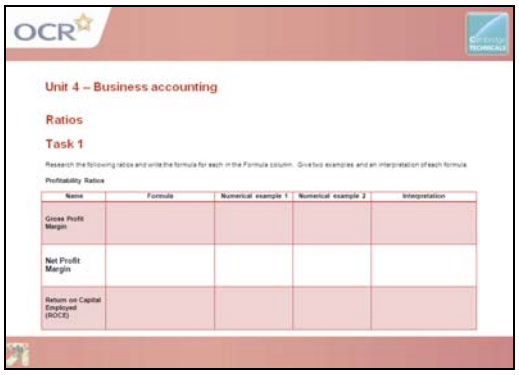
Unit 4 – Business accounting

Ratios

Instructions and answers for Teachers

These instructions should accompany the OCR resource 'Ratios' which supports the OCR Level 3 Cambridge Technicals in Business Unit 4 – Business Accounting



Associated Files:
Ratios worksheet

Expected Duration:
Task 1 approx.90 minutes
Task 2 approx. 60 minutes

Learners should gain an understanding of the different types of ratios that businesses use in order to interpret and judge the performance of the organisation and how the business can therefore plan for the future.

These activities offer an opportunity for English and maths skills development.

LESSON*Elements*

The building blocks you need to construct informative and engaging lessons

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Task 1

Research the following ratios and write the formula for each in the Formula column. Give two examples and an interpretation of each formula.

Profitability Ratios

Name	Formula	Numerical example 1	Numerical example 2	Interpretation
Gross Profit Margin	Gross Profit / Sales Revenue x 100	200000 / 600000 x 100 =33.3%	15000 / 40000 x 100 = 37.5%	For every £1 of sales revenue £0.33 (from Numerical example 1) remains after all direct expenses have been taken away. The higher the number the better it is for the business.
Net Profit Margin	Net Profit / Sales Revenue x 100	10000 / 100000 x 100 = 10%	5000 / 40000 x 100 = 12.5%	For every £1 of sales revenue £0.10 (from Numerical example 1) remains after all expenses have been paid.
Return on Capital Employed (ROCE)	Net Profit / Capital Employed x 100	1100 / 3700 x 100 = 29.7%	6000 / 240000 x 100 = 2.5%	Every £1 invested the annual return would be £0.30 (from Numerical example 1). The higher the number the better.

Liquidity Ratios

Name	Formula	Numerical example 1	Numerical example 2	Interpretation
Current Ratio	Current Assets / Current Liabilities	4500 / 2250 = 2/1 = 2	3000 / 500 = 6/1 = 6:1	A business could afford to pay any liabilities (the ratio figure) from its current assets within the business. If the ratio is too high then the business should consider looking for investment opportunities to reduce their working capital.
Acid Test ratio (Liquid capital ratio or quick ratio)	Current Assets – Closing Stock / Current Liabilities	12,650 - 6930 / 3850 = 1.49	7530 - 2770 / 3670 = 1.30	The business could afford to pay back their short term debts without having to sell any other stock. Generally businesses will look for this to be 1.0. If the business has a figure less than 1 then there could be a potential problem as their assets are more than their liabilities.

Efficiency or Performance ratios

Name	Formula	Numerical example 1	Numerical example 2	Interpretation
Debtor collection period (debtor days)	Debtors x 365 days Revenue	150,000 x 365 = 18.25 300,000 days	3801 x 365 = 73.87 18780 days	On average it will take the company 73.87 amount of days to recover its trade debts (money from customers). The businesses are aiming to do this as soon as possible to improve their cash flow.
Creditor collection period (creditor days)	Creditors x 365 days Cost of Sales	13100 x 365 = 47.8 100000 days	2226 x 365 = 64 days 12690	The average number of days it will take the business to pay back its creditors (outstanding debt to the business).
Stock Turnover	Cost of sales Stocks	900000 = 4.29 times 210000	700000 = 1.84 times 380000	The amount of times that a business turns over its stock in an average year. Most businesses want to sell their stock as quickly as possible. This does depend on the type of business eg A supermarket turnover will be more frequent due to perishable goods that they sell.

Task 2

The figures below are taken from the accounts of a wholesale food business. Assume all sales and purchases are made on credit.

Sales	£70,000
Purchases	£30,000
Opening stock	£10,000
Closing Stock	£6,000
Gross Profit	£36,000
Net Profit	£14,000
Creditors	£3,000
Debtors	£8,000
Cost of sales	£34,000
Capital employed	£160,000
Total current assets	£12,000
Total current liabilities	£5,000

Using the figures above and the formulae you researched in Task 1, calculate the following ratios. Work to two decimal places:

Profitability	**Formula**	**Calculation**
Gross Profit Margin	Gross Profit / Sales Revenue x 100	36000 / 70000 x 100 = 51.43%
Net Profit Margin	Net Profit / Sales Revenue x 100	14000 / 70000 x 100 = 20%
ROCE	Net Profit / Capital Employed x 100	14000 / 160000 x 100 = 8.75%
Liquidity		
Current ratio	Current Assets / Current Liabilities	12000 / 5000 = 2.4
Acid Test	Current Assets – Closing Stock / Current Liabilities	12000-6000 / 5000 = 6000 = 1.2
Performance		
Debtor collection period	Debtors / Revenue x 365 days	8000 / 70000 x 365 = 41.71 days
Creditor collection period	Creditors / Cost of sales x 365 days	3000 / 34000 x 365 = 32.21 days
Stock Turnover	Cost of sales / Stocks	34000 / 6000 = 5.67