SHORT RUN AND LONG RUN COSTS

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SHORT RUN COSTS

those costs which vary with output while fixed factors remains constant.(variable costs)

Short run is a period of time in which output can be increased or decreased by changing the variable factors such as raw material ,labour etc

Help mgt. to decide whether produce more or less with the existing plant.

Long run cost

those costs which vary with output when all input factors(fixed and variable) are variables

long run is a period of time in which all input factors can be varied. in the long run, output can be increased or decreased by increasing or decreasing all the input factors.

Help mgt. in taking decision for the future

Cost – output relationship(cost function)

Determinants of cost

- rate of output
- size of plant
- price of input factors
- technology
- efficiency of management
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Both are correlated (positively)

When output ↑ cost also ↑

TC=*f*(Q)

T=Total Cost

f= function of

Q=Quantity produced (output)

Two type of cost function

1. Short run cost function
2. Long run cost function

Short run cost function

relationship between output, total variable cost , total fixed cost and total cost

- FC is fixed
- when output is zero TVC is zero
- the TVC increases gradually but later steeply
- even there is production is zero the firm will incur FC

Relationship between Average cost and Marginal cost

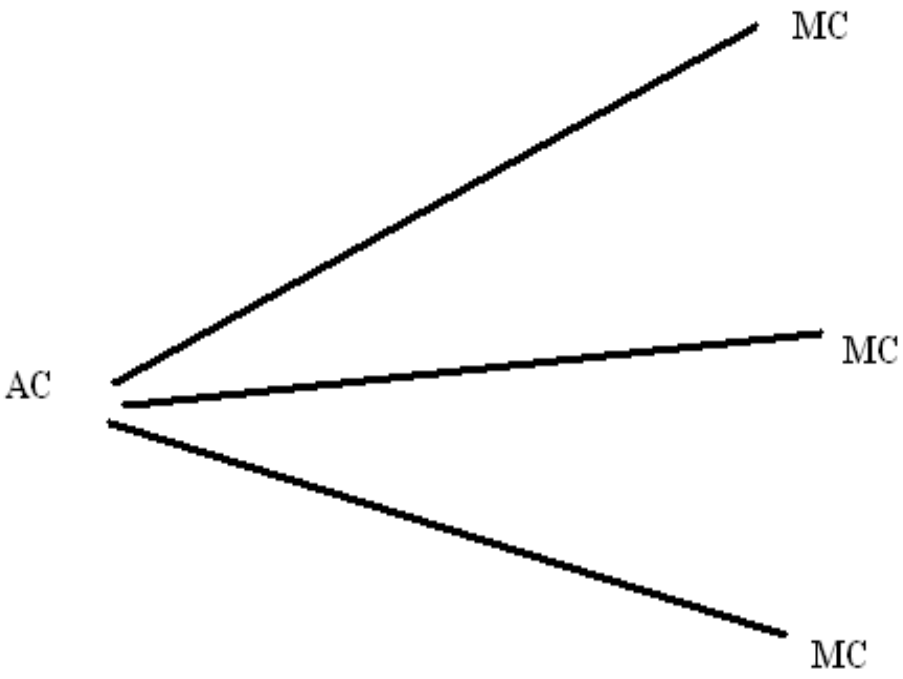
Average cost and Marginal cost are related together

Eg: cricket player score

Innings	Score	Average cost	Marginal cost
1	50		
2	42	46	42
3	61	51	61

If he score 50, 50, 50, 50

Out put	Total	AC	Marginal Cost
1	60	60	60
2	80	40	20
3	90	30	10
4	96	24	6
5	100	20	4
6	144	24	44
7	210	30	66
8	320	40	110


MC
MC
AC
MC

When MC is greater than the AC, it will pull the AC upward

When MC is less than the AC, then it will pull the AC downward

When MC and AC are the same, then each will pull the other horizontally

As out put increases AC and MC costs fall, but MC is below the AC. (MC < AC)

when Out put increases beyond a point both costs increases and now MC is above AC

Point there the MC and AC are equal.

AFC AVC AC and MC

When out put increases, the average cost decreases due to economies of scale.

- AFC, AVC, and hence ATC all starts falling.
- When produce more output, diseconomies will arise and all cost will go up
- AFC continue to fall but never touches zero. Because TFC remains constant in the short period.
- AFC helps AVC to fall

- then AVC raising quickly and raise AVC
- MC and AVC are falling up to a certain level
- MC is below AVC
- when out put increases too much MC is above AVC
- MC cuts AVC and ATC at their lower level
- AVC curve starts raising earlier than ATC

Long run cost function

Long run costs are associated with the change in the size and kinds of plant.(change the input/fixed costs)plant machinery , equipment etc

Production/output can be increased by changing the factors.

Mgt. choose combination of inputs that minimise the cost of producing a desired level of output

Long run cost curve

- shot run average cost is considered
- three plant for 3 scale of production M_1 M_2 M_3
- select the plant having least AC per unit
- LAC is known as envelop or planning curve

Relationship between LAC and LMC

LAC=LTC⁄level of output

- similar to shot run
- Both decline first (↑ return)
- LAC continue its diminishing but LMC starts its raising
- both raising (↓the return)
- LMC have more