# CHAPTER 4

# RATIO ANALYSIS

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## 4.1 MEANING

Ratio analysis refers to the analysis and interpretation of the figures appearing in the financialstatements (ie, Profits and Loss Account, Balance sheet and fund flow statement etc.). It is a process of comparison of one figure against another. It enables the work like shareholders, investors, creditors, government and analysts etc. To get better understanding of financial statements.

Ratio analysis is a quantitative method of gaining insight into a company's liquidity, operational efficiency, and profitability by studying its financial statements such as the balance sheet and income statement. Ratio analysis is a cornerstone of fundamental equity analysis.

## DEFINITION

The systematic use of ratios to interpret the financial statements so that the strengths and weaknesses of a firm as well as its historical performance and current financial conditions canbe determined.

-khan and jain

## 4.2 IMPORTANCE

- **financial statement analysis**

Understanding financial statements are important for stakeholders of the company. Ratio analysis helps is understanding the comparison of these numbers, furthermore, it helps in estimating numbers from income statements and Balance sheets for the future.

- **Efficiency of company**

Ratio analysis is important in understanding the company's ability to generate profit. Return onAssist, return an equity tells us how much profit the company is able to generate over assts of the firm and equity investments in firm, while gross margin and operating margin ratios tells us the company's ability to generate profit from sales and operating efficiency.

- **Planning and forecasting**

From a management and investor point of views, ratio analysis helps understand and estimatethe company's future financial and operations. Ratios formed from past financial statement. analysis helps us estimating future financial, budgeting and planning for the be future operations of the company.

- **Identifying Risk and taking Corrective Actions**

The company operates under various business, market, operating related risks. Ratio analysis helps in understanding these risks and helps management to prepare and take necessary actions.leverage ratios helps in performing sensitiveanalysis of various factors affecting the company's profitability like sales, cost, debt Financial leverage ratios like interest Coverage ratio and debtCoverage ratio tells how much of the company is dependent on external capital sources and the company's ability to repay debt.

- **Peers comparison**

Investors, as well as the company's management make a comparison with competitors company to understand efficiency, profitability and market share. Ratio analysis is helpful for Companies to perform SWOT (strength, weakness, opportunity and threats) analysis in the market.

It also tells whether the company is able to perform growth or not over a period from past Financial and whether the company's financial position is improvingor not.

- **A Better source of communication**

Ratio analysis is important while presenting the financial of the company to its stakeholders. Ratio make it easy to understand than complex and huge numbers. Sometimes numbers can bedeceitful which leads to investors losing confidence, but ratio analysis helps the invertor to understand the situation of company after comparison and helps them to keep investing in thebusiness.

- **Financial solvency**

The company's ability to pay short-term debt is determined by liquidity. Current Ratio Acid- test ratio tells us whether a company is able to pay its short-term obligations within a Year. The company continuously runs analysis on past financial statements to understand and prepare for payment of short-term Obligations.

- **Decision Making**

Ratios provide important information on the operational efficiency of the company, and the utilization of resources by the company. It helps management to forecast and planning for further new goals concentrate on the different markets etc.

- **Trend line**

Ratio analysis gives us the trend line, which indicates whether a company is able to perform over a period or not. Companies gather data from past reporting periods trend line formed canbe used to understand and judge future performance and any possible issue which cannot be found from just one-year ratio analysis.

- **All in one Package.**

Ratio analysis includes ratios, which measure various aspects of business like liquidity. efficiency solvency, leverage, profitability from all perspectives to make their own decisions.

## 4.3 ADVANTAGES

- **Forecasting and planning.**

The trend in costs, sales, profits and other facts can be known by computing ra tios of relevantaccounting figures of last few years. This trend analysis with the help of ratios may be useful for forecasting and planning future business activities.

- **Budgeting**

Budget is an estimate of future activities on the basis of past experience. Accounting ratios help to estimate figures. For example, sales budget may be prepared with the help of analysis of pastsales.

- **Measurement of operating efficiency**

Ratio analysis indicates the degree of efficiency in the management and utilisation of its assets.Different activity ratios indicate the operational efficiency. In fact, solvency of a firm dependsupon the sales revenue generated by utilizing its assets.

- **Communication**

Ratios are effective means of communication and play a vital role in informing the position ofand progress made by the business concern to the owners or other parties.

- **Control of performance and cost**

Ratios may also be used for control of performance of the different divisions or departments ofan undertaking as well of departments as control of Costs.

- **Inter-firm comparison**

Comparison of performance of two or more forms reveals efficient and inefficient firms, thereby enabling the inefficient firms to adopt suitable measures for improving their efficiency.

- **Indication of liquidity Position**

Ratio analysis helps to assess the liquidity position i.e short tum debt paying ability of a firm. Liquidity ratios indicate the ability of the firm to pay and help in credit analysis by banks creditors and other suppliers of short-term loans.

- **Indication of long term solvency position**

Ratio analysis is also used to assess the long term debt-paying capacity of a firm. long-term solvency position of a borrower is a prime concern to the long-term creditors security analyst and the present and potential owners of a business. It is measure by the average / Capital structure and profitability ratios which indicate the earning power and operating efficiency. Ratio analysis shows the strength and weakness of a firm is this respect.

- **Indication of overall Profitability**

The management is concerned with the overall profitability of the firm. They want to know whether the firm has the ability to meet its short-term as well as long term obligation to its creditors, to ensure the reasonable return to its owners and secure optimum utilization of the assets of the firm. This is possible if all the ratios are considered together.

- **Signal of Corporate sickness**

A company is risk when it fails to generate profit on a continues basis and suffers a severe liquidity crisis. Proper ratio analysis can give signal of cooperate sickness in advance so that timely measures can be taken to prevent the occurence of such sickness.

## 4.4 CLASSIFICATION OF RATIO ANALYSIS

Ratios may be classified in the following two ways

- Traditional Classification
- Functional classification

**Traditional classification**

Traditional classification has three types of ratios, namely

- Profit and loss Ratios.
- Balance sheet ratios.
- Composite ratios.

## Profit and Loss ratios

The Profit loss ratio is a measure of the ability of a particular trading system to generate profitinstead of loss. A system's profit/Loss ratios is calculated by taking the average profit from allwinning traders divided by the average Losses on all the loosing trades over an arbitrary periodof time.

## Balance sheet ratios

Balance sheet ratios evaluate a company's financial performance. There are three types of ratios derived from the Balance sheet: Liquidity, solvency and profitability.

## Composite ratios

A composite ratio a combined ratio compares two variables from two different accounts. One is taken from the Profit & loss All and other from the balance sheet.

## Functional Classification

This is a more accurate and useful Classification of ratios, and hence more commonly used aswell. The types of ratios according to the functional classification are:

- Profitability ratios.
- Turnover ratios.
- Solvency ratios.

## Profitability ratio

Profitability ratios are a class of financial metrics that are used to assess a business ability to generate earnings relative to its revenue, operating lasts balance sheets assets of shareholder's equity during a specific period of time. They show how well a company utilizes its assets to produce profit and value to shareholders. A higher ratio or value is after by most companies, commonly sought as this usually means the business is performing well by generating revenues, profits, and cash flow. The ratios are useful when they are analysed in Comparison to previous Year. The following are the ratios that are classified under profitability:

- Gross Profit ratio
- operating profit ratio
- Net profit ratio
- Return on investment
- Dividend payout ratio
- Price earning.

- **Net Profit ratio**

The Net profit percentage is the ratio of after- tax profits to Net sales. It reveals the remainingprofit after all costs of production, administration, and financing have been deducted from sales, and income taxes recognised. As such, it is one of the best measures of the overall results of a firm, especially when combined with an evaluation and how well it is sing its working capital. Net profit is not an indicator of cash flow, since net profit in corporation a non-cash expenses, such as accrued expense amortization and depreciation.

**Formula**

Net profit ratio = Net profit after tax / net sales X 100

**Significance**

It helps investors in determining whether the company's management is able to generate profitFrom the sales and How well the operating costs and costs related to overhead all contained The measure is commonly reported on a trend line, to judge performance over time. It is also used to Compare the results of a business with its Competitors.

**Table:**

| Particulars | 2020-2021 | 2021-2022 | 2022-2023 |
|---|---|---|---|
| Net profit ratio | -2.05 | 2.49 | 3.81 |

**Interpretation**

From the above table it is inferred that the Net profit ratio of the Company is -2.05% for the Year 2020-2021 which is increased to 2.49% in the year 2021-2022 and Further it has increased 3.81% in the year 2022-2023. The calculated ratios indicates an increasing trend and improvedoperational efficiency of the company.

- **Return on capital employed**

The Full form of ROCE is Return on Capital Employed. Return on Capital employed as ROCEshows how efficiently a firm generates profit from the Capital utilised. It is a profitability ratiothat determines new efficiently a company uses its capital to generate profits. ROCE includes equity and debt capital but does not evaluate short-term debt. Investors check a company's ROCE to determine if they should invest in its shares.

**Formula**:

ROCE = EBIT / Capital employed

**Significance**

ROCE helps you determine the performance of capital intensive businesses such as petroleumrefiners, car and steel manufactures etc. As these companies have massive investments, it is vital to gauge ROCE to determine investment opportunities. Higher ROCE indicates better performance of a company than peers and rivals.

**Table:**

| Particulars | 2020-2021 | 2021-2022 | 2022-2023 |
|---|---|---|---|
| Return on capital employed | -0.91 | 2.94 | 20.09 |

**Interpretation**

From the above table it is inferred that the return on capital employed of the Company is-0.91%in the Year 2020-2021 then it increased to 2.94% in the year 2021-2022 and then it has increased to 20.09% in the Year 2022-2023 indicating that there is an increasing higher percentage to the share holders as profits. It also indicates that the larger portion of the profits can be ploughed back into the business. The calculated ratios indicates the better performance and good operating efficiency of the company.

## Turnover ratios

Activity ratios or turn over ratios highlight the operational efficiency of the business firm. TheTerm operational efficiency refers to the effective, profitable and rational use of resources available to the concern. In order to examine the judicious utilization of resources as well as wisdom and far sightedness in absorbing the financial policies let down in this regard , certain ratios are completed and they are collectively called turnover or activity or performance ratios.The following Classified band are the ratios that are on the turnover.

- Inventory or stock turnover ratio.
- Debtor's turnover ratio.
- creditors or Accounts payable turnover ratio.
- Working capital turnover ratio.
- Fixed assets turnover ratio.
- capital employed turnover ratio.

- **Inventory Turnover ratio**

The inventory turnover ratio is the number of times a company has sold and replenished its inventory over a specific period of time. The formula can be used to calculate the number of days it will take to sell the inventory on hand. The inventory turnover ratio measures how wellthe company generator sales from its stock.

**Formula**

Inventory turnover ratio = cost of goods sold / average inventory

**Significance**

The inventory turnover ratio showcases how many times a company's inventory is sold and replaced within a specific period, typically a year. The inventory turnover ratio is significant because it measures how efficiently a Company manages its inventory. A high ratio typically indicates effective Inventory management, quick sales, and minimized holding cost. A low ratio might imply overstocking, slow sales, or absolute inventory, which can impact profitability and cash flow.

**Table:**

| particulars | 2020-2021 | 2021-2022 | 2022-2023 |
|---|---|---|---|
| Inventory turnover ratio | 6.58 | 7.55 | 11.24 |

## Interpretation

From the above table it is inferred that the inventory turnover ratio of the company 6.58% in the Year 2020-2021 which increased to 1.55% in the year 2021-2022 and then further increasedto 11.24% in the Year 2022 -2023. The calculated ratios depicts a increasing trend indicating that the company has effective inventory management and quick sales.

## Solvency ratio

A solvency ratio is a performance metric that helps us examine a company's financial health. In particular, it enables us to determine whether the company can meet its financial obligationsin the long term. It usually compares the entity's profitability with its obligations to determinewhether its financially sound. In that regard, a higher or strong solvency ratio is preferred, as it a an indicator of financial strength. On the other hand, a low ratio exposes potential financial hurdles in the future. The solvency ratios are classified under long term solvency ratios and short-term solvency ratios.

**Long term solvency ratios:**

- current ratio.
- Liquid ratio.
- Cash position ratio.

**short term solvency ratios:**

- Fixed Assets ratio
- Debt equity ratio
- Proprietary ratio

- capital gearing ratio.

- **Current ratio**

The current ratio is a liquidity ratio that measures a company's ability to pay short term obligations of these due within one year. It tells investors and analyses how a company can maximize that the current assets on its balance sheet to satisfy its current debt and other payables

**Formula:**

Current ratio = current asset / current liability

**Significance:**

The current ratio helps to take corrective action, decide upon the health of company and take decisions to evaluate whether it will be able to pay the dues on time or not. A current ratio that is lower than the industry average may indicate a higher risk of distress. If a company has a very high current ratio it indicates that management may not be using its assets efficiently.

**Table:**

| particulars | 2020-2021 | 2021-2022 | 2022-2023 |
|---|---|---|---|
| Current ratio | 0.90 | 1.00 | 1.06 |

**Interpretation:**

From the above table it is inferred that the current ratio of the company is 0.90 in the Year 2020-2021 which is increased to 1:00 in the 2021-2022 and then further increased to 1.06 in the Year 2022-2023. The calculated ratios indicates increasing trend but poor short terms solvency of the company. As the calculated ratios of all the three years are less than the ideal ratios 2:1 it means the current assets are insufficient to meet the current liabilities. Hence the short term solvency of the company should be strengthened.

- ## Liquid ratio

The liquid ratio, also known as the quick ratio, measures a company's ability to pay off its short team liabilities wring its mast liquid assets (such as cash, marketable securities and accounts receivable) without relying on inventory. Its a stricter measure of liquidity than the current ratio, as it excludes inventory, which might not be readily convertible to cash in the short term.

**Formula:**

Quick ratio = quick asset / quick liability

**Significance**

Liquid ratio is computed to know the ability of a Firm to pay off the short-terms liabilities of a firm with the help of liquid assets. In other words, this ratio is calculated to determine the short-term solvency of a firm. 1:1 is considered an ideal liquid ratio . That means the liquid assets should be to equal to the current liabilities of the firm. But If the liquid ratio is very high, it is believed that the Funds are lying idle. creditors we the quick ratio of a firm to evaluate the credit worthiness of the business and to determine whether to add advance loans to such a firm at not. It also acts as a Complementary measure to the current ratio of the firm.

**Table:**

| Particular | 2020-2021 | 2021-2022 | 2022-2023 |
|---|---|---|---|
| Liquid ratio | 0.64 | 0.78 | 0.81 |

**Interpretation**

From the above table it is inferred that the liquid ratio of the company is 0.64 in the Year 2020-2021 and then increased to 678 in the Year 2021-2022 and then further increased to 0.81 in the Year 2022-2023. The calculated ratios for all three years less than ideal ratio 1:1 indicating poor liquidity position of the company.

## 4.5 OVERALL PERFORMANCE OF ASHOK LEYLAND LIMITED

Ratio analysis helps in determining the efficiency and stability of the company. The ratios of the Ashok Leyland Limited are calculated based on the profit and loss account and balance sheet. The profitability ratio i.e net profit and return on capital employed indicate the higher percentage of return to shareholders and improved operational efficiency the inventory turnover ratio depicts and increasing trend indicating that the company has effective inventorymanagement and quick sales. The solvency ratios i.e current ratio depicts an increasing trend but poor short term solvency reflecting that the current assets were insufficient to meet the current liabilities. The current and liquid ratio calculated for all the three years is less than the ideal ratio indicating poor liquidity position of the company. Thus the overall performance of the Ashok Leyland Limited can be considered.