

MBA- I semester, paper- Managerial Economics, MB 102, TOPIC-Cost and output relationship in short run tabular form.

Cost and output relationship in short run tabular form

In the short-run there will not be any change in Total Fixed Cost. Hence change in total cost implies change in Total Variable Cost only.

Units of Output Q	Total fixed cost TFC	Total variable cost TVC	Total cost (TFC + TVC) TC	Average variable cost (TVC / Q) AVC	Average fixed cost (TFC / Q) AFC	Average cost (TC/Q) AC	Marginal cost MC
0	–	–	60	–	–	–	–
1	60	20	80	20	60	80	20
2	60	36	96	18	30	48	16
3	60	48	108	16	20	36	12
4	60	64	124	16	15	31	16
5	60	90	150	18	12	30	26
6	60	132	192	22	10	32	42

The above table represents the cost-output relationship. The table is prepared on the basis of the law of diminishing marginal return. The fixed cost Rs. 60 May include rent of factory building, interest on capital, salaries of permanently employed staff, insurance etc. The table shows that fixed cost is same at all levels of output but the average fixed cost, i.e., the fixed cost per unit, falls continuously as the output increases. The expenditure on the variable factors (TVC) is at different rate. If more and more units are produced with a given physical capacity the AVC will fall initially, as per the table declining up to 3rd unit, and being constant up to 4th unit and then rising. It implies that variable factors produce more efficiently near a firm's optimum capacity than at any other levels of output and later rises. But the rise in AC is felt only after the start rising. In the table 'AVC' starts rising from the 5th unit onwards

whereas the 'AC' starts rising from the 6th unit only so long as 'AVC' declines 'AC' also will decline. 'AFC' continues to fall with an increase in Output. When the rise in 'AVC' is more than the decline in 'AFC', the total cost again begins to rise. Thus, there will be a stage where the 'AVC', the total cost again begins to rise thus there will be a stage where the 'AVC' may have started rising, yet the 'AC' is still declining because the rise in 'AVC' is less than the droop in 'AFC'. Thus, the table shows an increasing return or diminishing cost in the first stage and diminishing returns or diminishing cost in the second stage and followed by diminishing return or increasing cost in the third stage.