

① Pay Back Period: as for  
it is time req. for positive project cash flow  
to recover -ve project cash flow from  
dev. years.

ex. A project costs \$200,000 to operate &  
has annual net cash inflows of \$40,000

Then

$$\text{Pay back Period} = \$200,000 / \$40,000 \\ = 5 \text{ yrs}$$

② Avg. Rate of Return:-

ratio of the avg. annual profit to the  
avg. or initial investment in the project is  
avg. rate return

in above ex.

suppose, avg. annual profits are  
\$30,000

$$\text{Avg. rate of Return} = \frac{\$30,000}{\$200,000} \\ = 0.15$$

Discounted Cash Flow: (Net Present Value):-

$$\text{NPV}(\text{Project}) = A_0 + \sum_{t=1}^n \frac{F_t}{(1+k)^t}$$

where  $k$  = the req. rate of return,

$F_t$  = net cash flow in period  $t$  &

$A_0$  = the initial cash investment

Internal Rate of Return (IRR):- <sup>used to find out</sup> profitability of investment

$$\text{IRR} = (\text{Cash flows}) / (1+r)^t - \text{initial investment}$$

where  $r$  = Discount rate

$t$  = Time Period.

### ⑤ Cost-Benefits Analysis:-

It is a process which adds all benefits of a project & then subtracts the associated costs.

### ⑥ Break-Even Analysis:-

Financial tool which helps a company to determine the stage at which the company will be profitable.

- so it is a situation where an org<sup>n</sup> is neither making money nor losing money, but all the costs have been covered.
- useful to study relat<sup>n</sup> bet<sup>n</sup> variable cost, fixed cost & revenue.