Samuel Abreu

Professor Reid

BUS 603: managerial economics

Chapter 6- 10 Outline/Notes

CH 6

- **demand curve** represents the relationship between the quantity of a good or service demanded by consumers and its price.
- **first law of demand** states that as the price of a good or service increases, the quantity demanded by consumers decreases, all other factors being equal.
- **Consumer surplus** is the difference between the maximum amount a consumer is willing to pay for a good or service and the actual price they pay for it.
- **Aggregate demand curve** represents the relationship between the total quantity of goods and services demanded by all households, businesses, and governments in an economy and the overall price level.
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- By comparing the marginal revenue (MR) and marginal cost (MC) through demand curves, one can decide how much to sell and at what price to maximize profit, lowering prices if MR is greater than MC and raising prices if MR is less than MC.

- **Marginal profits** are the additional profits earned by producing one more unit of a good or service.

- Confusing average revenue or price with marginal revenue is common, but incorrect, as the assumption that an increase in quantity would increase profit is flawed as it ignores the fact that selling more units would require a reduction in price on all goods, not just the extra units produced.

- Price elasticity is the degree to which the quantity demanded of a good or service changes in response to a change in its price

E= % Triangle Quantity Demanded/ % Triangle Price

- %Triangle= percentage change in
- **elastic** refers to the responsiveness of demand or supply to changes in price or income
- **Inelastic**-a situation where the quantity or price of a product or service does not significantly change in response to changes in supply or demand.

- If |e| > 1, demand is elastic; if |e| <1, demand is inelastic.
- $E = [(Q_1 - Q_2) / (Q_1 \ 1 \ Q_2)] / [(P_1 \ 2 \ P_2) / (P_1 \ 1 \ P_2)]$
- an elastic demand, a decrease in price leads to an increase in revenue.
- %Triangle Revenue= %Triangle Quantity + % Triangle Price
- Elastic Demand: Price increase →Revenue decrease; Price decrease → Revenue increase
- Inelastic Demand → Revenue; Price decrease → revenue decrease
- *MR >MC implies that* (*P* 2 *MC*)/*P* >1/|*e*|
- Products with close substitutes have more elastic demand.
- Demand for an individual brand is more elastic than industry aggregate demand.
- Products with many complements have less elastic demand.
- As price increases, demand becomes more elastic.
- % Triangle Quantity=e(%Triangle Price)
- Factor Elasticity of demand=(%Triangle Quantity Demand) / %Triangle Factor
- **Inferior good** is one for which demand declines as consumer income rises, indicating that as people get wealthier, it is viewed as less desirable than alternative possibilities.
- **Cross-price elasticity of demand** is a measure of the responsiveness of the quantity demanded of one good to a change in the price of another good, and it indicates whether the two goods are substitutes or complements.
- **Substitute** is a product or service that can be used in place of another product or service, as they are considered interchangeable by consumers.
- The decision rule: If the predicted quantity is less than the stay-even quantity, then the price increase will likely be profitable, and vice versa.

6-2

To conduct an experiment, AMC increased movie ticket prices from $9.00 to $10.00 and measured the change in ticket sales. Using the data over the following month, they concluded that the increase was profitable. However, over the subsequent months, they changed their minds and discontinued the experiment. How did the timing affect their conclusion about the profitability of increasing prices?

- It's likely that AMC would have observed different effects over a longer period since the increase in movie ticket pricing was only tested for one month. After a few months, they could have concluded that the increase was not lucrative and chose to call it quits.

CH 7

- **Law of diminishing marginal returns** is an economic principle which states that as more units of a variable input are added to a fixed input, the additional output produced will eventually decrease, assuming all other variables remain constant.
- Diminishing marginal productivity implies increasing marginal cost.
- Increasing marginal costs eventually lead to increasing average costs.
- If long-run average costs are constant with respect to output, then you have **constant returns to scale**.
- If long-run average costs rise with output, you have **decreasing returns to scale** or **diseconomies of scale**.
- If long-run average costs fall with output, you have **increasing returns to scale** or **economies of scale**.
- **Learning curves** refer to the process of improving efficiency and productivity over time through experience and repetition.
- **Economies of scope** is the cost advantages a company can achieve by producing multiple products or services together, rather than separately.
- **Diseconomies of scope** refer- the increase in average cost that can occur when a company produces too many different products or services that are unrelated to each other.

7-5

Suppose you have a production technology that can be characterized by a learning curve. Every time you increase production by one unit, your costs decrease by $6. The first unit costs you $64 to produce. If you receive a request for proposal (RFP) on a project for four units, what is your break-even price? Suppose that if you get the contract, you estimate that you can win another project for two more units. Now what is your break-even price for those two units?

1st Unit= 64, 2ND=$58, 3RD =$52, and 4th Unit=$46

Total: $220/4= $55 which is my break even

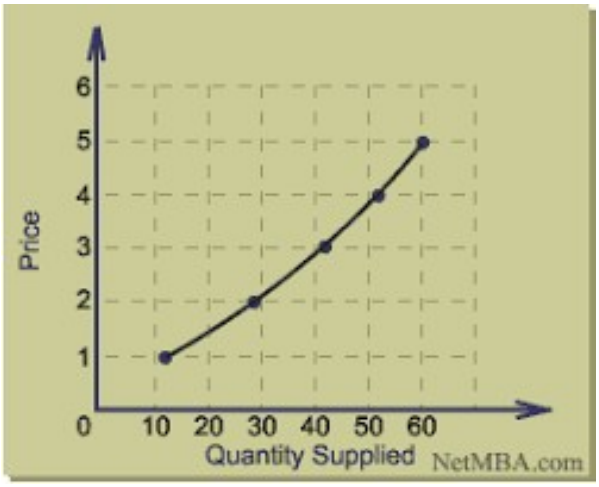
For the next two units (5th and 6th units), the cost will be $40 and $34, respectively. The total cost of these two additional units is $ 74.

Break-even price= total cost/units sold=$74/2= $37

CH 8

- Movement along the demand curve: a change in quantity demanded due to change in the price of a product
- Controllable factor: a factor that can be managed or influenced by individuals or organizations
- Uncontrollable factors: factors that cannot be controlled or influence by individuals or organizations, such as economic condition or natural

- Supply curves: a graphical representation of the relationship between the price of product and the quantity of that product that producers are willing to supply



- Market equilibrium: the point at which the quantity of a product supplied by producers is equal to the quantity of the product demand by consumers, resulting in a stable price
- Markets act as channel for buyers and sellers to exchange information and make transaction, with prices serving as a critical means of communication. Prices reflect the relative levels of supply and demand, allowing market participants to gauge the availability and value of goods and services.
- Market intermediaries such as broke, dealers, and other facilitators incur costs to connect buyers and sellers and enable transactions

8-1
The widget market is competitive and includes no transaction costs. Five suppliers are willing to sell one widget at the following prices: $30, $29, $20, $16, and $12. Five buyers are willing to buy one widget at the following prices: $10, $12, $20, $24, and $29. What is the equilibrium price and quantity in a competitive market?

Equilibrium Price = $20 and Equilibrium Quantity = 3

Price	*Demand*	*Supply*
10	*5*	*0*
12	*4*	*1*
16	*3*	*2*
***20**	**3**	**3**
24	*2*	*3*
29	*1*	*4*
30	*0*	*5*

Ch 9

In a market characterized by perfect competition, all firms operate on an equal footing without any barriers to entry or exit:

- If a product or service has many similar options available, people are more likely to switch to a different option if the price changes.
- When a company has a lot of competition and doesn't have any cost advantages, they may struggle to make a profit or gain market share
- the industry has no entry or exit barriers
- A competitive company can make a profit or loss in the short term, but eventually new competitors will enter, or existing competitors will leave, and the company will only earn an average profit over time.
- The indifference principle states that a rational consumer will be indifferent, or have no preference, between two goods or services that provide the same level of satisfaction or utility.
- compensating wage differentials is wages that vary to compensate for differences in job conditions or risks.
- Risk premium- extra compensation for taking on risk
- Monopoly- a situation where a single company or entity dominates a market
    - In a monopoly, there is only one producer of a particular product or service, and there are no similar alternatives available to consumers.
    - The company that holds a monopoly has no competitors and therefore has the power to control prices and restrict output to maximize profits.
    - Barriers to entry, such as high start-up costs or government regulations, make it difficult or impossible for other companies to enter the industry and compete with the monopoly

- In the long run, even monopoly profit is driven to zero

9-3 Entry and Elasticity

Suppose that new entry decreases your demand elasticity from -2 to -3 (made demand more elastic). By how much should you adjust your price of $10?

The formula is (p-mc)/p=1/
If the price is 10 with an elasticity of -2 the marginal would be 5 therefore the equation will be
(10-mc)/10=2 (p-5)/p=1/3
2(10-mc)=10 3(p-5)/p=1 3(p-5)=p
-2mc=10 3p-15=p 2p-15=0
mc=5 2p=15 p=7.50

CH 10

- Sustainable competitive advantage refers to the unique set of resources or capabilities that a company possesses and can maintain over time to outperform its competitors
- Michael Porter's Five Forces model, the best industries are characterized by:

  - low buyer power,
  - low supplier power,
  - low threat of entry (high barriers to entry),
  - low threat from substitutes, and
  - low levels of rivalry between existing firms.

- RBV: Superior resources sustain firm's advantage
- make resources hard to imitate (inimitability*)*:

  - historical condition yields unique resources
  - Unclear link deters resource replication
  - Socially complex resources resist duplication

- To achieve superior economic performance within its industry and resource base, a firm can adopt three strategies to stay ahead of competition:

  - Cost reduction
  - Product differentiation
  - Reduction in competitive intensity

10-1 High Rivalry
For each category, indicate which condition is associated with higher rivalry among competitors.

Number of Firms	High	Low
Fixed Costs	High	Low
Level of Product Differentiation	High	Low
Industry Growth	High	Low
Buyer Switching Costs	High	Low

- Number of Firms: High
- Fix Costs: High
- Level of Product Differentiation: Low
- Industry Growth: Low
- Buyer Switching Costs: Low