**RATIO ANALYSIS**

**Financial Analysis through Ratios:** Concept of Ratio Analysis, Liquidity Ratios, Turnover Ratios,

Profitability Ratios, Proprietary Ratios, Solvency, Leverage Ratios (simple problems).

Introduction to Fund Flow and Cash Flow Analysis (simple problems).

**Ratio Analysis is the process of determining and interpreting numerical relationships based on financial statements.**

**Liquidity, Profitability and Solvency:**

**Liquidity refers to how well the firm is in a position to meet its short-term commitments such as payment of salaries, taxes and so on. It refers to the firm’s position to meet it long-term commitments.**

**Types of Ratios:**

**Based on their nature, the ratios are broadly be classified into four categories:**

1. **Liquidity Ratio**
2. **Activity Ratio**
3. **Capital structure Ratio**
4. **Profitability Ratios**
5. **Liquidity Ratio:**

**Liquidity ratios express the ability of the firm to meet its short-term commitments as and when they become due. It help in identifying the danger signals for the firm in advance.**

1. **Current Ratio: Current Assets**

**Current liabilities**

**Current assets – Stock**

**Debtors, bills receivables,**

**Cash at bank, cash in hand,**

**Prepaid expenses, etc.**

**Current Liabilities - Creditors, Bank Overdraft,**

**Bills payable, outstanding expen**

**Incomes received in advance,**

**All provisions, dividends payable.**

1. **Quick Ratio: Quick Assets**

**Current liabilities**

**Quick Assets = Current assets – (Stock + Prepaid**

**Expenses)**

1. **Activity Ratio:**

**It express how active the firm is in terms of selling its stocks, collecting its receivables and paying its creditors.**

1. **Inventory turnover Ratio**
2. **Debtors Turnover Ratio**
3. **Creditors Turnover Ratio**
4. **Inventory turnover Ratio: It indicates the number of times the average stock is being sold during a given accounting period.**

**I T R = Cost of goods sold**

**Average Inventory/ Stock**

**Cost of goods sold = Sales - Gross Profit**

**Average Stock = Opening Stock + Closing Stock**

**2**

**Inventory holding period = 365 days**

**Inventory turnover ratio**

1. **Debtors Turnover Ratio: It reveals the number of times the average debtors are collected during a given accounting period.**

**Debtors Turnover Ratio = Credit Sales**

**Average debtors**

**Debt Collection period = 365 days**

**Debtors turnover ratio**

1. **Creditors Turnover Ratio: It reveals the number of times the average creditors are paid during a given accounting period.**

**Creditors Turnover Ratio = Credit Purchases**

**Average Creditors**

**Creditors Payment period = 365 days**

**Credit turnover ratio**

1. **Capital structure Ratio (Leverage Ratios):**

**Capital structure or leverage ratio is defined as the financial ratio, which focuses on the long-term solvency of the firm. It shows its ability to meet its long term commitments such as payment of interest periodically without fail, repayment of principal as and when due.**

1. **Debt-Equity Ratio**
2. **Interest Coverage Ratio**
3. **Ratio of Proprietors funds to total assets**
4. **Ratio of Fixed Assets to Proprietors’ funds**
5. **Ratio of Current Assets to Proprietors funds**
6. **Debt-Equity Ratio: It is the ratio between outsiders funds and insider’s funds.**

**Debt Equity Ratio = Debt**

**Equity**

**Or Outsiders Funds / insider funds**

**Outsiders Funds = Debentures + Long term loans**

**Insiders Funds = Preference Share Capital +**

**Equity Share Capital + General**

## Reserves + P & L account

1. **Interest Coverage Ratio:**

**It is calculated to judge the firm’s capacity to pay the interest on debt it borrowed. Higher the ratio, better it is.**

**Interest Coverage Ratio : Net profit before interest**

**& taxes /**

**Fixed interest charges.**

1. **Ratio of Proprietor’s Funds to Total Assets:**

**This establishes the relationship between Proprietor’s funds and the total assets. Total assets includes the tangible fixed assets plus current assets. The ratio of 0.5 : 1 is considered as the minimum desirable ratio.**

**Ratio of Proprietor’s = Proprietors funds X 100**

**Funds to total assets Total Assets**

**There are two concepts in this**

**1)Ratio of Fixed assets = Fixed Assets X 100**

**To Proprietors funds Proprietors funds**

**2)Ratio of current assets = Current Assets X 100**

**To Proprietors funds Proprietors funds**

**4) PROFITABILITY RATIOS:**

**Profitability Ratios explains how well the firm is in organizing its activities in a profitable manner. There are 8 ratios to explain profitability.**

1. **Gross Profit Ratio**
2. **Net Profit Ratio**
3. **Operating Ratio**
4. **Return on Investment (ROI)**
5. **Earnings per Share (EPS)**
6. **Dividend Yield**
7. **Price / Earnings Ratio (P/E ratio)**
8. **Earning Power**
9. **Gross Profit Ratio: Gross Profit**

**---------------- X 100**

**Sales**

1. **Net Profit Ratio: Net Profit after taxes**

**------------------------- X 100**

**Net Sales**

**Higher the net profit ratio, the better is the profitability etc.**

1. **Operating Ratio: Operating Expenses**

**------------------------- X 100**

**Net Sales**

**Operating Expenses : Cost of goods sold +**

**Administrative expenses +**

**Selling & distr. Expenses**

**Profitability : 100 - Operating Ratio %**

1. **Return on Investment (ROI) :**

**Net Profit after taxes**

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**Total Investment**

1. **Return on Capital Employed (ROCE):**

**Adjusted Net Profits**

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**Capital Employed**

1. **Return on Equity (ROE):**

**Net Profits – Dividends payable to Preference**

**Share holders**

**---------------------------------------------------------------**

**Equity Share Capital**

1. **Earnings Per Share (EPS) : Net profit after taxes**

**No. of shares outstanding**

1. **Dividend Yield :**

**Nominal (or) Face value of the Share % dividend**

**------------------------------------------------- X per annum**

**Cost or market price of the share**

1. **Price / Earnings Ratio:**

**Market Price per Share**

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**Earnings per Share**

1. **Earning Power: Return on Investment**

**: Net profit margin X Investment**

**Turnover**

**Earning Power: Net Profit after taxes**

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**Total Capital**