



Analysis and Interpretation Of Financial Statements

Learning Outcome

- State the functions of accounting ratios
- Calculate a range of ratios
- Draw logical conclusion from the ratios
- State the limitations associated with ratio analysis

The Financial Statements of a company, namely the Income Statement and Balance Sheet must be analysed to provide meaningful interpretation of the financial performance of the company.

Uses of accounting ratios

- Enable comparison of the performance of the company
 - in different years
 - with its budgets and forecasts
 - with other companies in similar trades

Uses of accounting ratios

- Provide information of the company in respect of the liquidity, profitability, use of assets and capital structure
- Eliminate the effects of the scale and size of different companies or different years of the same company so comparison can be provided.
- Appraise the performance of the company, make predictions for future performance and assist in future planning

RATIOS

1. Gross Profit on Turnover
2. Gross Profit on Cost of Sales
3. Net Income on Turnover
4. Operating expenses on Turnover
5. Operating profit on Turnover
6. Operating Profit on Cost of Sales

PROFITABILITY

7. Current Ratio
8. Acid-Test Ratio
9. Rate of Stock Turnover
10. Period for which stock is on hand
11. Debtors Collection period
12. Creditors Payment period

LIQUIDITY

13. Solvency
14. Debt/equity Ratio
15. Return on owners/partners/shareholders equity
16. Return on capital employed
17. Earnings per share
18. Dividends per share
19. Net Asset value per share

SOLVENCY RISK

RETURN

Profitability

- How profitable is the business?
- Indication of operating efficiency

1. Gross Profit on turnover.

- This indicator determines the percentage gross profit of sales
- Comments:

$$\frac{GP}{Sales} \times \frac{100}{1} = \%$$

- operating efficiency; could we increase sales and therefore GP
- compare to previous years, is the ratio better or worse?
- compare to competitors/global markets/economy
- low percentage: business will not be able to meet all expenses

2. Gross Profit on Cost of Sales

- This indicator determines the mark-up achieved.
- Comments:

$$\frac{GP}{Cost\ of\ sales} \times \frac{100}{1} = \%$$

- compared to general mark-up
- if lower than general mark-up policy, possible explanations include
 - Trade discounts granted to easily
 - seasonal sales at too low a price
 - mistakes on marked price of goods, or in books
- operating efficiency; could we increase sales and therefore GP
- compare to previous years, is the ratio better or worse?

Profitability

$$\frac{\text{Net Income}}{\text{Sales}} \times \frac{100}{1} = \%$$

3. Net income on Turnover /sales

- This indicator determines the percentage of sales that is pure profit
- Comments:
 - operating efficiency.
 - compare to result of Gross profit on turnover. Difference show the extent to which expenses are reducing Gross profit to the Net profit. Reduce expenses to improve ratio.

$$\frac{\text{Operating expenses}}{\text{Sales}} \times \frac{100}{1} = \%$$

4. Operating Expenses on Turnover/Sales

- This indicator determines the percentage of sales that is made up of expenses
- Comments:
 - operating efficiency.
 - compare with previous years figures, can determine whether expenses have remained constant in relation to turnover.

Liquidity

Liquidity is a measure of the amount of funds a company can quickly use to settle its debts i.e. the ability of the Business to pay off its **CURRENT** liabilities/debts at short notice.

1. Current Ratio

Current Assets : Current Liabilities

Norm 2 : 1

- This indicator determines the extent to which current assets cover current liabilities. The norm 2 : 1 means we **own** R2 for every R1 we **owe**.
- If the answer is above 2 : 1 it shows that the business is in a good liquid position, if the answer is less than 2 : 1 it means that the business is not liquid and find it difficult to pay creditors at short notice.
- Comments:
 - Compare with previous years figure.
 - Financial institutions will use ratio to determine if business can meet short term debts, if so they will offer bank overdrafts, loans and short-term credit.
 - Large amounts of inventories, cash and debtors will produce a favourable ratio, whilst this is good, a business should not tie up too much of its working capital as this could lead to bad debts, poor collections from debtors and obsolete stock ETC

Liquidity

2. Acid Test Ratio

$$\text{Current Assets} - \text{Trading Stock} : \text{Current Liabilities}$$

Norm 1 : 1

- This indicator determines the ability of the business to settle its current liabilities from the cash that it has and the money collected from debtors and whether the business retains too much stock on hand.
- If the answer is above 1 : 1 it shows that the business is in a good liquid position, if the answer is less than 1 : 1 it means that the business is not liquid and that cash on hand and money collected from debtors is insufficient.
- Comments:
 - Compare to previous years figure.
 - Financial institutions will use ratio to determine if business can meet short term debts, so they will offer bank overdrafts, loans and short-term credit.
 - Should the Current Ratio be favourable and the Acid Test Ratio unfavourable, it means that the business retains too much stock, selling this stock (cash/credit) would improve this ratio.

Liquidity

3. Rate of Stock/Inventory turnover

$$\frac{\text{Cost of sales}}{\text{Average trading inventory}} = \text{no. of times per year}$$

- This indicator determines the number of times a year stock is replenished i.e. whether the inventories is 'fast moving' or 'slow moving'
- Comments:
 - Compare to previous years figures.
 - Examine the type of good the business is selling, then comment about operating efficiency. Generally high value products will move slower than lower value products.
 - The more stock ordered and the more frequently, the more competitive the business.
 - Gives us information on the demand of goods and the efficiency of sales drives.
 - A high ratio means high sales, fast stock turnover and a low stock level.
 - A low ratio means low sales, low stock turnover and a high stock level. (goods may become obsolete, high storage cost)

Liquidity

4. Period for which stock is on hand

$$\frac{\text{Average Trading inventory}}{\text{Cost of sales}} \times \frac{365 \text{ days or } 12 \text{ months}}{1} = \text{days or months}$$

- This indicator determines the number of days/months the stock is on hand. Assists the purchasing manager in ordering goods as well as budgeting and forecasting.
- Comments:
 - Compare to previous years figures.
 - Indicates the availability of stock
 - The more stock ordered and the more frequently, the more competitive the business.

Liquidity

5. Average debtors collection period

$$\frac{\text{Average Debtors}}{\text{Credit sales}} \times \frac{365 \text{ days}}{1} = \text{days}$$

- This indicator determines the number of days debtors take to pay their debts and how effectively the business is controlling its debtors.
- Debtors are normally given 30 days to pay their debts.
- Comments:
 - Compare to previous years figures.
 - if debtors are taking longer than 30 days, the business is adopting a lenient credit policy and will face cash flow problems and a high risk of bad debts.
 - Encourage Debtors to pay earlier by offering cash discounts and charging interest on over due accounts.

Liquidity

6. Average creditors payment period

$$\frac{\text{Average Creditors}}{\text{Credit purchases}} \times \frac{365 \text{ days}}{1} = \text{days}$$

- This indicator determines the number of days the business takes to pay its creditors.
- Negotiate to pay suppliers between 60 and 90 days.
- Comments:
 - Compare to previous years figures.
 - if we pay too quickly, the business may experience cash flow problems
 - Compare with Debtors collection: are creditors demanding payment before the business receives cash from Debtors. This could cause major cash flow problems and the Business may need to borrow cash from financial institutions to meet its current liabilities.

Solvency

THE ABILITY OF THE BUSINESS TO PAY OFF ALL ITS DEBTS.

1. Net Assets

$$\text{Assets} - \text{Liabilities} = \text{Net Assets or Owners Equity}$$

2. Total Assets to Total Liabilities

$$\text{Total Assets} : \text{Total Liabilities}$$

- Determines whether all the assets cover all the debts/liabilities.
- Comments:
 - compare to previous years figure.
 - is the business Solvent? Negative ratio (less than 1 : 1) means the business is not solvent.

Risk

1. Debt-equity Ratio (Gearing Ratio)

Non-Current Liabilities : Shareholders Equity

- Determines the extent to which the company is dependent on borrowed capital
- Comments:

- Ratios below 1 : 1 is regarded as low geared and indicates that the company is not dependent on borrowed funds and in a low risk position.
- Ratios above 1: 1 are regarded as high geared and means that the business is not credit worthy i.e. funded more by borrowed money
- financial institutions regard a ratio between 0,5 : 1 and 1: 1 as credit worthy

Changing the Gearing

INCREASE

Obtaining additional loans
Buying back shares

DECREASE

Retaining additional income
Issuing additional ordinary shares
Reducing loan amount

Return-Partnerships

1. Return on individual partner's equity

$$\frac{\text{Partners individual earnings}}{\text{average partners individual investnemt}} \times \frac{100}{1} = \%$$

→ salaries + int on capital + bonus + final distribution

← $\frac{\text{Capital begin year + end year + Current account begin year + end year}}{2}$

- Comments:

- Compare to previous years
- Compare to other forms of investment I.E. interest rates and returns earned in similar businesses
- Also compare to gearing and current market conditions

Return-Partnerships

2. Return on total partners equity

$$\frac{\text{Total amount earned}}{\text{average total investnemt}} \times \frac{100}{1} = \%$$

- Comments:
 - Compare to previous years
 - Compare to other forms of investment I.E. interest rates and returns earned in similar businesses
 - Also compare to gearing and current market conditions
 - Compare to partners individual returns

Return-Companies

1. Return on Capital Employed

$$\frac{\text{Profit before tax} + \text{interest on loan}}{\text{average capital employed}} \times \frac{100}{1} = \%$$

↗ on any borrowed money

↙
Capital Employed = Shareholders Equity + Non-current Liabilities

- Comments:

- Must be compared with interest rate on loans, if the ROTCE is higher than Interest on loan, then that loan taken yields a higher return for the business.
- Should the ROTCE be lower than the interest on loans, then the loan has a negative gearing effect on the business.
- Other ways of obtaining capital include: Selling more shares, selling shares at a premium as well as retaining more income at the end of the financial year.

Return

2. Return on shareholders equity

$$\frac{\text{Net profit after tax}}{\text{average shareholders equity}} \times \frac{100}{1} = \%$$

↓

Shareholders equity = Ordinary share capital + share premium + accumulated profits

- Comments:
 - Compare with previous years figures
 - Compare with returns from alternate investments, these include: fixed deposits, unit trusts and investments in other companies.
 - If the ROSHE is lower than the interest rates which banks are offering, then it may be advisable to sell your shares and invest in the bank, but check the business potential to grow.
 - At AGM, shareholders vote on whether the Net profit after tax should be paid in dividends or retained by the company. A dividend payment will be an immediate benefit to shareholders , however if the money is retained by the company the ROSHE as well as the long-term benefit will be more.

Return

3. Earnings per share

$$\frac{\text{Net profit after tax}}{\text{number of shares issued}} \times \frac{100}{1} = \text{cents}$$

- Determines the net profit after tax that is attributed to each share
- Comments:
 - A portion of the earnings (NPAT) may be retained by the company for future expansion and the remainder paid out to shareholders in dividends.
 - Dividends: immediate benefit to shareholders
 - Compare with previous years figures as well as other businesses in the industry.
 - Informs the shareholder on the profitability of the company.
 - NB:** Can compare to DPS which shows how much is given to shareholders i.e. assess the amount the dividend 'pay-out' rate. EG: EPS=51,4 cents and DPS=20 cents, 39% of the companies earnings are being distributed

Return

4. Dividends per share

→ Both paid and recommended

$$\frac{\text{Dividends on Ordinary Shares}}{\text{number of shares issued}} \times \frac{100}{1} = \text{cents}$$

- Determines the portion of the net profit that is attributed to shareholders.
- Comments:
 - Compare with previous years figures and similar investments.
 - Compare with EPS. If the DPS accounts for a large portion of the EPS, for example the DPS is 42c and the EPS is 50c, this means that the business is not retaining income and this may create cash flow problems. Generally shareholders will welcome a high DPS as this may be a draw card to attract shareholders. This will be an immediate benefit to shareholders but will effect the long-term expansion possibilities of the business.

Return

5. Net Asset Value per share

$$\frac{\text{Shareholders equity}}{\text{number of shares issued}} \times \frac{100}{1} = \text{cents}$$

↗ At year end

- Indicator shows how much a share is worth (share value)
- Comments:
 - Compare with par value and previous years figures
 - Shareholders will be satisfied if the NAV is above the Par value.
 - Determines whether or not a shareholder should buy or sell shares.
 - Together with the NAV the shareholder will also look at the EPS, DPS and risk factor of the business.
 - The true value of the share (NAV) increases as the company accumulates wealth, this means that should a company issue further shares in the future, the new shares would not be issued at par but at a higher value i.e. at a premium.
 - The NAV of the share has an effect on the market price.
 - Market Price (JSE) for share should be higher than NAV

OVERVIEW

ROCE



Compare to interest rate,
determines high or low geared



Does the business want the
Loan

VS

DEBT/EQUITY



High or low
geared



Can the business get the
Loan