



## 9



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# DEMAND

We have already studied about needs and wants in lesson 2. To satisfy these wants, you buy goods and services from the market. We buy goods and services by paying different prices. Now a days the market is flooded with various types of goods. So we have to make a choice before purchasing any good. But, just making a choice or selecting a particular good to purchase is not enough. When we go to the market, we carry certain amount of money which we use to buy the goods and services. As consumers in the market, we decide to purchase certain amount of goods or combination of various goods depending on the amount of money we have, the price we have to pay, our liking for the goods etc. All these things are involved in the study of demand which depicts our behavior as consumers in the market.



## OBJECTIVES

After completing this lesson, you will be able to:

- *explain the concept of demand;*
- *differentiate between individual demand and market demand of a commodity;*
- *discuss the factors affecting demand;*
- *state the law of demand and establish relationship between price and quantity demanded;*
- *construct an individual demand curve;*
- *interpret the shape of individual demand curve.*

## 9.1 MEANING OF DEMAND

Suppose, Varsha went to the market last week and made the following purchases for the week for herself.



1. 1 kg of rice at 25 Rs. Per kg.
2. 0.5 kg of arhar dal (pulses) at Rs. 68 per kg.
3. 1 kg of wheat flour at Rs.24 per kg.
4. 2 kg of mangoes at Rs.50 per kg.

Whenever one purchases a good in the market, he/she has to pay the given price for it and accordingly buy certain quantity of it for consumption during the given time period, the way Varsha did.

**Definition of Demand**

**Demand for a good is defined as the quantity of the good purchased at a given price at given time.**

We can express the above mentioned examples to show the different components of demand as follows.

Sl. No.	Name of the good	Price (Rs.per kg.)	Quantity (kg)	Time period
1.	Rice	25	1.0	Last week
2.	Arhar Dal	68	0.5	do
3.	Wheat Flour	24	1.0	do
4.	Mangoes	50	2.0	do

Thus the definition of demand includes three components

- (a) Price of the commodity
- (b) Quantity of the commodity bought
- (c) Time period.

Note that time period may vary. This can be week, month, year etc.

So the examples of demand given above can be written as

1. Varsha purchased 1 kg of rice at Rs.25 per kg last week. This is the demand for rice by Varsha.
2. Varsha purchased 2 kg of mangoes at Rs. 50 per kg last week. This is the demand for mangoes by Varsha. And so on.



Now read the following examples:

- (i) Nitin bought 2 pairs of shoes last month.
- (ii) Mr. Jafri purchased 5 kg of apple at Rs.40 per kg.
- (iii) Ms. Harmit Kaur paid Rs.25 per litre for milk last month.

Are these examples of demand? No. You can easily see that in the case of Nitin, price of a pair of shoe is not given. In case of Mr. Jafri, time period is not mentioned. Finally in case of Ms. Harmit Kaur, quantity of milk consumed is not given.



### INTEXT QUESTIONS 9.1

1. Define demand.
2. Name the three components included in the definition of demand.

## 9.2 DIFFERENCE BETWEEN DEMAND AND DESIRE

On many occasions people confuse between desire and demand and use them interchangeably. In fact these are two different terms. Demand is desire backed by ability to purchase. This means that if somebody desires to have a good, he/she can demand it if he/she has the money to purchase it by paying its price. Anyone can desire any good or service. But just by desiring something, one cannot have it without paying the price. Once the price is paid by the person who has desired it, only then it becomes the demand for the good by that person. Take the example given above once again- “Varsha purchased 2 kg of mangoes at Rs. 50 per kg last week.” This is the demand for mangoes by Varsha. Had Varsha desired to have mangoes but could not pay the price to buy, then it would have been said as Varsha’s desire but not demand for mangoes.

## 9.3 FACTORS AFFECTING INDIVIDUAL DEMAND

Individual demand refers to the quantity of a commodity that an individual buyer is willing to buy at given price per unit of time. But how much quantity of a commodity one is willing to buy depends upon the following factors. These are also called determinants of demand. These are

- (i) Price of the commodity
- (ii) Price of related goods
- (iii) Income of the buyer
- (iv) Tastes and preferences of the buyer



Let us discuss these factors one by one.

### 1. Price of the commodity

When you visit a market to buy a commodity, you go to a seller of that commodity and ask for its price first. If you think that the price is reasonable, you buy the required quantity of the commodity. On the other hand, if the price is higher in your opinion, you may not buy or buy less quantity of it. Generally we are willing to buy more quantity of a commodity at a lower price and less of it at a higher price, if all other factors determining demand remain constant.

### 2. Price of related goods

The demand for a commodity is also influenced by the prices of its related goods. Related goods can be of two types : (a) substitute goods (b) complementary goods

Substitute goods are those goods which can easily be used in place of each other. Example of substitute goods are coke and pepsi, tea and coffee etc. If price of coffee increases, people will demand more of tea and thus demand for tea will increase. If price of coffee falls, people will demand more of coffee and thus demand for tea will fall. So, the demand for a commodity is directly related to the price of its substitute goods.

On the other hand, complementary goods are those goods which are used together in satisfying a particular want. Examples of complementary goods are car and petrol, ball pen and refill etc. If we have a car, we also require petrol to run it. Imagine, if price of petrol rises, what will happen to the demand for car? Demand for car will decrease. If the price of one of them increases, the demand for other good will decrease and if price of one of them falls, the demand for the other will increase. So, the demand for a commodity is inversely related to the price of its complementary goods.

### 3. Income of the buyer

The demand for a commodity also depends on the income of the buyer. When your income increases, you are likely to spend more on purchase of some goods such as fruits, full cream milk, butter etc. Such goods are normal goods. Normal goods are those goods whose demand increases with the increase in income. So, the demand for normal goods is directly related to the income of the buyer.

But there are some goods whose demand decreases when income of the buyer increases, such as jowar, bajra, toned milk etc. These goods are called inferior goods, so, the demand for inferior goods is inversely related to the income of the buyer.

### 4. Tastes, preferences and fashion

Tastes, preference and fashion are important factors which affect the demand for a commodity. For example, if Monika prefers jeans and tops in comparison to salwar

and kameej, her demand for jeans and tops will increase. So demand for those goods increases which are preferred by the buyer or which are in fashion. On the other hand, demand for those goods decreases which are not preferred by the buyer or which are out of fashion.

## 9.4 INDIVIDUAL DEMAND SCHEDULE

Every individual demands some goods and services for the satisfaction of his/her wants. In the example given earlier we talked about Varsha's demand for rice, dal, wheat flour and mangoes for a week. Varsha's purchases will not stop there. She will again purchase these items whenever she needs them. Whether she will buy the same quantity or not next time when she goes to the market depends on whether the price of the goods have remained same or not. Let us only consider the purchase of any one commodity, say mangoes by her in order to analyze the demand of one commodity by her over time. Let us also think that prices of other items, money in Varsha's pocket and her taste have not changed. After observing Varsha's purchases of mangoes over time we noticed the following.

"If price of mangoes is Rs. 50 per kg, Varsha buys 2 kg of mangoes for a week. If the price of mangoes rises to Rs 60 per kg she buys only 1.5 kg of mangoes for a week. If price falls to Rs 40 per kg. she is willing to buy more i.e. 2.5 kg. of mangoes for a week. It means, if price is Rs 50 per kg. Varsha's demand for mangoes is 2 kg per week, at a price of Rs 60 per kg, her demand is only 1.5 kg, per week and at a price of Rs 40 per kg, her demand is 2.5 kg." We can present this in the table 9.1 below.

**Table 9.1 Varsha's demand for mangoes**

Price of mangoes (Rs per Kg)	Quantity demanded of mangoes per week (in Kg)
80	0.5
70	1.0
60	1.5
50	2.0
40	2.5
30	3

Table 9.1 shows different quantities of mangoes demanded at different prices by Varsha per week. Such a tabular presentation of different quantities of a commodity demanded at different prices is called an individual demand schedule. Demand for a commodity by an individual buyer is called individual demand. Individual demand is the quantity of a commodity that an individual buyer is willing to buy at given price per unit of time.





Notes

### 9.5 LAW OF DEMAND

The law of demand gives the relationship between price of a commodity and its quantity demanded, when all factors other than price of the commodity remain unchanged.

As discussed earlier, the demand for commodity is affected by many factors such as price of the commodity, price of related goods, income of the buyer, tastes and preferences etc. So the law of demand gives effect of change in price of the commodity on the quantity demanded, assuming that all other factors such as, price of related goods, income of the buyer, tastes and preferences remain constant.

**The law of demand is given as, “If price of a commodity falls, its quantity demanded increases and if price of the commodity rises, its quantity demanded falls, other things remaining constant.”**

The law of demand means that, other factors determining the demand remaining constant, price of a commodity and its quantity demanded are inversely related.

### 9.6 INDIVIDUAL DEMAND CURVE

When the above mentioned relationship of price and quantity demanded is represented diagrammatically, it is called demand curve. Thus demand curve is a diagrammatic representation of law of demand. The demand curve shows different quantities of a commodity demanded at different prices in diagrammatic form.

We can construct Varsha’s demand curve for mangoes (individual demand curve) with the help of table 9.1. See the demand curve in Fig. 9.1.

Take quantity demanded of mangoes on X-axis and price of mangoes on Y-axis. On the Y-axis (vertical) the prices starting from Rs 30 to 80 are plotted. On the X-axis (horizontal) the quantities of mangoes starting from 0.5 to 3 kg are plotted. Varsha has demanded 0.5 kg of mangoes at Rs 80. This combination is shown at point A in graph given in Fig. 9.1. Similarly, the other combinations of price and quantity of mangoes as given in table 9.1 are shown as points B, C, D, E and F. By joining these points Varsha’s demand curve for mangoes has been derived.

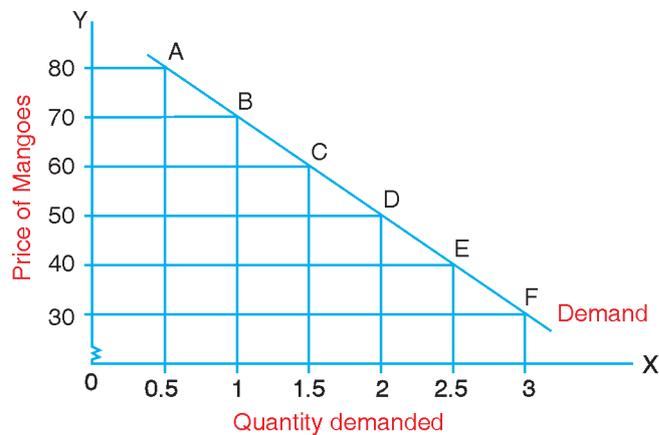


Fig. 9.1 Individual demand curve



Thus, the demand schedule and the demand curve both represent the same relationship between price and quantity demanded but the demand schedule represents it in a tabular form and demand curve in a diagrammatic form.



### INTEXT QUESTIONS 9.2

1. State the law of demand.
2. What are the assumptions of law of demand.
3. What will happen to your demand for apples if price of apples rises from Rs 80 per kg to Rs 100 per kg, assuming that your income, taste and preferences etc. do not change?

### 9.7 SHAPE OF INDIVIDUAL DEMAND CURVE

According to the law of demand, when all other factors determining demand remain constant, the buyer buys more quantity of a commodity at lower price and less of it at a higher price. Due to this inverse relationship between price and quantity demanded, the demand curve slopes downwards from left to right. But the question arises why does a buyer buys more quantity of commodity at a lower price and less of it at a higher price? Put it in another way, why does the demand curve slope downwards from left to right? The most important reasons for the inverse relationship between price and quantity demanded are explained below.

1. When more and more units of a commodity are consumed, satisfaction derived from successive units of the commodity goes on diminishing. For example, a hungry person gets maximum satisfaction from the first chapatti, lesser satisfaction from second chapatti and still lesser from third chapatti, and so on. If he gets more satisfaction, he will be ready to pay more and if he gets less satisfaction, he will be ready to pay less price for it. It means he will be willing to buy more quantity of a commodity at lower price and less of it at higher price. The law of demand also provides the same information which will lead to downward slope of demand curve.
2. Suppose, you buy mangoes from the market. If the price of mangoes is Rs 40 per kg and you buy 2 kgs of mangoes at this price. If the price of mangoes falls from Rs 40 per kg to Rs 20 per kg, your real income or purchasing power is doubled and you can now buy double quantity i.e. 4 kg of mangoes with the same money income. Thus a buyer can buy more quantity of a commodity when its price falls and less of it when its price rises leading to the downward slope of the demand curve.



**Notes**

- When price of a commodity falls, it becomes relatively cheaper than its substitutes (although price of substitutes remains the same). For example, if the price of coke falls, it becomes comparatively cheaper than its substitute i.e. pepsi. People start buying coke in place of pepsi. (alternatively pepsi is substituted by coke), leading to more demand for coke when its price falls. On the other hand, demand for the commodity will fall when its price rises. It will lead to downward slope of the demand curve.



**INTEXT QUESTIONS 9.3**

- What will happen to the real income of the buyer if price of a commodity falls?
- What will be the shape of the demand curve when there is an inverse relationship between price and its quantity demanded?
- You are thirsty and you have already taken one glass of water. Whether the satisfaction derived from second glass of water you drink, will increase or decrease?
- Draw demand curve with the help of data given below:

Price (Rs per unit)	1	2	3	4	5
Quantity demanded (units)	20	16	12	8	4

**9.8 MARKET DEMAND FOR A GOOD**

Varsha is not the only buyer of mangoes in the market. There may be some other persons who may demand mangoes in the market. Suppose there are two other buyers Vibha and Somya who are willing to buy mangoes in the market.

**The total quantity of a commodity demanded by all the individual buyers in the market at the given price at given time is called market demand of that commodity.**

Let there are only three buyers buying mangoes in the market – Varsha, Vibha and Somya, market demand will be the sum of individual demand schedules of these three buyers. Now if we add another two columns showing respective demand of Vibha and Somya in table 9.1 along with the demand by Varsha, we can get the market demand schedule. This is shown in table 9.2 below.



Notes

Table 9.2 Market demand for Mangoes

Price of mangoes (Rs per Kg)	Quantity demanded of mangoes per week (in kg)			Market demand of mangoes per week (in kg)
	Varsha	Vibha	Somya	
80	0.5	1.0	0	1.5
70	1.0	1.5	0.5	3.0
60	1.5	2.0	1.0	4.5
50	2.0	2.5	1.5	6.0
40	2.5	3.0	2.0	7.5
30	3	3.5	2.5	9.0

When price of mangoes is Rs. 80 per Kg, Varsha demands 0.5 Kg of mangoes, Vibha demands 1.0 kg of mangoes and Somya demands no mangoes. Thus market demand for mangoes at a price of Rs 80 per kg. is  $0.5 + 1.0 + 0 = 1.5$  kg of mangoes per week. Likewise, market demand for mangoes can be obtained at other prices also as shown in the table 9.2.



## INTEXT QUESTION 9.4

1. If there are only three households buying a commodity in the market, calculate their market demand in the table given below:

Price (Rs per unit)	Quantity demanded (in units)			Market demand (in units)
	House- hold A	House- hold B	House- hold C	
5	15	13	30	—
6	12	11	25	—
7	9	9	20	—
8	6	7	15	—
9	3	5	10	—



**Notes**

2. Complete the following table

Price (Rs per unit)	Quantity demanded (in units)			Market demand (in units)
	House- hold A	House- hold B	House- hold C	
1	10	12	–	48
2	8	15	–	40
3	6	12	–	32
4	4	9	–	24
5	2	6	–	16

**9.9 FACTORS AFFECTING MARKET DEMAND**

As stated earlier, market demand is the total quantity of a commodity that all the individual buyers in the market are willing to buy at given prices per unit of time. In addition to the factors affecting individual demand for a commodity market demand is also influenced by the following factors.

- 1. Number of buyers:** Number of buyers buying a commodity determine the demand for the commodity in the market. As you have seen in Tale 9.2 showing market demand of mangoes there were three buyers of mangoes in the market namely, Varsha, Vibha and Somya. Now if one more buyer Abha also starts buying mangoes, what will happen to the market demand of mangoes? Market demand of mangoes will definitely increase, so, if the number of buyer of a commodity is large, market demand for the commodity will be more. On the other hand, if the number of buyers is small, market demand for the commodity will be less.
- 2. Distribution of income and wealth:** The distribution of income and wealth in a society also determines the market demand of a commodity. If the distribution of income and wealth is more in favour of the rich, demand for the commodities preferred by the rich is likely to be higher. On the other hand, if the distribution of income and wealth is more in favour of poor, demand for the commodities preferred by the poor is likely to be higher.
- 3. Climatic condition:** It is generally observed that the demand for ice increases during summer season. Similarly, demand for umbrella and rain coats increases during rainy season and demand for woollens increases during winter season. So the market demand for a commodity is also influenced by the climatic conditions.



## INTEXT QUESTIONS 9.5

1. Name four factors that affect the individual demand for a commodity.
2. What will happen to the demand for tea if price of sugar increases?
3. What will happen to the demand for coke if price of pepsi falls?
4. Distinguish between normal goods and inferior goods.
5. Prepare a list of at least five items which are in fashion now a days.
6. Fill in the blanks with appropriate words:
  - (i) If the income of a buyer falls, his demand for inferior goods will .....
  - (ii) When price of ink increases, the demand for fountain pen will .....
  - (iii) ..... is the number of buyers of a commodity in the market, higher will be the demand for the commodity.
  - (iv) If the distribution of income and wealth is more in favour of the ..... the demand for goods used by the poor will be more.



## WHAT YOU HAVE LEARNT

- Demand for a commodity refers to the quantity of the commodity that a buyer is willing to buy at given price at given time.
- Individual demand is the quantity of a commodity that an individual buyer is willing to buy at the given price at given time.
- Market demand is the total quantity of a commodity that all the individual buyers in the market are willing to buy at given price at given time.
- The determinants of individual demand are – price of the commodity, price of related goods, income of the buyer, tastes, preferences and fashion.
- The determinants of market demand are – number of individual buyers buying that commodity, distribution of income and wealth and climatic condition in addition to the determinants of individual demand.
- The law of demand states that if all other factors affecting demand remain constant, the buyers will buy more quantity of a commodity at lower price and less of it at a higher price.
- Demand curve is a diagrammatic representation of law of demand.
- The demand curve of a commodity slopes downwards from left to right.



Notes



**TERMINAL EXERCISE**

1. Define demand. Distinguish between individual demand and market demand.
2. Briefly explain the determinants of individual demand for a commodity.
3. State the factors which may affect market demand for a commodity.
4. State and explain the law of demand with the help of a hypothetical numerical example/schedule.
5. What is a demand curve? Draw an individual demand curve with the help of a hypothetical demand schedule.
6. Why does the demand curve slope downwards from left to right?
7. What are the reasons behind the law of demand.



**ANSWERS TO INTEXT QUESTIONS**

**Intext Questions 9.1**

1. Demand refers to the quantity of a commodity that a buyer is willing to buy at given price per unit of time.
2. (i) Price of the commodity  
(ii) Quantity of the commodity to be bought  
(iv) The time period

**Intext Questions 9.2**

1. The law of demand states that other factors determining the demand remaining constant, price of a commodity and quantity demanded are inversely related.
2. (i) Income of the buyer does not change.  
(ii) Price of related goods does not change  
(iii) Tastes, preferences and fashion do not change.
3. Demand for apple will fall

**Intext Questions 9.3**

1. Real income will increase
2. Demand curve will slope downwards from left to right.

3. Decrease

#### Intext Questions 9.4

1. 58, 48, 38, 28, 18
2. 26, 17, 14, 11, 8

#### Intext Questions 9.5

1. Price of the commodity, Price of related goods, Income of the buyer, tastes, preferences and fashion.
2. fall
3. fall
4. Demand for normal goods increases with the increase in income whereas demand for inferior goods decreases with the increase in income of the buyer.
5. Jeans, Tops, electronic watches, ball pen, Mobile phone
6. (i) Increase (ii) Decrease (iii) More (iv) poor

