



## UNIT-VI

### FINANCIAL STATEMENT ANALYSIS

**Describe the word of Financial Analysis and explain its Objectives and Significance?**

**Ans:** Financial Statement Analysis is the process of identifying the financial strength and weaknesses of the firm. It is done by establishing relationships between the items of financial statements viz., profit and loss account and balance sheet. Financial analysis can be undertaken by management or other parties outside the firm such as owners, managers, creditors, investors and others.

**Objectives of Financial Analysis:** the following are generally considered to be the objectives of financial analysis.

- [a] To find out the financial stability and soundness of the business firm.
- [b] To assess and evaluate the earning capacity of the business.
- [c] To estimate and evaluate the fixed assets, stock, etc., of the firm.
- [d] To estimate and determine the possibilities of future growth of business.
- [e] To assess and evaluate the firm's capacity and ability to repay short and long-term loans.
- [f] To evaluate the administrative efficiency of the business firm.

**Significance of Financial Statement Analysis:** Financial Statement Analysis is carried out to measure the firm's liquidity, profitability, solvency and other indicators to assess its operating efficiency, financial position and performance. Financial Analysis serves the following purpose:

- [a] To know the overall operational efficiency of the business.
- [b] To helpful in measuring the solvency of the firm.
- [c] To comparison of past and present results.
- [d] To helps in measuring the firm profitability.
- [e] To useful inter-firm comparison.
- [f] To helps in judging the solvency of the undertaking.
- [g] To predicting the bankruptcy and failures of the business firm.
- [h] To helps in assessing future development by making forecasts and preparing budgets.

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### TYPES OF FINANCIAL STATEMENTS

There are three significant financial statements that every company needs to maintain- income statement, cash flow statement and balance sheet. Let us discuss them one by one.

**(1) Income Statement:** It is a detailed account of company's revenue earning. Also known as the profit and loss statement, it provides the bottom line for decision making, whether the company is making profit or loss.

**(2) Cash flow statement:** It is an account of how much liquid cash or cash equivalent circulates in the company. It is a report card that shows how well a company manages its cash position.



Cash flow statement is an important document to evaluate a company's financial health and compliments balance sheet and income statement.

**(3) Balance sheet:** It is a *report card* that reveals a company's worth in terms of book value at the end of a specific year. It consists of three main parts, namely, assets, liabilities (debt), and shareholder's equity. The most straightforward formula to arrive at book value or shareholder's equity is to subtract debt from assets. The book value is an important performance metric, which rises or falls with increased or decreased financial activities of the company.

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## **METHODS / TOOLS / TECHNIQUES OF FINANCIAL STATEMENT ANALYSIS**

There are several techniques used by analysts to develop a fair understanding of a company's financial performance over a period. The four most commonly practised methods of financial analysis are – Comparative Statement (Horizontal) Analysis, Common Size Statement (Vertical) analysis, ratio and trend analysis.

### **(1) Comparative Statements**

The comparative financial statements are statements of the financial position at different periods of time. The elements of financial position are shown in a comparative form so as to give an idea of financial position at two or more periods. Any statement prepared in a comparative form will be covered in comparative statements.

From practical point of view, generally, two financial statements (balance sheet and income statement) are prepared in comparative form for financial analysis purposes. Not only the comparison of the figures of two periods but also be relationship between balance sheet and income statement enables an in depth study of financial position and operative results.

### **Importance of Comparative statements**

The following are the importance of Comparative statements:

**(1) Simple Presentation:** The comparative statements presents the financial data in simpler form. Moreover, the year wise data of the same items are presented side-by-side, which not only makes presentation clear but also enables easy comparisons (both intra-firm and inter-firm) conclusive.

**(2) Easy for Drawing Conclusion:** The presentation of comparative statement is so effective that it enables the analyst to draw conclusion quickly and easily and that too without any ambiguity.

**(3) Easy to Forecast:** The comparative analysis of profitability and operational efficiency of a business over a period of time helps in analysing the trend and also assist the management to forecast and draft various future plans and policy measures accordingly.



**(4) Easy Detection of Problems:** By comparing the financial data of two or more years, the financial management can easily detect the problems. While comparing the data, some items may have increased while others have decreased or remained constant. The comparative analysis not only enables the management in locating the problems but also helps them to put various budgetary controls and corrective measures to check whether the current performance is aligned with that of the planned targets.

### Types of Comparative Statements:

#### (a) Comparative Income Statement:

The comparative income statement gives an idea of the progress of a business over a period of time. The changes in absolute data in money values and percentages can be determined to analyse the profitability of the business. Like comparative balance sheet, income statement also has four columns. First two columns give figures of various items for two years. Third and fourth columns are used to show increase or decrease in figures in absolute amounts and percentages respectively.

#### Let we take an Example:

The income statements of a concern are given for the year ending on 31st Dec., 2019 and 2020. Re-arrange the figures in a comparative form and study the profitability position of the concern.

Particulars	2019 (Rs.000)	2020 (Rs.000)
Net Sales	785	900
Cost of goods sold	450	500
<b>Operating Expenses:</b>		
General and Administrative expenses	70	72
Selling Expenses	80	90
<b>Non-operating expenses:</b>		
Interest Paid	25	30
Income Tax	70	80

#### Solution:

Comparative Income Statement for the Year ended 31-12-2019 and 2020				
Particulars	31 December		Increase (+) Decrease (-) (Rs.000)	Increase (+) Decrease (-) (Percentage)
	2019 (Rs.000)	2020 (Rs.000)		
Net Sales	785	900	+115	+ 14.65
(-) Cost of goods sold	450	500	+50	+ 11.0
<b>Gross Profit (A)</b>	<b>335</b>	<b>400</b>	+65	+ 19.40
<b>Operating expenses:</b>				
General and Administrative expenses	70	72	+2	+ 2.80
Selling Expenses	80	90	+10	+ 12.5
<b>Toal Operating expenses: (B)</b>	<b>150</b>	<b>162</b>	+12	+ 8.0
<b>Operating Profit or EBIT(A-B)</b>	<b>185</b>	<b>238</b>	+53	+ 28.65
(-) Interest (I)	25	30	+5	+ 20.0
Earnings After Interest before Tax (EBT)	<b>160</b>	<b>208</b>	+48	+ 30.0
(-) Income Tax	70	80	+10	+ 14.30
<b>Earnings After Tax (EAT)</b>	<b>90</b>	<b>128</b>	+38	+ 42.22



**(b) Comparative Balance Sheet:**

The comparative balance sheet analysis is the study of the trend of the two or more balance sheets of the same business enterprise on different dates.' The changes in periodic balance sheet items reflect the conduct of a business.

The changes can be observed by comparison of the balance sheet at the beginning and at the end of a period and these changes can help in forming an opinion about the progress of an enterprise. The comparative balance sheet has two columns for the data of original balance sheets. A third column is used to show increases in figures. The fourth column may be added for giving percentages of increases or decreases.

**Let we take an example:**

From the following information, prepare a comparative Balance Sheet of Deepthi Ltd.:

Particulars	31-3-2021	31-3-2020
Equity Share Capital	50,00,000	50,00,000
Fixed Assets	72,00,000	60,00,000
Reserves and surplus	12,00,000	10,00,000
Investments	10,00,000	10,00,000
Long-term loans	30,00,000	30,00,000
Current Assets	21,00,000	30,00,000
Current Liabilities	11,00,000	10,00,000

**Solution:**

Comparative Balance Sheet as on 31-03-2020 and 2021				
Particulars	31 March		Increase (+) Decrease (-) (Rs.)	Percentage Change
	2020 (Rs.)	2021 (Rs.)		
<b>Assets</b>				
Fixed Assets	60,00,000	72,00,000	+ 12,00,000	+ 20
Investments	10,00,000	10,00,000	-	-
Current Assets	30,00,000	21,00,000	- 9,00,000	- 30
<b>Total Assets</b>	<b>1,00,00,000</b>	<b>1,03,00,000</b>	<b>+-3,00,000</b>	<b>+ 3</b>
<b>Liabilities &amp; Capital</b>				
Equity Share Capital	50,00,000	50,00,000	-	-
Reserves and surplus	10,00,000	12,00,000	+2,00,000	+ 20
Long-term loans	30,00,000	30,00,000	-	-
Current Liabilities	10,00,000	11,00,000	+1,00,000	+ 10
<b>Total Liabilities</b>	<b>1,00,00,000</b>	<b>1,03,00,000</b>	<b>+ 3,00,000</b>	<b>+ 3</b>

**(2) Common Size Statements:**

Common size analysis, also referred as *vertical analysis*, is a tool that financial managers use to analyse financial statements. It evaluates financial statements by expressing each line item as a percentage of the base amount for that period. The analysis helps to understand the impact of each item in the financial statement and its contribution to the resulting figure.



The technique can be used to analyse the three primary financial statements, i.e., balance sheet, income statement, and cash flow statement.

**These statements show:**

- (a) Each item of financial statements in absolute value.
- (b) Each item of financial statements as percentage of a common base, i.e. Revenue from operations for statement of profit and loss and total assets or total of equity and liabilities for balance sheet.

**Objectives of Preparing Common-size Statements**

- (1) To analyse the change in each item of the statement as a percentage to a common-base.
- (2) To determine the trend of different items of the statement.
- (3) To assess the efficiency.

**PROS AND CONS OF COMMON SIZE ANALYSIS**

**Pros (Advantages) of Common Size Analysis**

- (1) **Easy to understand:** Common-size Statement helps the users of financial statement to make clear about the ratio or percentage of each individual item to total assets/liabilities of a firm. For example, if an analyst wants to know the working capital position he may ascertain the percentage of each individual component of current assets against total assets of a firm and also the percentage share of each individual component of current liabilities.
- (2) **Comparison at a Glance:** An analyst can compare the financial performances at a glance since percentage of increase or decrease of each individual component of cost, assets, liabilities etc. are available and he can easily ascertain his required ratio.
- (3) **Helpful in analysing Structural Composition:** A Common-Size Statement helps the analyst to ascertain the structural relations of various components of cost/expenses/assets/liabilities etc. to the required total of assets/liabilities and capital.
- (4) **Helpful for Time Series Analysis:** A Common-Size Statement helps an analyst to find out a trend relating to percentage share of each asset in total assets and percentage share of each liability in total liabilities.

**Cons (Disadvantages) of Common Size Analysis**

- (1) **No Standard Ratios to Follow:** Knowing the common size analysis percentages may not assist in taking informed decisions. It does not present the full picture. *For example*, high debt to financing ratio is clear indicator that can help analysing taking decision about the business financial stability which can't be clearly assessed with the common size analysis statements.
- (2) **Size of the Company is not taken in consideration:** Because this statement only shows percentages without the actual figures, company size is not taken in consideration which makes it hard for the analyst to know whether the business is growing or not and there are no strong basis when comparing it with other companies.



## Types of Common Size Analysis

The two common-size statements are

- (a) Income statement and
- (b) Balance sheet.

### (a) Common Size Income Statement

The **base item** is taken as **100** in the income statement is usually the **total sales or total revenues**. Common size analysis is used to calculate net profit margin, as well as gross and operating margins. The ratios tell investors and finance managers how the company is doing in terms of revenues, and they can make predictions of future revenues. Companies can also use this tool to analyze competitors to know the proportion of revenues that goes to advertising, research and development, and other essential expenses.

### Common-size income statement shows:

- (a) Income and expenses in absolute values.
- (b) Income and expenses as percentage of Income from operations for the different periods of the same firm or of two firms.

### Objectives of Preparing Common-size Income Statement:

- (1) To analyse change in individual items of Statement of Profit and Loss.
- (2) To study the trend in different items of Incomes and expenses.
- (3) To assess the efficiency.

### Format of Common-Size Income Statement

Common-Size Income Statement for the Year ended				
Particulars	Absolute Amounts		Percentage of Net Sales	
	Previous Year (Rs.)	Current Year (Rs.)	Previous Year (%)	Current Year (%)
(I) Revenue from Operations (Net Sales)	xxx	xxx	100	100
(II) Other Income	xxx	xxx	%	%
<b>(III) Total Revenue (I+II)</b>	<b>XXX</b>	<b>XXX</b>	<b>%</b>	<b>%</b>
<b>(IV) Expenses</b>				
Cost of materials consumed	xxx	xxx	%	%
Purchases of stock-in-trade	xxx	xxx	%	%
Changes in inventories of Finished goods	xxx	xxx	%	%
Work-in-progress and Stock-in-trade	xxx	xxx	%	%
Employees Benefit Expenses	xxx	xxx	%	%
Finance Costs	xxx	xxx	&	&
Depreciation	xxx	xxx	%	%
Other expenses	xxx	xxx	%	%
<b>Total Expenses</b>	<b>XXX</b>	<b>XXX</b>	<b>%</b>	<b>%</b>
(V) Profit Before Tax (PBT) (III-IV)	XXX	XXX	%	%
<b>(VI) Less: Tax</b>	xxx	xxx	%	%
<b>(VII) Profit after Tax (PAT) (V-VI)</b>	<b>XXX</b>	<b>XXX</b>	<b>%</b>	<b>%</b>



(1) From the following information, prepare a common-size statement of profit and loss (Income Statement) of Prudence Ltd. for the year ended 31<sup>st</sup> March, 2017.

Particulars	31-3-2017 (Rs.)
Revenue from operations	20,00,000
Purchases	15,00,000
Changes in inventories	1,00,000
Other Income (Dividend Received)	40,000
Depreciation and Amortisation expenses	60,000
Tax @ 40 %	

**Solution:**

Common-Size Income Statement of Prudence Ltd. for the year ended 31 <sup>st</sup> March, 2017.		
Particulars	Figures for the Year (Rs.)	Percentage (%)
(I) Revenue from operations (Net Sales)	20,00,000	100
(II) Other Income (Dividend Received)	40,000	2.00
<b>(III) Total Revenue (I+II)</b>	<b>20,40,000</b>	<b>102.00</b>
<b>(IV) Expenses</b>		
(a) Purchases	15,00,000	75.00
(b) Changes in inventories	1,00,000	5.00
(c) Depreciation and Amortisation expenses	60,000	3.00
<b>Total Expenses</b>	<b>16,60,000</b>	<b>83.00</b>
(V) Profit Before Tax (PBT) (III-IV)	3,80,000	19.00
<b>(VI) Less: Tax @ 40 % on 3,80,000</b>	<b>1,52,000</b>	<b>7.60</b>
<b>(VII) Profit after Tax (PAT) (V-VI)</b>	<b>2,28,000</b>	<b>11.40</b>

### (b) Balance Sheet Common Size Analysis

The balance sheet common size analysis mostly uses the total assets value as the base value is taken as 100. On the balance sheet, the total assets value equals the value of total liabilities and shareholders' equity. A financial manager or investor uses the common size analysis to see how a firm's capital structure compares to rivals. They can make important observations by analysing specific line items in relation to the total assets.

**This statement shows:**

- (a) Assets, Equity and Liabilities in absolute values.
- (b) Assets, Equity and Liabilities as percentage of total assets or total equity and liabilities.

### Objectives of Common-size Balance Sheet

- (1) To analyse the changes in individual items of Balance Sheet.
- (2) To observe the trend of different items of assets, equity and liabilities.





(3) To assess the relative financial position on the basis of Common size Balance Sheets for different firms belonging to the same industry.

### Format of Common-Size Income Statement

Common-Size Balance Sheet of ----- as on 31-?-?				
Particulars	Absolute Amounts		Percentage of Balance Sheet Total	
	Previous Year (Rs.)	Current Year (Rs.)	Previous Year (%)	Current Year (%)
<b>(I) EQUITY AND LIABILITIES</b>				
<b>(1) Shareholders Funds</b>				
(a) Share Capital	xxx	xxx	%	%
(b) Reserve and Surplus	xxx	xxx	%	%
<b>(2) Non-Current Liabilities</b>				
(a) Long-term Borrowings	xxx	xxx	%	%
(b) Long-term Provisions	xxx	xxx	%	%
<b>(3) Current Liabilities</b>				
(a) Short term borrowings	xxx	xxx	%	%
(b) Trade Payables (Creditors)	xxx	xxx	%	%
(c) Other Current Liabilities	xxx	xxx	%	%
(d) Short term provisions	xxx	xxx	%	%
<b>Total</b>	<b>xxx</b>	<b>xxx</b>	<b>100</b>	<b>100</b>
<b>II. ASSETS</b>				
<b>(1) Non-Current Assets</b>				
(a) Fixed Assets				
(i) Tangible Assets	xxx	xxx	%	%
(ii) Intangible Assets	xxx	xxx	%	%
(b) Non-Current Investments	xxx	xxx	%	%
(c) Long-term Securities	xxx	xxx	%	%
<b>(2) Current Assets</b>				
(a) Current Investments	xxx	xxx	%	%
(b) Inventories	xxx	xxx	%	%
(c) Trade Receivables	xxx	xxx	%	%
(d) Cash and cash equivalents	xxx	xxx	%	%
(e) Short term securities	xxx	xxx	%	%
(f) Sundry Debtors	xxx	xxx	%	%
(g) Other current assets	xxx	xxx	%	%
<b>Total</b>	<b>xxx</b>	<b>xxx</b>	<b>100</b>	<b>100</b>

(1) Prepare Common-Size Balance Sheet of Emm Kay Ltd. From the following data:

Particulars	31-3-2020 (Rs.)	31-03-2019 (Rs.)
Share Capital - Equity	5,00,000	5,00,000
-Preference	3,00,000	1,00,000
Reserves and Surplus	3,50,000	2,50,000
10% Debentures	4,00,000	3,00,000
Trade Payables	50,000	50,000
Trade Receivables	4,00,000	2,00,000
Cash and Bank Balances	2,00,000	2,00,000
Land and Building	10,00,000	8,00,000





**Solution:**

Common-Size Balance Sheet of Emm Kay Ltd. As on 31-03-2019 and 31-03-2020.				
Particulars	Absolute Amounts		Percentage of Balance Sheet Total	
	2019 (Rs.)	2020 (Rs)	2019 (%)	2020 (%)
<b>(I) EQUITY AND LIABILITIES</b>				
<b>(1) Shareholders Funds</b>				
(a) Share Capital - Equity	5,00,000	5,00,000	41.67	31.25
-Preference	1,00,000	3,00,000	8.33	18.75
(b) Reserves and Surplus	2,50,000	3,50,000	20.83	21.88
<b>(2) Non-Current Liabilities</b>				
(a) 10% Debentures	3,00,000	4,00,000	25.0	25.0
<b>(3) Current Liabilities</b>				
(a) Trade Payables (Creditors)	50,000	50,000	41.7	3.12
<b>Total</b>	<b>12,00,000</b>	<b>16,00,000</b>	<b>100</b>	<b>100</b>
<b>II. ASSETS</b>				
<b>(1) Non-Current Assets</b>				
<b>(a) Fixed Assets</b>				
(i) Land and Building	8,00,000	10,00,000	66.67	62.5
<b>(2) Current Assets</b>				
(a) Trade Receivables	2,00,000	4,00,000	16.67	25.0
(b) Cash and cash equivalents	2,00,000	2,00,000	16.66	12.5
<b>Total</b>	<b>12,00,000</b>	<b>16,00,000</b>	<b>100</b>	<b>100</b>

**(3) Trend analysis**

It helps to analyse trends over three or more periods. It takes into account incremental change patterns, considering the earliest year as the base period. A change in a financial statement will either reveal a positive or negative trend.

**(4) Ratio Analysis**

Ratio is a powerful tool of financial analysis. In simply, the relationship between two or more accounting figures or things, expressed in mathematically, is known as financial ratio or simply as a ratio.

Ratio analysis is the process of determining and interpreting numerical relationships based on financial statements. By computing ratios, it is easy to understand the financial position of the firm. Ratio analysis used to focus on financial issues such as profitability, liquidity and solvency of a given firm.

**Significance of Ratio Analysis:**

The ratio analysis involves comparison for a useful interpretation of the financial statements. A single ratio in itself does not indicate favorable or unfavorable conditions. It should be



compared with some standard. If independently looked into profitability, liquidity and solvency ratios are *three* conflicting factors which are mutually exclusive.

***Profitability refers*** to how capably the firm is conducting its business operations in a profitability manner.

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

***Solvency refers*** to the firm's position to meet its long-term commitments such as repayment of long-term loans, and so on. So such ratios are used often in judging profitability, liquidity and solvency of the firm.

### **Limitations of Ratio Analysis:**

The following are the limitations of the ratio analysis.

[1] ***False Results:*** Ratios are based upon the financial statements. In case financial statements are incorrect or the data upon which ratios are based incorrect, ratio calculated will also be false and defective.

[2] ***Limited comparability:*** The ratio of the one firm cannot always be compared with the performance of other firm; if there is no uniform accounting policies, procedures and methods are adopted by them. So the ratios will not provide identical data and they cannot be compared then leads to weak conclusions.

[3] ***Concepts of Ratios are not the same:*** The ratios can be comparable only when uniform terminology is adopted by all the firms but some firms may use their own concepts and terminology. **Ex:** In case of profitability ratio, some firms take EBIT, others may take EAT as profit of the firm. In such case, inter-term comparison cannot be realistic.

[4] ***Qualitative Factors cannot be considered:*** Ratio analysis is purely quantitative measurement of the firm performance. It ignores the qualitative factors such as character or managerial abilities etc.,

[5] ***No Single Standard Ratio:*** Every firm has to work in different situations and circumstances. Sudden changes in the economy such as strikes, lock-outs, floods, wars etc., materially affect the performance. So a particular ratio cannot be matched to be standard for everyone in normal day's circumstances.

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## CLASSIFICATION OR TYPES OF RATIOS

Based on their nature, availability of data, and purpose, the ratios can be broadly be classified into three categories:

[I] Profitability Ratios [II] Activity Ratios [III] Financial Ratios [IV] Liquidity Ratios

**[I] Profitability Ratios:** These are best indicators of overall efficiency of the business firm because the owners expect reasonable rate of return on their investment. The firm should generate enough profits not only to meet the expectations of the owners, but also to finance the expansion activities. Thus, profitability ratios are of two types as related to sales and as related to investment.

**[A] Profitability as related to Sales:** Under this group of profitability ratios are included (a) gross profit to sales (b) operating profit to sales and (c) net profit to sales.

**[a] Gross Profit Ratio (GPR):** Gross profit is the ratio between gross profit to sales during a given period. It is expressed in terms of percentage. Gross profit is the difference between the net sales and the cost of goods sold.

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

**[b] Net Profit Ratio:** This is widely used as a measure of overall profitability. Net profit is the ratio between net profits after tax to sales. It indicates what portion of sales is left to the owners after operating expenses. The higher the net profit ratio, the higher is the profitability and vice versa. It is expressed in terms of percentage.

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

**[c] Operating Profit Ratio:** It expresses the relationship between operating profit to the net sales. This one can judge the managerial efficiency which may not reflected in net profit ratio. This is expressed as a percentage to net sales. The higher operating profit ratio, the higher is the profitability and vice versa.

$$\text{Operating Profit Ratio (OPR)} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

Where operating profit is Gross profit – operating expenses (OR) (100 – Operating Ratio %)

Where operating expenses = (cost of goods sold + administration expenses + selling and distribution expenses).



**[B] Profitability as related to Investment:** This category of profitability ratio includes [a] Return on Investment (ROI), [b] Earnings per Share (EPS), [c] Price Earnings Ratio (P/E ratio) and [d] Dividend Yield Ratio (D/P ratio).

**[a] Return on Investment (ROI):** It is one of the very important parameters affecting business plans. The profitability of the firm is measured in terms of return on investment. The term 'investment' may refer to total assets, capital employed or owners' equity. Generally, the firm may interest in assessing the return on capital employed or investment.

$$\text{Return on Investment (ROI)} = \frac{\text{Net Profit after Tax}}{\text{Total Investment}}$$

**[b] Earning per Share (EPS):** EPS is the relationship between net profits and the number of shares outstanding at the end of the given period. This can be compared with previous years to provide a basis for assessing the company performance. The higher the EPS, the more is likely to be the demand for the shares of that company.

$$\text{Earnings Per Share (EPS)} = \frac{\text{Net Profit after Tax}}{\text{No. of equity shares}}$$

**[c] Price Earnings Ratio (P/E):** This is the share price divided by the earnings per share.

$$\text{P/E Ratio} = \frac{\text{Market Price per Share}}{\text{Earnings Per Share (EPS)}}$$

**[d] Dividend Yield Ratio (D/Y):** It refers to the amount of total return the investor will receive for a given period of time for the amount of his investment. Dividend Yield refers to the percentage return on the price paid for shares.

$$\text{D/Y Ratio} = \frac{\text{Fave value of the Share}}{\text{Market Price of the Share}} \times \text{percentage of dividend per annum.}$$

**[II] Activity (or) Performance (or) Turnover Ratios:** activity ratios express how active the firm is in terms of selling its stocks, collecting its receivables and paying its creditors. These are three types: [A] Inventory or Stock Turnover Ratio [B] Debtors Turnover Ratio [C] Creditor Turnover Ratio.

**[A] Inventory or Stock Turnover Ratio (ITR):** It indicates number of times the average stock is being sold during a given accounting period. It establishes the relation between the cost of goods sold and average amount of inventory (stock) outstanding during that period. The higher inventory turnover ratio implies the efficiency of the firm whereas a low inventory turnover ratio indicates that the firm is not in a position to clear its stocks. It helps in determining the liquidity of the firm by giving the rate at which inventories are converted into sales and cash. It is expressed in terms of times.



$$\text{Inventory or Stock Turnover Ratio (ITR) or (STR)} = \frac{\text{Cost of Goods Sold or Net Sales}}{\text{Average inventory or stock}}$$

**Note:** if cost of goods sold calculation is not possible hence you consider net sales.

$$\text{Inventory Holding Period (IHP)} = \frac{365 \text{ Days}}{\text{Inventory Turnover Ratio (ITR)}}$$

**[B] Debtors Turnover Ratio (DTR):** It shows how quickly the firm is in a position to collect its debts. It is necessary to keep close monitoring of realization of debts because it directly affect the working capital position. The successful companies maintain the aged list of the debtors showing the details of when to collect, how much to collect and from which debtor. A higher debtor's turnover ratio explains that the firm is efficient in collecting its debts and vice versa.

$$\text{Debtors Turnover Ratio (DTR)} = \frac{\text{Credit Sales}}{\text{Average Debtors}}$$

**Note:** if credit sales calculation is not possible otherwise you consider total sales.

$$\text{Debt Collection Period (DCP)} = \frac{365 \text{ Days}}{\text{Debtors Turnover Ratio (DTR)}}$$

**[C] Creditor Turnover Ratio (CTR):** It shows how promptly the firm is in position to pay its creditors. It is necessary to keep close monitoring of payment schedules because it directly affect the working capital position. Most of the firms maintain the aged list of the creditors showing the details of when to pay, how much to pay and whom to creditor. A higher creditor's turnover ratio explains that the firm is efficient in payments its creditors and vice versa.

$$\text{Creditors Turnover Ratio (CTR)} = \frac{\text{Credit Purchases}}{\text{Average Creditors}}$$

**Note:** if credit purchases calculation is not possible otherwise you consider total purchases.

$$\text{Creditors Payment Period (CPP)} = \frac{365 \text{ Days}}{\text{Creditors Turnover Ratio (CTR)}}$$

**[III] Financial Ratios:** Capital structure or leverage ratio is defined as the financial ratio, which deals with the long-term solvency of the firm. The long-term solvency of the firm is always reflected in its ability to meet its long term commitments such as payments of interest periodically without fail, repayment of capital amount as and when due. The following are the most commonly used capital structure or leverage ratios.

**[A] Debt-Equity (D/E) Ratio:** It is the ratio between outsiders' funds (debt) and insider's funds (equity). This is used to measure the firm's obligations to creditors in relation to the owner's



funds. It is measure of solvency. The *standard of this ratio is 1:1*. A high debt-equity ratio implies that the creditors' stake is more as compared to that of owners.

$$\text{D/E Ratio} = \frac{\text{Debt}}{\text{Equity}} \text{ or } \frac{\text{Long-term Debt}}{\text{Shareholder's funds}}$$

[B] **Interest Coverage Ratio (ICR):** It is calculated to judge the firms capacity to pay the interest on debt it borrow. It is very important ratio for the financial institutions to judge the ability of the borrower to service the loan from the current year profits. The higher the ratio implies that the company has no problem in paying interest.

$$\text{Interest Coverage Ratio (ICR):} = \frac{\text{EBIT}}{\text{Interest (I)}}$$

[C] **Proprietary Ratio (PR):** the ratio indicates the general financial strength of the firm. The ratio is great significance to creditors since it enables them to find out the proportion of the shareholders' funds in the total investment of the business.

$$\text{Proprietary Ratio (PR):} = \frac{\text{Net worth}}{\text{Total Tangible Assets}} \times 100.$$

[IV] **Liquidity Ratios:** Liquidity ratio expresses the ability of the firm to meet its short-term commitments as and when they become due. If the firm is not in a position to meet its short-term obligations such as payment of taxes, wages and salaries, and so on, then it cannot continue in business for long period. Liquidity ratios help in identifying the danger signals for the firm in advance. Liquidity ratios can be classified into two types:

[A] **Current Ratio:** Current ratio is the ratio between current assets and current liabilities. The firm is said to be comfortable in its liquidity position if the *current ratio is 2:1*. This parameter is very useful in inter-firm comparisons. The current ratio is also called working capital ratio. Higher the current ratio, the better is the coverage of current assets for the short-term claims.

$$\text{Current Ration (CR)} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

[B] **Quick Ratio (QR):** Quick ratio is also called acid test ratio. It measures the firm ability to convert its current assets quickly into cash in order to meet its current liabilities. It is the ratio between liquid assets and current liabilities.

$$\text{Quick Ratio (QR)} = \frac{\text{Quick or Liquid Assets}}{\text{Current Liabilities}} \text{ (quick assets or liquid assets / current liabilities).}$$

Quick Assets = [current assets – (stock + prepaid expenses)].

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