

# VIDYA BHAWAN BALIKA VIDYA PITH

शक्तिउत्थानआश्रमलखीसरायबिहार

Class 12 commerce Sub. ACT Date 27.02.2021

Teacher name – Ajay Kumar Sharma

## Accounting Ratios H.W

Question 2:

How would you study the solvency position of the firm?

**ANSWER:**

Solvency position of a firm is studied with the help of the Solvency Ratios. Solvency ratios are the measures of the long-term financial position of the firm in terms of its ability to pay its long-term liabilities. In other words, the solvency of the firm is measured by its ability to pay its long term obligation on the due date. The long term obligations include payments of principal amount on the due date and payments of interests on the regular basis. Long term solvency of any business can be calculated on the basis of the following ratios.

a. **Debt-Equity Ratio**- It depicts the relationship between the borrowed fund and owner's funds. The lower the debt-equity ratio higher will be the degree of security to the lenders. A low debt-equity ratio implies that the company can easily meet its long term obligations.

$$\text{Debt-Equity Ratio} = \frac{\text{Long-term Debt}}{\text{Equity/ Share holders Fund}}$$

Equity or the Shareholders Fund includes Preference Share Capital, Equity Share Capital, Capital Reserve, Securities Premium, General Reserve less Accumulated Loss and Fictitious Assets

b. **Total Assets to Debt Ratio**- It shows the relationship between the total assets and the long term loans. A high Total Assets to Debt Ratio implies that more assets are financed by the owner's fund and the company can easily meet its long-term obligations. Thus, a higher ratio implies more security to the lenders.

$$\text{Total Assets to Debt Ratio} = \frac{\text{Total Assets}}{\text{Long-term Debt}}$$

Total Assets includes all fixed and current assets except fictitious assets like, Preliminary Expenses, Underwriting Commission, etc.

Debt includes all long-term loans that are to be repaid after one year. It includes debentures, mortgage loans, bank loans, loans from other financial institutions, etc.

c. **Interest Coverage Ratio**- This ratio depicts the relationship between amount of profit utilise for paying interest and amount of interest payable. A high Interest Coverage Ratio implies that the company can easily meet all its interest obligations out of its profit.

$$\text{Interest Coverage Ratio} = \frac{\text{Net Profit before Interest and Tax}}{\text{Interest on Long-term Loans}}$$

d. **Proprietary Ratio**- It shows the relationship between the Shareholders Fund and the Total Assets. This ratio reveals the financial position of a business. The higher the ratio the higher will be the degree of safety for the creditors. It is calculated as:

$$\text{Proprietary Ratio} = \frac{\text{Shareholders Fund}}{\text{Total Assets}} \text{ or } \frac{\text{Equity}}{\text{Total Assets}}$$

Total Assets includes all fixed and current assets except fictitious assets like, Preliminary Expenses, Underwriting Commission, etc.

---

*Question 3:*

What are important profitability ratios? How are these worked out?

**ANSWER:**

Profitability ratios are calculated on the basis of profit earned by a business. This ratio gives a percentage measure to assess the financial viability, profitability and operational efficiency of the business. The various important Profitability Ratios are as follows:

1. Gross Profit Ratio
2. Operating Ratio
3. Operating Profit Ratio
4. Net Profit Ratio
5. Return on Investment or Capital Employed
6. Earnings per Share Ratio
7. Dividend Payout Ratio

## 8. Price Earnings Ratio

1. **Gross Profit Ratio**- It shows the relationship between Gross Profit and Net Sales. It depicts the trading efficiency of a business. A higher Gross Profit Ratio implies a better position of a business, whereas a low Gross Profit Ratio implies an inefficient unfavourable sales policy.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

$$\text{Gross Profit} = \text{Net Sales} - \text{Cost of Goods Sold}$$

$$\text{Net Sales} = \text{Total Sales} - \text{Sales Return}$$

$$\text{Cost of Goods Sold} = \text{Opening Stock} + \text{Purchases} + \text{Direct Expenses} - \text{Closing Stock}$$

2. **Operating Ratio**- It shows the relationship between Cost of Operation and Net Sales. This ratio depicts the operational efficiency of a business. A low Operating Ratio implies higher operational efficiency of the business. A low Operating Ratio is considered better for the business as it enables the business to be left with a greater amount after covering its operation costs to pay for interests and dividends.

$$\text{Operating Ratio} = \frac{\text{Operating Cost}}{\text{Net Sales}} \times 100$$

$$\text{Operating Cost} = \text{Cost of Goods Sold} + \text{Operating Expenses}$$

$$\text{Cost of Goods Sold} = \text{Sales} - \text{Gross Profit}$$

3. **Operating Profit Ratio**- It shows the relationship between the Operating Profit and Net Sales. It helps in assessing the operational efficiency and the performance of the business.

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

$$\text{Operating Profit Ratio} = 100 - \text{Operating Ratio}$$

$$\text{Operating Profit} = \text{Sales} - \text{Operation Cost}$$

4. **Net Profit Ratio**- It shows the relationship between net profit and sales. Higher ratio is better for firm. It depicts the overall efficiency of a business and acts as an important tool to the investors for analysing and measuring the viability and performance of the business.

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

$$\text{or, Net Profit Ratio} = \frac{\text{Profit Before Tax}}{\text{Net Sales}} \times 100$$

$$\text{or, Net Profit Ratio} = \frac{\text{Profit After Tax}}{\text{Net Sales}} \times 100$$

$$\text{Net Sales} = \text{Total Sales} - \text{Sales Return}$$

**5. Return on Investment or Capital Employed-** It shows the relationship between the profit earned and the capital employed to earn that profit. It is calculated as:

$$\text{Return on Investment or Capital Employed} = \frac{\text{Profit before Interest and Tax}}{\text{Capital Employed}} \times 100$$

$$\text{Capital Employed} = \text{Fixed Assets} + \text{Current Assets} - \text{Current Liabilities}$$

$$\text{Or, Capital Employed} = \text{Share Capital} + \text{Reserve and Surplus} + \text{Long-term Funds} - \text{Fictitious Assets}$$

This ratio depicts the efficiency with which the business has utilised the capital invested by the investors. It is an important yardstick to assess the profit earning capacity of the business.

**6. Earning per Shares-** It shows the relationship between the amount of profit available to distribute as dividend among the equity shareholders and number of equity shares.

$$\text{Earning per Share} = \frac{\text{Profit available for equity shareholders}}{\text{Number of equity shares}}$$

$$\text{Profit available for equity shareholders} = \text{Net Profit after Tax} - \text{Preference Share Dividend}$$

**7. Dividend Payout Ratio-** It shows the relationship between the dividend per share and earnings per share. This ratio depicts the amount of earnings that is distributed in the form of dividend among the shareholders. A high Dividend Payout Ratio implies a better position and goodwill of the business for the shareholders.

$$\text{Dividend Payout ratio} = \frac{\text{Dividend per share}}{\text{Earning per share}}$$

$$\text{Dividend per share} = \frac{\text{Dividend paid}}{\text{No. of shares}}$$

**8. Price Earning Ratio-** It shows the relationship between the market price of a share and the earnings per share. This ratio is the most common tool that is used in the stock markets. This ratio depicts the degree of reliance and trust that the shareholders have on the business. This ratio reflects the expectation of the shareholders regarding the rise in the future prices of the company's shares. A higher Price Earning Ratio definitely enables a company to enjoy favourable position in the market.

$$\text{Price Earning Ratio} = \frac{\text{Market Price of a Share}}{\text{Earnings Per Share}}$$

---