
<td>Greeting card publishing</td>
<td>66</td>
<td>1,619</td>
</tr>
<tr>
<td>Soap and detergent</td>
<td>60</td>
<td>1,306</td>
</tr>
<tr>
<td>Men's footwear</td>
<td>50</td>
<td>857</td>
</tr>
<tr>
<td>Electronic computer</td>
<td>45</td>
<td>728</td>
</tr>
<tr>
<td>Burial caskets</td>
<td>74</td>
<td>2,965</td>
</tr>
</tbody>
</table>
Conglomerate Firms and Bigness

• Neither the four-firm concentration ratio or the Herfindahl index gives a complete picture of corporations’ bigness.

• This is because many firms are conglomerates – huge corporations whose activities span various unrelated industries.

The Importance of Classifying Industry Structure

• The less concentrated industries are more likely to resemble perfectly competitive markets.

• The number of firms in an industry play a role in determining whether firms explicitly take other firms’ actions into account.
The Importance of Classifying Industry Structure

- It is unlikely that a monopolistically competitive firm will explicitly take into account rival firms’ responses to its decisions.

The Importance of Classifying Industry Structure

- In oligopoly, with fewer firms, each firm explicitly engages in strategic decision making.
  - **Strategic decision making** – taking explicit account of a rival’s expected response to a decision you are making.

Monopolistic Competition

- The four distinguishing characteristics of monopolistic competition are:
  - Many sellers.
  - Differentiated products.
  - Multiple dimensions of competition.
  - Easy entry of new firms in the long run.

Many Sellers

- When there are many sellers, they do not take into account rivals’ reactions.
- The existence of many sellers makes collusion difficult.
- Monopolistically competitive firms act independently.
**Differentiated Products**

- The “many sellers” characteristic gives monopolistic competition its competitive aspect.
- Product differentiation gives monopolistic competition its monopolistic aspect.

**Differentiated Products**

- Differentiation exists so long as advertising convinces buyers that it exists.
- Firms will continue to advertise as long as the marginal benefits of advertising exceed its marginal costs.

**Multiple Dimensions of Competition**

- One dimension of competition is product differentiation.
- Another is competing on perceived quality.
- Competitive advertising is another.
- Others include service and distribution outlets.

**Easy Entry of New Firms in the Long Run**

- There are no significant barriers to entry.
- Barriers to entry prevent competitive pressures.
- Ease of entry limits long-run profit.
A monopolistically competitive firm prices in the same manner as a monopolist—where $MC = MR$.

But the monopolistic competitor is not only a monopolist but a competitor as well.

At equilibrium, $ATC$ equals price and economic profits are zero.

This occurs at the point of tangency of the $ATC$ and demand curve at the output chosen by the firm.

Both the monopolistic competitor and the perfect competitor make zero economic profit in the long run.
Comparing Perfect and Monopolistic Competition

- The perfect competitor's demand curve is perfectly elastic.
- Zero economic profit means it produces at the minimum of the ATC curve.

Comparing Perfect and Monopolistic Competition

- A monopolistic competitor faces a downward sloping demand curve and produces where MC = MR.
- The ATC curve is tangent to the demand curve at that level, which is not at the minimum point of the ATC curve.

Comparing Perfect and Monopolistic Competition

- Increasing market share is a relevant concern for a monopolistic competitor but not for a perfect competitor.

Comparing Perfect and Monopolistic Competition

- Perfect competition
  - Price = $P_C$
  - Quantity = $Q_C$

- Monopolistic competition
  - Price = $P_M$
  - Quantity = $Q_M$
Comparing Monopolistic Competition with Monopoly

• It is possible for the monopolist to make economic profit in the long-run.
• No long-run economic profit is possible in monopolistic competition.

Advertising and Monopolistic Competition

• Firms in a perfectly competitive market have no incentive to advertise
• Monopolistic competitors have a strong incentive to do so.

Goals of Advertising

• The goals of advertising include shifting the demand curve to the right and making it more inelastic.
• Advertising shifts the $ATC$ curve up.

Does Advertising Help or Hurt Society?

• There is a sense of trust in buying brands we know.
• If consumers are willing to pay for “differentness,” it’s a benefit to them.