ACPA7002

Capital Project Appraisal in a Manufacturing SME

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By

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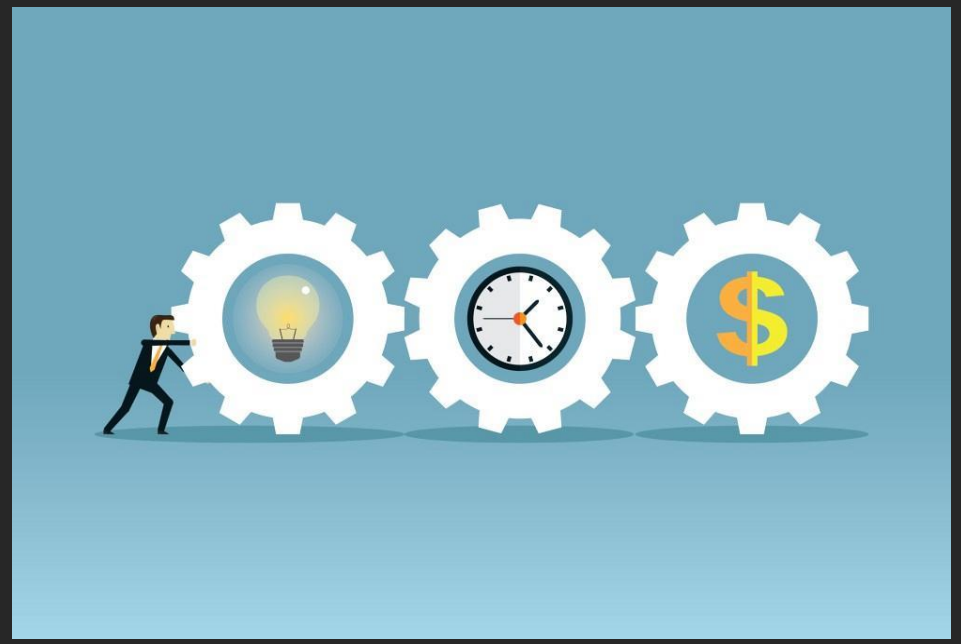
Introduction



Financial and accounting concepts play a vital role in justifying business innovation and project investments. The analysis of financial and accounting data helps in making informed decisions about investments, assessing the risks involved, and identifying potential opportunities for growth and profitability.

Company Background

Since 1980, the case company has established itself as a prominent provider of comprehensive welding and engineering services worldwide. They specialise in delivering tailor-made solutions to intricate challenges by collaborating closely with their clients.

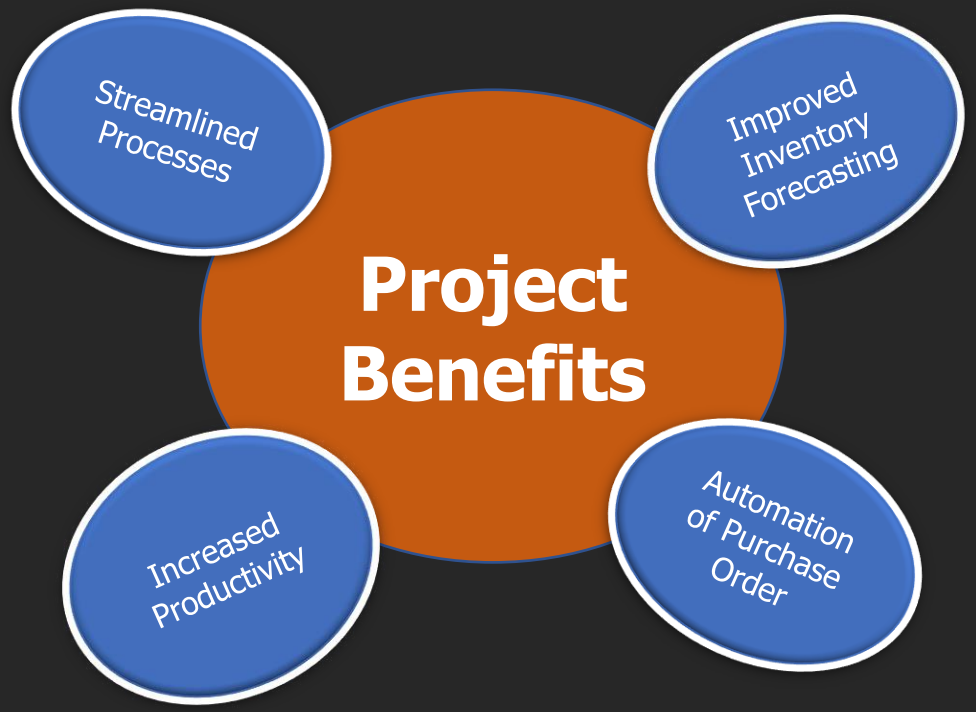
Inventory Challenges
Manual Process
Inaccurate Inventory Forecasting
Lack of Automation
Low Productivity

Project Overview

The identified project involves implementing a new software system to streamline the company's inventory management processes. The system will allow for real-time tracking of inventory levels, automate purchase orders, and improve accuracy in inventory forecasting. The project will require an initial investment of £86,000 and has a 5-year life span.

Step	Definition	Cost
1	Needs Assessment	5,800.00
2	System Selection	3,000.00
3	Data Migration	8,000.00
4	Configuration and Customisation	48,000.00
5	Testing	8,500.00
6	Training	8,700.00
7	Go-Live	4,000.00
	Total	£86,000.00

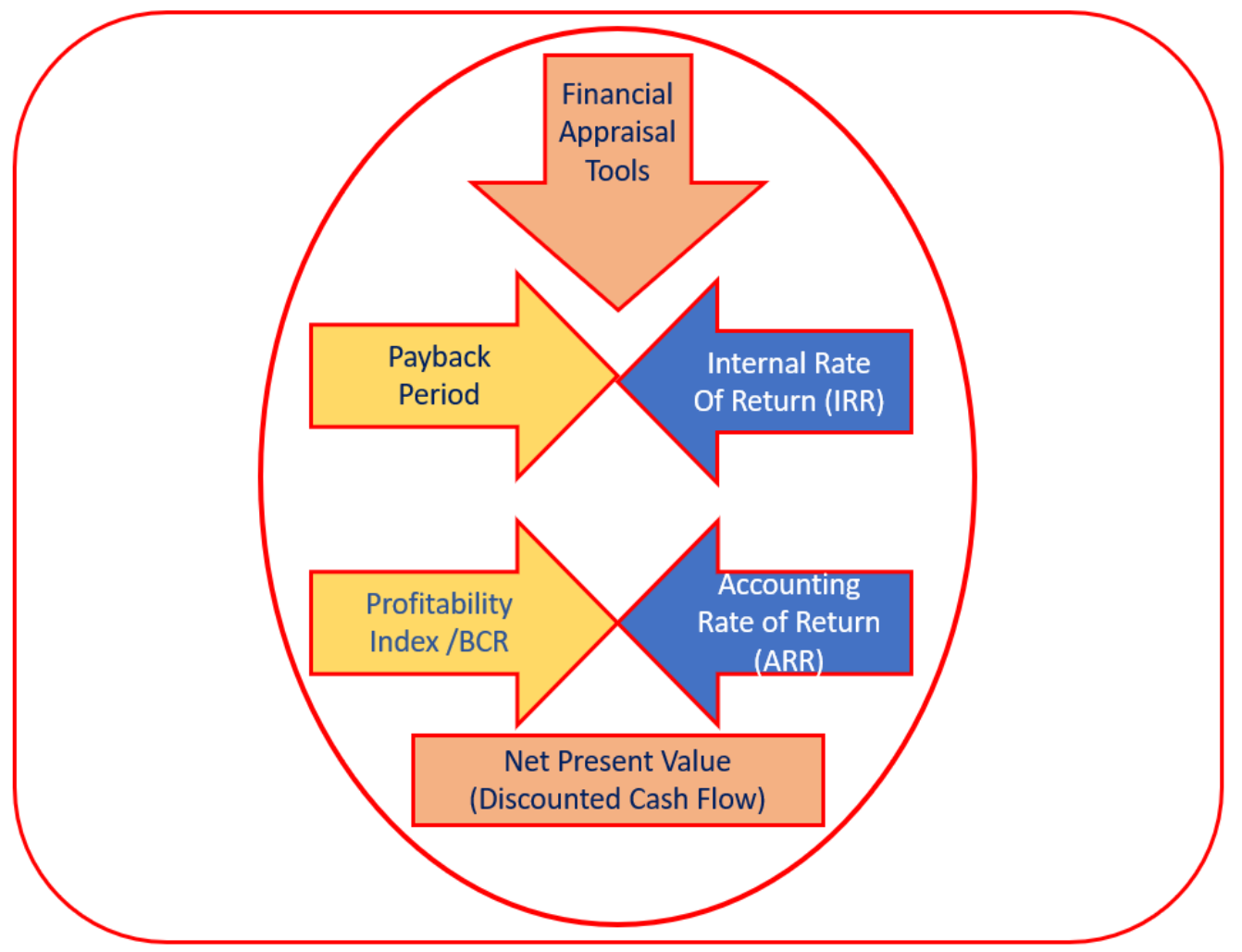
Expected Benefits



Implementing a new software system to streamline the inventory management process can address many of the challenges that the manufacturing SME faces in their manual inventory management process.

By automating tasks, improving inventory forecasting, and increasing productivity, the system can help the company operate more efficiently and effectively.

Project Appraisal



Annual cashflow of £36,000 from savings in time and increased productivity.

Detail	Amount
Storeman Cost Savings Per Day	£100
Cost of error Savings Pe Day	£44
Total Savings Per Day	£144
Total working Days Per Year	250
Total Saved Per Year	**£36,000**

Project Appraisal

Payback Period

	0	1	2	3	4	5
Investment	86,000					
Benefits		36,000	36,000	36,000	36,000	36,000
Net Benefit	-86000	-50,000	-14,000	22,000	58,000	94,000

Breakeven point is between 2 and 3 years.

2 + 14/36 is **2.3 Years**.

Net Present Value

	Investment	Year 1	Year 2	Year 3	Year 4	Year 5
Present Value	86,000	36,000	36,000	36,000	36,000	36,000
Discount Rate (WACC)	10%					
Denominator	1.000	0.909	0.826	0.751	0.683	0.621
Future Value	86,000	32,727	29,752	27,047	24,588	22,353
NPV	50,468					

Internal Rate of Return

	%	NPV
Movement	10	50,468
Movement per %		5,046.80
Positive NPV	10	50468
% to NPV Zero		7.4
IRR (Rough Calc)		17.4

Profitability Index/BCR

Profitability Index = (Present value of cash inflows / Initial investment)

Profitability Index = (£136,468 / £86,000)

Profitability Index = 1.58

Accounting Rate of Return

ARR = (Average annual profit ÷ Average investment) x 100%

= (£36,000 ÷ £86,000) x 100%

= 41.86%

Conclusion/Recommendation

The payback Period for the project is 2.3 years which indicates this is a good investment. NPV was calculated as £50,468, which is greater than the expected rate of return. IRR is 17.4% which is also higher than the rate of return. The profitability Index equals 1.58, which is greater than 1 and indicates potential profitability and benefits to the organisation. Finally, the ARR calculation was 41.80% which is higher than the discounted rate of 10 percent.

Following the appraisal outcome, the case company is convinced that the project which aligns with their corporate goals also makes financial sense.

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Q & A