Monopolistic Competition & Oligopoly

Monopolistic competition is one type of market structure. A firm that operates in this type of structure is known as a monopolistic competitor. There are three conditions that must be satisfied for monopolistic competition.

1. There are many sellers. This means that the monopolistic competitors do not have complete power to influence the market price.
2. The product in monopolistic competition must be differentiated. Products are differentiated if they can be distinguished by consumers.
3. Barriers to entry are not high. Firms that wish to enter the market can do so.

A monopolistic competitor has some pricing power because the products in monopolistic competition are differentiated. Even though there may be many sellers, the fact that the products are not the same in this market structure allows monopolistic competitors to charge different prices. Think of clothes. A white shirt from one store may be different from another white shirt from another store. The first store can charge a different price than the second store and consumers may still choose to buy both instead of choosing to buy the cheaper one exclusively.

Oligopoly is another type of market structure. A firm in this structure is known as an oligopolist. There are three conditions that must be satisfied for oligopoly.

1. There are few sellers. This means that the oligopolists have some pricing power to influence the market price.
2. The product in an oligopoly can be homogeneous or differentiated. Products are homogeneous if they are indistinguishable to consumers. Products are differentiated if they can be distinguished by consumers.
3. Barriers to entry are high. Firms that wish to enter the market may not be able to do so because of legal, financial or technological restrictions.

An oligopolist has some pricing power because there are few sellers in oligopoly. Even though products are homogeneous or differentiated, the fact that only few sellers exist in this market structure allows oligopolists to charge different prices. Think of car makers. A German car may be different from Japanese car. The German automaker can charge a different price than Japanese automaker and consumers may still choose to buy both instead of choosing to buy the cheaper one exclusively.
There are two different demand curves to consider in monopolistic competition and in oligopoly. Since firms in either structure share the industry together, the demand each firm faces is more price elastic (price sensitive) than the market demand. If a firm in monopolistic competition or in oligopoly reduced the quantity available of its products, the price it would receive from consumers would increase less than if they had the entire market all to themselves.

A price reduction of $1 on the market demand would increase the quantity demanded by some amount. A price reduction of $1 on the firm’s demand would, however, increase the quantity demanded by much more because the firm’s demand is more sensitive to price changes.

Suppose that all the clothing stores in the world charge around $10 for a red shirt, except for one store which charges $5 for a red shirt. The store that sells a red shirt for $5 would see its sales increase a lot more if it was the only store to lower the price than if all the stores decided to lower the price.

The red shirts from one store may not be identical to the red shirts from another store. So the cheap store would not be able to drive the expensive stores out of the market as in perfect competition; the expensive stores would still be able to sell their red shirts to consumers. Even if the red shirts were homogeneous, the fact that there may be few sellers in oligopoly means that the expensive stores may not lose all consumers by choosing not to lower their prices to $5 each. This is again in contrast to perfect competition where the price difference of even a penny can mean losing all consumers.

As before, if the market demand curve is linear, the marginal revenue curve is twice as steep as the market demand and has the same $y$-intercept as the market demand. This is because the marginal revenue is the derivative of the market demand.

$$MR = MC$$

As always, the **profit-maximizing quantity** is determined by the equation above. A monopolistic competitor or an oligopolist always decides how much output to produce...
by equating marginal revenue and marginal cost. At the profit-maximizing quantity, the firm's demand shows the consumers' maximum willingness to pay for the firm's products. Visually, draw a vertical line at the intersection of marginal revenue and marginal cost. When that vertical line intersects the firm's demand, draw a horizontal line. This horizontal line shows us the profit-maximizing price that the monopolistic competitor or the oligopolist chooses.

The diagram above shows demand, marginal cost, marginal revenue and average cost curves. It also shows the profit-maximizing quantity where the marginal revenue and the marginal cost are equal. Of the two prices shown in the diagram, only one is the profit-maximizing, P*. It is normal to wonder why the profit-maximizing price is not P**. The firm's demand curve shows consumers’ maximum willingness to pay for the firm's products. At Q*, consumers are willing to pay at most P*. If a monopolistic competitor or an oligopolist decides to produce Q* and charge P**, the firm is not maximizing profit because the consumers would have purchased at the higher P*. We must pay special attention to the fact that the diagrams above do NOT show the market demand but the firm's demand. In the Monopoly worksheet, similar diagrams featured the market demand which was identical to the firm’s demand. In monopolistic competition and in oligopoly, the firm's demand is NOT the same as the market demand.
In the diagrams above, the market price is higher than the average cost. For each unit, the revenue per unit exceeding the average cost per unit is the profit per unit. The profit per unit is the length of the profit box. The quantity sold is the width of the profit box. When the length and the width are multiplied, the product becomes the profit area. This profit area represents total economic profit to the firm.

This possibility of economic profit exists only in the short run for monopolistic competition. In the long run, the profit area disappears for monopolistic competitors. When there is the possibility of economic profit, it attracts entrepreneurs who freely enter the market because there is no barrier to entry or exit in monopolistic competition. However, in oligopoly, entrepreneurs cannot freely enter the market because there is a barrier to entry. This means that economic profit is possible not only in the short run but also in the long run for oligopolists.

Recall that productive efficiency is achieved if the economy produces on the production possibilities frontier (PPF). If the production combinations are employing (1) full and (2) efficient use of available resources, they are on the PPF and are productively efficient. In other words, when output is produced at the minimum of average cost, productive efficiency is achieved. In the long run, monopolistic competitors and oligopolists do not produce at the minimum of average cost and thus not satisfy productive efficiency. An
exception may exist where the lowest of average cost falls exactly where the monopolistic competitor or oligopolist maximizes profit at the intersection of the marginal revenue and the marginal cost.

Allocative efficiency is achieved if the economy produces the productively efficient production combination that the economy most desires. Price speaks to the value placed on goods and services by consumers. Marginal cost speaks to the social cost of producing goods and services. If the value placed on a particular good by consumers is higher than the social cost of producing that good \( (P > MC) \), the quantity produced is not enough for allocative efficiency. The benefit to consumers outweighs the cost to producers. If the value placed on a particular good by consumers is lower than the social cost of producing that good \( (P < MC) \), the quantity produced is too much for allocative efficiency. The cost to producers outweighs the benefit to consumers. Only when the value placed on a good or service by consumers is equal to the social cost of producing that good or service \( (P = MC) \), is allocative efficiency achieved. In both monopolistic competition and oligopoly, the profit-maximizing price is above the marginal cost and above the average cost. Therefore, monopolistic competition and oligopoly produce too little at too high a price for allocative efficiency.

Efficiency is an important benefit to the economy. Product variety is also an important benefit to the economy. While it is true that monopolistic competition and oligopoly do not deliver productive efficiency or allocative efficiency, they do, in many cases, strive to obtain pricing power. Monopolistic competitors and oligopolists are driven to obtain more pricing power because more pricing power means more economic profits for the firms. In order for these firms to obtain pricing power, they must offer differentiated products that consumers like. This profit-maximizing behaviour of monopolistic competitors and oligopolists delivers product variety to consumers.
Practice Problems

1. Which of the following most closely resembles a monopolistic competitor?
   a) Toothpaste manufacturer
   b) Cancer drug manufacturer
   c) Aeronautics manufacturer
   d) Automotive manufacturer

2. Which of the following most closely resembles an oligopolist?
   a) Toothpaste manufacturer
   b) Cancer drug manufacturer
   c) Aeronautics manufacturer
   d) Automotive manufacturer

3. What is the difference between the demand faced by an oligopolist and the market demand?
   a) There is no difference.
   b) The demand faced by an oligopolist is perfectly elastic and the market demand is less than perfectly elastic.
   c) The demand faced by an oligopolist is perfectly vertical and the market demand is perfectly horizontal.
   d) The demand faced by an oligopolist is more elastic than the slope of the market demand.

4. Which of the following curves shows consumers’ maximum willingness to pay for a firm’s products?
   a) Marginal revenue
   b) Marginal cost
   c) Demand
   d) Demand faced by the firm

5. Which of the following is a condition for productive efficiency?
   a) $P = AC$
   b) $D = S$
   c) $P = MR$
   d) $P = MC$

6. Which of the following is a condition for allocative efficiency?
   a) $P = AC$
   b) $D = S$
   c) $P = MR$
   d) $P = MC$
7. Does monopolistic competition lead to productive efficiency or allocative efficiency?
   a) Yes.
   b) No.
   c) Only in the short run.
   d) Depends on the weather.

8. Does oligopoly lead to productive efficiency or allocative efficiency?
   a) Yes.
   b) No.
   c) Only in the short run.
   d) Depends on the weather.

9. Why do monopolistic competitors and oligopolists want pricing power?
   a) They want more economic profit.
   b) They want to rule the world.
   c) They have nothing better to do.
   d) They want to be more efficient.

10. Is the desire for more pricing power good for consumers in monopolistic competition and in oligopoly?
    a) Always.
    b) Never.
    c) If the competition leads to a variety of differentiated products, the desire for more pricing power is good for consumers.
    d) If the competition leads to a variety of differentiated products, the desire for more pricing power is bad for consumers.

Answers

1. A
2. D
3. D
4. D
5. A
6. D
7. B
8. B
9. A
10. C