Name : Snehita. V
Order No : #7295
Unit Number : 01.
Paper Name : Financial Treasury &
DATE 0 5 0 9 2 0 1 9.
Forex Management.

5.

a: Capital Rationing :

When the firm has fixed or limited capital budget it has to choose between many comparable projects, the firm rationalises its funds so as to maximise the long term return.

Under Capital Rationing the NPV decision rule does not always holds true because as per NPV decision rule, all the projects that have positive NPV should be accepted irrespective of the budget constrain, but under capital rationing the project/ investment/ proposal is accepted with relation to the budget/ funds avaliable to invest. Due to the budget constrain the investment would be done in many small projects rather than few long term projects that require no budget constrain.

large investments

b: Internal Rate Of Return (IRR) :

The Internal rate of return is the rate at the point where which the Netpresent value is zero. That is at the rate the present value of cash outflows is equal to the present value of Cash Inflows.

If the rate of return is greater than cost of capital accept the project, if the rate of return is less than cost of capital reject the project.

alignment of para is not proper.
presentation matters too

Advantages:
1. It considers the time value of money.
2. Easy to compare & select between multiple projects using the method.
3. The life of the project is considered.
4. Focus is on wealth maximization of owners.

Disadvantages:
1. Sometimes there may be more than one IRR.
2. It becomes difficult to compute, analyse & decide among multiple projects.
3. Under this method, the inflows are expected to be reinvested during the life of project, which is not practically possible.

y do u leave gaps

4. Income Statement

Particulars	Amount '₹' (in INR)
Earnings Before Interest & Tax (EBIT)	550,000.
Less: Interest (325,000 * 9%)	(29,250)
Earning Before Tax (EBT)	520,750.
Less: Tax @ 40%. (520,750 * 40%)	(208,300)
Earnings after tax. (EAT)	312,450.
Less: Preference dividend (200,000 * 12%)	(24,000)
Earnings Available to Equity Share holders	288,450.

Financial Leverage $\Rightarrow \dfrac{\text{Earnings before Interest & tax.}}{\text{Earnings before tax.}}$

$$= \frac{550,000.}{520,750} \Rightarrow 1.056$$

draw proper colums (by pencil) it will look presentable.

b. Calculation of combined leverage.

$$\text{combined leverage} = \frac{\text{contribution}}{\text{Earnings before tax}} = \frac{64,75,000}{54,50,000}$$

$$= 1.188 \Leftarrow$$

(a)

$$\text{operating leverage} * \text{financial leverage} = 1.1409 * 1.0413$$

$$\Rightarrow 1.188$$

Income Statement:

Particulars	Amount (₹)
Sales	65,00,000
(−) Variable Cost	(25,000)
Contribution	64,75,000
(−) Fixed cost	(8,00,000)
Earnings before Interest & tax (EBIT)	56,75,000
(−) Interest (22,50,000 * 10%)	(2,25,000)
Earnings before tax (EBT)	54,50,000

$$\text{Operating leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{64,75,000}{56,75,000} = 1.1409$$

$$\text{Financial leverage} = \frac{\text{EBIT}}{\text{EBT}} = \frac{56,75,000}{54,50,000} = 1.0413$$

c. Calculation of operating, financial & combined leverage.

Particulars	S-1	S-2
Situation		

$$\text{operating leverage} = \frac{\text{contribution}}{\text{EBIT}}$$

$$\text{Financial leverage} = \frac{\text{EBIT}}{\text{EBT}}$$

$$\text{combined leverage} = \text{operating leverage} * \text{Financial leverage}$$

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C.

Particulars	Plan X situation ①	②	Plan Y situation ①	② (Amount in ₹)
Installed capacity (in units)	5000	5000	5000	5000
Annual Sales @ 60% (in units)	3000	3000	3000	3000
Sales value @35₹	105,000	105,000	105,000	105,000
(−) Variable cost @25₹	(75,000)	(75000)	(75000)	(75000)
Contribution	30,000	30,000	30,000	30,000
(−) Fixed cost	(20,000)	(32,000)	(20,000)	(32,000)
EBIT	10,000	(2000)	10,000	(2,000)
(−) Interest: (150,000; 45,000 * 10%)	(15000)	(15000)	(4500)	(4500)
EBT	(5000)	(17000)	5500	(6500)

operating leverage = $\dfrac{cont}{EBIT}$

	30,000	30,000	30,000	30,000
	10,000	(2000)	10,000	(2,000)
	3	(15)	3	(15)

financial leverage = $\dfrac{EBIT}{EBT}$

	10,000	(2000)	10,000	(2000)
	(5000)	(17000)	5500	(6500)
	(2)	0.1176	1.818	0.308

Combined leverage = OL* FL ⇒

3*(2)	(15)* 0.1176	3* 1.818	(15)*0.308
(6)	(1.764)	5.454	(4.62)

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3.

(a) Average Rate of return = $\dfrac{\text{total cash inflows} / n}{\text{Initial Investment}}$

Machine A

Particulars	1	2	3	4	5
Net Income after depreciation & tax :	3375	5375	7375	9375	11375
+ Depreciation : (56,125 ÷ 5)	11,225	11225	11225	11225	11225
Cash ~~out~~ flows →	14,600	16,600	18,600	20,600	22600

Machine B :

Particulars	1	2	3	4	5
Net Income after depn. & tax :	11375	9375	7375	5375	3375
+ Depreciation :	11225	11225	11225	11225	11225
Cash inflows →	22600	20,600	18600	16600	14600

✗

ARR = $\dfrac{\text{total cash inflows} /n}{\text{Initial investment}}$

Machine A = $\dfrac{[14600 + 16600 + 18600 + 20600 + 22600 /5]}{56125}$

$= \dfrac{(93,000/5)}{56,125} = \dfrac{18600}{56,125} \Rightarrow 0.3314.$

Machine B = $\dfrac{[22600 + 20600 + 18600 + 16600 + 14600/5)}{56125}$

$= \dfrac{(93,000/5)}{56,125} = \dfrac{18,600}{56,125} = 0.3314.$

(b) Pay back period = $\dfrac{\text{Initial Investments}}{\text{cash flows}}$

(not uniform)

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Machine (A)

1	3375	14600.	14600
2	5375	16600	31200.
3	7375	18600	49800
4	9375	20600	70400.
5	11375	22600.	93,000.

Machine (B)

1	22800	22800
2	20600	43200
3	18600	61800
4	16600	78400
5	14800	93,000.

$$PBP \Rightarrow 3 \text{ years} + \left[\frac{6325}{20600}\right]$$

3.31 years

$$PBP \Rightarrow 2 \text{ years} + \left[\frac{6925}{18600}\right]$$

2.69 years

$$\text{Depreciation} = \frac{56125 - 3,000}{5} = 10625.$$

Machine A:

Net profit after tax	3375	5375	7375	9375	11375
+ Depreciation	10625	10625	10625	10625	10625
Cash inflows	14000	16000	18000	20000	22000

$$ARR = \frac{\text{Cash Inflows}}{(\text{Initial investment} + \text{Terminal cashflow})}$$

$$ARR = \frac{(14000 + 16,000 + 18000 + 20000 + 22,000/5)}{(56125 + 3000/2)}$$

$$= \frac{18,000}{29563} \Rightarrow 0.609\%$$

Q6. **Annual Cash Inflows:**

15,000 per annum @ 10years @ 30% rate of return

Present Value cash flows:

Years	Amount	PVF@30%	PVCF's
1	15,000	0.7692	11538
2	15,000.	0.5912	8868
3	15000	0.4552	6828
4	15000	0.3501	5252.

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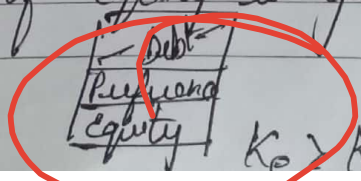|			
5	15,000	0·2693	4040
6	15,000	0·2072	3108
7	15,000	0·1594	2391
8	15,000	0·1226	1839
9	15,000	0·0943	1414
10	15,000 ⎫	0·0725	1088
+ Terminal	75,000 ⎭	0·0725	5438
			51804

NPV = SDCIF − SDCOF

NPV ⇒ ₹51804 − 75,000 ⇒ −23196.

Note: Depreciation is not considered as loan is taken for up home health care business. & relating to delivery vehicle lessor would be claiming depreciation.

4(c)

2. Verticle capital Structure Pyramid capital structure.
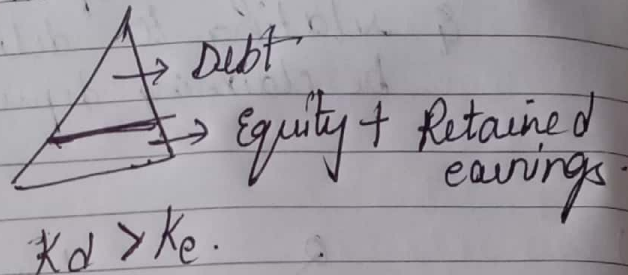
Verticle capital Structure:

1. ——— In this kind of capital structure the base or foundation is layed by the Equity share Capital.

2. The Retained Earnings are very low & the dividend pay out ratio is very high.

8. The additional capital is mostly brought in the form of debt Capital only.

4. There is a portion of Prefrence share capital also involved.

5. The Cost of equity is greater than cost of debt.

Debt
Prefrend
equity

Ke > Kd

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1. Pyramid Capital Structure capital Structure — In this kind the own funds, say Equity shares capital is very the base a very less position of outside debts are taken

2. The cost of debt is more than cost of equity under this type of their

3. The firms that adopt pyramid type of capital structure are called Risk avoidance Conservative firms

4. The Equity & Retained earnings are kept for a period of time & utilised by avoiding the risk from outside debts or loans

Debt →
Equity + Retained earnings →

$K_d > K_e$.