

Example 18 : A plant costing ₹ 3,00,000 is required in order to undertake a proposed project. The effective life of the plant is 5 years. The estimated earnings before depreciation and tax of the project are as follows :

Year	(₹)
1	90,000
2	1,05,000
3	1,20,000
4	1,50,000
5	1,65,000

If the tax rate is 50%, cost of capital is 15% and the scrap value of the machine is zero, calculate the net present value and suggest whether the project should be accepted or not.

Given : The present value factors at a discount @ 15% rate are :

Year	:	1	2	3	4	5
PV Factors	:	0.8696	0.7561	0.6575	0.5718	0.4972

• Solution ⇒

Statement of Net Cash Inflows

Particulars	1st year (₹)	2nd year (₹)	3rd year (₹)	4th year (₹)	5th year (₹)
Profit before depreciation & taxes	90,000	1,05,000	1,20,000	1,50,000	1,65,000
Less : Depreciation	60,000	60,000	60,000	60,000	60,000
Profit before tax	30,000	45,000	60,000	90,000	1,05,000
Less : Tax @ 50%	15,000	22,500	30,000	45,000	52,500
Profit after tax	15,000	22,500	30,000	45,000	52,500
Add : Depreciation	60,000	60,000	60,000	60,000	60,000
Net Cash inflows	75,000	82,500	90,000	1,05,000	1,12,500

Statement showing the NPV

Year	Net Cash inflows (₹)	PVF of Re. 1 at 15% (₹)	Present Value (₹)
1	75,000	0.8696	65,220
2	82,500	0.7561	62,378
3	90,000	0.6575	59,175
4	1,05,000	0.5718	60,039
5	1,12,500	0.4972	55,935
Total present value			3,02,747
Less : Initial investment			3,00,000
Net Present Value			2,747

Comment : It is clear from the above table that the net present value of the given project is positive. So, the project should be accepted.