

UNIT. I.Meaning:objectives of financial management:

- a. Profit maximization.
- b. wealth maximization.

Financial Decisions:

1. Investment Decisions.
2. Financing Decisions.
3. Dividend Decisions.

Time value of Money: It is the value of the money received today is more than the value of same amount of money received after a certain period.

Techniques of Time value of money:-a. Compounding technique:-

Future value at the end of period  
I can be calculated by a

$$V_1 = V_0 (1+i)$$

$V_1$  = Future value at the period

$V_0$  = value of money at time 0.

$i$  = interest rate.

Multiple Compounding periods:-

$V_n$  = Future value of money after n yrs.

$V_0$  = value of money at time 0.

$i$  = interest rate.

$m$  = number of times.

$$V_n = v_0 \left(1 + \frac{i}{m}\right)^{m \times n}$$

Effective Rate of interest in case of Multi period compounding:-

$$EIR = \left(1 + \frac{i}{m}\right)^m - 1$$

EIR = Effective Rate of interest.

$i$  = Nominal rate of interest

$m$  = frequency of compounding per year.

Compound value of an annuity:-

An annuity is a series of equal payments lasting for some specified duration. The cashflows occur at the end of each period is called as regular annuity or deferred annuity.

$$V_n = R C A C F i$$

b. Discounting or present value techniques:-

It is the opposite of compound or future value. It shows what the value is today of some future sum of money.

$$V_n = v_0 (1+i)^n$$

$V_n$  = future value n period

$v_0$  = present value

$$v_0 = \frac{V_n}{(1+i)^n}$$

using Discounting factor:-

Present value = Future value ( $V_n$ )  $\times$  DF.

$$DF = \frac{1}{(1+i)^n}$$

a. Present value of Series of payments:-

$$V_0 = \sum_{t=1}^n \frac{R_t}{(1+i)^t} \quad R_t = \text{Payment at period } t$$

b. Present value of an annuity:-

$$V_0 = R \left[ \sum_{t=1}^n \frac{1}{(1+i)^t} \right]$$

c. Present value of an annuity due:-

$$V_0 = (R) (ADF) (1+i)$$

Cost of Capital:- (i) part).

"Cost of Capital is the minimum required rate of earnings or the cut-off rate of capital expenditures".

(i) It is not a cost as such.

(ii) It is the minimum rate of return.

(iii) It comprises three components.

Business + financial risks, expected rate.

$$k = r + b + f$$

r = Normal rate of Return.

b = business risk.

f = financial risk.

Significance of the cost of Capital:-

(i) As an acceptance criterion in Capital budgeting.

(ii) As a determinant of Capital Mix in Capital structure Decisions.

(iii) As a basis for Evaluating the financial Performance.



(iv) AS a Basis for taking other financial decisions.

4.

computation of cost of capital:-

1. computation of specific source of finance:-

a. cost of debt.

(a.i) cost of perpetual debt:-

$$k_{db} = \frac{i}{P} \quad \begin{array}{l} k_{db} = \text{before tax cost of debt} \\ i = \text{interest} \\ P = \text{Principal} \end{array}$$

(ii)  $k_{db} = \frac{i}{NP}$  NP = net proceeds.

(iii)  $k_{da} = \frac{i}{db} k_{da} (1-t)$

$k_{da}$  = After tax cost of debt.  
 $t$  = tax rate.

(a.ii) cost of Redeemable debt:-

$$k_{da} = k_{db} (1-t)$$

b. cost of preference capital:-

(b.i) cost of irredeemable pre-capital:-

$$k_p = \frac{D}{P} \quad D = \text{Annual pre-dividend.}$$

$$\text{or } k_p = \frac{D}{NP}$$

(b.ii) cost of Redeemable pref. Capital:-

$$k_{pt} = \frac{D + \frac{(MV - NP)}{n}}{\frac{1}{2}(MV + NP)}$$

$$\frac{1}{2}(MV + NP)$$

$k_{pt}$  = cost of Red. pref. Capital

MV = Market value.

NP = net proceeds.

### 3. cost of equity capital:-

It is the maximum rate of return that the co. must earn on equity financial position of its investment, in order to leave unchanged the market price of its stocks.

a. Dividend yield method:-

$$k_e = \frac{D}{NP} \text{ or } \frac{D}{NP}$$

b. Dividend yield plus growth method:-

$$k_e = \frac{D_1}{NP} + g \text{ (or) } \frac{D_0(1+g)}{NP} + g$$

NP = net proceeds.

$D_0$  = Previous year's dividend

$g$  = growth rate.

c. Earning yield method:-

$$k_e = \frac{EPS}{NP}$$

EPS = Earnings per share

d. Retained yield method:-

### 4. cost of Retained earnings:-

$$k_e = \frac{D_1}{NP} + g$$

2. Computation of weighted Average cost of Capital

$$k_w = \frac{\sum xw}{\sum w}$$

$k_w$  = weighted average cost of capital  
 $x$  = cost of specific source of capital  
 $w$  = weights.

UNIT. W.  
CAPITAL BUDGETING DECISIONS. 6.

(i) It is the process of making investment decisions in capital expenditures. Cap. expenditure is the benefits of which are expected to be received over period of time exceeding one year.

Capital budgeting Budgeting : Significance,

- (i). Large investments.
- (ii) Long term commitment of funds.
- (iii) Irreversible nature.
- (iv). Long-term Effect on profitability.
- (v). Difficulties of investment decisions.
- (vi) national importance.

Capital budgeting process:

- (i) Identification of Investment proposals.
- (ii) screening the proposals.
- (iii) Evaluation of various proposals.
- (iv) Fixing priorities.
- (v) Final approval and preparation of capital expenditure Method Budget.

Capital budgeting decisions:

- ~~a. those~~ Accept or Reject decisions.
- Mutually exclusive project decision
- Capital Rationing decisions.



## Methods of capital budgeting.

(i) Pay-Back period Method:-  
$$\text{Pay-Back period} = \frac{\text{Cash outlay of the project}}{\text{Annual cash inflows}}$$

(ii) Pay-Back Profitability Method  
$$= \frac{\text{Post Pay/Back Profit}}{\text{Investment}} \times 100$$

(iii) Discounted pay-back Method:-

It is the method where present values of cash flows are cumulated in order of time. The time period at which the cumulated present values of cash inflows equals the present value of cash outflows.

(iv) Rate of Return Method:-

$$\text{Average Rate of Return} = \frac{\text{Total p/b's (after depreciation)}}{\text{net investment}} \times 100.$$

\* Rate of Return on Average investment Method

$$= \frac{\text{Total p/b's}}{\text{Average Inv't}} \times 100.$$

ii. Time adjusted or Discounted cash flow Method:-

net present value method:-

$$P_v = \frac{1}{(1+r)^n}$$

$$NPV = \text{Present value of cash inflow} - \text{p.v of cash outflows}$$

Profitability Index Method: -

$$\text{Profitability Index} = \frac{\text{Present value of Cash inflows}}{\text{Present value of Cash outflows}}$$