‘COST THEORY’

BUSINESS ECONOMICS

B.COM I

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CLASSIFICATION OF THEORIES OF COST

Theories of Cost

- Traditional Theory
- Modern Theory

TYPES OF COSTS

- Actual Cost
- Sunk Cost
- Implicit / Imputed Cost
- Explicit / Paid out Cost
- Book Cost
- Economic / Future Cost
- Social Cost
- Indirect Cost

ACTUAL COST: Theses are also known as outlay cost, acquisition cost or absolute cost. It is the cost which is incurred by the firm while producing the goods. Example: cost of raw materials, labor, power etc.

SUNK COSTS: These are unrecoverable past expenditures. These should not normally be taken into account when determining whether to continue a project or abandon it, because they cannot be recovered either way. For example: cost incurred by TATA MOTORS when they had to shift the Nano plant from West Bengal to Gujarat.

IMPLICIT COST OR IMPUTED COST: These are those costs that are implied but not reflected in the financial reports of the firm. These costs which belong to owner himself. It does not include cash payments to outsiders. Example: Rent on own building, Interest on own capital etc.

EXPLICIT OR PAID OUT COST: Cost which are actually paid by firm to the outsiders. These expenses are contractual in nature and definite in amount, such as Salaries, Wages, Rent etc.

BOOK COST: **It is the cost which does not require any cash payments to the outsiders, but is treated as cost to the firm. For example: Depreciation on assets.**

ECONOMIC COST OR FUTURE COST:

These costs relate to the future and expected to be incurred in some future period.
Example: Cost may be incurred by introduction of new products in future or expansions of the firm.

SOCIAL COST:

Cost which are incurred for some social cause like pollution control, cleaning purpose, cost incurred for the welfare of the people etc.

INDIRECT COST:

Costs which are not easily traceable in the production process. Example: Wastage of Raw materials, Electricity bills etc.

TYPES OF COSTS (Continued).......

- Controllable Cost
- Uncontrollable Cost
- Original / Historical Cost
- Replacement Cost
- Abandonment Cost
- Shut Down Cost
- Urgent Cost
- Postpone able Cost

CONTROLLABLE COST: Cost which are under the control of the firm. Example: Usage of raw material, Human Resources.

UNCONTROLLABLE COST: Cost which cannot be controlled. For example: Obsolescence of machinery, repair of the machinery.

ORIGINAL OR HISTORICAL COST: It is the cost of equipment at the time of purchase.

REPLACEMENT COST: This is that cost which is incurred for replacing the new machinery in the place of old machinery in the firm.

ABANDONMENT COST: Cost incurred for disposal of asset or machinery is called abandonment Cost.

SHUTDOWN COST: Cost which would be incurred in the event of suspension of plant. Example: Storage of plant or machinery, construction of buildings, training the employees etc.

URGENT COST: These costs must be incurred so that the production goes on. Example: Raw material cost fuel, power, wages of the labour etc.

POSTPONE ABLE COST: Cost whose postponement does not effect at least for some time on the firm and on production process and this cost can be paid after sometime. Example: Transportation charges, rent, interest.

TYPES OF COSTS (Continued) ……

Business Cost	Out of Stock Cost	Fixed Cost	Variable Cost
Average Cost	Marginal Cost	Long run Cost	Short run Cost

BUSINESS COST: **It includes Payment of the taxes etc.**

OUT OF STOCK COST: **Example: Loss of sale by shortage of goods in the market.**

FIXED COST: **Cost which does not change with the change in the production.**
It remains constant. Example: Rent of the building, interest on capital, salaries, and wages.

VARIABLE COST:
Cost which changes in accordance with change in production . Example: Raw material, power, fuel.

AVERAGE COST: It is the cost that is incurred for single unit of production in the total production.

MARGINAL COST: It is the additional cost incurred by the firm for producing one more extra unit.

LONG RUN COST: Cost incurred for the expansion of plant, for increase in the production of goods.

SHORT RUN COST: Cost incurred for the production of extra units with the existing plant capacity without purchasing new machinery.

CALCULATION OF DIFFERENT TYPES OF COSTS

Units of output (Q)	Total Fixed Cost (TFC)	Total Variable Cost (TVC)	Total Cost (TC)	Average Fixed Cost (AFC)	Average Variable Cost (AVC) TVC/Q	Average Total Cost (ATC) TC/Q
0	50	0	50	0	0	0
1	50	20	70	50.00	20.00	70.00
2	50	35	85	25.00	17.50	42.50
3	50	60	110	16.67	20.00	36.67
4	50	100	150	12.50	25.00	37.50
5	50	145	195	10.00	29.00	39.00
6	50	190	240	8.33	31.67	40.00
7	50	237	287	7.14	33.86	41.00
8	50	284	334	6.25	35.50	41.75

FORMULAE AT A GLANCE ....

$$\text{Total Cost} = TC = TFC + TVC$$

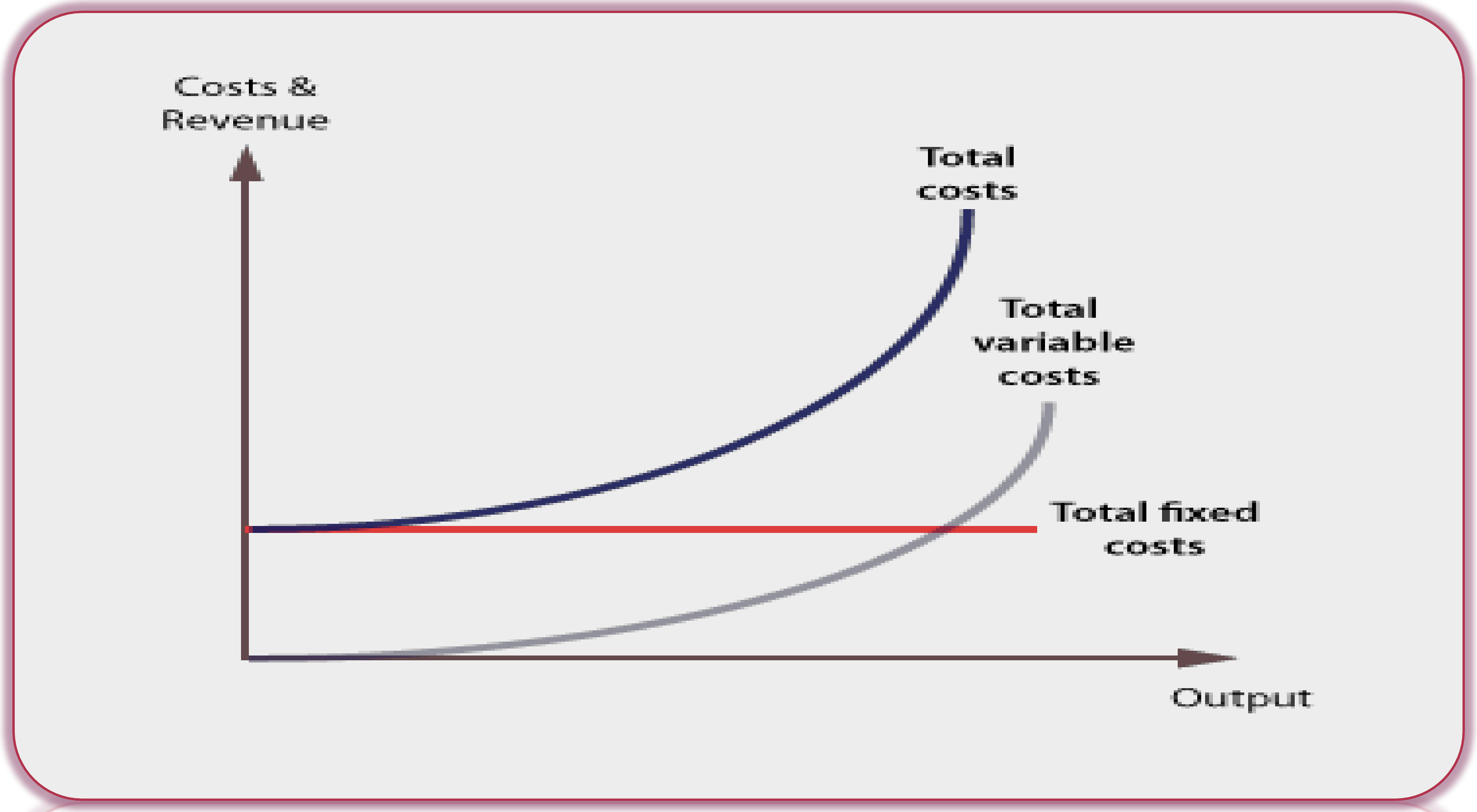
$$\text{Average Fixed Cost} = AFC = \frac{TFC}{Q}$$

$$\text{Average Variable Cost} = AVC = \frac{TVC}{Q}$$

$$\text{Average Cost} = AC = \frac{TC}{Q} = AFC + AVC$$

$$\text{Marginal Cost} = MC = \frac{\Delta TC}{\Delta Q}$$

HYPOTHETICAL EXAMPLE SHOWING SHAPE OF TC, TVC, TFC CURVES



SHORT RUN COST CURVES

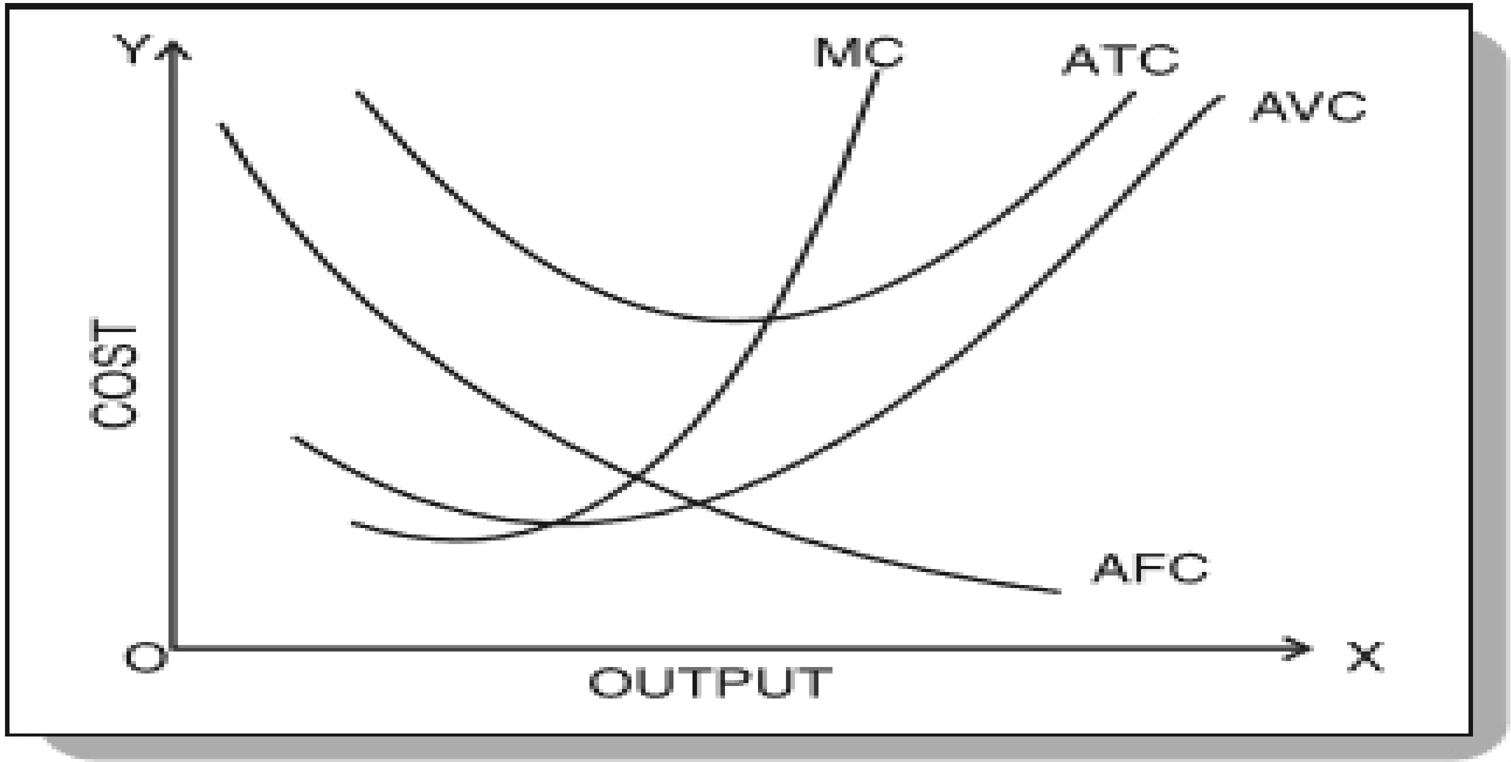


Fig. 1 : Short run Average and Marginal Cost Curves

RELATIONSHIP AMONG MARGINAL COST, AVERAGE COST, AVERAGE VARIABLE COST CURVES

- **If average costs are falling then marginal costs must be less than average while if average costs are rising then marginal must be more than average. Marginal cost on its way up must cut the cost curve at its minimum point.**
- **If Marginal Cost is less than Average Variable Cost, then the Average Cost goes down.**
- **If Marginal Cost is higher than Average Variable Cost, then the Average Cost goes up.**
- **If Marginal Cost is equal to Average Variable Cost, then the Average Cost will be at a minimum.**

U-SHAPED COST CURVES

The family of short-run cost curves consisting of *average total cost, average variable cost, and margin*al cost, all of which have U-shapes. Each is U-shaped because it begins with relatively high but falling cost for small quantities of output, reaches a minimum value, then has rising cost at large quantities of output. Although the average fixed cost curve is not U-shaped, it is occasionally included with the other three just for the sake of completeness. The U-shapes of the *average total cost, average variable cost, and marginal cost curves* are directly or indirectly the result of increasing marginal returns for small quantities of output (production Stage I) followed by decreasing marginal returns for larger quantities of output (production Stage II). The decreasing marginal returns in Stage II result from the law of diminishing marginal returns. The U-shaped cost curves form the foundation for the analysis of short-run, profit-maximizing production by a firm. These three curves can provide all of the information needed about the cost side of a firm's operation.

Thank you