

Assingment #5 – Financial Ratio Analysis

1. Use the simplified financial statements for a company named Alpha,plc. for the fiscal years: 2022 and 2023.
2. Calculate the following financial ratios (selected) for each of the two years:
 - a. Liquidity Ratios: (1) Current Ratio, (2) Quick Ratio,
 - b. Solvency Ratios: (1) Debt-to-Equity Ratio, (2) Interest Coverage Ratio,
 - c. Turnover Ratios: (1) Inventory Turnover Ratio, (2) Accounts Receivable Turnover Ratio,
 - d. Profitability Ratios: (1) Gross Profit Margin, (2) Net Profit Margin, (3) Return on Assets (ROA), (4) Return on Equity (ROE).
3. Analyse and try to interpret changes in these ratios over the two-year period.
4. Write a very brief report summarizing your findings, including an assessment of the company's financial health and performance based on the simplified ratio analysis.

You can use these formulas to calculate each ratio using the provided financial data for the years: 2022 and 2023. You can complete your calculations in the enclosed Excel spreadsheet.

Liquidity ratios:**1. Current Ratio**

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

2. Quick Ratio (Acid-Test Ratio)

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

Solvency ratios:**1. Debt-to-Equity Ratio**

$$\text{Debt-to-Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Shareholders' Equity}}$$

2. Interest Coverage Ratio

$$\text{Interest Coverage Ratio} = \frac{\text{Net Income} + \text{Interest Expenses} + \text{Taxes}}{\text{Interest Expenses}}$$

Turnover ratios:**1. Inventory Turnover Ratio**

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

2. Accounts Receivable Turnover Ratio

$$\text{Accounts Receivable Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Accounts Receivable}}$$

Profitability ratios:**1. Gross Profit Margin**

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Revenue}} \times 100\%$$

2. Net Profit Margin

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Revenue}} \times 100\%$$

3. Return on Assets (ROA)

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100\%$$

4. Return on Equity (ROE)

$$\text{ROE} = \frac{\text{Net Income}}{\text{Shareholders' Equity}} \times 100\%$$