

- **Financial Ratio** is a relationship between two financial variables. It helps to ascertain the financial condition of a firm.
- **Ratio analysis** is a process of identifying the financial strengths and weaknesses of the firm. This may be accomplished either through a trend analysis of the firm's ratios over a period of time or through a comparison of the firm's ratios with its nearest competitors and with the industry averages. The four most important financial dimensions, which a firm would like to analyse, are: liquidity, leverage, activity and profitability.
- **Liquidity Ratios** measure the firm's ability to meet current obligations, and are, calculated by establishing relationships between current assets and current liabilities.
- **Leverage Ratios** measure the proportion of outsiders' capital in financing the firm's assets, and are calculated by establishing relationships between borrowed capital and equity capital.
- **Activity Ratios** reflect the firm's efficiency in utilising its assets in generating sales, and are calculated by establishing relationships between sales and assets.

- **Profitability Ratios** measure the overall performance of the firm by determining the effectiveness of the firm in generating profit, and are calculated by establishing relationships between profit figures on the one hand, and sales and assets on the other.

SUMMARY OF RATIOS

Liquidity Ratios:

- Current ratio $= \frac{\text{Current assets}}{\text{Current liabilities}}$
- Quick ratio $= \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$
- Interval measure $= \frac{\text{Current assets} - \text{Inventory}}{\text{Average daily cash operating expenses}}$

Leverage Ratios:

- Total debt ratio $= \frac{\text{Total debt}}{\text{Capital employed}}$
- Debt-equity ratio $= \frac{\text{Total debt}}{\text{Net worth}}$

- Capital-equity ratio $= \frac{\text{Capital employed or net assets}}{\text{Net worth}}$

- Interest coverage $= \frac{\text{EBDIT}}{\text{Interest}}$

Activity Ratios:

- Inventory turnover $= \frac{\text{Cost of goods sold or sales}}{\text{Inventory}}$

- No. of days, inventory $= \frac{360}{\text{Inventory turnover}}$

- Debtors turnover $= \frac{\text{Credit sales or sales}}{\text{Debtors}}$

- Collection period $= \frac{360}{\text{Debtors turnover}}$

- Assets turnover $= \frac{\text{Sales}}{\text{Net assets or capital employed}}$

- Working capital turnover $= \frac{\text{Sales}}{\text{Net working capital}}$

Profitability Ratios:

- Gross margin $= \frac{\text{Gross profit}}{\text{Sales}}$ or $= \frac{\text{EBIT}}{\text{Sales}}$
- Net margin $= \frac{\text{Profit after tax}}{\text{Sales}}$ or $= \frac{\text{EBIT}(1 - T)}{\text{Sales}}$
- PAT to EBIT ratio $= \frac{\text{PAT}}{\text{EBIT}}$
- Return on investment (ROI) before tax $= \frac{\text{EBIT}}{\text{Net assets or capital employed}}$
- Return on investment (ROI) after tax $= \frac{\text{EBIT}(1 - \text{Tax rate})}{\text{Net assets or capital employed}}$
- Return on equity (ROE) $= \frac{\text{Profit after tax}}{\text{Net worth}}$

There exists a relationship between various ratios. For example, ROE can be expressed as follows:

- ROE $= \frac{\text{Sales}}{\text{Net assets}} \times \frac{\text{EBIT}}{\text{Sales}} \times \frac{\text{PAT}}{\text{EBIT}} \times \frac{\text{Net assets}}{\text{Net worth}}$

In practice, companies calculate many other ratios. Most important ratios include:

• EPS	$= \frac{\text{PAT}}{\text{No. of shares}}$
• DPS	$= \frac{\text{Profit distributed}}{\text{No. of shares}}$
• Payout	$= \frac{\text{DPS}}{\text{EPS}}$
• Price-earnings ratio	$= \frac{\text{Market value of share}}{\text{EPS}}$
• Market value-book value ratio	$= \frac{\text{Market value of share}}{\text{Book value of share}}$

Ratio analysis is a very useful tool to raise relevant questions on a number of managerial issues. It provides clues to investigate those issues in detail. However, caution needs to be applied while interpreting ratios as they are calculated from the accounting numbers. Accounting numbers suffer from accounting policy changes, arbitrary allocation procedures and inflation.