

Consumer Demand Supply

Unit-1

Consumer

Page No.

Date

Wants:-

- * Consumer has certain wants.
- * all tastes, desires of human being are called as wants.
- * Wants are
 - (i) alternative
 - (ii) Competitive
 - (iii) Complementary
 - (iv) Subjective
- * All wants cannot be satisfied but maximum wants can be satisfied.
- * Want may change from time to time.

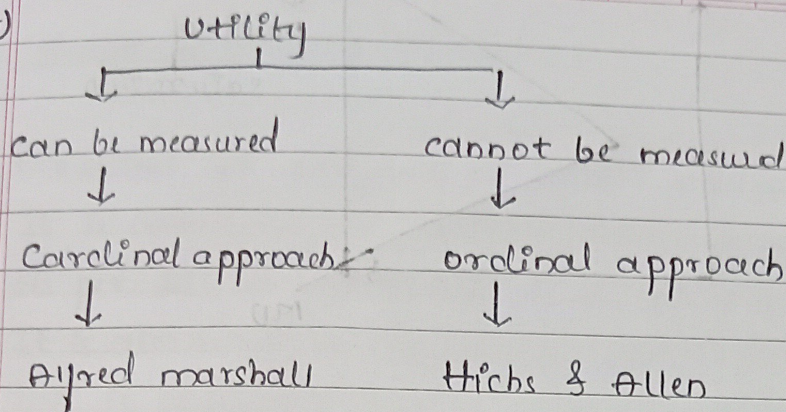
Wants are of 3 types:-

- (1) Necessity
 - Necessity for life → water, shelter and food & clothing.
 - Necessity for efficiency → Good food
 - Conventional necessity → habit
- (2) Comforts → makes life more comfortable.
- (3) Luxury → Expensive things.

Utility :-

- (1) Utility is a want satisfying power of a commodity
- (2) Utility $\neq$ Usefulness
- (3) Utility = anticipated satisfaction.
- (4) Utility is a subjective context.
- (5) A person can have utility without consumption. eg. gift
- (6) In economics the concept of utility is ethically neutral.

(7)



Cardinal approach to utility - Alfred Marshall

Marginal utility (M_u)

- Utility derived by consuming a product is called as marginal utility.
- Formula = $T_u - T_{u-1}$
- M_u is diminishing throughout
- M_u can be +ve, 0, -ve
- Money is measuring rod of utility

Total utility (T_u)

- Assuming utility is measurable & additive, sum of all marginal utility is Total utility.
- $T_u = M_{u1} + M_{u2} + \dots + M_{un}$
- Total utility curve is always +ve or declining.

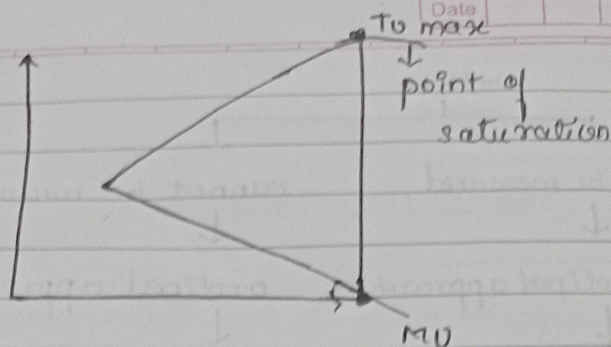
Utility schedule :- Table showing M_u & T_u derived.

Mango	Utility	M_u	T_u
1	10	10	10
2	6	6	16
3	3	3	19
4	0	0	19
5	-2	-2	17

→ point of saturation.

Utility curve

↓
A Graphical representation of utility schedule.



- * MU is diminishing
- * TU is increasing @ diminishing rate.
- * When MU is zero TU is maximum
- * When TU is maximum $\rightarrow$ that point is called point of saturation
- * MU can be -ve.

Law of diminishing Marginal Utility :- (Alfred Marshall)

- * As consumer increase the consumption of goods his MU decline.
- * So the more he has of a good his utility from that good goes down.

* Exception to Law of Diminishing Marginal Utility :-

- (1) Hobbies & rare collection.
- (2) Abnormal person
- (3) Bulky / indivisible goods.

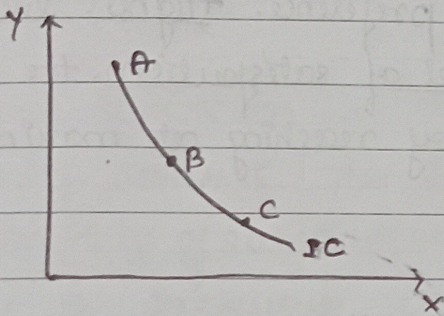
* Assumptions of Law of Diminishing marginal utility :-

- (1) Goods are homogeneous (same type)
- (2) There is a standard unit of consumption (of same quantity)
- (3) There is continuous consumption.
- (4) Law is not applicable on precious goods.
- (5) Law is based on unrealistic assumptions.

Indifference curve (IC) :-

- (1) Provided by Hicks and Allen.
- (2) It is considered as ordinal concept.
- (3) As per IC, all combination provides same level of satisfaction.
- (4) It is also called as isobility curve (or) equal utility curve.
- (5) This is based on law of consumer preference.
- (6) Assumption of IC :-
 - (i) Consumer is rational
 - (ii) His preference is constant (monotonic consumer preference)
 - (iii) He has power to decide consumer preference.

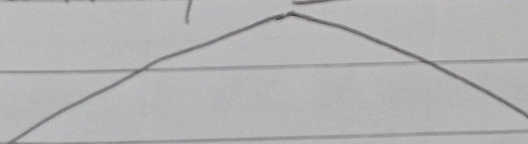
(7)



All A, B, C provides same level of satisfaction.

(8) Properties of IC

- (a) IC cannot intersect each other
- (b) IC will not touch x or y axis + This will show He is interested in only one product.
- (c) Higher level of IC shows higher level of satisfaction.
- (d) IC curve slopes downwards towards right
↳ Convex in shape.



Goods are substitute



IC is parallel straight line to x-axis

Goods are complementary



IC will be L shaped,

Budget line:-

- (1) Provides all the attainable combination with budget.
- (2) Also called as price line
- (3) Provides maximum combination of 2 goods achievable in Budget.
- (4) Slope of Budget line $\frac{P_x}{P_y}$

Indifference map:-

Indifference map shows all combination of consumer satisfaction plotted on a graph showing his preference. Highest level of indifference curve shows higher level of satisfaction. He will try to reach the highest level by reaching at maximum point.

How equilibrium is achieved. of consumer

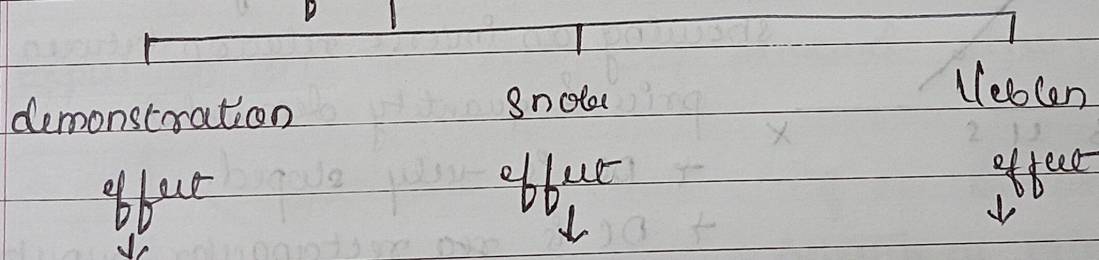
→ If consumer reach highest level of satisfaction he is said to achieve equilibrium.

Unit - 2 Demand

- (1) Demand refers to quantity of goods and services that consumer are willing and able to purchase.
- (2) Unless the desire is backed by purchasing power it cannot be said as demand.
- (3) Quantity demanded is always expressed at a given price.

Determinants of Demand:-

- (a) Income of consumer $\rightarrow$ Income ($\uparrow$) Demand ($\uparrow$)
- (b) Price of product $\rightarrow$ Price ($\downarrow$) Demand ($\uparrow$)
- (c) Availability of substitute $\rightarrow$ Price ($\uparrow$) Demand ($\uparrow$)
- (d) Taste & Preference



Demand arise by looking the product with someone.

Demand reduce because product become common

costly goods are purchased by status seeking rich people (Black water)

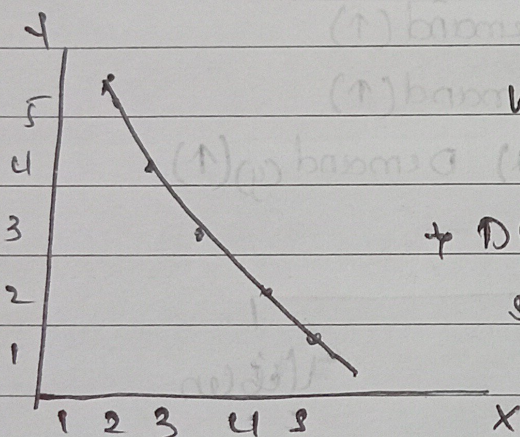
- (e) Population & size of population
- (f) Availability of credit facility.

Demand Schedule:-
a table showing price & quantity demanded.

Price	Quantity demanded
5	1
4	2
3	3
2	4
1	5

Demand curve:-

Demand curve is a graphical representation of Demand Schedule.



where QD = x axis, price on y-axis

+ DC is downward sloping towards right showing an inverse relation between price & quantity demanded.

+ DC is very steep.

+ DC is rectangular hyperbola curve

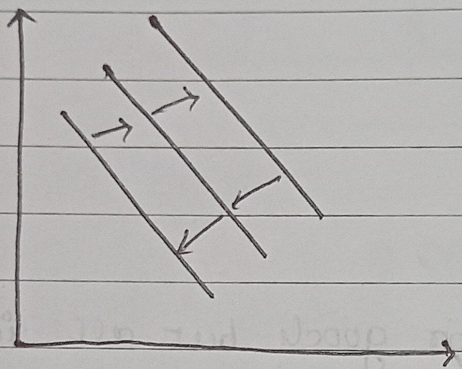
→ Individual demand curve is steep

market Demand curve is flatter.

Increase (or) Decrease in Demand.

If demand changes because of any factor other than price.

eg.
Income change
Taste. "
population "
substitute "



Elasticity of Demand:-

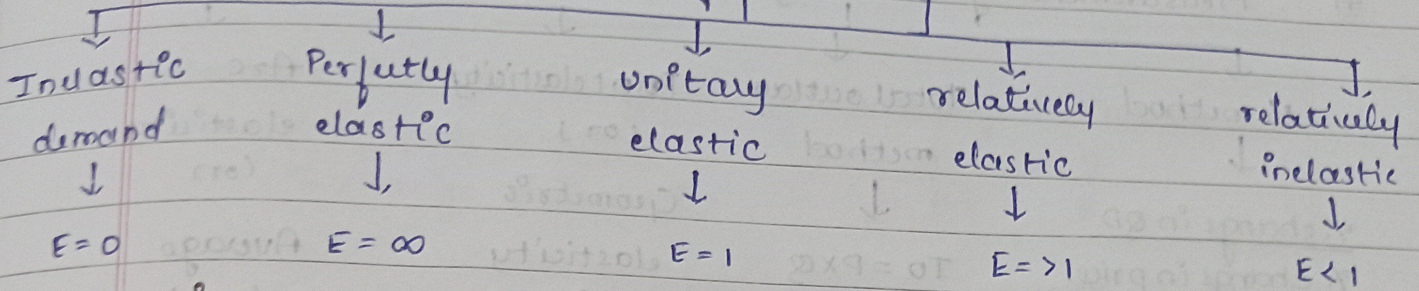
(1) Shows the degree of responsiveness over change in one of the variable on which demand depends.

(2) So there can be

- Price elasticity
- income "
- cross "
- advertisement "

(3) Unless otherwise specified elasticity means price elasticity

Type of Elasticity



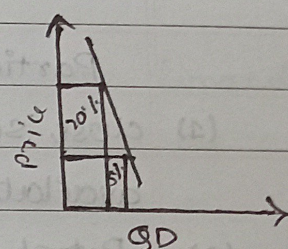
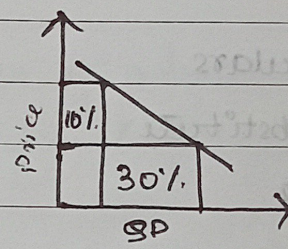
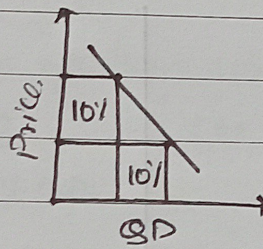
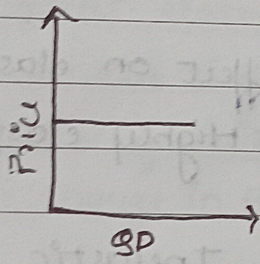
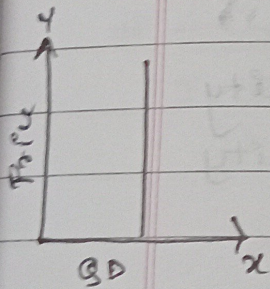
If change in variable does not have any impact on demand

If change in variable has huge impact on demand

If change in variable has equal impact on demand

If change in variable has greater impact on demand

If change in variable has less impact on demand



Curve will be straight parallel to y-axis.

Curve will be parallel to x-axis

Curve will be rectangular hyperbola.

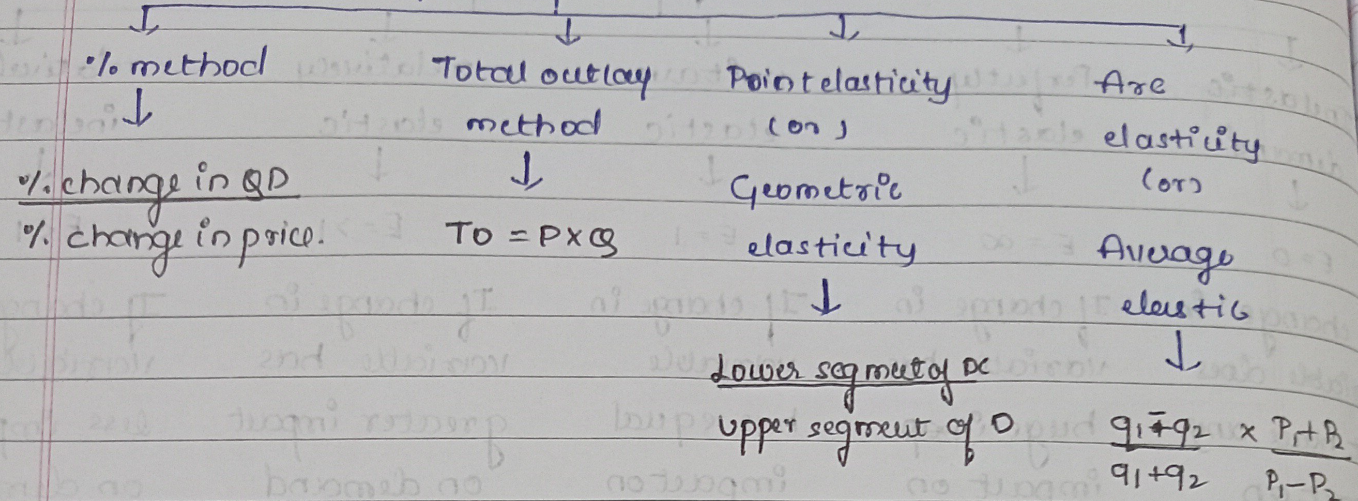
Curve will be flat

Curve will be steeper

Formula for Elasticity (General)

$\frac{\% \Delta \text{ in QD}}{\% \Delta \text{ in variable.}}$	or	$\frac{\Delta Q}{Q} \times \frac{P}{\Delta P}$
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Measurement of elasticity (methods)



Particulars	Effect on elasticity
(1) close substitute available	Highly elasticity
(2) Petrol	Inelastic
(3) many substitute	more elasticity
(4) spent more on commodity	Highly elastic
(5) Luxury goods.	elastic
(6) Necessity	Inelastic
(7) Product can be used for multiple things.	elastic
(8) Very Expensive / cheap	Inelastic
(9) Consumer has habit	Inelastic
(10) Tied goods.	Inelastic.

Income elasticity :-

When the demand change owing to change in income.

$$= \frac{\% \text{ change in } QD}{\% \text{ change in income (Y)}} \quad (\text{or}) \quad \frac{\Delta QD}{\Delta Y} \times \frac{Y}{Q}$$

It can be of 5 type. —

- $E = 0$
- $E = \infty$
- $E = 1$
- $E > 1$
- $E < 1$

Advertisement elasticity :-

It shows the degree of responsiveness of advertisement on demand.

$$= \frac{\% \text{ change in } QD}{\% \text{ change in Adv. exp.}} \quad (\text{or}) \quad \frac{\Delta Q}{\Delta A} \times \frac{A}{Q}$$

Cross elasticity :-

- (1) It measures the degree of responsiveness of change in price of one commodity on demand of other commodity.
- (2) It arise due to availability of substitute
- (3)
$$\frac{\% \text{ change in } QD \text{ of } x}{\% \text{ change in price of } y} \quad (\text{or}) \quad \frac{\Delta QD_x}{\Delta P_y} \times \frac{P_y}{Q_x}$$

Forecasting :-

- Forecasting is predicting a future event.
- Forecasting depend upon a area of operation.

Type of Forecasting → Based on scope

macro level

industry level

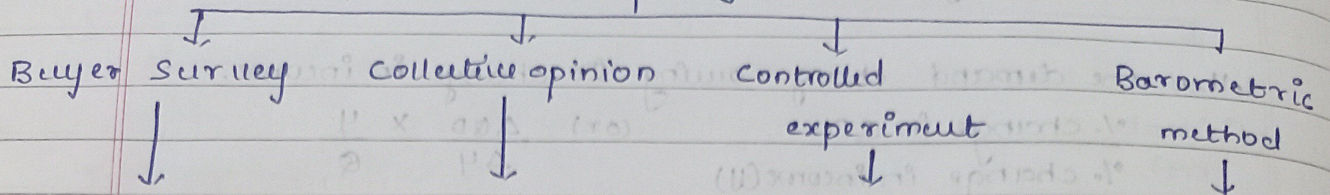
firm level

Based on time.

Long term

Short term.

Methods of Demand forecasting



where buyers are surveyed of their intentions to buy the product in future.

Here sales team are requested to visit these territories and ascertain sales.

Here projection are made in a controlled manner under observation of expert

Here past is analysed to predict the future.

There are 3 methods

- (a) Complete survey
- (b) Sample survey
- (c) end user survey

Demand Distinction :-

- (a) Producer goods :- which are used for production of other goods
eg. P & M
- (b) Consumer goods :- which are used for final consumption
eg. food.
- (c) Durable goods :- which do not wear out quickly.
eg. clothes
- (d) Non-durable goods :- which cannot be consumed more than once.
eg. milk.
- (e) Semi-durable goods :- They have characteristic of durable and non-durable goods
eg. clothes.

f) Derived demand :- The demand arise because of some other goods.

eg. match box for cigarette

(g) autonomous demand :- The demand of product is independent of other goods.

Supply

Supply refer to quantity of goods supplied at the given price.

supply has a direct relationship with price.

i.e., if price goes up,

Supply goes up and vice versa.

Determinants of supply

Price of commodity

Technology

Price of related goods

factor of production.

Law of supply

- + If price goes up, supply goes up, other things being equal.
- + There is direct relationship of price and supply.

Supply schedule.

Table showing price and quantity supplied.

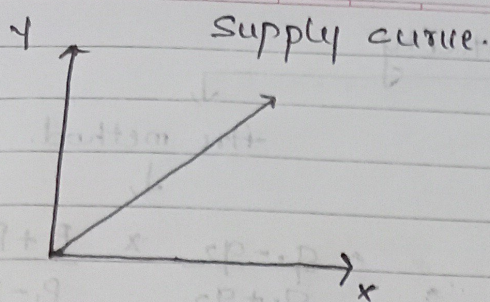
Price	Supply
10	20
20	40
30	60
40	80

Supply curve.

It is a graphical representation of supply schedule.

It is a +ve supply curve.

Curve is +ve and move towards right.



Elasticity of supply

→ Provide degree of responsiveness on supply owing to price

→
$$\frac{\% \text{ change in } Q_s}{\% \text{ change in Price}} \quad (\text{or}) \quad \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

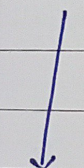
Type of elasticity

Perfectly elastic

Perfectly inelastic

Relatively elastic

Relatively inelastic



$$E = \infty$$



$$E = 0$$

unitary elastic



$$E = 1$$



$$E > 1$$



$$E < 1$$

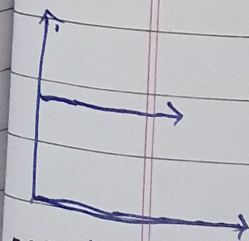
Which change in price has huge impact on supply

which change in price has no impact on supply

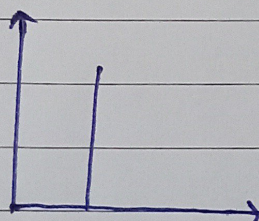
which change in price has equal impact on supply

change in price has more impact on supply

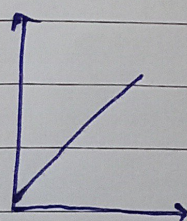
change in price has less impact on supply



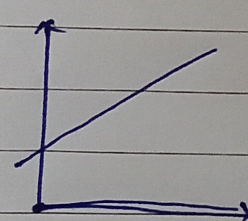
parallel to x-axis



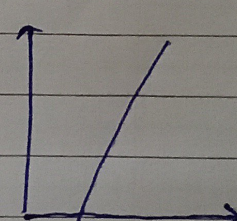
parallel to y-axis



straight line pass through origin



straight line pass through y-axis



straight line pass through x-axis

Measuring elasticity

↓
%. Method

$$\frac{\% \text{ change in } Q_s}{\% \text{ change in price.}}$$

↓
Arc method.

$$\frac{q_1 - q_2}{q_1 + q_2} \times \frac{P_1 + P_2}{P_1 - P_2}$$

Equilibrium quantity and price.

Where $Q_D = Q_S \rightarrow$ We call it equilibrium quantity
Price at E point

where $Q_D = Q_S$ 