

2019

Demand Analysis

01

Demand

Meaning – types – determinants

02

Law

Meaning - Concept – Assumptions –
Schedule - Diagram

03

Forecasting

Meaning – methods – Features

04

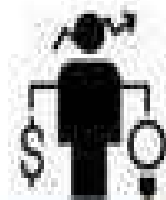
Market Analysis

Forecasting of demand for new
products



Introduction

Meaning, Concepts and Definitions



Demand: Definition

Demand

Demand is an economic principle referring to a consumer's desire to purchase goods and services and willingness to pay a price for a specific good or service.



Dictionary

an insistent and peremptory request, made as of right



Stoner and Hague

Demand in economics means demand backed up by enough money to pay for the good demanded



Benham

The demand for anything at a given price is the amount of it which will be sought per unit of time at that price



Bradley R. Schiller

The ability and willingness to buy specific quantities of a good at alternative prices in a given time period, ceteris paribus.



01

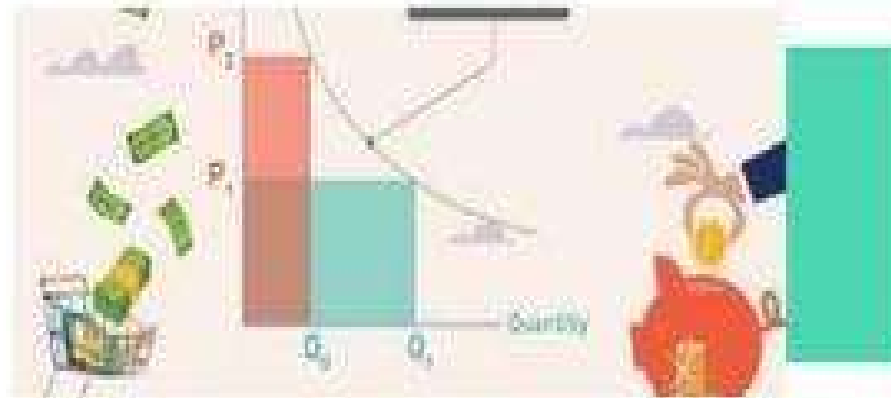
Price Demand

Change in the demand for a commodity due to change in its price

02

Income Demand

Change in the demand for a commodity due to change in income of a consumer



TYPES OF DEMAND



03

Cross Demand

Change in the demand for a commodity due to change in the price of another commodity

Price Demand



Meaning

Price demand refers to the different quantities of the commodity or service which consumers will purchase at a given time and at given prices, assuming other things remaining the same.

- price demand has inverse relation with the price
- the quantity demanded is the function of the price of the commodity
- income, taste, and prices of related goods remain the same

**Price
Demand**

Income demand

HOTEL *Chocolat.*



Meaning

Income demand refers to the different quantities of a commodity or service which consumers will buy at different levels of income.

- the demand for a commodity increases as the income of a person increases unless the commodity happens to be an inferior product
- assuming that other things remaining constant.

Income Demand

Income Demand



INFERIOR GOODS



The demand may fall when the income increases

SUPERIOR GOODS

Income increases, the demand increases
and if income fall demand decreases



Cross demand



Meaning

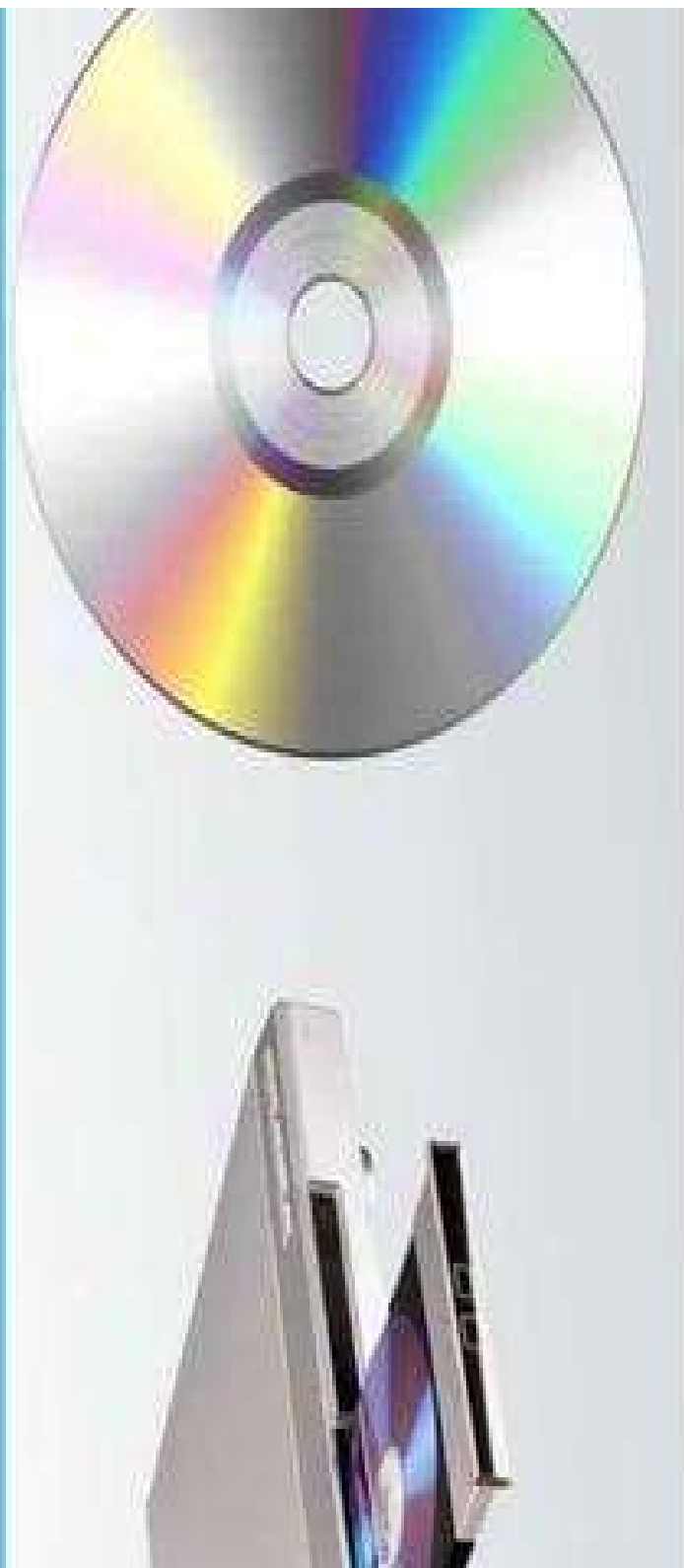
When the demand for a commodity depends not on its price but on the price of other related commodities.

- closely connected or related goods which are substitutes for one another
- in case of substitutes, when the price of one related commodity rises, the demand of the other related commodity increases and vice-versa



**Cross
Demand**

Complementary goods



Meaning

In the case of complementary goods other things remaining the same. The fall in the price of a commodity may increase the demand for other commodity and the rise in the price of a commodity

Complementary goods

Direct demand



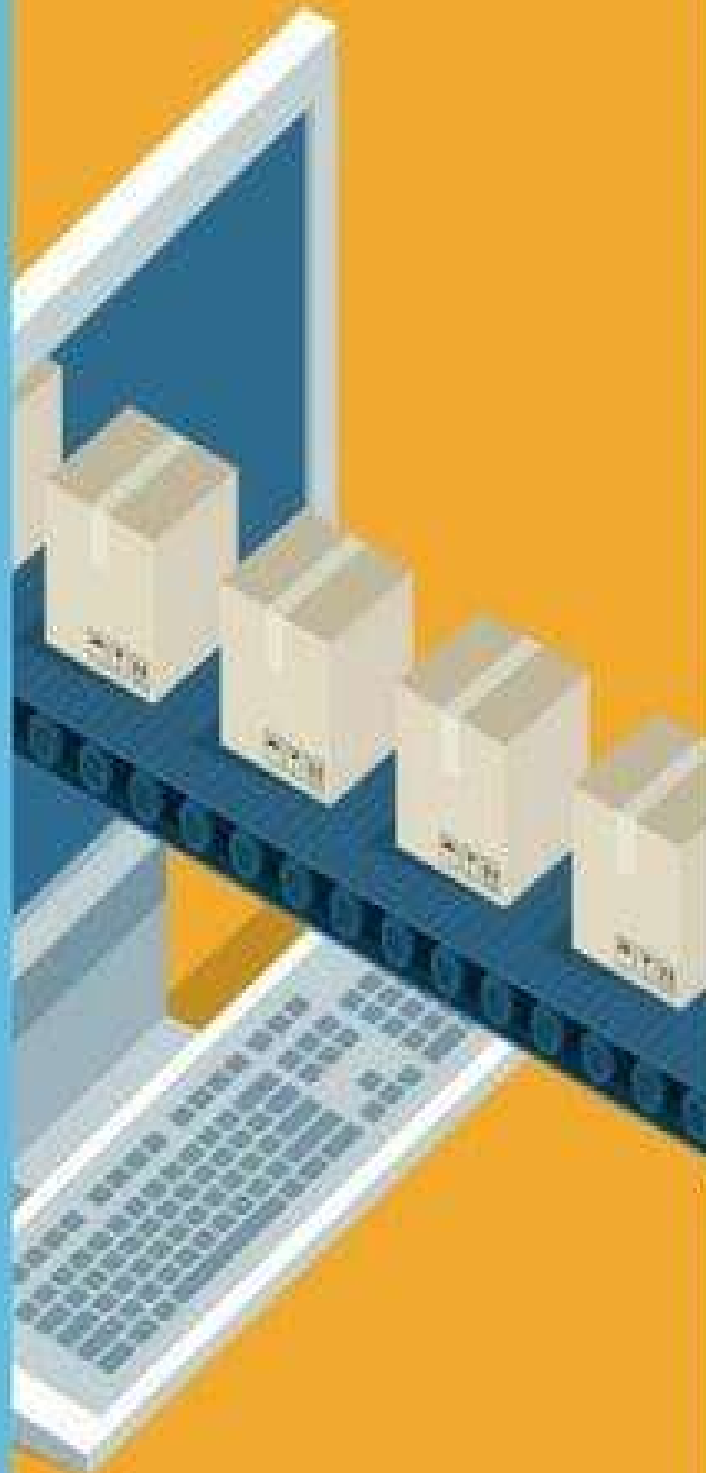
Meaning

Commodities or services which satisfy our wants directly are said to have direct demand.

- all consumer goods satisfy our wants directly

**Direct
Demand**

Derived demand



Meaning

Commodities or services demanded for producing goods which satisfy our wants directly are said to have derived demand

- Derived demand is a market demand for a good or service that results from a demand for a related good or service.
- Distinct components: raw materials, processed materials, and labor.
- Together, these three components create the chain of derived demand.

Derived Demand

Joint demand



Meaning

In finished products as in case of bread, there is need for so many things—the services of the flour mill, oven, fuel, etc. The demand for them is called joint demand

- the construction of a house we require land, labor, capital, organization and materials like cement, bricks, lime, etc. The demand for them is, thus, called a 'joint demand

**Joint
Demand**

Composite demand



Meaning

A commodity is said to have a composite demand when its use is made in more than one purpose

- the demand for coal is composite demand as coal has many uses—as fuel for a boiler of a factory, for domestic fuel, for oven for steam-making in railways engine, etc

Composite Demand

Individual demand



Meaning

the quantity of a commodity that a consumer is willing and able to buy, at each possible price during a given period of time

- marginal valuation = price
- The individual demand for a good or a service comes from the interactions of desires with the budget set

Individual Demand

Market demand



photo

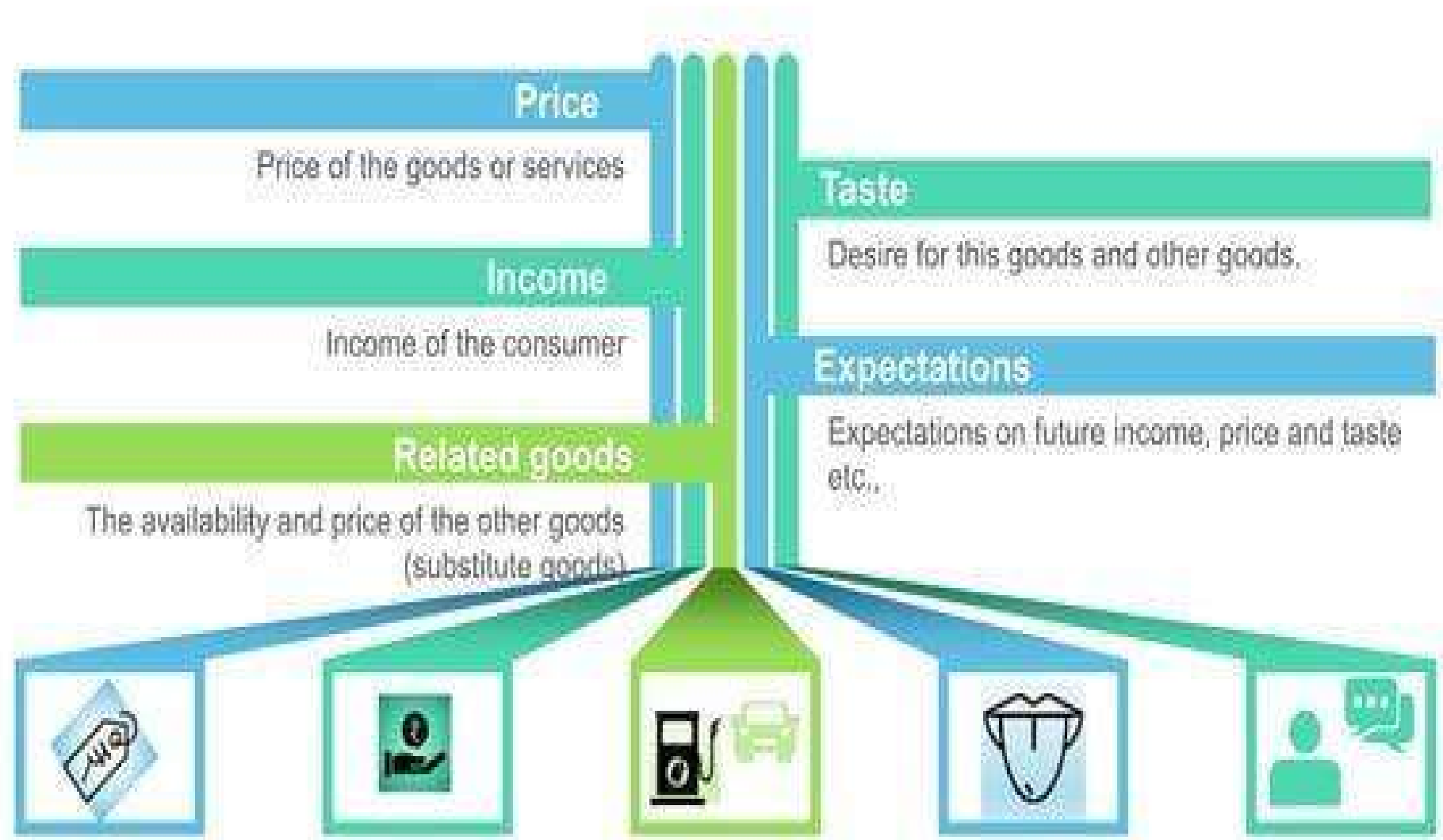
Meaning

the quantity of a commodity that all consumers are willing and able to buy, at each possible price during a given period of time

- the sum of the individual demand for a product from buyers in the market

**Market
Demand**

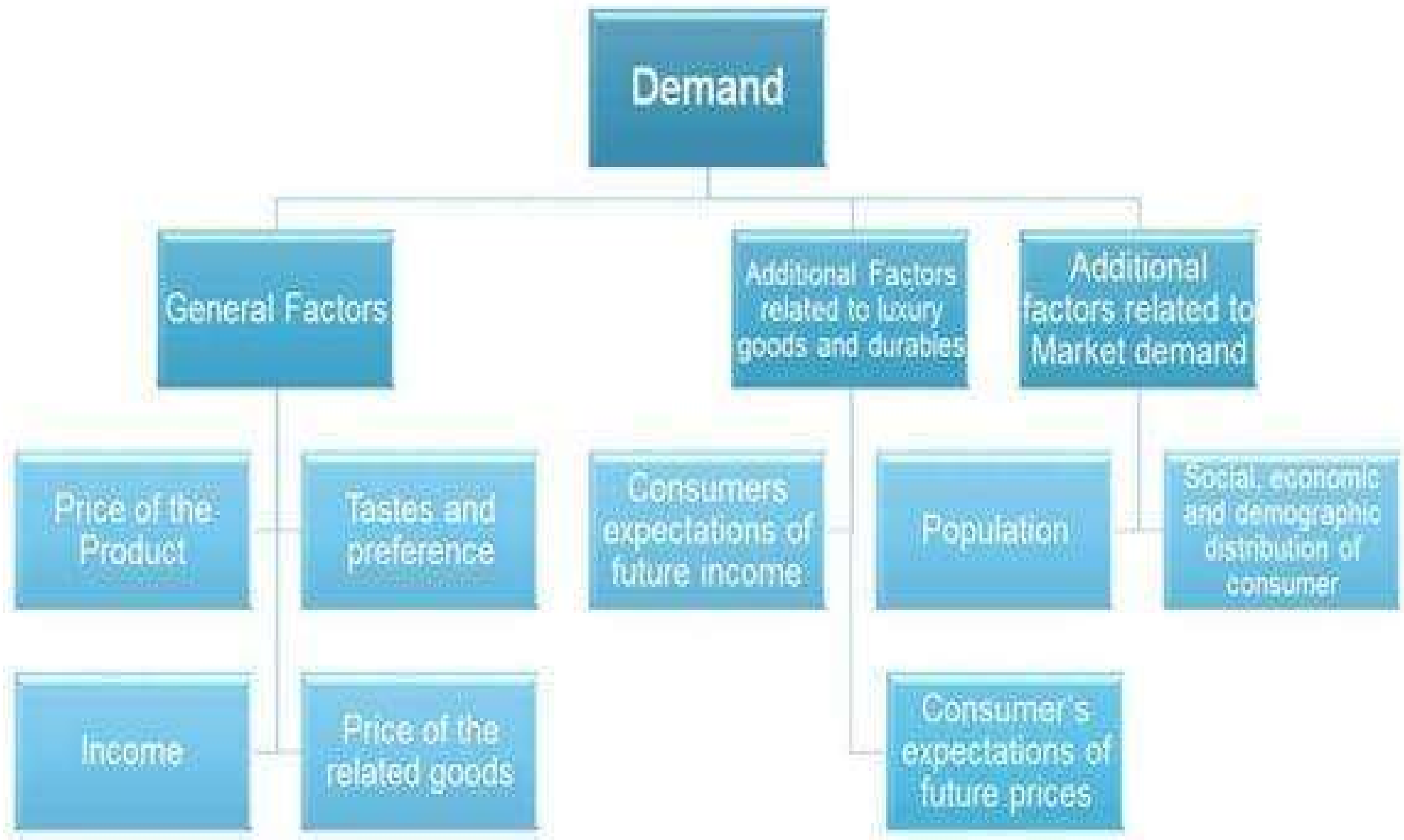
Determinants of Individual Demand



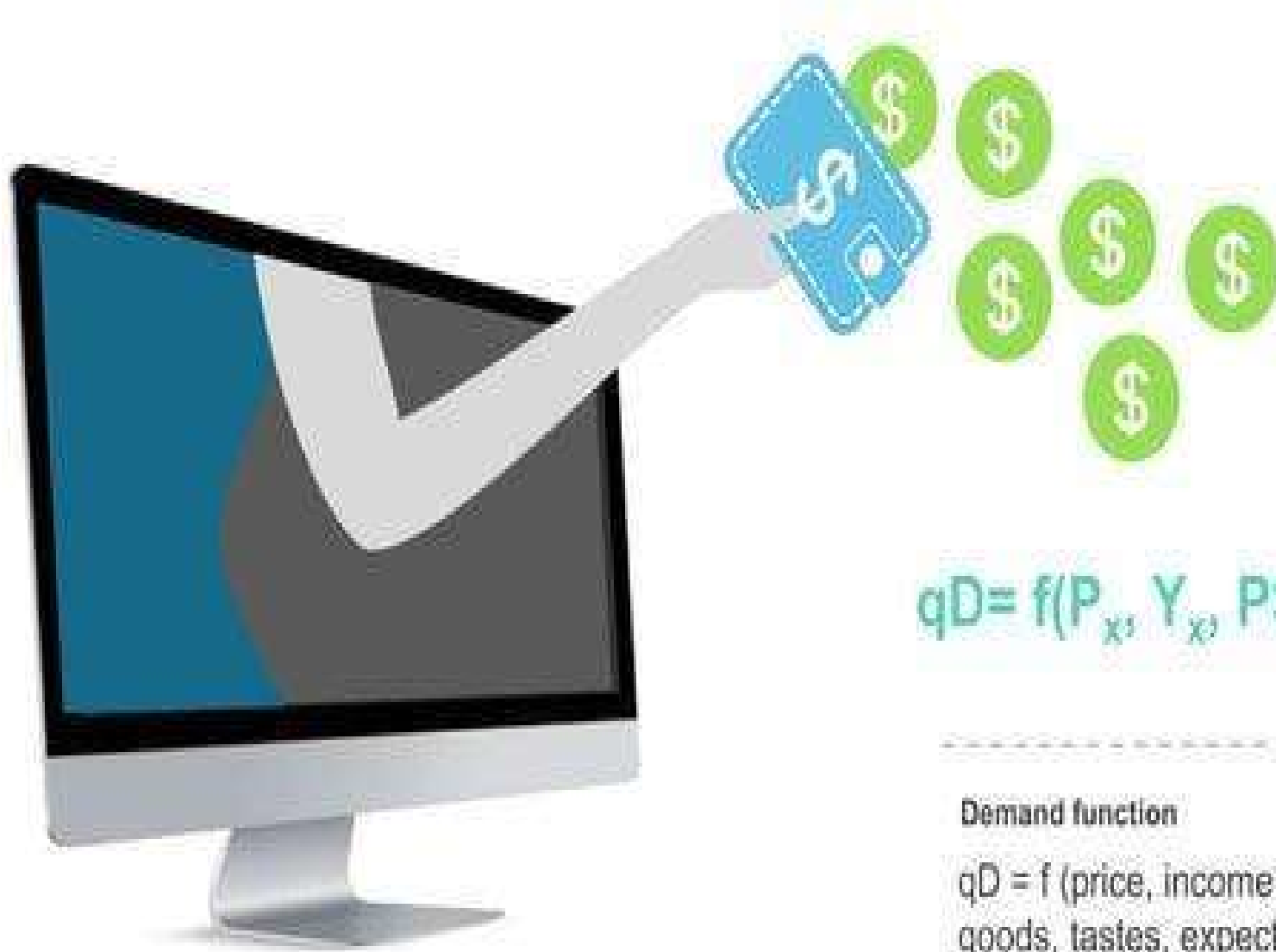
Determinants of Market Demand



Factors determining demand



Demand function: Individual

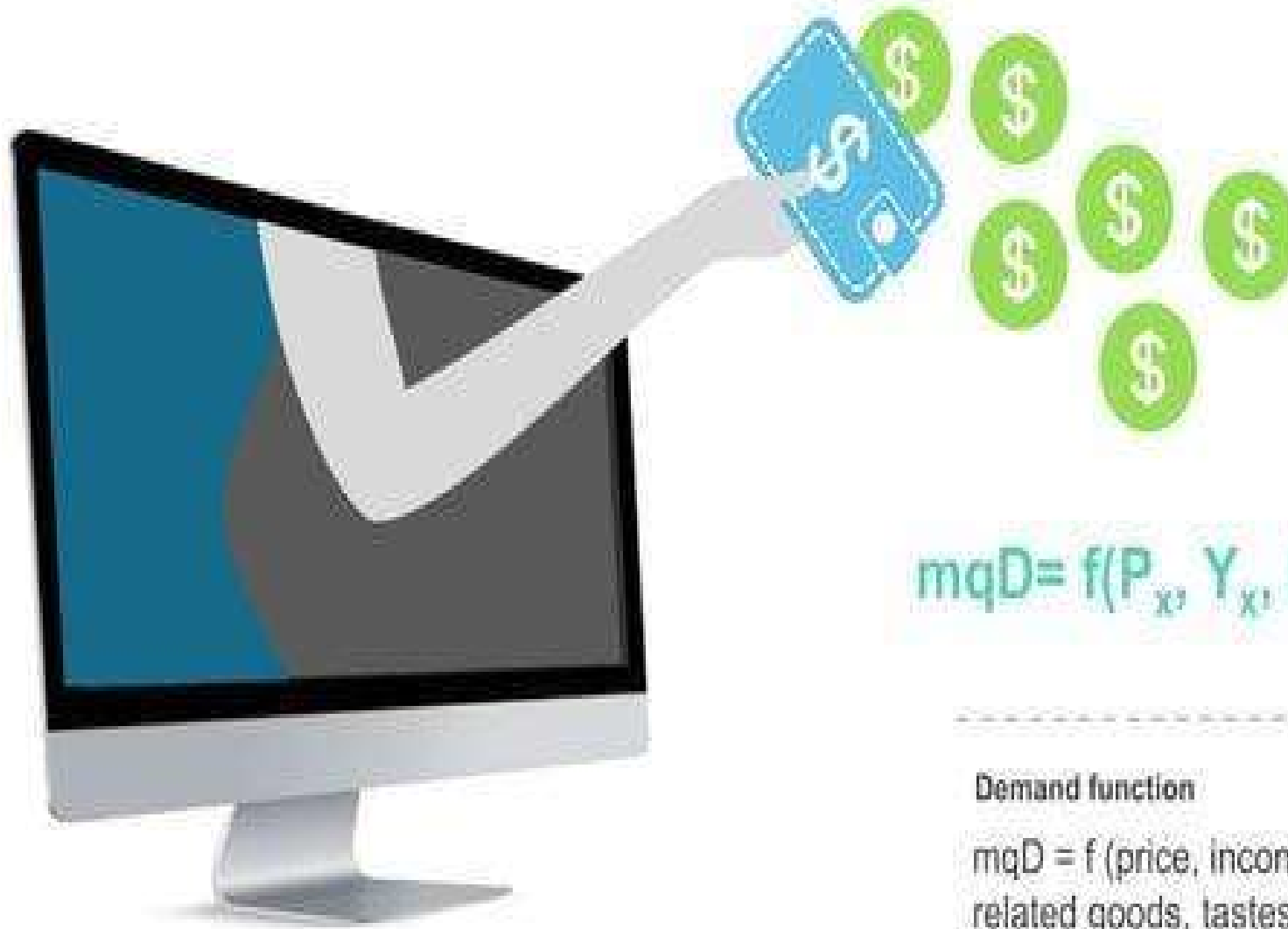


$$qD = f(P_{x^1}, Y_{x^1}, PS_{x^1}, T_{x^1}, E_{x^1}, \dots, q)$$

Demand function

$qD = f$ (price, income, prices of related goods, tastes, expectations)

Demand function: Market



$$mqD = f(P_{X^1}, Y_{X^1}, PS_{X^1}, T_{X^1}, E_{X^1}, \dots, \psi)$$

Demand function

$mqD = f(\text{price, income, prices of related goods, tastes, expectations})$



Law of Demand

Meaning-Concept-Assumptions-Schedule-Diagram



Demand Curve

P_2

P_1

Q_0

Q_1

Quantity

Demand, Its Explanation, and Its Impact



Law of Demand

Law of demand explains consumer choice behavior when the price changes. In the market, assuming other factors affecting demand being constant, when the price of a good rises, it leads to a fall in the demand of that good



The law of demand states that other factors being constant (*ceteris paribus*), price and quantity demanded of any good and service are inversely related to each other. When the price of a product increases, the demand for the same product will fall

Definition



Alfred Marshall

The Marginalist

amount demanded increases with a fall in price vice versa



Ronald Ferguson

Economist

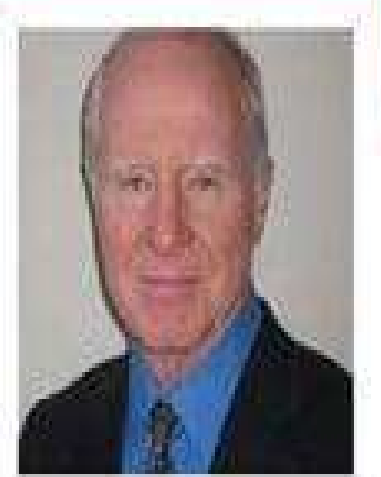
Quantity demanded varies inversely



Paul Samuelson

Father of Modern Economics

Buy more at lowest price



Lee Benham

Economist

Larger quantity demanded at lower price than a higher price

Law of Demand

Definition

The greater the amount to be sold the smaller must be the price



Law of Demand



Assumption

A thing that is accepted as true or as certain to happen, without proof

- No change in price of related commodities
- No change in income of the consumer
- No change in taste and preferences, customs, habit and fashion of the consumer.
- No substitutes of the commodity.
- No change in size of population.
- No expectation regarding future change in price

Assumptions

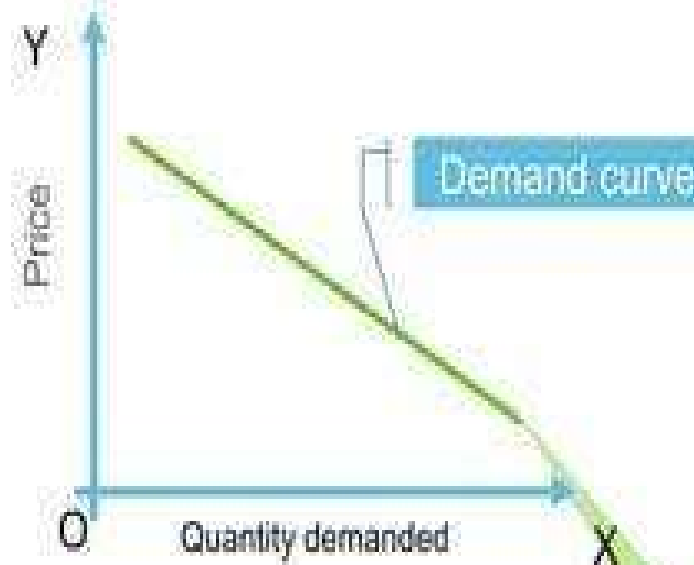


Demand Schedule

A table showing the quantities of a good a consumer is willing and able to buy at alternative prices in a given time period, ceteris paribus.

A tabular statement of quantity demanded at different prices.

Graphic presentation



Price / kg (in Rs.)	Quantity Demanded (in kg.)
1	600
2	400
3	300
4	200
5	100

Demand Schedule



Demand Curve

A curve describing the quantities of a good a consumer is willing and able to buy at alternative prices in a given time period, ceteris paribus.

The graphical representation of quantity demanded at different prices



Individual Demand

The different quantities of a commodity purchased by a person at a different prices.

Demand Schedule

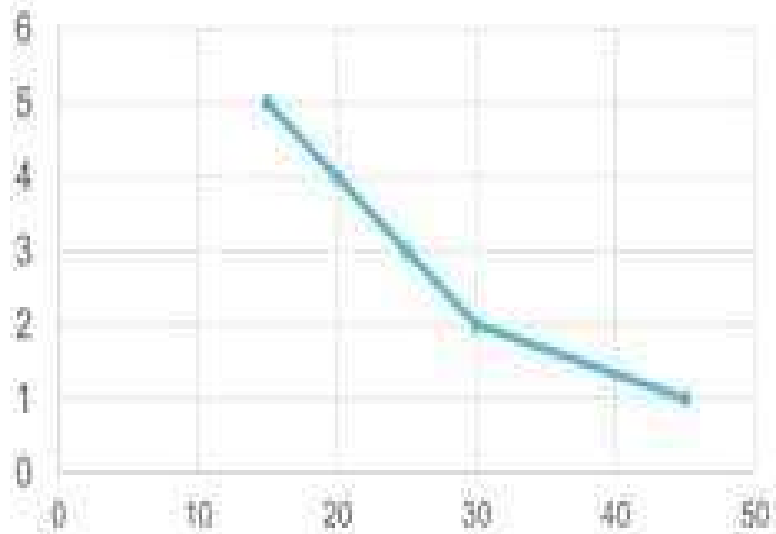
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Individual Demand

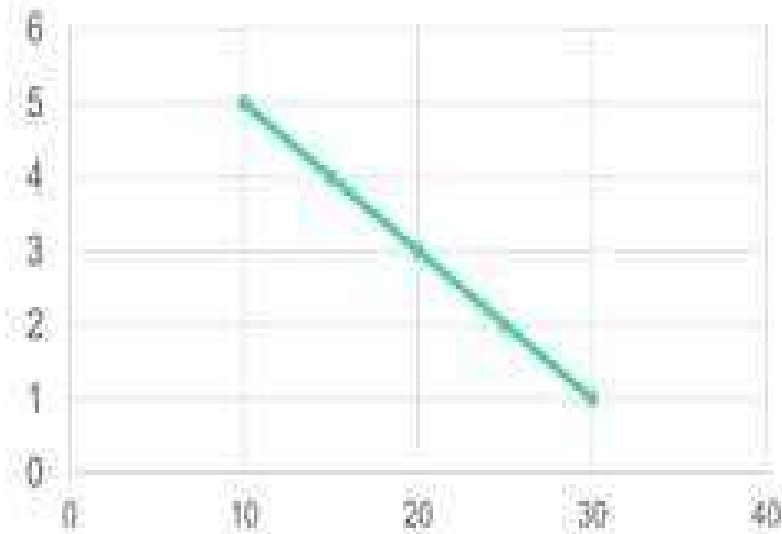


Market Demand

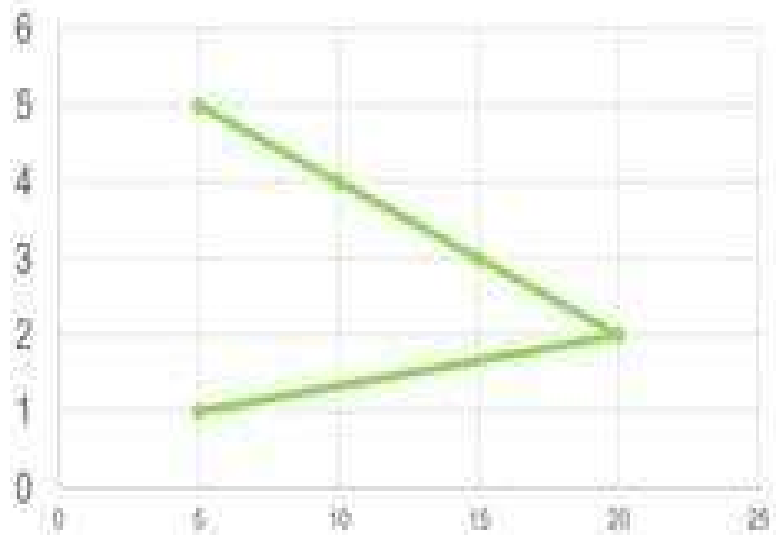
Demand of A



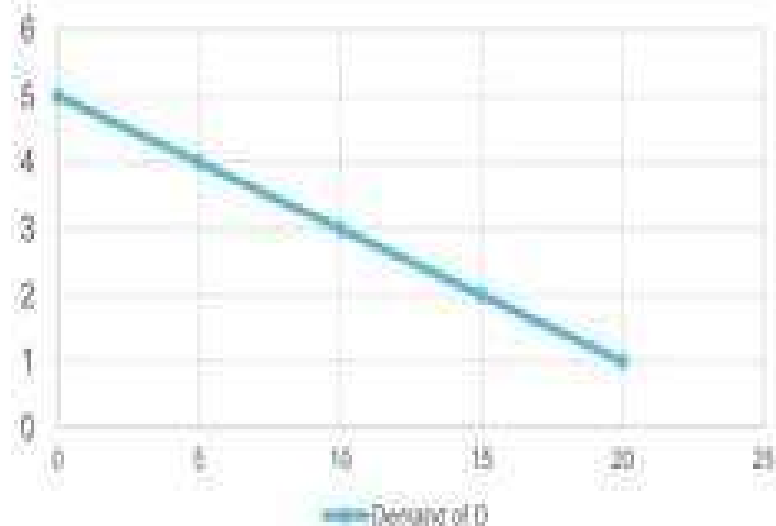
Demand of B



Demand of C



Demand of D





Market Demand

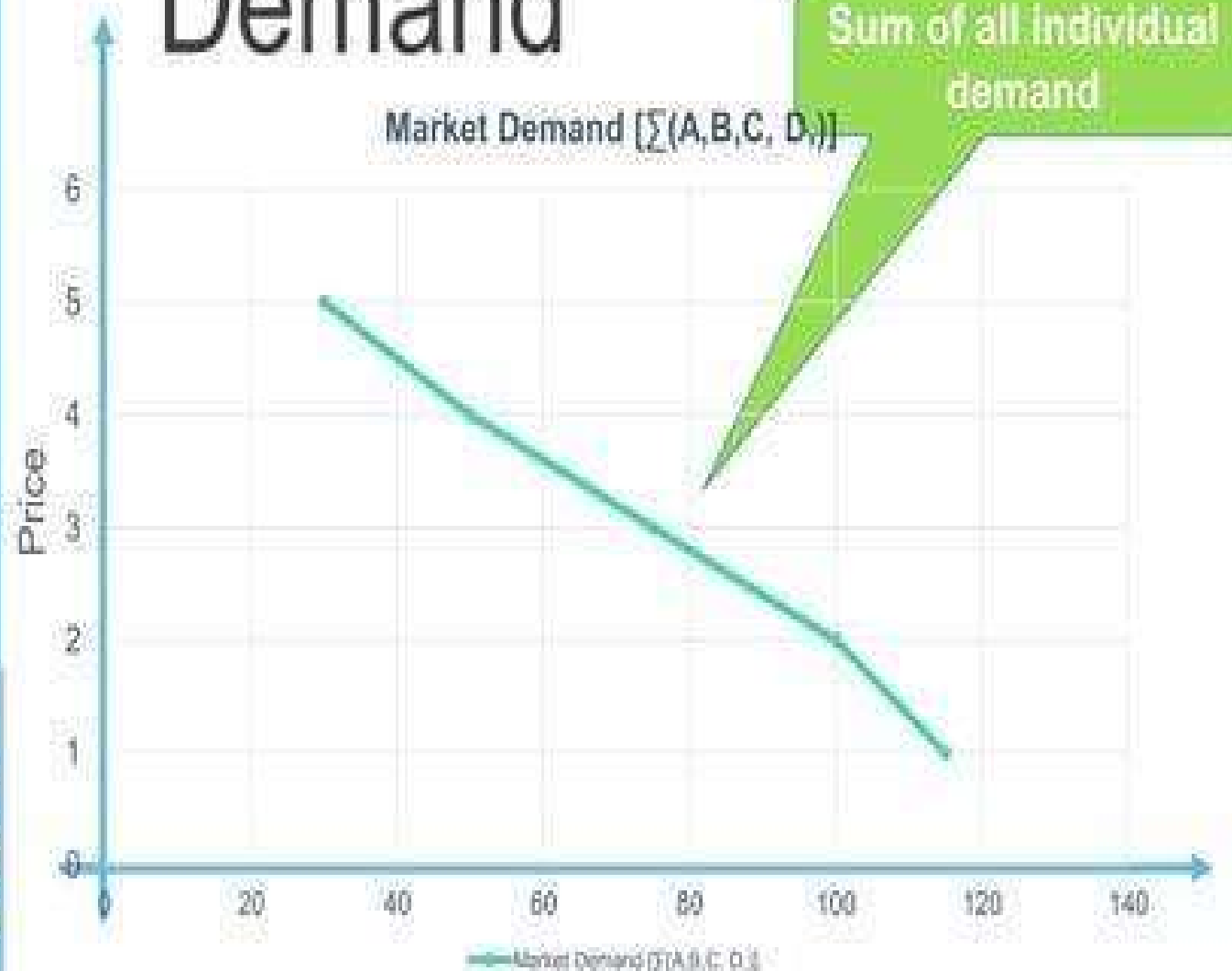
The total quantity of a commodity purchased by all the people in the market at different prices.

Market Demand

Market Demand

Price	A	B	C	D	E	Total
1	45	30	5	20	15	115
2	30	25	20	15	10	100
3	25	20	15	10	5	75
4	20	15	10	5	0	50
5	15	10	5	0	0	30

Market Demand

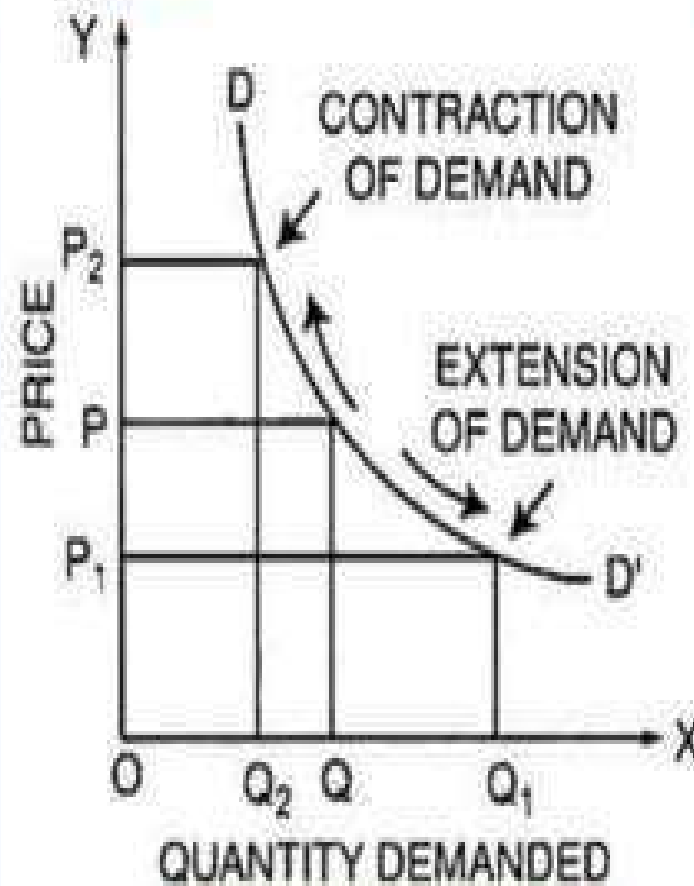




Shifts

Shifts of the demand curve occur when the determinants of demand changed

Demand curve due to changes in tastes, income, other goods or expectation



Shift vs Movement



Movements

Movements along a demand curve are a response to price changes for that good.

Movements along a given demand curve, in response to price changes of that goods.



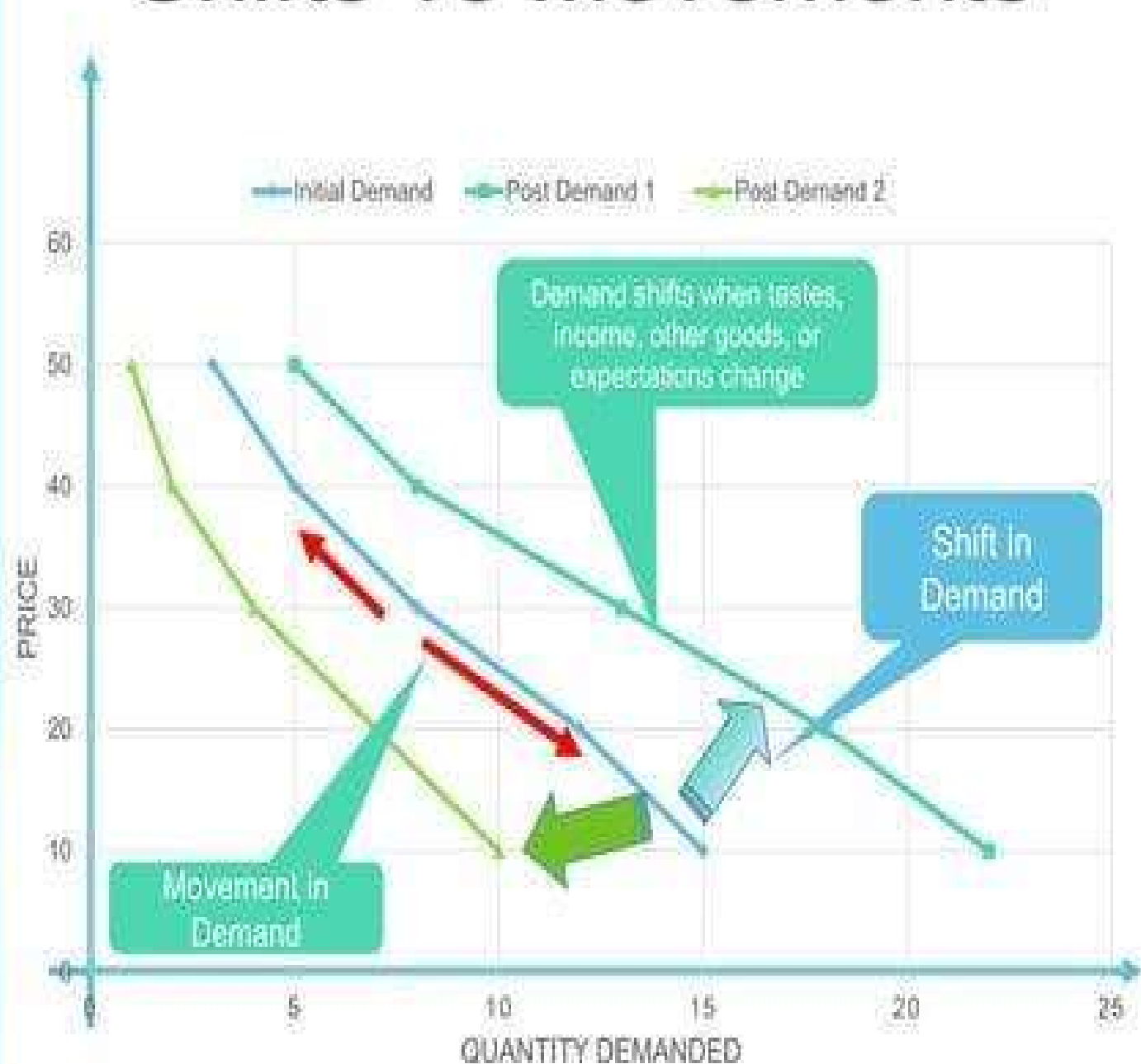
Market Demand

The total quantity of a commodity purchased by all the people in the market at different prices.

Shift vs Movement

Price:	Initial Demand	Post Demand 1	Post Demand 2
10	15	22	10
20	12	18	7
30	8	13	4
40	5	8	2
50	3	5	1

Shifts vs Movements



Why does demand curve slopes downwards?

Income Effect

Fall in the price of a good, consumers real income or purchasing power rises, so he demands more units of the goods

New Consumers

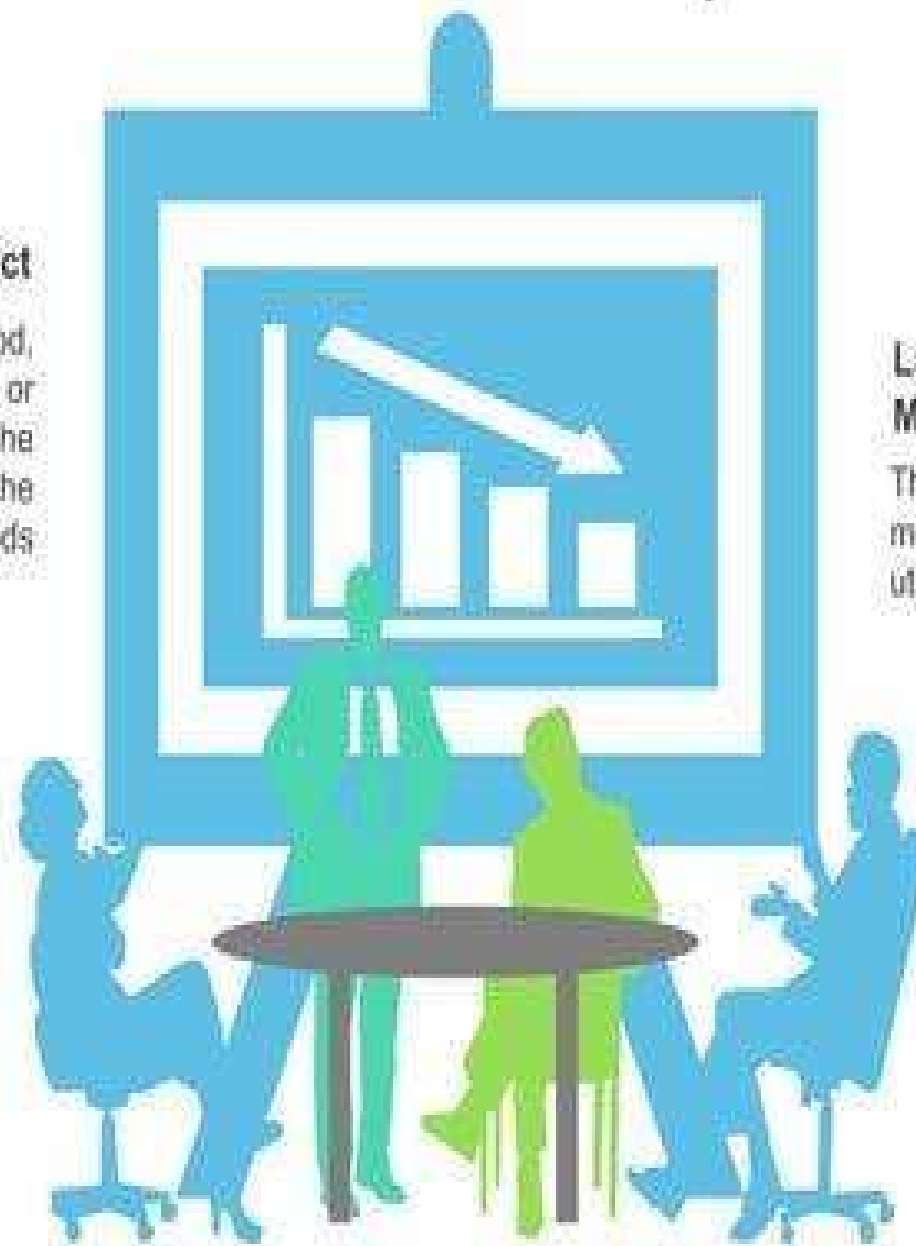
New consumers afford the commodity, when the price of the commodity falls in the market.

Law of Diminishing Marginal Utility

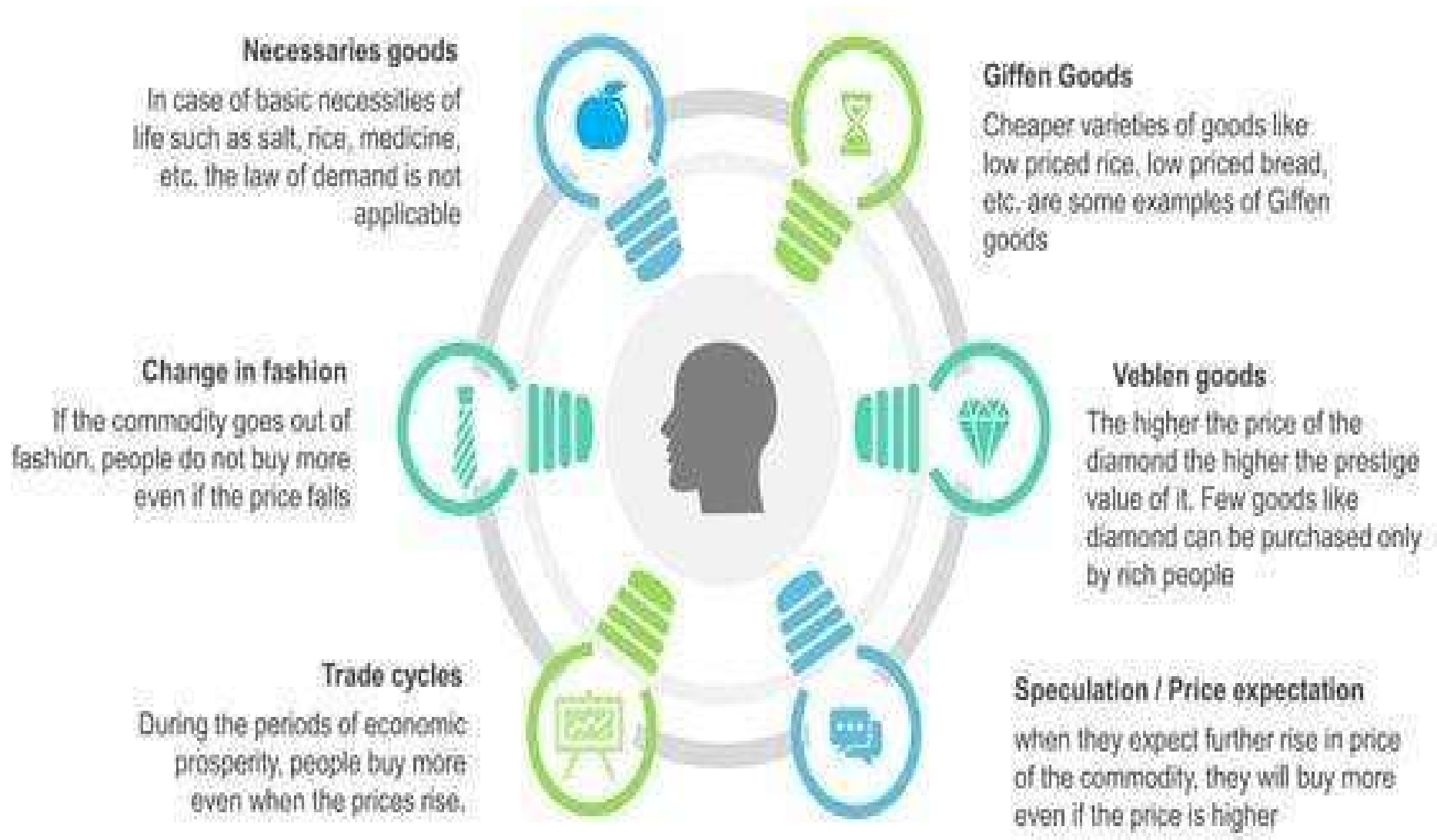
The consumer has more and more of a good, its marginal utility to him goes on declining

Substitution Effect

When the price of a good rises, consumer buys more of substitute goods



Exceptions





Demand Forecasting

Meaning – methods – Features





Demand
Analysis

Demand Forecasting



Demand forecasting is an
“objective assessment of the
future course of demand”



Demand Forecasting



Objectives of Forecasting

Objectives and purposes of forecasting

Demand forecasting provides an insight into the organization's capital investment and expansion decisions



Short term forecasting

Refer to the forecasts that are generally for one year and based upon the judgment of the experienced staff

Long term forecasting

Refer to the forecasts that are for a period of 5-10 years and based on scientific analysis and statistical methods

Very Long period forecasting

Refer to the forecasts that are for a period of more than 10 years

Objectives



Long term Objectives

- (a) Planning of new unit or expansion and modernization of an existing unit.
- (b) Assessing long-term financial needs
- (c) Arranging manpower, trained and skilled labour and business executives.



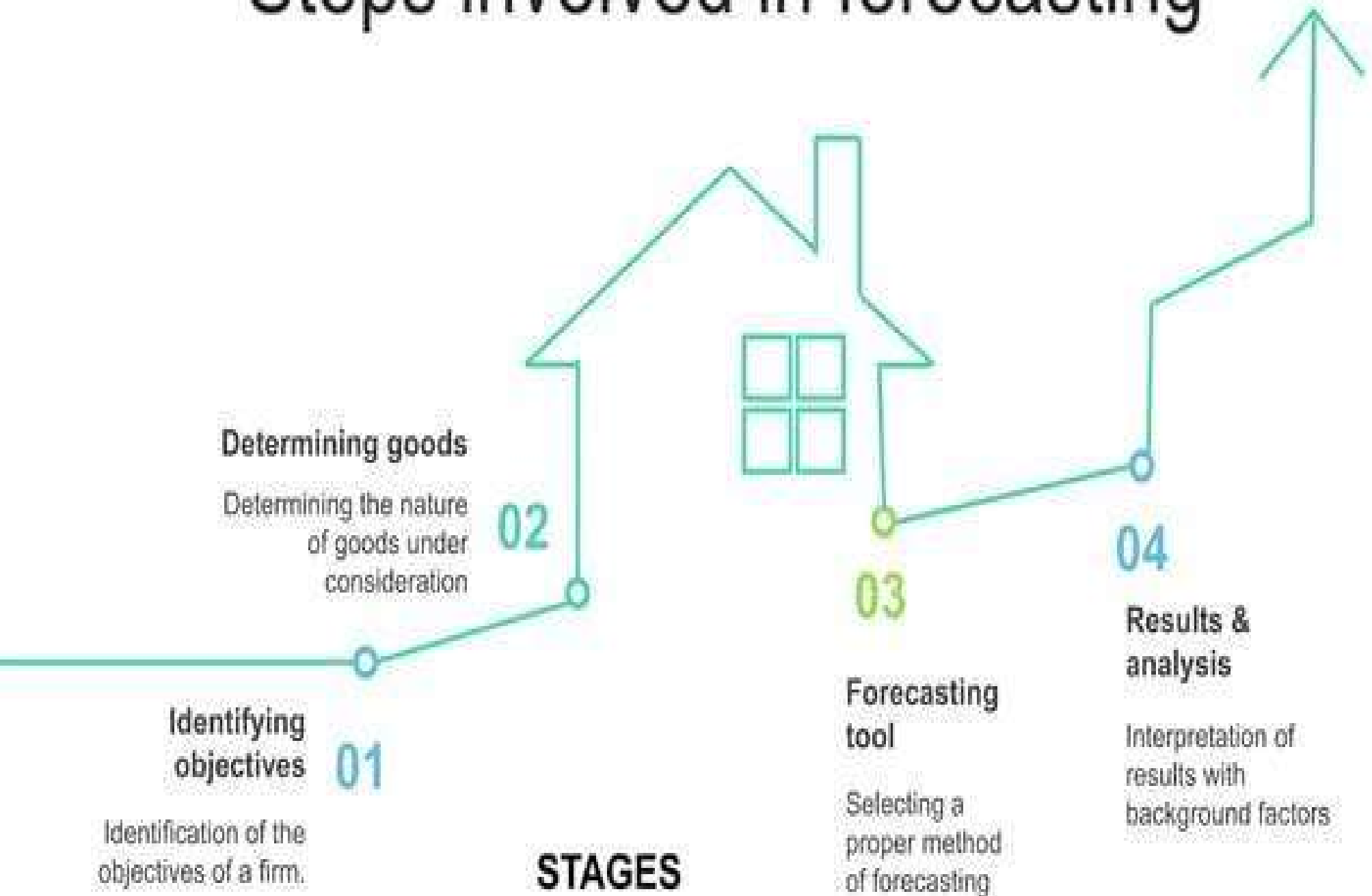
Demand forecasting



Short term objectives

- (a) To have efficient management of inventories, i.e., purchasing raw material and the lowest price.
- (b) To have correct scheduling of production to avoid overproduction and under production
- (c) To have profitable price strategies
- (d)
- (e) To have effective sales strategies
- (f) To have accurate financial strategies to meet financial requirements.
- (g) Evolving a competent advertising and promotion programme.

Steps involved in forecasting



Determinants of Demand Forecasting

Proactive process

Demand forecasting is a proactive process that helps in determining what products are needed where, when, and in what quantities



Factors Influencing Demand Forecasting



Types of Consumer Goods



Durable Consumer goods

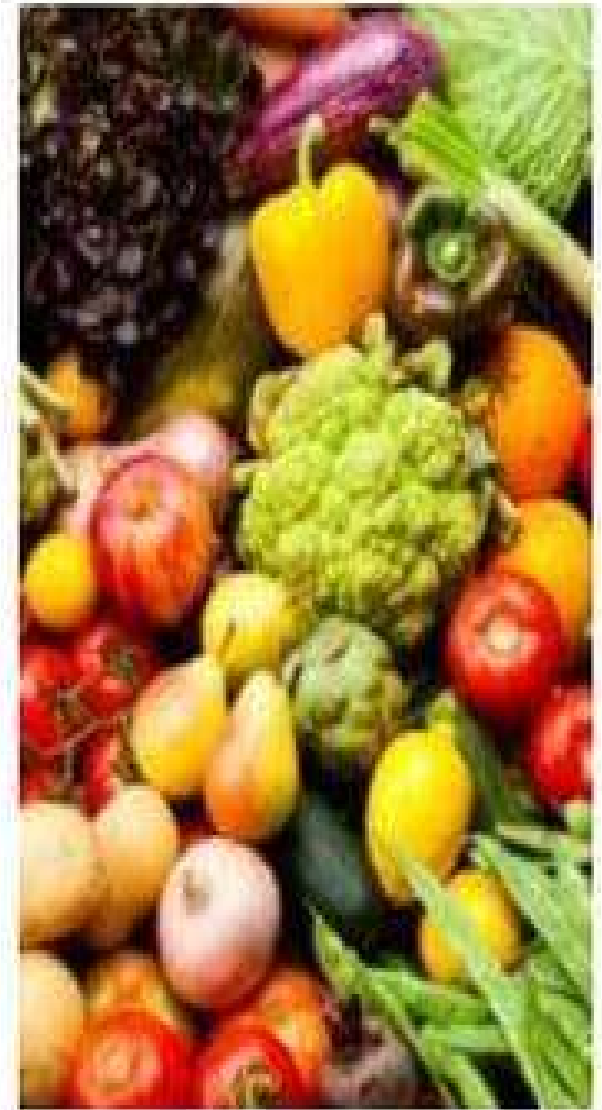


goods are those which can be consumed more than once, over a period of time.

Non-durable Consumer Goods



goods are those which are used for production of other goods



Determinants of Forecasting

Competition Level

In a highly competitive market, demand for products also depend on the number of competitors existing in the market



Risk

In such a scenario, it is difficult to estimate the exact demand of products

Determinants of Forecasting

Price of Goods

In a highly competitive market, demand for products also depend on the number of competitors existing in the market



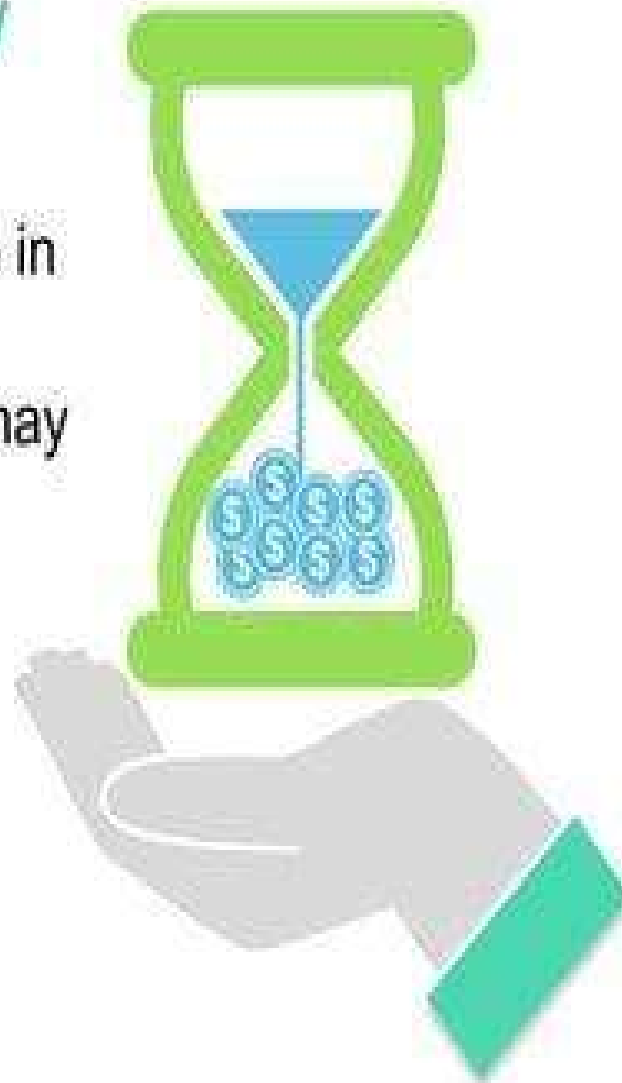
Demand Estimation

it is difficult to estimate the exact demand of products

Determinants of Forecasting

Level of Technology

If there is a rapid change in technology, the existing technology or products may become obsolete



For example

there is a high decline in the demand of floppy disks with the introduction of compact disks (CDs) and pen drives for saving data in computer.

Determinants of Forecasting

Economic Viewpoint

Play a crucial role in obtaining demand forecasts



For example

if there is a positive development in an economy, such as globalization and high level of investment, the demand forecasts of organizations would also be positive

Demand Forecasting Methods

Survey Method

Survey of Buyers Intension

Survey of Sales force

Census Method

Sample Method

Statistical Method

Trend Projection Method

Barometric Technique

Simultaneous Equations Method

Correlation and Regression Method

Other Methods

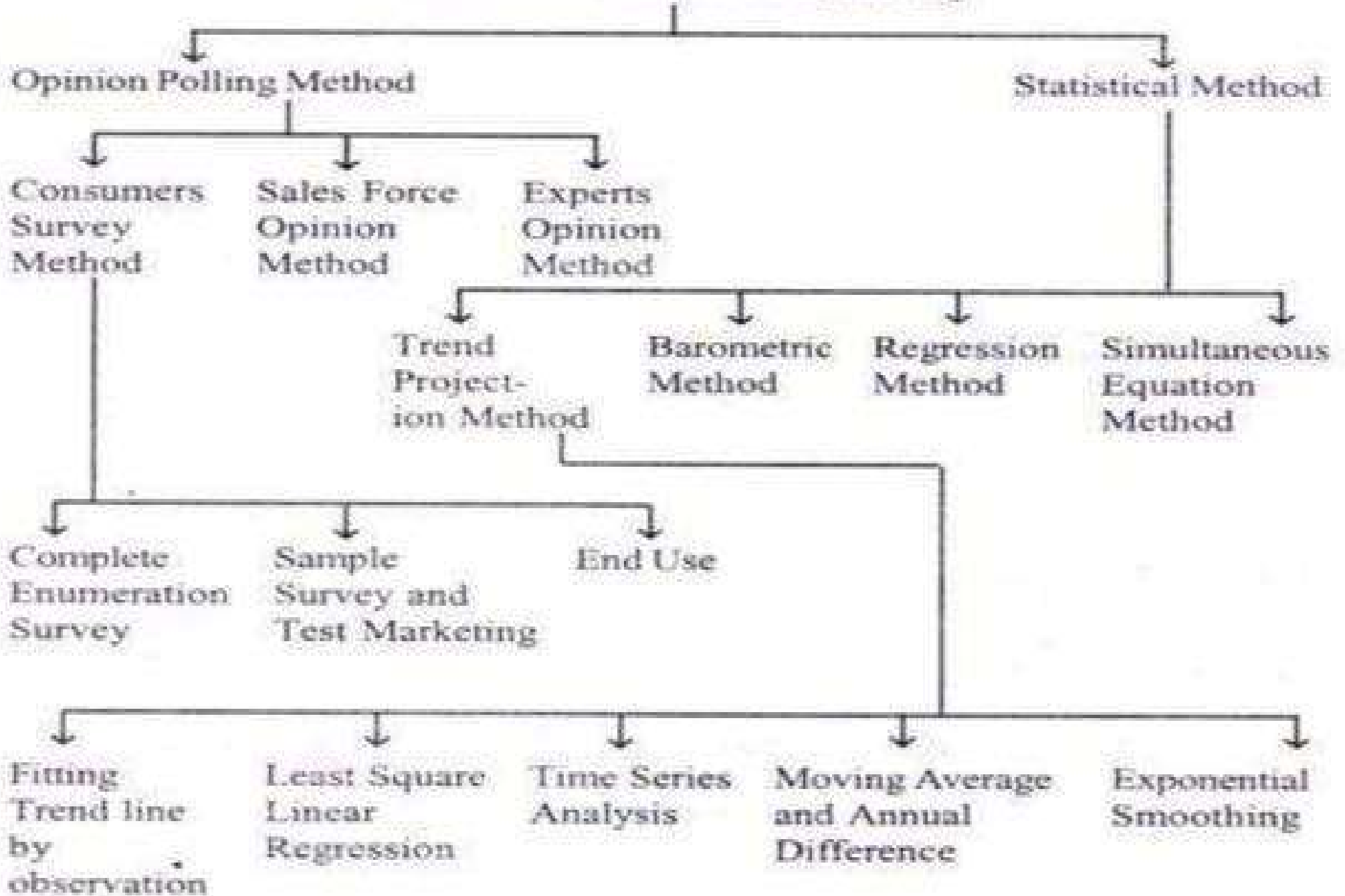
Expert Opinion Method

Test Marketing

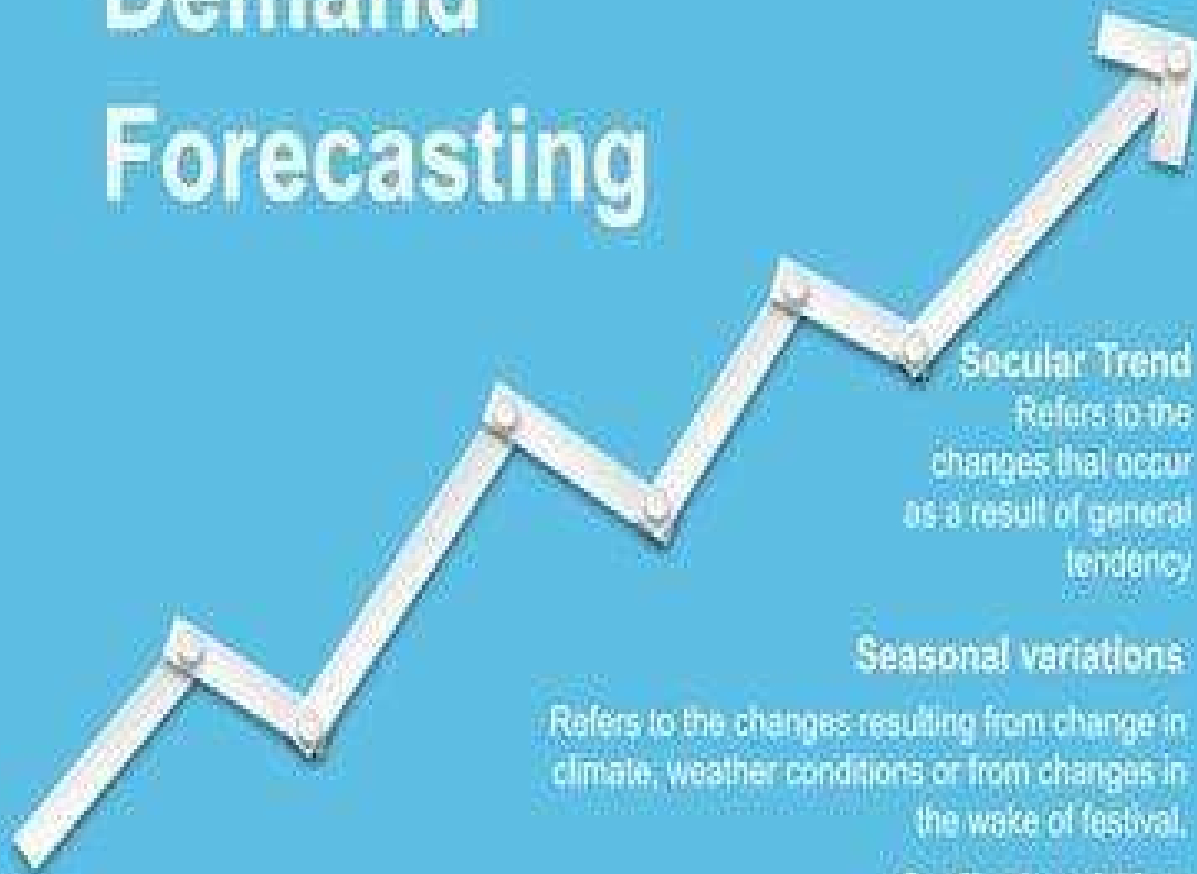
Controlled Experiments

Judgmental Approach

Methods of Demand Forecasting



Demand Forecasting



Secular Trend
Refers to the changes that occur as a result of general tendency

Seasonal variations:

Refers to the changes resulting from change in climate; weather conditions or from changes in the wake of festival.

Cyclical variation

Refers to the changes arising out of booms and depressions

Random variations

Random factors are those which are generally unpredictable such as famine floods, earthquake etc.,



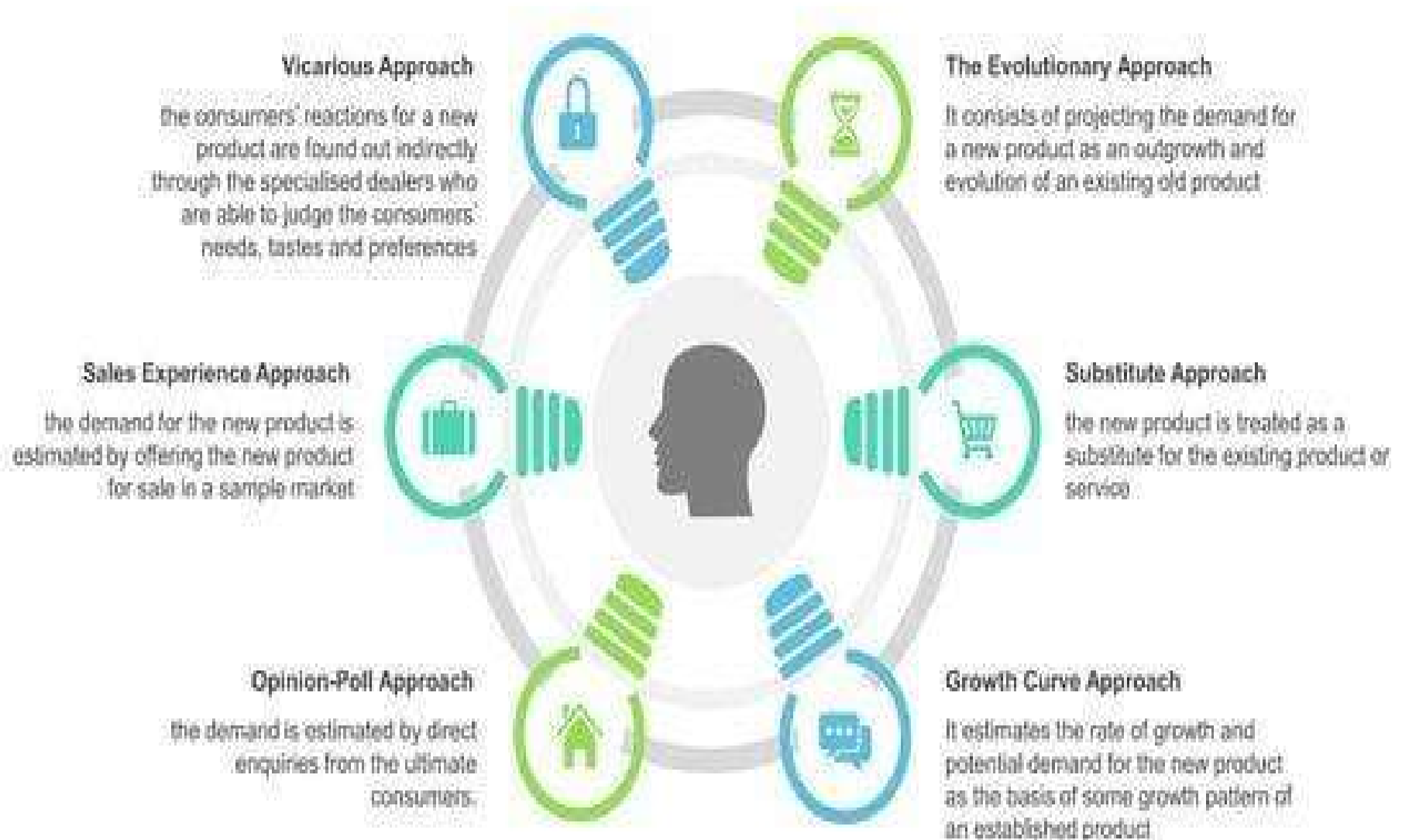
Trend Analysis



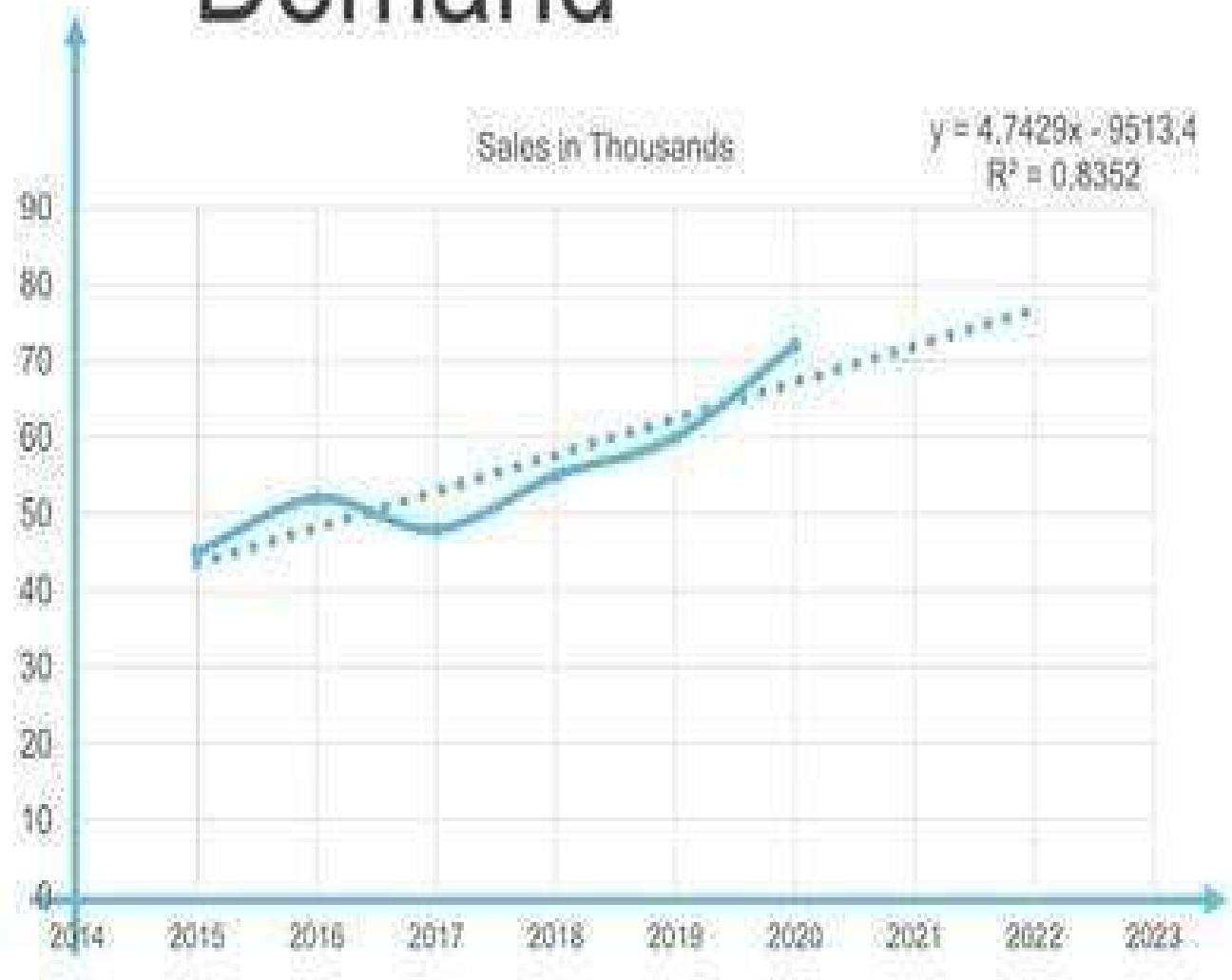
Demand Forecasting to predict future demand of Products



Forecasting a new product (Methods)



Forecasting Demand



Features of a Good Demand Forecasting

Demand Forecasting

Since the future is uncertain, these forecasts may not be hundred percent correct. But every firm tries to obtain the forecasts as precisely as possible

01

Plausibility

It should give accurate result

02

Simplicity

Should be very simple and understandable

03

Economy

Less cost and economy one

04

Availability

Data must be easily available

Yes?

Is it?

How best?

Where?

Predict ?
Demand forecasting

Features of a Good Demand Forecasting

Demand Forecasting

A demand forecast is said to be good or efficient when the expected market demand is very near or equal to the actual market demand

05

Sharpness

It Stands for accuracy in demand prediction

06

comprehensiveness

Forecast should be comprehensive

07

Validity

Size of admissible hypothesis

08

Timeline

Forecast with the upcoming trends

What?

How?

True/False?

When?

Predict ?
Demand
forecast

