Financial Statements Analysis

FINANCIAL RATIOS ANALYSIS

After reading this chapter, you can certainly be able to understand the following subjects :

1-Liquidity Ratio / Solvency Ratio

2- Activity Ratio

3- Profitability Ratio

4-Project Evaluation

5- Investment Policies

A ratio analysis is a quantitative analysis of information contained in a company‘s financial statements. Ratio analysis is used to evaluate various aspects of a company‘s operating and financial performance such as its efficiency, liquidity, profitability and solvency.

Classification/Types of Ratios

1. Liquidity Ratios/Solvency Ratios

- Liquidity ratios refers to the ability of a firm to meet its obligations in short-run, usually, one year.
- Liquidity ratios are generally based on relationship between current assets and current liabilities.

The important liquidity ratios are :

1. Current ratio,
2. Acid Test Ratio, or (quick liquidity) pay its immediate liabilities, such as short-term debt (Current assets – Inventory/ current liabilities)
3. Fund Flow Ratio.

2. Activity Ratios (Turnover Ratios)

- Turnover ratios measure how effectively the assets are employed by the firm.
- These ratios are based on the relationship between level of activity represented by sales or cost of goods sold and levels of various assets.
- The important turnover ratios are :
- Inventory Turnover Ratio
- Receivables Turnover Ratio
- Fixed Assets Turnover Ratio,
- Average Collection Period Ratio, and
- Total Assets Turnover Ratio

3. Profitability Ratios

Profitability ratios reflects the final result of business operations. ¤ There are two types of profitability ratios, i.e.:

- Profit Margin Ratios
- Rate of Return Ratios

- Profit margin ratios show the relationship between profit and sales.

- The two popular profit margin ratios are gross profit margin ratio, and net profit margin ratio.

other group ratios:

1- Balance Sheet Ratios:

These ratios are classified into the following categories:

- Current Ratio : Current ratio indicates the solvency of the business, i.e. abilities to meet the liabilities of the business as and when they fall due.

Formula : current ratio = Current Assets / Current Liabilities

- Proprietary Ratio : It is primarily the ratio between proprietor's funds and total assets. It indicates the strength of the funding of the company

Formula: Proprietary Ratio = Proprietor’s Fund/ Total Assets

- Debt Equity Ratio : This ratio is calculated to measure the comparative proportions of outsiders funds and shareholders' funds invested in the company.

The Debt-Equity Ratio indicates how many Dinars have come from borrowings for every Dinar of shareholders' funds.

Formula: Debt Equity Ratio = Long term debts / shareholders fund

- A low debt equity ratio indicates that the management of the firm is following a very conservative policy which is quite satisfactory from creditors angle.
- A very high debt equity ratio indicates a risky situation as proportion of borrowed funds is quite high

- **Profit and Loss Account Ratios :** These ratios are classified into the following categories:
- **Net Profit Ratio :**
- This ratio shows the earnings left for shareholders (equity and preference) as a percentage of net sales.
- This ratio measures overall efficiency of all the functions of a business firm like production, administration, selling, financing, pricing, tax management etc.
- This ratio is very useful for prospective investors as it reveals the overall profitability of the firm.
- Higher the ratio, the better it is because it gives an idea of overall efficiency of the firm.
- This ratio is calculated as follows :

Formula : Net Profit Ratio = Net Profit/ Net Sales × 100

- Operating Ratio :
- Operating Ratio is the relationship between cost of activities and net sales.
- Operating Ratio show at what percentage the operating expenses are comprised in net sales. This Ratio is expressed as a percentage.

Operating Ratio = Operating Cost / Net Sales ×100

- Dividend Pay-out Ratio : Dividend pay-out ratio indicates the percentage of profit distributed as dividends to the shareholders.
- A higher ratio indicates that the organization is following a liberal policy regarding the dividend, while a lower ratio indicates a conservative approach of the management towards the dividend. , The ratio is calculated as shown below: .

Dividend Pay-out Ratio = Dividend Per Equity Share/ Earning Per Share x 100

- **Project Evaluation**

The following points highlight the top four methods of project evaluation in a firm. The methods are:

1- Return of Investment (ROI)

2-Payback Period Method

3-Net Present Value (NPV)

- **Return of Investment (ROI)**

The ratio of profit expected from an investment project and the proposed investment for the project is called Return on Investment (ROI). This ROI ratio is used as a criterion (Indicator) for the evaluation of an investment project. The greater the ROI of a project, the greater is its acceptability. There are three concepts about the amount of investment on a project. The amount of investment may mean the amount of assets, amount of capital invested, or the amount of equity capital. We may obtain three types of ROI on the basis of these three concepts

Return on Assets (ROA) : By definition, ROA is the ratio between net profit and the assets. We may write, therefore,

ROA = net profit excluding taxes / total assets

Here net profit does not include the interest to be paid to the lenders. But, since interest is included in the real return on total assets

- **Return on Capital Employed (ROCE):**

ROA = (net profit excluding taxes+ interest paid) ÷ total assets

ROCE is the second type of ROI. Here net profit, excluding tax, is expressed as a ratio of the total amount of invested capital. The total amount of capital provided by the owner of the firm and the lenders is the total invested capital in this case.

Return on Shareholders' Equity (ROSE): Net Profit Minus Tax / Total Equity of Shareholders

❖ **Exercises Solved**

Exercise No. 1

The following are the summarized Profit and Loss A/c and Balance Sheet of Zane Ltd. for

Dr. Profit and Loss Account Cr.

Particulars	IQD	**Particulars**	IQD
To Opening Stock	99,000	By Sales	950,000
To Purchases	545,000	By Closing Stock	150,000
To Freight Inward	16,000		
To Gross Profit	440,000		
	1,100,000		**1,100,000**
To Operating Expenses	200,000	By Gross Profit	440,000
To Loss on Sale of Asset	40,000.	By Non-operating income	60,000
To Net Profit	260,000		
	500,000		**500,000**

Balance Sheet

Liabilities	IQD	**Assets**	IQD
Share Capital	200,000	Land and Building	150,000
Reserve and Surplus	260,000	Plant and Machinery	180,000
Bill Payable	40,000	Stocks	150,000
Other Current Liabilities	90,000	Debtors	45,000
		Bills Receivable	5,000
		Cash & Bank	60,000
	590,000		**590,000**

Requirement: Calculate the following:

1. Gross Profit Ratio.
2. Operating Profit Ratio.
3. Return on Capital Employed.
4. Stock Turnover Ratio.
5. Debtors Turnover Ratio.
6. Current Ratio.
7. Sales to Fixed Assets Ratio.
8. Net Profit to Fixed Assets Ratio.