



# SNS College of Technology

Coimbatore - 35



23BAT611– Financial Management

Problem on Capital Budgeting

Presented by

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*Design Thinker*



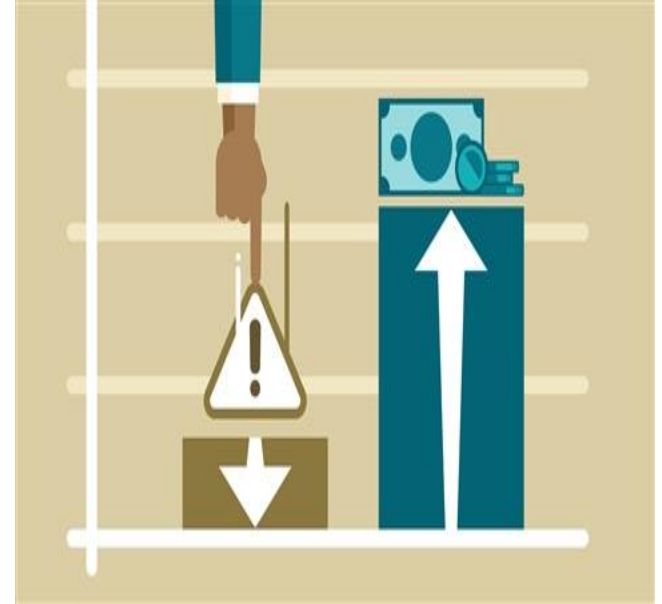
**1<sup>st</sup> Indian Institution to Implement Design Thinking Curriculum**  
Redesigning Common Mind and Business  
Towards Excellence



# RECAP



# Topic





# NPV, PV, PAYBACK, ARR





## Problem 7

Year	Outflows	Profit after depreciation but before tax
0	2,00,000	-
1		1,00,000
2		1,00,000
3		80,000
4		80,000
5		40,000

Depreciation 20% on original cost and taxation 50% of net income



## Calculate



- Pay-back method
- Accounting Rate of Return
- Average Rate of Return
- Discounted Cash Flow Method 10% cost of capital
- Excess Present Value Index



## 1.) Payback Period

Year	EBT	TAX	EAT	DEP(20%* 2,00,000)	Cash inflow	Cummulative cash inflow
1	1,00,000	50,000	50,000	40,000	90,000	90,000
2	1,00,000	50,000	50,000	40,000	90,000	1,80,000
3	80,000	40,000	40,000	40,000	80,000	2,60,000
4	80,000	40,000	40,000	40,000	80,000	3,40,000
5	40,000	20,000	20,000	40,000	60,000	4,00,000

Payback Period=2 Years, $((80,000/20,000)*12)$ =2 Years,3 Months



Contd.....



## 2.) Accounting Rate of Return:

$$\begin{aligned}\text{Accounting Rate of Return} &= (\text{Average EAT} / \text{Original investment}) * 100 \\ &= (40,000 / 2,00,000) * 100 = 20\%\end{aligned}$$

## 3.) Average Rate of Return:

$$\begin{aligned}\text{Average Rate of Return} &= (\text{Average EAT} / \text{Average of investment}) * 100 \\ &= (40,000 / 1,00,000) * 100 = 40\%\end{aligned}$$





## 4.) NPV

Year	Cash inflow	PV Factor @10%	Cummulative cash inflow
1	90,000	0.909	81,810
2	90,000	0.826	74,340
3	80,000	0.751	60,080
4	80,000	0.683	54,640
5	60,000	0.621	37,260
<b>Total PV of Cash inflow</b>			<b>3,08,130</b>
Total Outflow			2,00,000
NPV			1,08,130



## 5.) Excess Present Value Index

$$\begin{aligned}\text{Excess Present Value Index} &= (\text{PV of cash inflow} / \text{PV of cash outflow}) * 100 \\ &= (3,08,130 / 2,00,000) * 100 \\ &= 154\%\end{aligned}$$



## ASSESSMENT



- Spell out the formula for Average Rate of Return



# Reach Us



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