A CONCEPTUAL STUDY ON RATIO; AS A TOOL FOR FINANCIAL ANALYSIS

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Ratio Analysis : An Introduction :

Ratio analysis is often expressed proportionately to show the relationship between figures in the financial statements. Ratios are guides or shortcuts that are useful in evaluating a company‘s financial position and operations and making comparisons with results in previous years or with other companies. The primary purpose of ratio is to point out areas needing further investigation. They should be used in connection with a general understanding of the company and its environment.

Financial analysis of the company is done by analyzing many factors; ratio analysis is one of important tool of financial analysis which helps to understand company’s financial statement, position in the market, liquidity, and operating efficiency.

Review of Literature :

According to Hermanson (1992:824), “financial statement analysis consists of applying analysis tools and techniques to financial statements and other relevant data to show important relationships and obtain useful information.” Therefore, financial statement analysis can be de- fined as the breaking down, interpretation, and translation of data contained in financial statements to provide information and show important relationships among the items of financial statements and drawing conclusion about the past performance, current financial position, and future potentials of a business

According to Needles (1996:773), the major sources of information about publicly held corporations are reports published by the company, SEC reports, business periodical, and credit and investment advisory services.

Objective of Study :

To understand concept and application of Ratio as tool of financial analysis.

- **Research Methodology :**

This research is descriptive research and based purely on secondary data. Its motive is to understand concept and structure of Ratio analysis and its application as it is without changing the scenario as on date.

- **Limitation of Study:**

This study is purely based on secondary data sourced from various research journals, websites and research articles to understand concept and its application of Ratio Analysis in analyzing Financial statements.

- **Analysis and Interpretation : Ratio Analysis**

Return on Investment (or) Overall Profitability Ratio: This ratio is called 'Return on Investment' (R.O.I) or 'Return on capital employed'.

It measures the sufficiency or otherwise of profit in relation to capital employed.

$$\text{R.O.I.} = \frac{\text{Operating Profit}}{\text{Capital Employed}} \times 100$$

Gross Profit Ratio: This ratio is also known as Gross margin or trading margin ratio. Gross profit ratio indicates the difference between sales and direct costs. Gross profit ratio explains the relationship between gross profit and net sales.

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

Operating Ratio: This ratio indicates the relationship between total operating expenses and sales.

$$\text{Operating ratio} = \frac{\text{Cost of sales} + \text{Operating expenses}}{\text{Net sales}} \times 100$$

Operating ratio measures the amount of expenditure incurred in production sales and distribution of output. It indicates operational efficiency of the concern. Lower the ratio more is the efficiency. The ratio should be low enough to provide fair return to the shareholders and other investors.

Expenses Ratios: These ratios are also known as supporting ratios to operating ratio. They indicate the efficiency with which business as a whole functions.

It is better for the concern to know how it is able to save of waste over expenditure in respect of different items of expenses. Therefore each aspect of cost of sales and operating expenses are analysed.

The formulas for some of the expanses are given below:-

Formula:

1. Administrative expenses ratio:

$$\frac{\text{Administrative expenses}}{\text{Net sales}} \times 100$$

2. Selling and distribution expenses ratio :

$$\frac{\text{Selling and distribution expenses}}{\text{Net sales}} \times 100$$

3. Financial expenses ratio :

$$\frac{\text{Financial expenses}}{\text{Net sales}} \times 100$$

Net Profit Ratio: This ratio is also called net profit to sales ratio. It is a measure of management's efficiency in operating the business successfully from the owner's point of view. It indicates the return on shareholders' investments. Higher the ratio better is the operational efficiency of the business concern.

$$\text{Net profit ratio} = \frac{\text{Net profit after tax}}{\text{Net sales}} \times 100$$

Earnings per Share (EPS): This ratio highlights the overall success of the concern from owners', point of view and it is helpful in determining market price of equity shares. It reflects upon the capacity of the concern to pay divided to its equity shareholders.

$$\text{E.P.S.} = \frac{\text{Net profit after tax and preference dividend}}{\text{No. of Equity shares}}$$

Dividend Yield Ratio: In this ratio the dividend is related to the market value of shares. The result is known as dividend yield.

Formula:

$$\text{Dividend yield} = \frac{\text{Dividend per share}}{\text{Market price per share}} \times 100$$

Inventory or Stock Turnover Ratio: This ratio is also called stock velocity ratio. It is calculated to ascertain the efficiency of inventory management in terms of capital investment. It shows the relationship between the cost of goods sold and the amount of average inventory.

There are different ways of calculating stock turnover ratio as mentioned below:

Formula:

$$\text{Stock turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

$$\text{or} = \frac{\text{Net sales}}{\text{Average inventory cost}}$$

$$\text{or} = \frac{\text{Net sales}}{\text{Average inventory at selling price}}$$

$$\text{or} = \frac{\text{No. of units sold}}{\text{Average no. of units in stock}}$$

Debtors Turnover Ratio: Debtors Turnover ratio is also called as receivables turnover ratio or debtors velocity. A business concern generally adopts different methods of sales. One of them is selling on credit. Debtors turnover ratio measures the number of times the receivables are rotated in a year in terms of sales. This ratio also indicates the efficiency of credit collection and efficiency of credit policy.

Debtors turnover ratio can be calculated as follows:

Formula :

$$\text{Debtors/Receivables turnover} = \frac{\text{Net credit sales}}{\text{Average receivables}}$$

$$\text{Average Receivables} = \frac{\text{Opening receivables} + \text{Closing receivables}}{2}$$

Creditors Turnover Ratio (or) Accounts Payable Turnover: This ratio is also known as accounts payable or creditors velocity. A business concern usually purchases raw materials, services and goods on credit. The quantum of payables of a business concern depends upon its purchase policy, the quantity of purchases and suppliers' credit policy. Longer the perioof payables outstanding lesser is the problem of working capital of the firm.

Formula:

$$\text{Creditors turnover ratio} = \frac{\text{Net credit purchases}}{\text{Average accounts payable}}$$

$$\text{Average payment period} = \frac{\text{Days or months in the year}}{\text{Creditors turnover ratio}}$$

(or)

$$\text{Average payment period} = \frac{\text{Accounts payable}}{\text{Net credit purchases}} \times \frac{365}{12}$$

$$\text{Net credit purchases} = \text{Credit purchases} - \text{Purchase returns}$$

$$\text{Average accounts payable} = \frac{\text{Opening payables} + \text{Closing payables}}{2}$$

Working Capital Turnover Ratio: Working capital ratio measures the effective utilisation of working capital. It also measures the smooth running of business or otherwise. The ratio

establishes relationship between cost of sales and working capital. Working capital turnover ratio is calculated with the help of the following formula.

Formula:

$$\text{Working capital turnover ratio} = \frac{\text{Sales / Cost of sales}}{\text{Net working capital}}$$

$$\text{Net working capital} = \text{Current assets} - \text{Current liabilities}$$

Fixed Assets Turnover Ratio: This ratio determines efficiency of utilisation of fixed assets and profitability of a business concern. Higher the ratio, more is the efficiency in utilisation of fixed assets. A lower ratio is the indication of under utilisation of fixed assets.

Formula :

$$\text{Fixed assets turnover ratio} = \frac{\text{Cost of sales}}{\text{Net fixed assets}}$$

$$\text{or} = \frac{\text{Sales}}{\text{Net fixed assets}}$$

$$\text{where net fixed assets} = \text{Fixed assets} - \text{Depreciation}$$

Current Ratio:

The ratio of current assets to current liabilities is called 'current ratio'. In order to measure the short-term liquidity or solvency of a concern, comparison of current assets and current liabilities is inevitable. Current ratio indicates the ability of a concern to meet its current obligations as and when they are due for payment.

Formula: $$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

Liquid Ratio: This ratio is also called 'Quick' or 'Acid test' ratio. It is calculated by comparing the quick assets with current liabilities.

Formula:

$$\text{Liquid ratio} = \frac{\text{Quick assets or liquid assets}}{\text{Current liabilities}}$$

Cash Position Ratio: This ratio is also called 'Absolute Liquidity ratio' or 'super quick ratio'. This is a variation of quick ratio. This ratio is calculated when liquidity is highly restricted in terms of cash and cash equivalents. This ratio measures liquidity in terms of cash and near cash items and short-term current liabilities.

Formula:

$$\text{Cash position ratio} = \frac{\text{Cash and Bank Balances} + \text{Marketable securities}}{\text{Current liabilities}}$$

Debt Equity Ratio: This ratio is ascertained to determine long-term solvency position of a company. Debt equity ratio is also called 'external-internal equity ratio'.

Formula : External Equities / Internal equities.

Limitations of Ratio Analysis :

Although financial ratios help us identify areas of the business that requires further investigation, make informed business decisions but they do not provide answers or solutions due to the following limitations:

- Window Dressing of financial statements.
- It is based on historical information
- Balance sheet and Profit loss account information is used to calculate ratios
- Companies may have same parameters.
- It's not a gold standard for comparison

Conclusion :

Financial statements contain lots of information summarized in figures. Viewed on the surface, they do not provide enough information about the viability of the reporting entity. Thus, they need to be analyzed by means of financial ratios to unravel the mass of truth hidden in them, and to enhance decision making.

Ratio analysis helps to reveal, compare and interpret salient features of financial statements. When applied to a set of financial statements, financial ratios highlight significant aspects of the financial position and operational results of a business requiring further investigation. They help to identify the strengths and weaknesses of a business

In fact, ratio analysis helps to evaluate the past performance, the present condition, and the future prospects of a business. It enables us to ask the right questions about a business, and paves way to finding the useful answers. Such analysis therefore, aids planning, control, forecasting and decision making.

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