

Module 1.2 Enquiry 5: Profit and loss at Bentley Technology

Learning outcomes	
1	Practice constructing a profit and loss account.
2	Understand the use of profit margin to analyse accounts.
3	Make some comparisons with the accounts of other companies.

Key Skills	
N3.2 N3.3	This activity develops understanding for these items but the evidence needs to be collected from one major activity.

Resources	Student sheet. A spreadsheet can be used if appropriate; there is a template in NuffieldInvestigations.
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Time	45 minutes.
Running the activity	An individual activity, but discussion of the findings in groups or as a class is desirable towards the end.

Answers

1 Bentley Technology Ltd

Profit and loss account for the years ending 2002 and 2003

	2002		2003	
	£000	£000	£000	£000
Turnover		2 000		1 800
Cost of sales				
direct materials	450		405	
direct labour	630	1080	567	972
Gross profit		920		828
Overheads				
rent, rates and insurance	100		100	
heat and light	50		50	
distribution costs	190		175	
administrative expenses	160	500	160	485
Operating profit		420		343
Non-operating income		15		4
	435		347	
Interest payable		35		38
Net profit before tax		400		309
Corporation tax		140		108.15
Net profit after tax		260		201
Dividends		104		80.34
Retained profit		156		121

- 2** **Gross profit:** revenue minus costs of sales.
Operating profit: gross profit minus overheads.
Net profit before tax: operating profit plus non-operating income and minus interest payable.
Retained profit: profit after tax and shareholders' dividends have been deducted.

- 3** **Gross profit margin.** 2002:46% 2003: 46%
Operating profit margin. 2002:21% 2003: 19%

The gross profit margin remained constant as the 10% decrease involved both sales and cost of sales.

The operating profit margin was reduced because overheads, being a fixed cost remained the same (apart from distribution costs) despite the drop in sales turnover.

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Bentley Technology Ltd manufacture and supply components to the computer industry. They buy in materials, add value by assembling them and sell them on to major computer producers. 2002 was a particularly good year, with sales turnover reaching £2,000,000 for the first time.

Bentley Technology Ltd		
Profit and Loss Account for the year		
ending 31st December 2002		
	£000	£000
Turnover		2 000
Cost of sales		
direct materials	450	
direct labour	630	1 080
Gross profit		920
Overheads		
rent, rates and insurance	100	
heat and light	50	
distribution costs	190	
administrative expenses	160	500
Operating profit		420
Non-operating income		15
		435
Interest payable		35
Net profit before tax		400
Corporation tax		140
Net profit after tax		260
Dividends		104
Retained profit		156

2003 saw a slight change in fortunes: Bentley Technology failed to keep up with the rapid pace of technological change and lost market share. Sales were down by 10% with a corresponding decrease in the cost of direct materials and direct labour. Overheads, of course, remained the same, except for distribution costs, which fell by £15,000. In addition return on investments suffered from a general fall in the Stock Market, reducing this income to £4000 compared to 1998, and a rise in interest rates during the year had a subsequent effect on the interest payable on borrowed funds, raising it to £38,000 p.a. Corporation tax on profits remained at the same percentage, as did the proportion of profit after tax appropriated to shareholders' dividends.

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- 1 Draw up a profit and loss account for 2003 incorporating the above changes. Round off all figures to the nearest £1000. You can use the template in Nuffield Investigations (changing the dates), or any spreadsheet package.
Comment on the effect of the changes.
- 2 Define each of the following terms, making clear the distinction between them:
Gross profit
Operating profit
Net profit before tax
Retained profit
- 3 Calculate the **gross profit margin** and **operating profit margin** for 2002 and 2003.
Comment on and explain the differences between the two years.
- 4 Examine the published reports and accounts of some UK companies. Use the **gross profit margin** and **operating profit margin** to examine their profitability.

You will find information about selected companies on the BizEd website, (<http://www.bized.ac.uk>).
Select



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www.necb.org*