

Net present value

Pilgrim's choice (2)

Project 1: the advertising campaign

Production and advertising costs would be £800,000. The increase in sales would provide the following returns for the company:

- Year 1: £650,000
- Year 2: £200,000
- Year 3: £100,000

Project 2: converting to cell production

The Operations Manager estimated that increased productivity from this project would provide an annual return of £250,000 to the firm for each of the next 8 years. However, the initial investment costs would be £950,000. Staff training would add £50,000 to the initial costs, before any benefits could be gained from the project.

Project 3: the new computer network

The previous system had dated quickly and after 3 years it was deemed to be out-of-date and in need of replacement. The salesperson from the

software company had been very helpful and persuasive. If they acted quickly, the software could be installed for £500,000 (a bargain according to the salesperson!). Pip reckoned it would lead to cost savings of £200,000 in each of the next 3 years.

The company uses a 10% discount factor for its investment appraisal calculations. Present values for £1 at 10% are as follows:

Year	Discount factor
0	1.0
1	0.91
2	0.83
3	0.75
4	0.68
5	0.62
6	0.56
7	0.51
8	0.47



Exercise 1 12 marks

For each of the three projects, calculate the NPV. Based on these calculations, provide a rank order for the three projects and recommend which (if any) should be selected. Show your reasons.

Exercise 2 6 marks

Explain the main factors that would influence the discount factor that a business would choose when calculating the NPV.

Exercise 3 7 marks

The board of directors has requested that, in order to simplify future decisions, only one method of investment appraisal is used. Which method would you advise, and why?