Chapter

Analysis of Market Demand

- **The consumer demand, especially the market demand, is essentially the dominant factor determining the kind and scope of business activities and the size of the market.**

- **Rapid increase in consumer demand for goods and services increases the level of business activities. For example, increasing demand for cars, computers and mobile phones, etc, in India during the past two decades had enlarged the business prospects of these products.**

- **According to a survey conducted by Pollyanna de Lima1, "Weakening demand had a domino effect on the manufacturing industry [automobiles, cement and iron and steel], knocking down the rates of increase in production, employment and business sentiments" in October 2019 compared to the industry level in last four years.**

- **Market demand means the aggregate of the individual demands for a product over a period of time.**
- **Since the scope of the market demand depends on the individual demands, it is essential for the business managers to comprehend the consumer behaviour in determining the quantity demanded of a good or service.**

(i) The basis of consumer demand for a commodity;

(ii) The determinants of consumer demand for a product;

(iii) How equilibrium quantity of demand for a product is determined;

(iv) How consumers respond to change in the product price, their income, and change in price of related goods – complements and substitutes?

- **A systematic analysis of these aspects of consumer demand gives rise to the *theory of consumer demand.***

- The term ‘demand’ means desire, need or want for some thing. In economic sense, however, the term ‘demand’ means a ‘*desire for a commodity backed by the ability and willingness to pay for it.*’

- *Specifically, demand refers to the quantity of a good or service for which the consumers have adequate purchasing power are willing to purchase per unit of time–per day, per week, per month or so.*

- *It implies that unless a person has adequate purchasing power or resources and willingness to spend his resources, his desire alone for a commodity would not be considered as his demand.*

- *For example, if a man wants to buy a car but he does not have sufficient money to pay for it, in economic sense, his want is not his demand for car.*

- ***If a rich miserly person wants to buy a car but is not willing to pay for the car, his desire too is not his demand for a car. But if a man has sufficient money and is willing to pay the price of the car, his desire to buy a car is an effective demand.***

- **The desires without adequate purchasing power and willingness to pay do not affect the market, nor do they generate production activity. A want with *three attributes—desire to buy, ability to pay and willingness to pay—becomes effective demand. Only an effective demand figures in economic analysis and business decisions.***

- **In regard to market demand, the term 'demand' for a commodity (i.e., quantity demanded) has always a reference to 'a price', 'a period of time' and 'a place'.**

THE BASIS OF CONSUMER DEMAND: THE UTILITY

- **Consumers demand a commodity because they derive or expect to derive *utility from the consumption of that commodity. The expected utility from a commodity is the basis of demand for it.***

- ***Though 'utility' is a term of common usage, it has a specific meaning and application in the analysis of consumer demand.***

- ***From consumer's angle, utility is the psychological feeling of satisfaction, pleasure, happiness or well-being, which a consumer derives from the consumption, possession or the use of a commodity.***

The Concept of Utility

- The concept of *utility can be looked upon from two angles—from the product angle and from the consumer's angle.*

- *From the product angle, utility is the want-satisfying property of a commodity.*

- There is a subtle difference between the two concepts of *utility. From the 'product angle', the want-satisfying property of a commodity is 'absolute' in the sense that this property is ingrained in the commodity irrespective of whether one needs it or not.*

- Another important attribute of the 'absolute' concept of utility is that it is *'ethically neutral' because a commodity may satisfy a frivolous or socially immoral need, e.g., alcohol, drugs, porn-CDs, etc.*

- ***Most managerial decisions of business managers are based on the market demand for their product, market conditions, and business prospects.***

- ***The market demand for their product gives the overall scope of business; it shows the prospect of expanding business; it plays a crucial role in planning for future production, making inventories of raw materials, advertisement, and for setting the sales outlet.***

- ***Most business decisions on these issues depend on the kind of the product market classified as:***

(i) *perfectly competitive, (ii) monopolistically competitive, (iii) oligopolistic, and (iv) monopoly.*

MEANING OF MARKET DEMAND

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- ***Market demand can be defined as the sum of all individual demands for a product at a price at a point of time.***

- *In other words, market demand refers to the total of individual demands for a product at a price at a point or period of time – referred to daily, weekly,* monthly, annual period, etc. In case of most consumer goods and product inputs, a large number of users demand the product.

- ***The aggregate of individual demands for a product at a given price and at a point of time is known as the market demand for the product.***

- **The market demand schedule and market demand curve can be obtained by (*i*) *adding up individual demand at different prices, and (ii) summing up individual demand functions.***

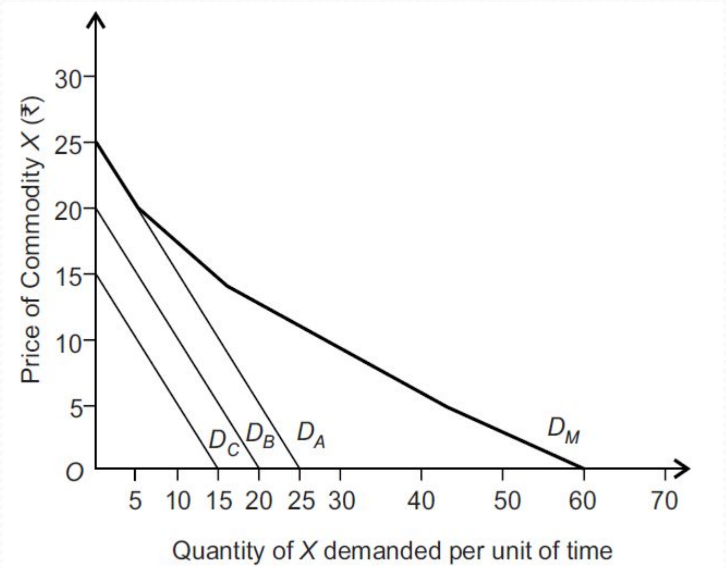
DERIVATION OF MARKET DEMAND CURVE

- ***The market demand curve can be derived by adding up (i) the individual demand schedules, and (ii) the individual demand functions. In this section, we illustrate the derivation of market demand curve by using these two methods.***

Derivation of Market Demand Curve from Individual Demand Schedules

Price of X (₹)	*Quantity of X Demanded by*			*Market Demand* =(*A*+*B*+*C*)
	A	*B*	*C*	
25	0	0	0	0
20	5	0	0	5
15	10	5	0	15
10	15	10	5	30
5	20	15	10	45
0	25	20	15	60

Price of Commodity X and Quantity Demanded



Derivation of Market Demand Curve

KINDS OF PRODUCTS AND MARKET DEMAND

- ***The demand for various goods and services are generally classified on the basis of the consumers of the product, suppliers of the product, nature of the product, seasonal nature of the demand, interdependence of demand for two products, etc.***

(i) Individual Demand vs. Market Demand

- ***Individual Demand***
  - ***Individual demand refers to the quantity of product demanded by an individual at a point of time or over a period of time given the price of the product, given his income, price of the related goods (substitutes and complements), consumer's taste and preferences, price expectations, and external influences (e.g., bandwagon and demonstration effects).***

❖ ***Market Demand***

- ***Market demand refers to the total quantity that all the consumers of a commodity tend to buy at a given price per time unit, given their money income, taste and prices of other commodities (mainly substitutes).***
- ***In other words, the market demand for a commodity is the sum of individual demands by all the consumers (or buyers) of the commodity, over a period of time and at a given price, other factors remaining the same.***

(ii) Demand for Firm's Product and Industry's Product

❖ ***The quantity that a firm disposes of at a given price over a time period connotes the demand for the firm's product. The aggregate of demand for the product of all the firms of an industry is known as the market demand.***

- ***This kind of distinction between the two demands is not of great importance in a highly competitive market, e.g., the fruit and vegetable markets.***

- ***In these markets, each seller has an insignificant share in the market. Therefore, demand for firm's product is not of significance.***

- ***In case market structure is oligopolistic, a distinction between the demand for a firm's product and for the industry's product is useful from the managerial decision point of view.***

- ***The reason is that, in such markets, product of each firm is so differentiated from the product of the rival firms that consumers treat each product as different from the other.***

- ***This gives an opportunity to the firms to manoeuvre the price, capture a larger market share through advertisement and, thereby, to enhance their own profit. For instance, markets for motor cars, radios, TV sets, refrigerators, scooters, toilet soaps, toothpastes, etc., belong to this category of markets.***

- ***In case of monopoly and perfect competition, the distinction between demand for a firm's product and that of the industry is not of much importance from managerial point of view.***

- ***In case of monopoly, the industry is a one-firm industry and the demand for the firm's product is the same as that of the industry.***

- ***In case of perfect competition, products of all firms of the industry are homogeneous; consumers do not distinguish between products of different firms; and price for each firm is determined by the market forces (i.e., demand and supply for the industry as whole).***

- ***Firms have only little opportunity to manoeuvre the prices permissible under local conditions and advertisement by a firm becomes effective for the whole industry.***

(iii) Autonomous and Derived Demand

- ***An autonomous demand or direct demand for a commodity is one that arises on its own out of a natural desire of the people to consume or to possess a commodity.***

- ***An autonomous demand is independent of the demand for any other commodity. For example, consider the demand for commodities which arises directly from the biological or physical needs of human beings, e.g., demand for food, clothes, shelter, etc.***

- ***Demand for these goods and the likes is autonomous demand. Autonomous demand may also arise as a result of 'demonstration effect', a rise in income, increase in population and advertisement of new products.***

- ***On the other hand, the demand for a commodity that arises because of the demand for some other commodity, called 'parent product', is called derived demand.***

- ***For instance, demand for land, fertilizers and agricultural tools and implements is a derived demand because these goods are demanded because of demand for food.***

- ***Similarly, demand for steel, bricks, cement etc. is a derived demand – derived from the demand for housing and commercial buildings.***

(iv) Demand for Durable and Non-durable Goods

❖ *Durable Goods*

- *Durable goods are those whose total utility or usefulness is not exhausted in a single or short-run use.*
- *Such goods can be used repeatedly or continuously over a period of time. Durable goods may be consumer goods as well as producer goods.*
- *Durable consumer goods include clothes, shoes, houses, furniture, utensils, refrigerators, scooters, cars, cell phones, etc.*
- *The durable producer goods include mainly items under 'fixed assets', such as buildings, plants, machinery, office furniture and fixtures etc.*

❖ *The durable goods, both consumer and producer durable goods, may be further classified as 'semi-durables' (e.g., clothes and furniture) and 'durables' (e.g., residential and factory buildings, cars, etc.).*

❖ Non-Durable Goods

- ***The other hand, are those which can be used or consumed only once (e.g., food items) and their total utility is exhausted in a single use.***
- ***The goods of this category too may be grouped under non-durable consumer goods and non-durable producer goods.***
- ***All food items, drinks, soaps, cooking fuel, (gas, kerosene, coal, etc.), lighting, cosmetics etc., fall in the former category. In the latter category, fall such goods as raw materials, fuel and power, finishing materials and packing items, etc.***
- ***The demand for non-durable goods depends largely on their current prices, consumers' income and fashion and is subject to frequent changes whereas the demand for durable goods is influenced also by their expected price, income and change in technology. The demand for durable goods changes over a relatively longer period.***

❖ *Long-Term Demand*

- The *long-term demand, on the other hand, refers to the demand which exists over a long period.*
- *For example, demand for consumer and producer goods, durable and non-durable goods is long-term demand, though their different varieties or brands may only have a short-term demand.*

❖ *Short-term demand*

- *Short-term demand depends, by and large, on the price of commodities, price of their substitutes, current disposable income of the consumer, their ability to adjust their consumption pattern and their susceptibility to advertisement of a new product.*
- *The long-term demand depends, by and large, on the long-term income trends, availability of better substitutes, sales promotion, consumer credit facility, etc.*

DETERMINANTS OF MARKET DEMAND

Market demand for a product depends on a number of factors, called determinants of market demand.

In general, however, the following factors determine the market demand for a product.

1. Price of the product,
2. Price of the related goods—substitutes, complements and supplements,
3. Level of consumers' income,
4. Consumers' taste and preferences,
5. Advertisement of the product,
6. Consumers' expectations about future price and supply trends,
7. Demonstration effect and 'bandwagon effect',
8. Consumer-credit facility,
9. Population of the country (for the goods of mass consumption),
10. Distribution pattern of national income, etc.

MARKET DEMAND FUNCTION

- ***The market demand function can be defined as algebraic statement of relationship between the aggregate demand for a product and its determinants.***

- ***The market demand function is formulated on the basis of empirical data on product sales at different levels of its determinants. The market demand function serves an important purpose for managerial decisions regarding pricing policy.***

- **Market demand function is illustrated under two conditions: (i) *short-run conditions* and (ii) *long-run conditions.***

Short-run Market Demand Function: Bivariate Demand Function

Since in the short-run demand function, the relationship of only two variables are analysed, it is also known as bivariate demand function. In case of short-run demand function, market demand for a product, say X, is supposed to depend on its price, all other determinants assumed to remain constant. Under this condition, the short-run market demand function is expressed as

$$D_x = f(P_x)$$

$$D_x = a - b\, P_x$$

Where

a– Aggregated Demand at $P_x = 0$

$b = \Delta D_x / \Delta P_x$ (rate of change in demand due to change in price)

Long-run Market Demand Function: Multivariate Function

- The *long-run market demand function, known also as* ***multivariate demand function, long-term demand function and dynamic demand function.***

- ***The term 'long-run' refers to the period of time during which all or most of the determinants of the dependent variable are likely to change.***

- ***The long-run market demand for a product depends on the composite effect of changes in its determinants on the demand for product.***

- ***Therefore, long-run market demand function for a product is formulated by incorporating all the relevant determinants, i.e., the independent variables.***

- ***For example, suppose the long-term demand (D_x) for a commodity X depends on the several factors, viz.,***
  (i) price (P_x) of commodity X,
  (ii) consumers' income (M),
  (iii) price of its substitutes, (P_s),
  (iv) price of its complements (P_c),
  (v) advertisement expenditure (A), and
  (vi) rate of GST, (G_t)
- **The *multivariate demand functions for a commodity serves an important purpose of planning for production and pricing.***
- ***Market conditions and therefore business conditions continue to change generally over time.***
- ***Therefore, business managers have to plan the production of their product accordingly and also to frame their pricing policy.***

THANK YOU