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Oligopoly

Competition Among the Few

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Name: Period: Date:

Oligopoly: Competition Among the Few

In economics, market structures define the competitive environment in which businesses operate. One such structure is oligopoly, where a small number of large firms dominate an industry. These firms often have significant market power, enabling them to influence prices and production levels. In contrast to perfect competition, where many firms compete against one another, or monopoly, where a single firm controls the market, oligopolies involve a few firms whose decisions are interdependent. A classic feature of oligopolies is that the actions of one firm can directly impact the others, making strategic decision-making crucial. This dynamic is captured by game theory, which examines how firms make decisions in competitive environments. Key characteristics of oligopolistic markets include barriers to entry and high startup costs, which prevent new competitors from entering the market easily. The products offered by firms in an oligopoly may be differentiated, as in the case of cars, or they may be similar, such as in the airline industry. Unlike other market structures, firms in an oligopoly may engage in collusion—either formal or informal—where they

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they often cooperate through codeshare agreements and joint ventures, reducing the intensity of competition on some flights. This coordination can lead to higher ticket prices and fewer choices for passengers, though the airlines argue it improves operational efficiency.

Collusion and Non-Price Competition

In an oligopoly, firms often have strong incentives to engage in collusion in order to increase their profits by reducing competition. Collusion may take the form of explicit agreements or may occur through tacit understanding, where firms indirectly agree to avoid aggressive competition. The most common form of collusion is price-fixing, where firms agree to set prices at a certain level, avoiding price wars that could hurt all parties. While price-fixing is illegal in many countries, it is difficult to detect, especially when firms communicate through informal channels. Aside from price-based competition, oligopolistic firms often rely heavily on non-price competition. Since prices are often stable due to collusion or interdependence, firms compete by differentiating their products through advertising, branding, and improved customer service. For example, in the automobile industry, firms may highlight features such as safety, fuel efficiency, or design aesthetics rather than competing on price alone. This form of competition can benefit consumers by offering more variety, but it can also result in high marketing costs and the creation of artificial product distinctions.

Game Theory and Strategic Decision-Making

A key aspect of oligopolistic competition is strategic decision-making, which can be analyzed through game theory. Game theory is a mathematical approach to studying decision-making in situations where the outcome depends not only on one's own actions but also on the actions of others. It provides insight into how firms in oligopolies can predict and respond to their competitors' strategies. One common game theory model applied to oligopolies is the prisoner's dilemma, which illustrates the conflict between individual rationality and collective rationality. In this scenario, two firms might benefit from cooperating (for example, by maintaining high prices), but if both firms act in their own self-interest (by cutting prices), they could both end up worse off. Game theory helps explain why firms in oligopolies often engage in tacit collusion rather than open price wars. However, it also highlights the inherent

instability of such agreements, as firms may always have an incentive to cheat on the agreement for short-term gains.

Summary and Real-World Impact

Oligopolies represent a significant feature of modern economies, where a few large firms control a substantial portion of the market. While competition is still present, it is often less intense due to the interdependence of the firms and the potential for collusion. Consumers may benefit from product differentiation and non-price competition, but they may also face higher prices and fewer choices, particularly when collusion or tacit agreements reduce the intensity of market competition. Game theory provides a valuable framework for understanding the strategic decision-making that drives oligopolies, highlighting the complexities of competition in markets where a few powerful firms dominate.

Case Study: Airline Industry Collusion

The airline industry is often cited as an example of oligopoly and collusion. The major U.S. airlines, including American Airlines, Delta, and United, have faced accusations of price-fixing and market manipulation in the past. One such case occurred in 2015 when the U.S. Department of Justice (DOJ) launched an investigation into possible price-fixing among these airlines. The investigation focused on the airlines' coordination on capacity reductions, which helped maintain higher ticket prices. While no formal charges were filed, the investigation highlighted the potential for collusion in oligopolistic markets, especially when firms control a significant share of the market. Excerpt from the Case Study: In 2015, the U.S. Department of Justice began investigating major U.S. airlines for potentially coordinating their flight schedules and seat capacities to keep airfares high. The DOJ argued that by reducing the number of available seats, the airlines were able to create an artificial shortage, driving prices up. The airlines involved in the investigation argued that the reductions were necessary for profitability and efficiency, especially after years of financial losses. However, critics argued that these moves were made to reduce competition and maintain high prices. Game theory suggests that this form of non-price competition—where airlines avoid competing on price by reducing capacity—can create an environment where consumers are left with fewer choices and higher prices.

1. Why might airlines choose to reduce seat capacity instead of lowering prices to compete?

2. How could game theory explain the decision of these airlines to reduce capacity together rather than competing on price?

Multiple Choice

1. What is a key feature of an oligopoly?
    a) Few large firms dominating
    b) One firm controls the market
    c) No barriers to entry
    d) Many firms competing

2. How do firms in an oligopoly often compete?
    a) By lowering prices to undercut competitors aggressively
    b) By collaborating to set high prices
    c) By producing identical products with no differentiation
    d) By entering new markets and expanding geographically

3. What is an example of non-price competition in an oligopoly?
    a) Price wars
    b) Increased production
    c) Government regulations
    d) Advertising campaigns

Matching

Write the letter of the correct definition on the line next to each term.

Term	Definition
1. ___ Oligopoly market structure	A) Advertising, branding, and product differentiation instead of price cuts
2. ___ Main goal of collusion	B) Few firms dominating market share
3. ___ Example of an oligopoly industry	C) How firms make strategic decisions based on rivals' likely responses.
4. ___ Game theory helps explain	D) Cooperation among firms for higher profits
5. ___ Non-price competition methods	E) Airline industry, car industry

Fill-in-the-Blank

1. Oligopolies are characterized by a small number of _____ firms.

2. The concept of _____ theory helps analyze strategic decision-making in oligopolies.

3. In the airline industry, airlines might reduce _____ to avoid price competition.

Short Answer

Answer each question in 2-4 complete sentences.

1. How can game theory explain why firms in an oligopoly might avoid aggressive price competition?

_____

_____

_____

2. What are some potential benefits and drawbacks of collusion in oligopolies?

3. How does non-price competition benefit consumers in oligopolistic markets?