

# Supply and Demand in Microeconomics

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**ABSTRACT:** In everyday life, there will be supply and demand in the fulfillment in a human's needs. The interaction of demand by consumers and supply by producers occurs in a market. In a market, a consumer makes a demand to meet their daily needs. The demand made by consumers is their way to obtain utility where consumers indeed have to spend according to their income. A producer on the other hand will sell their goods and/or services in a certain quantity and price so that the producer will gain a profit that they hope for. Based on the interaction of demand by consumers and supply by producers, a price agreement can finally be determined so that market prices and the number of products traded are formed.

**Keywords:** Market, Price, Supply, Demand

## I. INTRODUCTION

Microeconomics is a branch of economics that studies consumer and corporate behavior and the determination of market prices and the quantity of input factors which are goods and services traded.

This behavior is useful in analyzing its effect on the demand and supply of goods and services, determining prices, and determining the amount of supply and subsequent demand.

The theory of demand explains the nature of the relationship between the quantity of demands of goods and services and their prices which is known as the law of demand. It explains that the higher the price of goods and services, the lower the demand for goods and services.

The theory of supply explains the nature of the relationship between the supply of goods and services and their prices which is known as the law of supply. It explains that the higher the prices of goods and services, the higher the quantity of goods and services offered.

The implementation of the theory of demand and supply occurs in the interaction between sellers and buyers in a market where the two may not see each other (for example, palm oil importers in India and palm oil exporters in Indonesia that do transactions via telephone or internet). By connecting the buyer's demand and the seller's offer, the market price and the quantity of goods traded will be determined.

Market price is the economic price of goods and services offered in a market. Economic theory holds that market prices meet at a point where the forces of supply and demand converge. Differences on the supply side or the demand side can cause market prices for goods and services to be evaluated and changed.

In a market, a consumer makes a demand to meet their daily needs. The demand made by consumers is their way to obtain utility where consumers have to spend according to income earned so that producers receive profits as desired.

## II. DISCUSSION

### Market

A market is a place where sellers and buyers meet to make supply and demand.

According to Pratama Raharja and Mandala Manurung in *Teori Ekonomi Mikro Suatu Pengantar*; a market mechanism is the process of determining the price level based on the forces of demand and supply.

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Meanwhile, according to Supriyatno in *Ekonomi Mikro Perspektif Islam*, a market is a place or process of interaction between demand (buyers) and supply (sellers) of certain goods and services where at the end they can determine the equilibrium price (market price) and the quantity traded, so that each process that brings together the seller and the buyer will form a price that will be agreed upon by both parties.

In economic theory, the market structure is divided into:

### a. Perfect competition market

According to Jusmaliani et al. in *Kebijakan Ekonomi Mikro Dalam Islam*, a perfect competitive market is a type of market with a very large number of sellers and buyers and the products sold are homogeneous or the same and cannot be distinguished. A price is formed due to market mechanism and the influence of the results of supply and demand that sellers and buyers in the market cannot influence prices and only act as price takers.

### b. Imperfect competition market

Imperfect competition market is the opposite of perfect competition market. The number of sellers is greater than the number of buyers.

There are several types of imperfect competitive markets:

#### 1) Monopoly Market

The market has only one seller who dominates and has power. The seller in this market is also the price maker. The pricemakers in this market can increase or decrease prices by determining the number of goods produced. The less goods produced, the more expensive the goods will be. Usually the pricemakers in this market do not provide substitute goods. It can be said that there are no competing parties.

For example PT Perusahaan Listrik Negara (PLN) that provides electricity, PT Pertamina that supplies fuel, and PT Kereta Api Indonesia (KAI) that provides railway transport.

#### 2) Oligopoly Market

A market in which the supply of one type of goods is controlled by several companies. Generally, the number of companies is more than two but less than ten. The practice of oligopoly is usually carried out as an effort to restrain other companies from entering a market with the aim of enjoying profits by setting a limited selling price, thus causing price competition among business actors who practice oligopoly to become non-existent. The oligopoly market structure is generally formed in industries that have high capital such as the cement industry, the car industry and the paper industry.

#### 3) Monopolistic Market

A monopolistic market consists of sellers who sell identical products, though with their own distinctions and characteristics both in terms of packaging, form, function, benefits and so on. The number of sellers is unlimited and new competitors can enter.

Brands such as Skechers, Airwalk, Converse, and Reebok all produce sneakers, but each brand has different designs, uniqueness and advantages.

#### 4) Monopsony Market

A monopsony market is characterized by many sellers and only one buyer. This condition makes the buyer much more powerful than the seller. In this market, the price of a product is more likely to be adjusted to the desires of the buyer. In addition, the quality of the product can be guaranteed because the seller tries their best so that they will not lose to other sellers.

One example is a cattle farmer who can only sell their cow's milk to one buyer because there is only one buyer in their area.

Chocolate manufacturers who produce chocolate with cocoa beans buy from various plantations.

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### 5) Oligopsony Market

This market consists of many sellers and a few buyers where buyers will process the goods to later resell it. On average, the goods sold are raw goods that must be processed first to obtain benefits. In this market, prices tend to be stable and are more determined by buyers.

For example, carrots or chilis from village farmers are sold to cities.

#### A. Price

According to Kotler and Armstrong, price is the amount of money charged for a product (goods or services) or the amount of value that must be paid by consumers in order to benefit from a product.

According to Imamul Arifin, a price is the compensation that must be paid by consumers in order to obtain goods and services.

Basically, price determination cannot be done arbitrarily, but must be in accordance with existing methods, including:

#### 1. Cost-based

Prices are determined based on the total cost incurred to produce a good to be sold and an addition of a certain percentage as profit. In this case there are 4 categories, namely:

##### (1) Cost Plus Pricing Method

Establishment of a selling price per unit based on the total cost per unit plus a certain amount as profit or margin (selling price = total cost + profit)

##### (2) Mark Up Pricing

A method often used by resellers/dropshippers by adding a certain amount of profit on top of a purchase price (selling price = purchase price + profit/mark up)

##### (3) Fixed Fee Pricing

Establishment of a price based on the amount of costs incurred by the producer of a good with an addition of fees that have been agreed upon. The profit earned does not affect the selling price of goods.

##### (4) Target Pricing

Price determined based on Return on Investment (ROI) according to a desired target.

#### 2. Demand-based

A method that emphasizes the various factors that influence consumer preferences rather than other factors such as profit, cost, and competition. Consumer demand itself is based on various considerations, including:

(a) Purchasing power

(b) Consumer willingness to buy

(c) The position of a product towards a consumer's lifestyle regarding whether the product is a status symbol or just a product that is used daily

(d) Product benefits for consumers

(e) Prices of substitute products

(f) Market segments

(g) Market potential for certain products

There are seven methods to determine price in demand-based price :

#### 1. Skimming Pricing

Setting a high price for a new product or innovation in the introduction stage, then lowering the price of the product when the competition has started to get difficult. This strategy can only work if consumers are not sensitive to price, but put

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more emphasis on considerations of innovation, quality, and the ability of the product to satisfy consumer needs, for example *Apple*.

### 2. Penetration Pricing

In this strategy, a company will try to introduce new products at low prices in the hope of getting large sales volumes in a relatively short time. The objective of this strategy is to achieve economies of scale as well as to reduce unit costs. In addition, it can reduce the interest and ability of competitors because low prices will cause the profits obtained by a company to be limited. Examples of this strategy are streaming services (Netflix, Spotify), food and beverage businesses as well as banks

### 3. Prestige Pricing

A strategy that is executed by setting a high price level so that consumers who are very concerned about their status to be interested in the products offered. Meanwhile, if the price is lowered to a certain level, then the demand for these goods or services will decrease. Products that are often associated include diamonds, gems, luxury cars and so on.

### 4. Price Lining

This strategy is more widely used at the retail level. In this strategy, the seller will determine several price levels on all goods sold. For example, a shop that sells washing machines with various brands with different prices, models, and qualities eases consumers to make decisions to buy at prices that suits their financial capabilities.

### 5. Odd Even Pricing

This method is often used for selling goods at the retail level. In this method, the price is set using odd numbers or even numbers, for example the price of Rp. 9,875. certain consumer groups still think that the price is still in the Rp. 9,000 price range even though it is closer to the price of Rp. 10,000

### 6. Demand Backward Pricing

The pricing through a backward process, in other words a company will estimate a price level that consumers are willing to pay, then the company will determine the margin that retailers and wholesalers must pay. After that, the selling price can be determined.

### 7. Bundle Pricing

The marketing of two or more products in one package price. This method is based on the view that consumers value a particular package as more than the value of each individual item. For example, travel agencies offer vacation packages that include accommodation, transportation, and consumption. This method is of great benefit to both the seller and the buyer. Buyers can save total costs, and sellers can save marketing costs

### 3. Profit-based

This method seeks to balance revenues and costs in setting a price. This effort can be carried out on the basis of a specific profit volume target or expressed as a percentage of sales or investment. This profit-based pricing method consists of profit pricing target, return on sales pricing target dan return on investment pricing target.

### 4. Competition-based

Apart from considerations of cost, demand, or profit, prices can also be established on the basis of competition, namely what competitors do.

Competition-based pricing methods consist of: customary pricing; above, at, or below market pricing, sealed bid pricing dan loss leader pricing

## B. Demand

### 1. Demand Theory

Understanding the theory of demand based on the book Microeconomics Sugiarto and friends in 2008 is described as the relationship between the quantity demanded and the price and the formation of the demand curve

The theory of demand can also mean a commodity produced by producers because it is needed by consumers who are willing and willing to buy it if it has a price that is in accordance with the ability of consumers.

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Demand can also be defined as a number of goods or services purchased or requested at a certain price and time.

The factors that affect demands are:

- a) Price of goods
- b) Price of other substitute and complementary goods
- c) Consumer's income
- d) Necessity intensity
- e) Consumer preference
- f) Population
- g) Income distribution
- h) Producers' effort to increase sales (advertisements)
- i) Consumer's expectation towards price

### 2. Demand Concept

In practice, demand indicates that there is a desire for a number of goods and services which will be followed by the ability to buy these goods or services in what is called purchasing power.

This is an indication that if desires are followed by purchasing power, the existing desires will turn into demands which can be formulated as follows:

$$\text{DEMAND} = \text{WANTS} + \text{PURCHASING POWER}$$

### 3. Law of Demand

In economics, the law of demand reveals that there is a reciprocal effect between the goods that are in demand and the price of the goods which applies if other factors do not change (*ceteris paribus*).

In this context, the law of demand reveals that if the price of a good or service rises, while the price of other goods and services remains the same, then consumers will experience a tendency to make substitutions, i.e. replacing goods or services in which price increases with other goods or services that are relatively cheaper.

In other words, if the price is getting cheaper, then the demand or buyers will increase, and vice versa.

### 4. Demand Curve

The demand curve is a curve that describes the nature of the relationship between the price of an item and the quantity demanded by buyers.

The demand curve can be represented visually through graphs. This graph refers to the price point of a good shown on the vertical axis and the number of consumers shown on the horizontal axis.

Individual demand tables show the various quantities that would be purchased at various price levels over a given period of time. For example, selling green tea sachets of 20/box in various price levels

Table 4.1 Demand Quantity of Green Tea Sachet 20/box

Price (Rp)	Amount of Demand
20.000	20
18.000	30
15.000	40
12.000	50

The data in Table 4.1 above can be described as the following individual demand curves

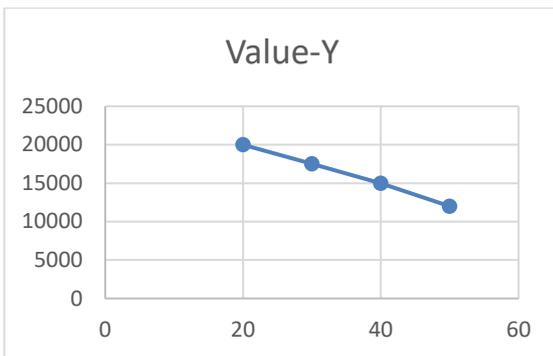


Figure 4.1 Demand Curve of Green Tea Sachet 20/box

Figure 4.1 shows the demand curve with a negative slope on the demand for green tea sachet 20/box going downwards from left to right, which shows the nature of the inverse relationship between the price of a good and the quantity demanded. Thus, a change in the quantity demanded of a good as a result of a change in the price of the good itself is indicated by a downward movement along the curve.

Demand Curve characteristics :

1. Curve is straight
2. The price of goods and the quantity of goods are inversely proportional which means that if the price of goods increases, the demand for goods will decrease. Conversely, if the price of goods decreases, the demand for goods will increase.
3. Demand Curve function:  
 $Q = a - bP$   
 Q Quantity of Demand  
 a constant  
 b gradient  
 P price
4. The movement of the demand curve is influenced by the amount of demand for goods or services.

For example, if an individual's income increases, the curve will shift to the right because the quantity demanded increases. On the other hand, the curve will shift to the left if an individual's incomes decreases.

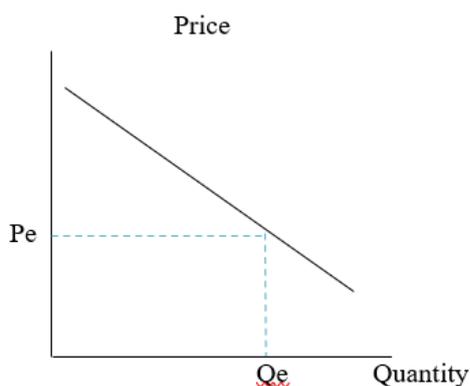
5. A curve will have a negative slope because the curve is drawn from the top left downwards. This shows that there is an inverse relationship between price and quantity demanded.

Demand curve type

The law of demand in economics that occurs in everyday life is the relationship between the quantity of goods demanded by consumers and the price of products supplied by producers.

The following types of demand curves:

1. Downward-Sloping Demand Curve



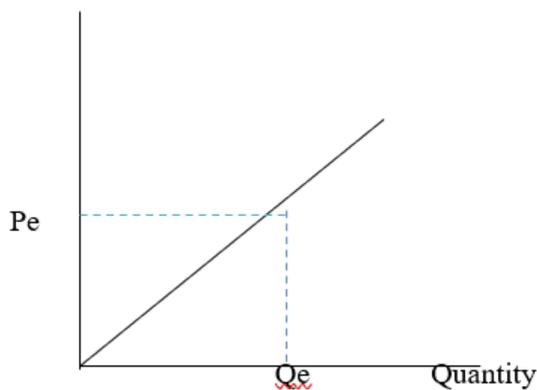
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The demand curve slopes downward follows the law of demand which has a negative slope to show an inverse relationship between the price and the quantity of goods or services demanded. If the price of goods or services increases, it will cause a decrease in the quantity demanded. Meanwhile, if the price of goods or services decreases, it will cause an increase in the number of demand.

The decline in prices, *ceteris paribus*, will also encourage consumers to switch from substitute products to certain goods, assuming that the substitute product does not experience price changes.

### 2. Upward-Sloping Demand Curve

Price



The demand curve that is upward sloping shows a positive correlation between price and quantity demanded. When the price goes up, the demand will go up and when the price goes down, the demand will also go down. This violates the law of demand.

Examples of goods with an upward sloping demand curve are Veblen and Giffen goods.

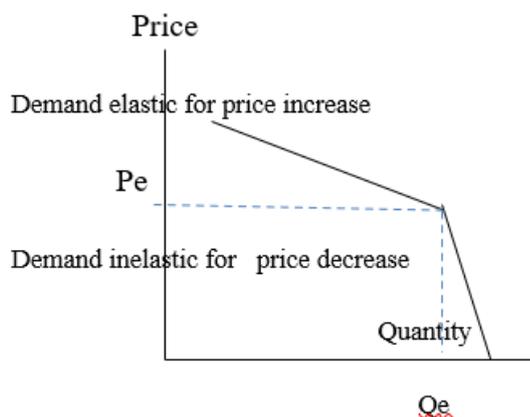
Veblen goods are goods in which demand will increase along with the increase in the price of the goods. Conversely, if the price of goods decreases, they will avoid that because it will damage their image.

Examples of Veblen goods are *coach*, *donini* and *kate spade* brand bags.

Giffen goods are goods in which the price decreases, the demand also decreases and the increase in the price of Giffen goods will increase the quantity demanded.

Giffen goods are inferior goods. Inferior goods are goods where the quantity demanded will decrease with the income of consumers. One example of inferior goods is flip-flops. When people's incomes are low, the level of demand for these goods is high. However, when people's income levels increase, the demand for these goods will decrease because people will choose to buy other sandals that are of higher quality even though the price is higher.

### 3. Kinked Demand Curve



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A flexed demand curve occurs when the demand for a good has different elasticities. The quantity of a good or service demanded responds differently when the price rises or falls.

In a simple model, this curve consists of two straight lines. On the one hand, demand is elastic when price increases. For example, if the price increases by 20%, the demand for goods or services falls by more than 20%. In other words, consumers are sensitive to any price increase.

On the other hand, demand is inelastic when price declines. When prices decline, the quantity demanded of goods and services increases but at a lower percentage. For example, a 20% price reduction leads to an increase in the quantity demanded by less than 20%. In other words, consumers are less responsive to price declines.

### C. Supply

#### 1. Supply Theory

Supply is a number of products (goods/services) offered by producers (sellers) at various price levels and occur in a certain period of time. Supply depends on profit potential and tends to react to changes in revenues and production costs. The basic concept for a supply function for a product can be expressed in terms of the relationship between the quantity supplied and the establishment of factors that affect the supply of that product.

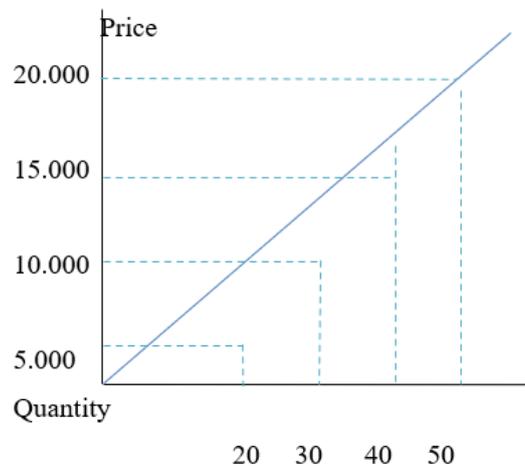
Factors that affect supply :

- a. Price of goods
  - b. Quantity of producers or sellers
  - c. Technology advancement
  - d. Input cost (production factor)
  - e. Competition rate
  - f. Expectation
  - g. Natural disaster
  - h. Government intervention such as tax
  - i. Price of substitute and complementary goods
- #### 2. Supply Concept

The law of supply states that if there is an increase in price, assuming all other variables are constant, then the quantity supplied will increase.

#### 3. Supply Curve

The supply curve is a graph that depicts the correlation between the price and the quantity of goods or services that occur in a certain period. On the curve, the price will be drawn on a vertical axis and the quantity will be on a horizontal axis.



On the supply curve, if there is an increase in price and an increase in the number of goods, a new curve will be added. The increase in supply must be illustrated by a new curve that continues to shift to the right following the increase in price

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and the increase in the number of goods or services offered. So, if the curve continues to point to the right, it can be concluded that supply is increasing.

Types of Supply Curves :

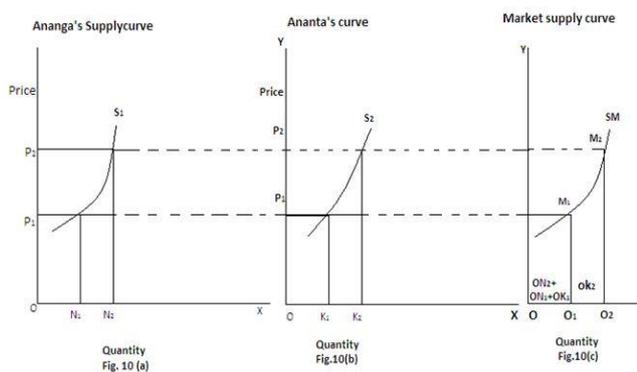
a. Individual Supply Curve

This curve describes the rise or fall of a graph based on the number of goods or services and the price of goods or services offered by producers. The higher the price offered, the higher the amount of production because producers want to obtain as much profit as possible.

b. Market Supply Curve

The market supply curve is a number of curves that show the amount of output produced by all producers in the market at different prices in the short run.

This curve usually slopes upwards to the right which indicates a positive correlation between the price of a product and the quantity supplied in the market. This means higher prices signal producers to increase production. On the other hand, low prices give them a disincentive to reduce production



The upward slope of the curve illustrates a positive relationship between price and the quantity a business is willing to supply. If the price is high, the business will be willing to supply more goods. This assumes that input costs and other factors are constant. An increase in price increases profits. This incentivizes businesses to produce more output. Conversely, if prices fall, businesses will only be willing to supply less. Lower prices lower profitability.

The factors that affect individual supply and shift the curve to the right are:

1. Lower prices for inputs, such as raw materials, energy, and wages.

This lowers production costs and increases profit per unit. Therefore, businesses will try to increase sales by increasing production

2. Technology advancements for production

This can make a business produce more output using the same quantity of input. Even if output increases, input costs remain constant.

3. Price decline expectation

Lower prices mean less profit in the future. Therefore, producers will try to increase sales now to get a higher profit before the price drops

4. Tax deductions for businesses

Companies save more money by paying less taxes. This motivates them to increase production

5. Increase in production subsidy

This lowers a business's costs and encourages them to be willing to produce more.

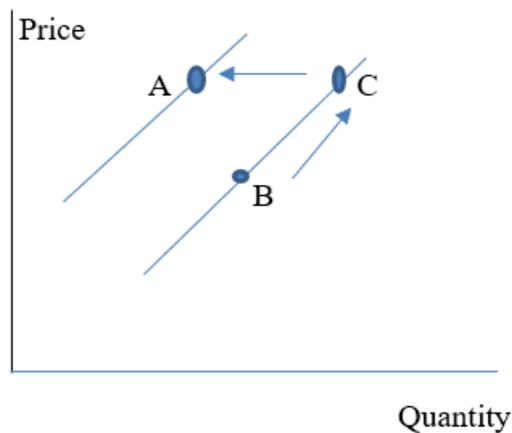
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If these factors move in reverse, it will reduce supply and shift the curve to the left. Specifically, the individual curve will shift to the left if:

1. Price decline
2. Technological setback such as result of natural disaster
3. High price expectation
4. Tax increase
5. Production subsidy deduction

### c. Supply market curve

The market supply curve illustrates the law of supply which shows a positive relationship between price and quantity supplied. The higher the price, the more goods a business wants to supply in a market.



B → C movement along the supply curve

determinant: price of goods

C → A shift of supply curve

determinant : production cost, technology,

tax, subsidy, and volatility, supply, number of business

A change in the price of a good causes the market quantity supplied to move along the curve. Meanwhile, a change in a factor other than the price of the good itself causes the curve to shift to the right or to the left. When the curve shifts to the right, the quantity supplied increases and the quantity supplied decreases when the curve shifts to the left

There are a number of factors that can move the supply curve to the right and to the left, including :

1. Production cost factor
2. Technology
3. Producer expectation
4. Price of substitute goods
5. Price of Complementary goods
6. Tax
7. Subsidy
8. Number of business
9. Volatile supply

### III. Conclusion

A market is a place where sellers and buyers interact to make demand and supply so they can establish a balanced price (market price) and the amount traded so any process that brings together sellers and buyers will form the price agreed upon by both parties.

A Price is the amount of money charged to a product (goods and services) or the amount of value that must be paid by consumers to obtain goods or services.

Demand and supply is one of the subjects in learning in microeconomic theory. Demand is a commodity produced by producers because it is needed by consumers who are willing to buy if it has a price that is in accordance with the ability of consumers. The law of demand states that if the price of a good or service rises while the price of other goods or services remains the same, then consumers experience a tendency to make substitutions, namely replacing goods or services where price increases with goods or services that are relatively cheap.

Supply is a number of products (goods and services) offered by producers (sellers) at various price levels and occur in a certain period of time. Supply depends on profit potential and tends to react to changes in revenues and production costs. The basic concept for the supply function for a product can be expressed in terms of the relationship between the quantity supplied and the set of factors that affect the supply of that product

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