

David Adams

1908506

M5X01176

Management Innovation and
Sustainability

12/06/20

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1.a) Project Supernatant

Year	£ Net Cash Flow	£ Cumulative Cash
0	(200,000)	(200,000)
1	20,000	(180,000)
2	40,000	(140,000)
3	60,000	(80,000)
4	60,000	(20,000)
5	60,000	40,000

Payback = 4 years and x months.

$$x \text{ months} = \frac{60,000}{12} = 5,000$$

$$= \frac{20,000}{5,000} = 4.$$

Payback = 4 years, 4 months.

Project Fuge 41

Year	£ Net Cash	£ Cumulative Cash
0	(200,000)	(200,000)
1	80,000	(120,000)
2	60,000	(60,000)
3	60,000	0
4	40,000	40,000
5	40,000	80,000

Payback = 3 years exactly.

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Project Centre 4.

Year	£ Net Cash	£ Cumulative Cash
0	(200 000)	(200 000)
1	60 000	(140 000)
2	60 000	(80 000)
3	60 000	(20 000)
4	60 000	40 000
5	60 000	100 000

Payback = 3 years and x months

$$x \text{ months} = \frac{60 000}{12} = 5 000$$

$$\frac{40 000}{5 000} = 8$$

Payback = 3 years and 8 months

b) Project ~~Centre 4~~ Fuge 41

Year	Cash flow	Discount factor (10%)	Present Value (£)
0	200 000	1.00	(200 000)
1	80 000	0.9091	72 728
2	60 000	0.8264	49 584
3	60 000	0.7513	45 078
4	40 000	0.6830	27 320
5	40 000	0.6210	24 840

Total Cash flow = £219 550

Net Present Value = £219 550 - 200 000
= £19 550

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Project Supernatant

Year	Cash flow (£)	Discount factor (10%)	Present Value (£)
0	(200 000)	1.00	(200 000)
1	20 000	0.9091	18 182
2	40 000	0.8264	33 056
3	60 000	0.7513	45 078
4	60 000	0.6830	40 980
5	60 000	0.6210	37 260

Total Cash flow = £174 556

Net Present Value ~~£174 556 - £200 000~~

~~£174 556~~

= £174 556 - £200 000

= £25 444

Project Centre 4

Year	Cash flow (£)	Discount factor (10%)	Present Value (£)
0	(200 000)	1.00	(200 000)
1	60 000	0.9091	54 546
2	60 000	0.8264	49 584
3	60 000	0.7513	45 078
4	60 000	0.6830	40 980
5	60 000	0.6210	37 260

Total Cash flow = £227 448

Net Present Value = £227 448 - £200 000

= £27 448

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- 1c) In terms of payback time, Project Fuge 41 gives the quickest return on investment as it payback in 3 years 0 months. However Project Centre 4 gives a better return on investment over time and pays back the second quickest at 3 years 8 months. Project Super natant payback after 4 years and 4 months and only returns a profit of £40000 after 5 years.

If the equipment was going to be replaced after 4 years, I would pick Project Fuge 41, However as the project is over 5 years, I would pick Project Centre 4 for the company as it makes the most profit, and has the highest NPV.

- 1d) External factors such as exchange rates (their fluctuations), interest rates / level of inflation and trend (rise and fall), government policies and world market situations should all be considered when making capital investment decisions, As these can alter the value of the investment and the return of investment (sales). Motives for investment should also be considered when making capital investment decisions. Such as the changes in technology and the need to keep up to stay competitive, the need to grow the business and become a larger market presence. Also there may be a need to invest to ensure continued compliance with legislative requirements.

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- 2 (1/2) • Low resource efficiency and effectiveness leads to over resourced, under utilised (waste). Increasing this efficiency means you can either decrease your resource requirements i.e. less staff to complete the same output, or increase your output with the same amount of resource i.e. same amount of staff but more output. Both examples lead to cost savings / ~~cash~~ cash flow increase.
- Product/service ageing or obsolescence can mean you have to change/adapt how you operate by either decreasing output to prolong life cycles of equipment or replacing equipment with new ~~to~~ due to being unable to obtain parts and serviceability and reliability becoming an issue.
 - Reduced and eroded profit margins due to an ~~increase~~ increase in cost of raw materials/parts, utilities, labour, shipping can lead an organisation to needing to make changes.
 - Technological Change can lead an organisation to make changes. i.e. robotics and AI can reduce the need for certain labour costs, and video conferencing can reduce the need for travel and sometimes office space (working from home).
 - Changes in the competition can also lead an organisation to make changes as it adapts to remain competitive.
 - Customer demands can change over time, i.e. apple iPods demand decreased over time due to the introduction of music streaming services.

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- 2) The changes are needed for many reasons;
- Inefficiency - computers are quicker to produce reports from data. Enabling better decision making.
 - computer system also quicker than hand-writing reports.
 - Legislative - allows you to have traceability and quality assurance (ISO 9000/9001)
 - Competitors - competitors use computer system and ~~are able to produce~~ customers now expect the same.
 - Need to ~~improve~~ financial - can have a more accurate picture of stock levels and utilisation to ensure maximisation of levels and ~~at~~ ensure you are not holding stock on shelves for long periods which costs could be used elsewhere in the mean time.

Environmental - reduction in paper use and associated costs, carbon footprint and associated taxes, customers requirements for ISO 14001

To ensure change takes place smoothly, it is important to understand what can cause issues and then mitigate them,

Such as:

Allowing too much complacency and making assumptions that people will willingly follow what is proposed, this will need to be

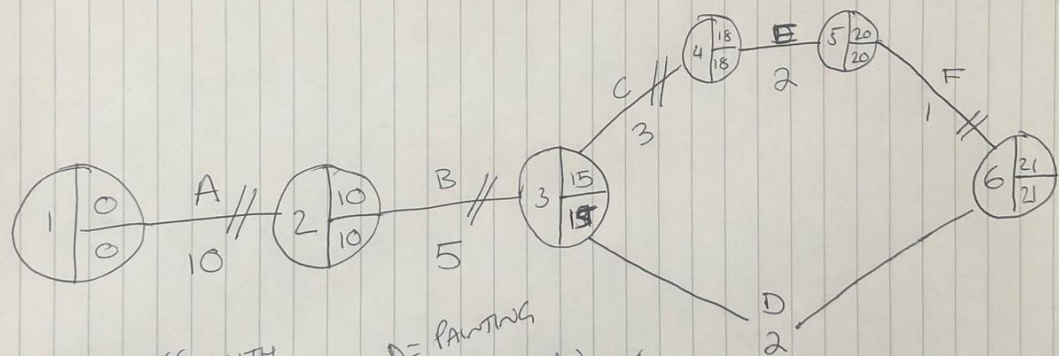
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managed through good leadership.

- Generate sufficient resource to see the changes through
- Communicate effectively and continuously with everyone involved
- Be honest and open with what changes are required and why
- Ensure not side tracked by operational problems or issues.
- Create and publicise short term advantages, wins and successes.
- Reward people for their efforts and deliver on promises or indicated rewards.
- Ensure upper management are reasonable in their expectations and time scale, remembering that some people are resistant to change for many reasons including being scared/lacking confidence.

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Q4)



A = SECTION OFF WITH
PLASTER BOARDS
WALLS

B = INSTALL FIRE SAFETY
EQUIPMENT

C = INSTALL TELEPHONE
LINE

D = PAINTING

E = PUTTING IN
ELECTRICAL SOCKETS

F = INTERNET CONNECTIONS

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