Unit 31

Ratio Analysis

1. What is ratio analysis

: mathematical approach to investigating accounts by comparing two related figures

- **Profitability ratio :** measures the performance of the business and focus on profit, revenue, the amount invested in the business.
- **Liquidity ratio :** measure how easily a business can pay its short-term debts, such as wages or suppliers.

	2016 US$000	2015 US$000
Revenue	23 500	18 400
Cost of sales	12 500	10 100
Gross profit	11 000	8300
Operating profit	4600	3200
Current assets	13 600	11 900
Inventories	4900	5000
Current liabilities	8700	7800
Capital employed	20 000	18 000

2.Profit margin

2.1 Gross profit margin (Or mark-up)

: gross profit expressed as a percentage of turnover

: Formula gross profit margin = $\frac{\text{Gross profit x 100}}{\text{Revenue}}$

2016	2017
: = $\frac{11{,}000 \times 100}{23{,}500}$	: = $\frac{8{,}300 \times 100}{18{,}400}$
46.8%	45.1%

Analyst

: The gross profit margin for Economies has improved slightly over the two years from 45.1 % to 46.8%

2.2 Operating profit margin

: operating profit expressed as a percentage of turnover.

: helps to measure how well a business controls its expenses and costs of sales. If the difference between the gross profit margin and the operating profit margin is small, this suggest that expenses are low. The operating profit margin can be calculated by

: Formula gross profit margin = $\dfrac{\text{Operating profit x 100}}{\text{Revenue}}$

2016	2017
: = $\dfrac{4{,}600 \times 100}{23{,}500}$	: =$\dfrac{3{,}200 \times 100}{18{,}400}$
19.5%	17.4%

Analyse

: The operating profit margin fell from 19.5% in 2016 to 17.4% in 2017. Higher operating profit margins are better than lower ones.

2.3 Mark-up

: Some businesses are interested in the profit made per item sold. This is called the mark-up and is calculated by

: Formula Mark-up = $\dfrac{\text{Profit per item x 100}}{\text{Cost per item}}$

For example - If company sells one of its properties for 236,000 US. Dollar and the cost of building it was 200,000 US. Dollar, the profit made on the sale would be 36,000. The mark-up is given by

- Mark - up = $\dfrac{36{,}000 \times 100}{200{,}000}$

  = 18%

3. Concept and importance of liquidity

: Liquidity refers to the ease and speed with which assets can be converted into cash.

3.1 Current ratio

: assesses the firm's liquidity by driving current liabilities into current assets.

: Current ratio = $\frac{\text{Current assets}}{\text{Current liabilities}}$

2016	2017
: = $\frac{13,600}{8,700}$	: = $\frac{11,900}{7,800}$
1.56	1.53

Analyse :

: The current ration for company rose very slightly from 1.53 to 1.56 in 2016. It is suggested that a business will have enough liquid resources.

: If the ratio is below 1.5, it might be argued that a business might run short of liquid assets.

: Operating above 2 may suggest that too much money is tied up unproductively.

3.2 Acid test ratio

: similar to the current ratio but excludes stocks from current assets (sometimes called the quick ratio)

: Acid test ratio = $\frac{\text{Current assets - inventory}}{\text{Current liabilities}}$

2016	2017
: = $\frac{13,600-4,900}{8,700}$	: = $\frac{11,900-5,000}{7,800}$
1	0.88

Analyse:

: Over the two years, the acid test ratio for company has improved slightly from 0.88 to 1. If the acid test ratio is less than 1, it means that current assets (less inventory) do not cover current liabilities-this might be a problem.

4. Return on capital employed (ROCE)

: profit of a business as a percentage of the total amount of money used to generate it.

: Formula ROCE $= \dfrac{\text{Operating profit x 100}}{\text{Capital employed}}$

2016	2017
: $= \dfrac{4{,}600 \text{ x}100}{20{,}000}$	: $= \dfrac{3200\text{x}100}{18{,}000}$
23%	17.8%

Analyse

: Over the two years, Company has seen its ROCE increase from 17.8 % to 23%.

5. Using ratios to making comparison

5.1 Ratios can be used to assess the performance and the liquidity of a business at a particular point in time.

5.2 Ratios can also be used to make comparisons between businesses in the same industry.