ADVANCED CAPITAL BUDGETING DECISIONS

CLASS 7-HW-Q15

Topic Risk Adjusted Discount Rate (RADR)

Question 15:

Determine the Risk Adjusted Net Present Value of the following projects:

	A	B	C
Net cash outlays (₹)	70,000	1,20,000	2,20,000
Project life	5 years	5 years	5 years
Annual cash inflow (₹)	30,000	42,000	70,000
Coefficient of Variation	2.2	1.6	1.2

The company selects the risk-adjusted discount rate on the basis of the Coefficient of variation.

Coefficient of Variation	Applicable Risk adjusted discount rate (i)	PVIFA (i,5)
0	10%	3.791
0.4.	12%	3.605
0.8	14%	3.433
1.2	16%	3.274
1.6	18%	3.127
2	22%	2.864
>2.0	25%	2.689

Which project should be selected by the company based on Risk Adjusted NPV?

(Source: ICAI)

ANSWER:

Selection of project on the basis of Risk Adjusted Net Present Value

Particulars	A	B	C
Co efficient of Variation	2.2	1.6	1.2
Applicable discount rate (%)	25	18	16
Annual cash inflow (₹)	30,000	42,000	70,000
Relevant PVIFA	2.689	3.127	3.274
PV of cash inflow (₹)	**80,670**	**1,31,334**	**2,29,180**
Less: Cash outflow (₹)	70,000	1,20,000	2,20,000
Risk adjusted NPV (₹)	**10,670**	**11,334**	**9,180**

Conclusion: Project B should be selected as its Risk adjusted NPV is high.