

## CHAPTER – 6 COST

- ❖ **COST OR MONEY COST:-** It refers to money expenses which the firm has to incur (spend) in purchasing or hiring the factor services.

In economic the cost is sum total of:-

1. Explicit cost
2. Implicit cost

1. **EXPLICIT COST:-** Money payments made by the firm to the owners of various factors services in purchasing and hiring the factor services required in the production of commodity is known as explicit cost.

**EXAMPLE:-** Wages paid to the employees, rent paid for hired premises, payments for raw material etc.

2. **IMPLICIT COST:-** It refers to imputed (estimated) value of inputs owned by the firm and used by it its own production unit.

**EXAMPLE:-** Interest on own capital, rent of own land, salary for the services of entrepreneur etc. such costs are cost of self supplied factors.

3. **ECONOMIC COST:-** It is the sum total of both explicit cost and implicit cost including normal profit.
4. **OPPORTUNITY COST:-** The opportunity cost of producing any good is a next best alternatives for gone.

### ❖ **DIFFERENCE BETWEEN EXPLICIT COST AND IMPLICIT COST**

Basis	Explicit cost	Implicit cost
Meaning	It is the payment made to the outsiders for hiring factor services.	It is the cost of self supplied factors.
Money payment	It involves actual money payment on buying and hiring inputs.	It involves imputed value of factors owned by the firms. There is no money payment involved.
Examples	Rent, payment of wages, insurance premium etc.	IOC, I of own land etc.

- ❖ **SHORT RUN COST OR BEHAVIOUR OF COST IN SHORT RUN:-** There are two types of cost in short run:

1. Fixed cost
2. Variable cost

1. **FIXED COST / TOTAL FIXED COST:-** It refers to those cost which do not vary (change) directly with the level of output. It remains constant regardless of quantity of output produced.

**EXAMPLE** – Cost incurred on fixed factors like machinery, land, building etc. which cannot be changed in the short run.

It is also known as:-

- a. Supplementary cost
- b. Indirect cost
- c. General cost
- d. Over head cost
- e. Unavoidable cost i.e. even if nothing is produced for some time in short run, fixed cost has to be incurred.

Output	TFC
0	12

## CHAPTER – 6 COST

1	12
2	12
3	12
4	12
5	12

Diagram:

Total fixed cost is a horizontal straight line parallel to x-axis that total fixed cost (is a horizontal straight line parallel to x-axis that total fixed cost remains the same (Rs.12) at all the level of output.) X remains same (Rs.12) at all levels of output.

2. **TOTAL VARIABLE COST:-** It refers to those cost which vary directly with the level of output.

**EXAMPLE:-** Payment for raw material, power, fuel, wages of casual labour etc.

Variable cost changes with the change in level of output. It means VC rises with increase in output and fall with decrease in output. Such costs are incurred and become 0 at 0 level of output.

Output	TVC
0	0
1	6
2	10
3	15
4	24
5	35

Diagram:

Variable cost is also known as Prime cost, direct cost or avoidable cost. TVC is inversely S shaped as it initially increases at decreasing rate and later, it increases at increasing rate. TVC is 0 at 0 level of output. It is inversely S shaped because of law of variable proportion.

- ❖ **TOTAL COST:-** It is the total expenditure incurred by a firm on factors of production required for production for a commodity. It is a sum total of total fixed cost (TFC) and total variable cost at various level of output.

$$TC = TFC + TVC$$

Since, TFC remains same at all levels of output, the change in TV is entirely due to TVC.

Output	TC	TVC	TFC
0	12	0	12
1	18	6	12
2	22	10	12
3	27	15	12
4	36	24	12
5	47	35	12

Diagram:

## CHAPTER – 6 COST

❖ **RELATIONSHIP BETWEEN TC/TFC/TVC:-**

1. **TFC:-** It is a horizontal straight line parallel to x-axis as it remains constant at all levels of output.
2. **TC AND TVC:-** TC and TVC are inversely S shaped because initially they rise at decreasing rate and finally, at increasing rate. The reason behind their shape is the law of variable proportion.
3. **TC = TFC:-** There is no variable cost, at zero level of output. So, TC and TFC curves start from same point which is above the origin.
4. TC and TFC curves are parallel to each other and the vertical distance between them remains the same at all levels of output because the gap between them represents TFC, which remains constant at all levels of outputs.

❖ **AVERAGE COST:-** There are three types of per unit costs:-

1. **Average fixed cost**
2. **Average variable cost**
3. **Average total cost or average cost**

1. **AVERAGE FIXED COST:-** It refers to per unit fixed cost of production. It is calculated by dividing TFC by total output.

$$AFC = TFC/Q$$

Output	TFC	AFC
0	12	$\infty$
1	12	12
2	12	6
3	12	4
4	12	3
5	12	2.40

Diagram:

Average fixed cost curve slopes downward as AFC falls with an increase in output. AFC curve is rectangle hyperbola i.e. area under the curve remains same at all points. 'AFC does not touch any of the x-axis'. As AFC is rectangular hyperbola, it approaches both the axis but never touches them. AC can't touch x-axis because TFC can never be 0, AFC can not touch y-axis because at 0 level of output, TFC is +ve value and any +ve value divided by 0 will be an infinite value.

2. **AVERAGE VARIABLE COST:-** It refers to per unit of production. It is calculated by dividing YVC by total output.

$$AVC = TVC/Q$$

AVC	TVC	AVC
0	0	0
1	6	6
2	10	5
3	15	5
4	24	6
5	35	7

Diagram:

## CHAPTER – 6 COST

AVC initially falls (0,6,5) with increase in output and after reaching its minimum level at Rs. 5. It starts rising. The three phases of AVC curve decreasing, constant and increasing, correspond to the 3 phases of law of variable proportion. Thus making AVC 'U' shaped.

3. **AVERAGE COST OR AVERAGE TOTAL COST:-** AC refers to the per unit total cost of production. It is calculated by dividing TC by total output (Q).

$$AC = TC/Q$$

It is also defined as sum total of AFC and AVC i.e.  $AC = AFC + AVC$ .

AFC	Units of output	AVC	AC
$\infty$	0	0	-
12	1	6	18
6	2	5	11
4	3	5	9
3	4	6	9
2.40	5	7	9.40

Diagram:

AC curve is U shaped curve, it means AC initially falls, (Constant), after reaching its min. point (II), it starts rising (III).

❖ **IMPORTANT OBSERVATIONS OF AC, AVC AND AFC CURVE:-**

1. AC curve will always lie above AVC curve because AC, at all levels of output includes both AVC and AFC.
2. AVC reaches its minimum point (point B) at a level of output lower than that of AC (point A) because when AVC is at minimum point, AC is still falling because of falling AFC.
3. As the output increase, the gap between AC and AVC curve decrease but they never intersect each other.

❖ **MARGINAL COST CURVE:-** Marginal cost refers to addition to total cost when one more unit of output is produced.

$$MC = TC_n - TC_{n-1} \text{ Or } MC = \Delta TC / \Delta Q$$

Output	TFC	TVC	TC	MC
0	12	0	12	-
1	12	6	18	6
2	12	10	22	4
3	12	15	27	5
4	12	24	36	9
5	12	35	47	11

Diagram:

**Q. Why MC curve is U shaped?**

**Ans:** As output increases, MC curve slopes downward as (upto 0Q), reaches the minimum (at point A) and then starts sloping upwards beyond 0Q level of output. The U shaped of MC curve is because of the law of variable proportion. It is negatively slope in the initial stage of production due to increase in return to the variable factors and is positively sloped there after due to decreasing returns to the variable factor.