Financial Ratios

Unit-5

Financial Ratios

- Turnover Ratios
- Profitability Ratios
- Proprietary Ratios

Turnover Ratios

Activity Ratio

- It is also called as turnover ratio.
- This ratio measures the efficiency of the current assets and liabilities in the business concern during a particular period .
- This ratio is helpful to understand the performance of the business concern .

- Activity ratios reflect the management of assets and their effective utilization
- Turnover Ratios may be also termed as Efficiency Ratios or Performance Ratios or Activity Ratios.

Stock Turnover Ratio

- This ratio establishes the relationship between the cost of goods sold during a given period and the average stock holding during that period.
- This ratio indicates the operational and marketing efficiency of the business.

Inventory Turnover Ratio

- Inventory Turnover Ratio:-

$$= \frac{\textbf{Cost of Goods Sold}}{\textbf{Average Inventory at Cost}}$$

Average inventory :-

$$\frac{\text{Opening Stock} + \text{Closing Stock}}{2}$$

Cost of Goods Sold :-

Opening Stock + Purchases – Closing Stock

or

= Net Sales – Gross Profit

Debtors turnover ratio or debtors velocity ratio:

- This ratio explains the relationship of net (credit) sales of a firm to its book debts indicating the rate at which cash is generated by turnover of receivables or debtors.
  The following formula is used :
  Debtors Turnover Ratio
- $= \dfrac{\text{Net annual credit sales}}{\text{Average debtors}}$

Debt collection period ratio :

- This ratio is helpful in knowing the speed at which debts are collected. It refers to the time involved in collecting the debts by a business enterprise.
- The following formula is used to calculate debt collection period ratio:

Debt collection period ratio :

- Debt collection period ratio
- $= \dfrac{\text{No. of days in a year/365days}}{\text{Debtors turnover}}$

or

$= \dfrac{\text{Debtors}}{\text{Net annual credit sales}} * \text{No. of days in a year}$

or

$= \dfrac{\text{Net annual credit sales}}{\text{No. of days in a year}}$

Creditors Turnover Ratio

- This ratio indicates the number of times the creditors are paid in a year.

  The following formula is used :

Creditors Turnover Ratio =

$$\frac{\text{Net annual credit purchases}}{\text{Average creditors}}$$

Creditors Turnover Ratio

- Net Credit Purchases =

Total Purchases - Cash Purchases

Average Accounts Payable / Average creditors

$$\frac{\text{Opening Payable} + \text{Closing Payable}}{2}$$

Average Payment Period

- Average Payment Period

$$= \frac{\text{Month (or) Days in a year/365days}}{\text{Creditors Turnover Ratio}}$$

(or)

$$= \frac{\text{Average Trade Creditors}}{\text{Net Credit Purchases}} \times 365$$

Working capital turnover ratio:

- The term working capital refers to excess of current assets over current liabilities. This ratio establishes a relationship between working capital and sales.

  Working Capital Turnover Ratio

  $$= \frac{\text{Net Sales}}{\text{Working Capital}}$$

- This ratio enables to know efficient utilization of working capital of an organization.

Fixed assets turnover ratio

- This ratio establishes a relationship between fixed assets and sales

$$\text{Fixed assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Fixed Assets}}$$

Fixed assets turnover ratio

- Components of Fixed Assets (or) Non-Current Assets:-
- (1)Goodwill
  (2) Land and Building
  (3) Plant and Machinery
  (4) Furniture and Fittings
  (5) Trade Mark
  (6) Patent Rights and Livestock
  (7) Long-Term Investment
  (8) Debt Balance of Profit and Loss Account
  (9) Discount on Issue of Shares
  (10) Discount on Issue of Debenture
  (11) Preliminary Expenses
  (12) Other Deferred Expenses
  (14) Government or Trust Securities
  (15) Any other immovable Prosperities

Total assets turnover ratio:

- This ratio establishes a relationship between total assets and sales. Thisratio enables to know the efficient utilization of total assets of a business.

Total Assets Turnover Ratio

$$= \frac{\text{Net Sales}}{\text{Total Assets}}$$

Capital Turnover Ratio

- This ratio measures the efficiency of capital utilization in the business. This ratio establishes the relationship between cost of sales or sales and capital employed or shareholders' fund.

Capital Turnover Ratio

- *Capital Turnover Ratio* :-

$$= \frac{\text{Cost of Sales}}{\text{Capital Employed}} \quad \text{or} \quad \frac{\text{Sales}}{\text{Capital Employed}}$$

Capital Employed = Shareholders' Funds + Long-Term Loans

or

= Total Assets - Current Liabilities

Components of Capital Employed
(Shareholders' Fund + Long-Term Loans)

- (1) Equity Share Capital
  (2) Preference Share Capital
  (3) Debentures
  (4) Long-Term Loans
  (5) Share Premium
  (6) Credit Balance of Profit and Loss Account
  (7) Capital Reserve
  (8) General Reserve
  (9) Provisions
  (10) Appropriation of Profits

PROFITABILITY RATIOS

PROFITABILITY RATIOS

- Profitability ratios indicate the profit earning capacity of a business. For the sake of clear understanding profitability ratios are classified into two categories, *viz*., general profitability ratios and overall profitability ratios.

1. Gross Profit Ratio

- Gross Profit Ratio

$$= \frac{\text{Gross Profit}}{\text{Net Sale}} * 100$$

or

$$\frac{\textbf{Sales–Cost of Goods Sold}}{\textbf{Sales}} \textbf{*100}$$

Net Profit Ratio:

- Net profit is obtained, after deducting operating expenses, interest and taxes from gross profit

  Net Profit Ratio = $\frac{\text{Profit After Tax}}{\text{Sales}} * 100$

Operating Profit Ratio

- $= \dfrac{\text{Operating Net Profit}}{\text{Sales}} * 100$
- This ratio establishes the relationship between operating profit and net sales

Operating ratio :

- This ratio establishes a relationship between cost of goods sold plus other operating expenses and net sales.
- Operating expenses consists of administrative expenses, financial expenses selling and distribution expenses.
  Operating Ratio
- $= \dfrac{\text{Cost of goods sold + Operating expenses}}{\text{Net sales}}$

Proprietary Ratios /SOLVENCY RATIOS

Proprietary Ratios /SOLVENCY RATIOS

- When an organization's assets are more than its liabilities is known as solvent organization.
- The term 'Solvency' generally refers to the capacity of the business to meet its short-term and long-term obligations.
- Solvency Ratio indicates the sound financial position of a concern to carryon its business smoothly and meet its all obligations.

Debt-equity ratio or external-internal equity ratio:

- Debt- equity ratio expresses the relationship between debt and equity. Debt here is taken to mean long-term and short-term debt and equity means owners or shareholders funds.

Debt-equity ratio

- Debt-equity ratio = $\dfrac{\text{long term Debt}}{\text{Equity}}$

  or

  $\dfrac{\text{External Equities}}{\text{Internal Equities}}$

- **Components of Debt:**

It comprises of long term as well as term debt.

= debentures+ long term loans + bonds

Components of Equity: It consists of shareholders funds, reserves and accumulated profit, However, if there is any accumulated losses or fictitious assets, they are deducted from shareholders funds

=Preference Share Capital + Equity Share Capital
+ Capital Reserve + Profit and Loss Alc

Proprietary Ratio

- Proprietary Ratio is also known as Capital Ratio or Net Worth to Total Asset Ratio. This is one of the variant of Debt-Equity Ratio. The term proprietary fund is called Net Worth. This ratio shows the relationship between shareholders' fund and total assets.

Proprietary Ratio

- Proprietary Ratio = $\dfrac{\text{Shareholders' Fund}}{\text{Total Assets}}$

- **Shareholders' Fund** =Preference Share Capital + Equity Share Capital+ All Reserves and Surplus

- **Total Assets** =Tangible Assets + Non-Tangible Assets + Current Assets (or) All Assets including Goodwill

Capital Gearing Ratio

- This ratio also called as Capitalization or Leverage Ratio. This is one of the Solvency Ratios. The term capital gearing refers to describe the relationship between fixed interest and/or fixed dividend bearing securities and the equity shareholders' fund.

Capital Gearing Ratio

- Capital Gearing Ratio = $\dfrac{\text{Equity Share Capital}}{\text{Fixed Interest Bearing Funds}}$
- Equity Share Capital:-

= Equity Share Capital + Reserves and Surplus

Fixed Interest Bearing Funds:-

= Debentures + Preference Share Capital+ Other Long-Term Loans

Overall Profitability

Overall Profitability

- The ratios which test the overall profitability are concerned with measuring the overall efficiency of the business relating profit to the investment made in the business

Price-earning ratio

- **Price-earning ratio:** It shows how many times the annual earnings the present shareholders are willing to pay to get a share. This ratio helps investors to know the effect of earnings per share on the market price
of the share

Price-earning ratio

- Price Earning Ratio:-

$$= \frac{\text{Average market price per share}}{\text{Earning per share}}$$

Dividend pay-out ratio:

- **Dividend pay-out ratio:** This ratio indicates the proportion of earnings available which equity shareholders actually receive in the form of dividend. An investor primarily interested should invest in equity shares of a company with high pay-out ratio.

Dividend pay-out ratio:

- Pay-out Ratio = $\dfrac{\text{Dividend paid per share}}{\text{Earning of equity share}}$

Earning per share:

- This ratio indicates the earnings per equity share. It establishes the relationship between net profit available for equity shareholders and the number of equity shares.

Earning per share:

- Earning Per Share:-

$$= \frac{\text{Net profit available for equity shareholders}}{\text{Number of equity shares}}$$

Return on Investment

- There are 3 approaches regarding definition of investment:

investment

Total Assets (TA

Net worth or Equity

Capital Employed

ROTA(Return on Total Assets)

- $$ROTA = \frac{\text{Net Profit}}{\text{Total Assets}} * 100$$

Return on net worth or equity

- Return on net worth or equity:-

$$= \frac{\text{NP}}{\text{Net worth of equity}}$$

or

$$= \frac{\text{Net profit}}{\text{equity capital + Reserve \& surplus}}$$

Return on capital Employed

- ROCE= $\frac{\text{Net Profit}}{\text{Capital Employed (CE)}}$

CE=Total long term funds = Total Assets-Current Liability