Segment: Basics of Managerial Economics

Topic: Meaning and Law of Demand

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Introduction

In the previous topic, we learnt about the scope and importance of managerial economics. We learnt that managerial economics helps managers to arrive at decisions that effectively use the firm's resources, and thereby leading the firm to grow profitably. In this unit, we will study about demand analysis. The sustenance and growth of a business firm is greatly influenced by the demand for a firm's offerings (goods or/and services). In this unit, we shall explore the importance of demand and supply in business decisions/processes like pricing and forecasting. We begin our in-depth understanding of the subject with a foundation on 'demand'.

Demand and supply are the two main concepts in economics. Some experts are of the opinion that the entire subject of economics can be summarised in terms of these two basic concepts.

Case Let

Ramesh, a fresh MBA graduate, had recently joined a small firm that was involved in the manufacture and marketing of traverse rods that were used to suspend window curtains. One week into his job, Ramesh's superior asked him to submit a report on the demand for traverse rods in India. Ramesh was also expected to comment on the factors that influenced the demand for traverse rods as well as the relative importance of those factors. Ramesh's report was expected to guide the marketing/sales team in its activities.

Learning Objectives

At the end of this topic, you will be able to:

- describe the concept of demand and its features
- define and interpret the demand schedule, law of demand and price-quantity relationships and exceptions to the law of demand.

1. Meaning and Law of Demand

In this section, we will discuss the meaning and the law of demand. The term demand is different from desire, want, will or wish. In the language of economics, demand has different meanings. Any want or desire will not constitute demand.

Demand = Desire to buy + Ability to pay + Willingness to pay

The term demand refers to total or given quantity of a commodity or a service that is purchased by the consumer in the market at a particular price and at a particular time.

The following are some of the important features of demand:

- It is backed up by adequate purchasing power.
- It is always at a price.
- It should always be expressed in terms of specific quantity.
- It is related to time.

Consumers create demand. Demand depends on utility of a product. There is a direct relation between the two i.e., higher the utility, higher would be demand and lower the utility, lower would be the demand.

Individual demand schedule: The demand schedule explains the functional relationship between price and quantity. It is a list of various amounts of a commodity that a consumer is willing to buy (and so seller to sell) at different prices at a particular period of time. The individual demand schedule portrayed in table 1 shows that people buy more when price is low and buy less when price is high.

Table 1: Individual Demand Schedule

Price (in Rs.)	Quantity demanded in Units
5.00	200
4.00	300
3.00	400
2.00	500
1.00	600

Market demand schedule: When the demand schedules of all buyers are taken together, we get the aggregate or market demand schedule. In other words, the total quantity of a commodity demanded at different prices in a market by the whole body of consumers at a

particular period of time is called market demand schedule. It refers to the aggregate behaviour of the entire market rather than mere totalling of individual demand schedules. It is the horizontal summation of the individual demand schedule. Market demand schedule is more continuous and smoother when compared to an individual demand schedule. Table 2 gives an example of market demand schedule.

Table 2: Market Demand Schedule

Price (Rs.)	A	B	C	Total Market Demand
5.00	100	200	300	600
4.00	200	300	400	900
3.00	300	400	500	1200
2.00	400	500	600	1500
1.00	500	600	700	1800

Demand function: The demand for a product or service is affected by its price, the income of the individual, the price of other substitutes, population, habit, etc. Thus, we can say that demand is a function of the price of the product and other factors, as mentioned above.

Demand function is a comprehensive formulation which specifies the factors that influence the demand for a product. Mathematically, a demand function can be represented in the following manner.

Dx = f (Px, Ps, Pc, Ep, Y, Ey, T, W, A, U… etc)

Where,

Dx = Demand for commodity X

Ps = Price of the substitutes

Px = Price of the commodity X

Pc = Price of the complements

Ep = Expected future price

Y = Income of the consumer

Ey = Expected income in future

T = Tastes and preferences

W = Wealth of the consumer

A = Advertisement and its impact

U = All other determinants

Determinants of demand (factors that affect or influence the demand): Demand for a commodity or service is determined by a number of factors. All such factors are called 'demand determinants'. The demand determinants are as follows:

1. Price of the given commodity, prices of other substitutes and/or complements, future expected trend in prices etc
2. General Price level existing in the country-inflation or deflation
3. Level of income and living standards of the people
4. Size, rate of growth and composition of population
5. Tastes, preferences, customs, habits, fashion and styles
6. Publicity, propaganda and advertisements
7. Weather and climatic conditions

Thus, several factors are responsible for bringing changes in the demand for a product in the market. A business executive should have the knowledge and information about all these factors and forces to finalise his production, marketing and other business strategies.

Demand curve: A demand curve is a locus of points showing various alternative price-quantity combinations. In short, the graphical presentation of the demand schedule is called as a demand curve. Figure 1 depicts the demand curve.

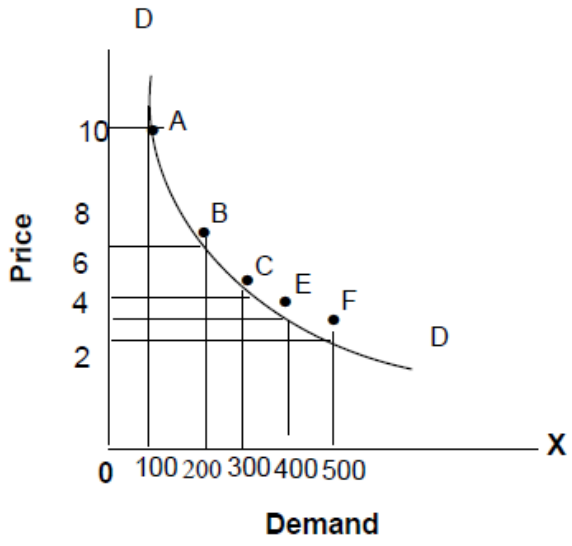

Fig. 1: Demand Curve

It represents the functional relationship between quantity demanded and prices of a given commodity. The demand curve has a negative slope, or it slopes downwards to the right. The

negative slope of the demand curve indicates that quantity demanded goes on increasing as price falls and vice versa.

The law of demand: The law of demand explains the relationship between price and quantity demanded of a commodity. It says that demand varies inversely with the price. The law can be explained in the following manner, "Keeping other factors that affect demand constant, a fall in price of a product leads to increase in quantity demanded and a rise in price leads to decrease in quantity demanded for the product". The law can be expressed in mathematical terms as "Demand is a function of price". Thus, symbolically D = F (p) where, D represents Demand, P stands for Price and F denotes the Functional relationship. The law explains the cause and effect relationship between the independent variable [price] and the dependent variable [demand]. The law explains only the general tendency of consumers while buying a product. A consumer would buy more when price falls due to the following reasons:

1. A product becomes cheaper [Price effect]
2. Purchasing power of a consumer would go up [Income effect]
3. Consumers can save some amount of money
4. Cheaper products are substituted for costly products [substitution effect]

Significant features of the law of demand: The significant features of the law of demand are as follows:

1. There is an inverse relationship between price and quantity demanded.
2. Price is an independent variable and demand is a dependent variable.
3. It is only a qualitative statement and as such it does not indicate quantitative changes in price and demand.
4. Generally, the demand curve slopes downwards from left to right.

The operation of the law is conditioned by the phrase "Other things being equal". It indicates that given certain conditions, certain results would follow. The inverse relationship between price and demand would be valid only when tastes and preferences, customs and habits of consumers, prices of related goods, and income of consumers would remain constant.

Exceptions to the law of demand: Generally speaking, customers would buy more when price falls under the law of demand. Exceptions to law of demand states that with a fall in price, demand also falls and with a rise in price demand also rises. This can be represented by rising

demand curve. In other words, the demand curve slopes upwards from left to right. It is known as an exceptional demand curve or unusual demand curve.

Figure 2 depicts the exceptional demand curve. It is clear from figure 2 that as price rises from Rs. 4.00 to Rs. 5.00, quantity demanded also expands from 10 units to 20 units.

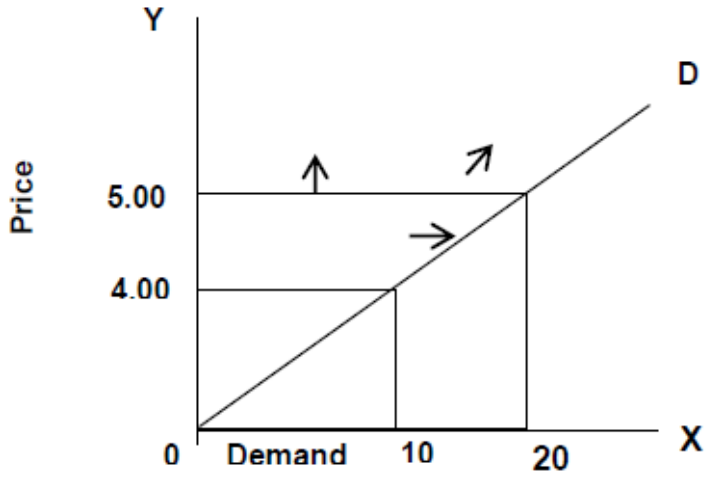

Fig.2: Exceptional Demand Curve

Some examples that favour the unusual demand curve are as follows:

1. **Giffen's paradox** – A paradox is an inconsistency or contrary. Sir Robert Giffen, an Irish Economist, with the help of his example (inferior goods) disproved the law of demand. The Giffen's paradox holds that "Demand is strengthened with a rise in price or weakened with a fall in price". He gave the example of poor people of Ireland who were using potatoes and meat as daily food articles. When price of potatoes declined, customers instead of buying larger quantities of potatoes started buying more of meat (superior goods). Thus, the demand for potatoes declined despite of fall in its price.

2. **Veblen's effect** – Thorstein Veblen, a noted American economist contends that there are certain commodities which are purchased by rich people not for their direct satisfaction, but for their 'snob-appeal' or 'ostentation'. Veblen's effect states that demand for status symbol goods would go up with a rise in price and vice-versa. In case of such status symbol commodities, it is not the price which is important, but the prestige conferred by that commodity on a person makes him to go for it. More commonly cited examples of such goods are diamonds and precious stones, world famous paintings, commodities used by world famous personalities, etc. Therefore, commodities having 'snob-appeal' are to be considered as exceptions to the law of demand.

3. **Fear of shortage** – When serious shortages are anticipated by the people, (e.g., during the war period) they purchase more goods at present even though the current price is higher.

4. **Fear of future rise in price** – If people expect future hike in prices, they buy more even though they feel that current prices are higher. Otherwise, they have to pay a still high price for the same product.

5. **Speculation** – Speculation implies purchase or sale of an asset with the hope that its price may rise or fall and make speculative profit. Normally, speculation is witnessed in the stock exchange market. People buy more shares only when their prices show a rising trend. This is because they get more profit, if they sell their shares when the prices rise. Thus, speculation becomes an exception to the law of demand.

6. **Conspicuous consumption** – Conspicuous consumption refers to consumers' purchase of some items though the items' prices are rising on account of their special uses in the modern style of life.

In case of articles like wrist watches, scooters, motorcycles, tape recorders, mobile phones, etc., customers buy more despite of their high prices.

7. **Emergencies** – During emergency periods like war, famine, floods, cyclone, accidents, etc., people buy certain articles even though the prices are quite high.

8. **Ignorance** – Sometimes people may not be aware of the prices prevailing in the market. Hence, they buy more at higher prices because of sheer ignorance.

9. **Necessaries** – Necessaries are those items which are purchased by consumers whatever may be the price. Consumers would buy more necessaries in spite of their higher prices.:

Changes or shifts in demand: Clearly understand that if demand changes only because of changes in the price of the given commodity, in that case there would be either expansion or contraction in demand. Both of them can be explained with the help of only one demand curve. If demand changes, not because of price changes but because of other factors or forces, then in that case there would be either increase or decrease in demand. If demand increases, there would be forward shift in the demand curve to the right and if demand decreases, then there would be backward shift in the demand cure. Figure 3 depicts the shift in demand.

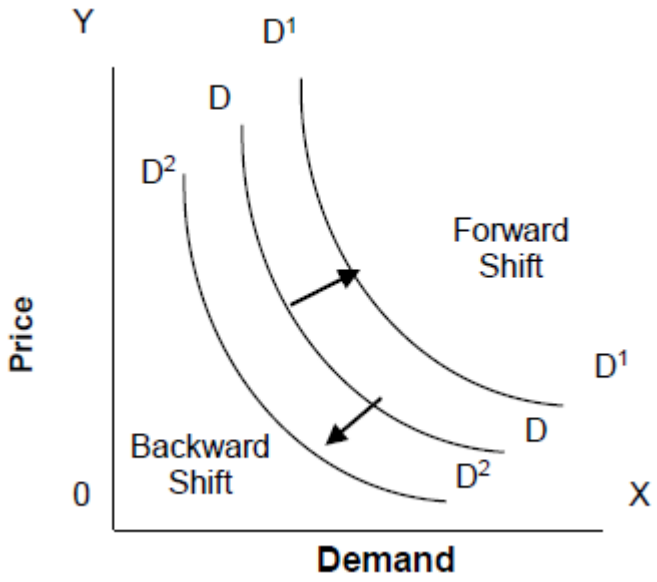

Fig. 3: Shifts in Demand

2. Summary

Here is a quick recap of what we have learnt so far:

- The term demand refers to total or given quantity of a commodity or a service that is purchased by the consumer in the market at a particular price and at a particular time.
- The demand for a product or service is affected by its price, the income of the individual, the price of other substitutes, population, habit, etc.
- The demand schedule explains the functional relationship between price and quantity. It is a list of various amounts of a commodity that a consumer is willing to buy (and so seller to sell) at different prices at a particular period of time.
- When the demand schedules of all buyers are taken together, we get the aggregate or market demand schedule.
- If demand changes only because of changes in the price of the given commodity, in that case there would be either expansion or contraction in demand.

3. Glossary

Demand	It is the total or given quantity of a commodity or a service that is purchased by the consumer in the market at a particular price and at a particular time.
Demand curve	A locus of points showing various alternative price-quantity

	combinations.
Demand function	A comprehensive formulation which specifies the factors that influence the demand for a product.
Elasticity of demand	Responsiveness or sensitiveness of demand to a given change in the price or non-price determinant of a commodity.
Law of Demand	Keeping other factors that affect demand constant, a fall in price of a product leads to increase in quantity demanded and a rise in price leads to decrease in quantity demanded for the product.
Necessaries	Items which are purchased by consumers whatever may be the price.
Speculation	Purchase or sale of an asset with the hope that its price may rise or fall and make speculative profit.
Veblen's effect	Demand for status symbol goods would go up with a rise in price and vice-versa.