CHAPTER-2

Conceptual Framework of Financial Performance

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2.1 INTRODUCTION

Financial Statements of an organization are the basic data required for financial decision making. The financial statement and their accompanying notes explain a company’s financial performance and recent financial history. Financial analysis use these statements in several ways such as to evaluate a company’s overall performance, identify strengths and weakness, anticipate future successes or problems and ultimately help them decide if the company is a good investment opportunity.

As such, correct understanding of the structure of financial statements and also of the tools available for the interpretation of financial statements is a must before one talk of any of the further discussion on financial management. These financial statements are the eyes of an enterprise.

Meaning of Financial Statements

According to Himpton john “A financial statement is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspects of a business firm. It may show a position at a moment of time as in the case of a balance sheet, or may reveal a series of activities over a given period of time, as in the case of an income statement.”

According to Lev, “Financial Statement Analysis is an information processing system designed to provide data for decision making models, such as the portfolio selection model, bank lending decision models and corporate financial management models”

2.2 CONCEPT OF FINANCIAL STATEMENT

A financial statement is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of


2 Lal Jawahar, “Advanced Management Accounting” 1st Edition (2003), Published by Sultanchand & Sons, New Delhi. P - 3.2
some financial aspects of a business firm. It may show a position at a moment in time as in the case of a balance sheet, or may reveal a series of activities over a given period of time. Thus, “financial statements refer to the statements that show the financial position and results of business activities at the end of the accounting period”

2.3 OBJECTIONS OF FINANCIAL STATEMENTS

Financial statement serves as horoscope of a business as they enable readers to measure financial position of a concern. Such statements contain sufficient valuable information about various aspects of business that can be useful for business decision. As stated by the Accounting Standards Board of India that, “the objective of financial statement is to provide information about the financial position, performance and cash flows of an enterprise that is useful to a wide range of users in making economic decision.” The various objectives of such statements are summarized below:

- To provide financial data on economic resources and obligations of a concern.
- To revel implication of operating profit on the financial position of a concern.
- To provide sufficient and relevant information to various parties interested in financial statement.
- To present true and fair view of the business.
- To serve as the basis of future operation

2.4 NATURE OF FINANCIAL STATEMENT

According to the American Institute of certified Public Accountants, “financial statement reflects a combination of recorded facts accounting conventions implies that data exhibited in the financial statement are affected by recorded facts, accounting conventions and personal judgments.”


2.4.1 Recorded Facts
The term recorded facts means which have been recorded in the accounting books facts which have not been recorded in the financial books are not depicted in the financial statement however material they might be for example, fixed assets are shown at cost irrespective of their market or replacement price since such price is not recorded in the books.

2.4.2 Accounting Conventions
Accounting conventions imply certain fundamental accounting principles which have been sanctified by long usages. For example, an account of the convention of “conservation” provision is made for expected losses but expected profits are ignored. This means that the real financial position of the business may be much better than what has been shown by the financial statement.

2.4.3 Personal Judgments
Personal judgments have also an important bearing on the financial statements. For examples, the choice of selecting methods of depreciation lies on the accountant similarly, the mode of amortization of fictitious assets also depends on the personal judgment of the accountant.

2.5 CHARACTERISTICS OF FINANCIAL STATEMENT
Financial statement is regarded as indices of an enterprise’s performance and position. As such, extreme care and caution should be exercised while preparing these statements generally reflects the following observable characteristics:

2.5.1 Intended Audience
Financial statement is intended for those who have an interest in a given business Enterprise. They have to be prepared on the assumption of the terms used in that business.

2.5.2 Articulation
The basic financial statements are interrelated and therefore are said to be “articulated “. For example, Profit and Loss Account shows the financial results of

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operation and represents an increase or decrease in the various balances in the Balance Sheet.

2.5.3 Historical Nature
Financial statement generally report what has happened in the past. Though they are used increasingly as the future by prospective investor and creditors, they are not intended to provide estimates of future economic activities and their effects on income and equity.

2.5.4 Legal and Economic Consequences
Financial statement reflects elements of both economics and law. They are conceptually oriented towards economics, but many of the concepts and conventions have their origin in law.

2.5.5 Technical Terminology
Since financial statement is products of a technical process called “accounting”, they involve the use of technical terms. It is, therefore, important that users of these statements should be familiar with the different terms used therein and conversant with their interpretation and meanings.

2.5.6 Summarization and Classification
The volume of business transaction affecting the business operations are so that summarization and classification of business events and items alone will enable the reader to draw-out useful conclusions.

2.5.7 Memory Terms
All business transaction are quantified, measured and related in monetary terms. In the absence of this monetary unit of measurement, financial statements will be meaningless.

2.5.8 Various Valuation Methods
The valuation methods are not uniform for all items found in a Balance Sheet. For examples, Cash is stated at current exchange value; accounts receivable at net realizable value; inventories at cost or market price whichever is lower; fixed assets at cost realizable value; inventories at cost or market price whichever is lower; fixed assets at cost less depreciation.

2.5.9 Accrual basis
Most financial statement are prepared on accrual basis rather than on cash basic
i.e., taking into account all incomes due but not received, and all expenses due but not paid

**2.6 ESSENTIAL QUALITIES OF FINANCIAL STATEMENT**

As started earlier, “the basic of financial statement is to provide information useful to the users of these statements. Different users like shareholders, investors, financial institution, workers etc. are interested in financial statements with varying objectives. Generally, it is not possible for a firm to prepare these statements in such a form that may suit every interested user.” However, such statements should possess at least the following essential qualities:

**2.6.1 Relevance**

Only that information should be disclosed in financial statement which is relevant to the objectives of the firm. The information is said to be relevant only when it influences decision of the users while evaluating any event or correcting past evaluation. The conclusions drawn on the basis of irrelevant information would be misleading and of no use. Therefore, the information irrelevant to the statements be avoided, otherwise it would be difficult to make a distinction between relevant and irrelevant information.

**2.6.2 Understandability**

The main objective of financial statement is to provide necessary information about the firm’s resources and performance. To fulfill this objective, the information contained in these statements should be clear, simple and lucid so that a person who is not well versed with the accounting terminology shall be able to understand without much difficulty. Therefore, as far as possible, the form of financial statement should not be complex and the terms used in these statements should be simple and non-technical in common language.

**2.6.3 Reliability and Accuracy**

The information incorporated in financial statements should be reliable. Information has the quality of reliability when it is free from material error and bias and can be depended upon by users.

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2.6.4 Comparability
Comparison is the essence of financial statement analysis. Comparable information will reveal strong and weak points. Financial statements should be prepared in such a way that current year’s progress can be compared with that of previous year and inter firm comparison is possible. To facilitate comparison, it should be more useful to provide with the financial statements of 5 to 10 years summary of important terms such as production in quantity, net sales, net profits, dividend paid, working capital etc.

2.6.5 Completeness
The information contained in the financial statements should be complete in all respects. It must be ensured that there is no possibility of any information being incomplete or doubtful. Therefore, full disclosure should be made of all significant information in a manner that is understandable and does not mislead creditors, investor and other users.

2.6.6 Timeliness
Financial statement is prepared for a definite period of time. At the end of this period, they should be ready and submitted to the parties concerned. If the statements are not presented in time, they cannot be properly used and the firm cans not formula plans for future developments. In addition to the aforesaid qualities, financial statements be prepared easily, attention of the reader is automatically drawn and directed to most significant items and required data for the calculation of different ratio are also essential qualities.

2.7 TECHNIQUES OF FINANCIAL ANALYSIS
A number of such techniques are used by the financial analyst, but the financial analyst, but the most popular among them as follows:

![Figure No: 2.1 Financial Analysis Techniques](image-url)
2.7.1 Comparative Financial Statements

Comparative financial statements are those statements which have been designed in a way so as to provide time perspective to the consideration of various elements of financial position embodied in such statements. In these statements figures for two or more periods are placed side by side to facilitate comparison. Both the Income Statements and Balance Sheet can be prepared in the form of Comparative Financial statements.

1. Comparative income statements

The Income Statement discloses Net Profit or Net Loss on account of operations. A Comparative Income Statement will show the absolute figures for two or more periods, the absolute change from one period to another and, if desired, the change in terms of percentages. Since the figures for two or more periods are shown side by side, the reader can quickly ascertain whether sales have increased or decreased, whether cost of sales has increased or decreased; etc. thus, only a reading of data included in Comparative Income Statements will be helpful in deriving meaningful conclusions.

2. Comparative Balance Sheet

Comparative Balance Sheet as on two or more different dates can be used for comparing assets and liabilities and finding out any increase or decrease in those items. Thus, while in a single Balance Sheet the emphasis is on present position, it is on change in the comparative Balance Sheet. Such a Balance Sheet is very useful in studying the trends in an enterprise.

2.7.2 Common-size Financial Statement

Financial statements that depict financial data in the shape of vertical percentages are known as common-size statements. In such statements, all figures are converted to a common unit by expressing them as a percentage of a key figure in the statement. The total of financial statement is reduced to 100 and each item is shown as a component to the whole. For example, in profit and loss account, the figure of

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each item is expressed as a percentage of net sales, while in balance sheet each item of assets and liabilities can be shown as percentage of total assets and total liabilities and capital respectively. Thus, expressing each monetary item of the financial statements as a percentage of some total of which that item is a part, transforms a financial statement, what is referred as “common size statement”. The common-size statements are also known as “common percentage” or “100 percent statement”. Such statement show the relative significance of the items contained in the financial statement and facilitate comparison.

**Common-size Balance Sheet**

The common-size balance sheet represents the relation of each asset item to total assets and each liability and capital item to total liabilities and capital respectively. Thus, the balance sheet converted into percentage form is called common-size balance sheet.

**Common-size Profit And Loss Account**

Common-size profit and loss account shows the percentage of net sales that has been absorbed by each individual item representing in profit and loss account.

**2.7.3 Trend Analysis**

The comparative financial statement are used to study changes which have occurred in each item of the balance sheet and profit and loss account within a period of two years, but do not indicate the trend of progress during past several years. Therefore, financial statement for a series of years may be analyzed to determine the trend of the data contained therein. This involves the computation of percentage relationship that each item in the financial statement bears to the corresponding item contained in that of the base year. For this purpose, the earliest year involved in comparison or any intervening year may be considered as the base business on the basis of changes in the items of financial statement of successive years in comparison to a specific date or period of commencement of study. This method of analysis is immensely helpful in making comparative study of financial statements of several years, the trend analysis of business operation and other financial data may be done in any of the following ways.

- Trend Percentages
- Trend Ratio
- Graphic or diagrammatic Presentation

1. Trend Percentage
In this method, first of all, information contained in financial statements of several years is tabulated. Then, the percentage increase or decrease in each item for all other years is calculated by taking the earliest year or any one year as base. These percentages are called trend percentages which give an idea about the rate of change in comparison to base year. Trend percentages are especially valuable because of their brevity achieved by substituting percentages computed for major items in the financial statements. Such study is both informative and valuable to management in its decision-making process.

2. Trend Ratio
Trend percentage are not suitable for comparison because they contain plus (+) and minus (-) signs. So, use of trend ratios is regarded more appropriate. The calculation of trend ratio involves the ascertainment of arithmetical relationship which each item of several years bears to the same item of the base year. While calculating trend ratios, current year’s value is divided by base year’s value and is multiplied by 100. These trend ratios are like price index numbers which indicate the movement or fluctuations in various financial facts of the business. So, an analyst can interpreter the business changes well as regularity of the series is maintained in these ratios.

3. Graphic or Diagrammatic Representation
The trend percentages or trend ratio can be depicted by graphs and digammas. The trends in two related variables can also be simultaneously presented in comparative form. Thus, graphs and diagrammed can represent progress of business activities more clearly and in intelligible way. The graphs and diagrammed draw human attention immediately and the changes are understood easily only at a glance. That is why, now days, the graphs and diagrammed are being used in published accounts to show changes in sales, stock, capital, profits and other important items. Every data for different past years regarding various items are presented through graphs and diagrammed.

Utility of Trend Analysis
This method of analyzing financial statement is more important due to its following merits:
1. **Summary Presentation:** The problem in this method is presented in a summary from as larger figures are converted into percentage or ratios which are comparatively more useful.

2. **Direction of Change:** The direction of changes can be even more clearly and easily represented by graphs and bar diagrammes.

3. **Simple Method:** this method of analysis is simple and easy to present. The results obtained can easily be understood by a common man. More trained personnel’s are not required as an average person can analyses the data.

4. **No Possible of Errors:** in this method, the possibility of committing errors is reduced because results obtained from percentage changes in data can be verified from absolute changes.

**Limitation of Trend Analysis**

While analyzing the financial statements through trend percentage or ratios, it is necessary to keep in view its limitations, otherwise the conclusions drawn will prove misleading. Important limitations are identified as follows:

1. **Limited Significance:** the trend ratio or percentage of a singles item has no significance in itself, unless it is compared with the trend ratio of other related item. For instance, an increasing trend in the value of stock is meaningless unless it is compared with declining trend in sales.

2. **Illogical and Misleading Conclusions:** the inferences drawn on the basis of simply trend ratio without keeping in view the original figures may be illogical and misleading.

3. **No Normal Base Year:** trend percentages or ratios are calculated with reference to financial statements of a particular year, known as base year. This base year should be normal and representative of the items shown in the financial statements. If the base year is an abnormal year on account of some reasons such as year of war or of natural calamities, the conclusions drawn from such analysis will be misleading and false.

4. **Inconsistency in Accounting Principles:** the comparison of trend ratio may be unscientific and inconsistent if the accounting principles and practices followed are not uniform throughout the period of analysis. The comparability of data adversely due to changes in price level.
5. Under Weight age: if the value of an item in the base year is too small, then a small change in it will lead to more changes in trend percentages. In such situation, it is not proper to take decision or plan for future.

2.7.4 Fund Flow Analysis

In financial statements, balance sheet shows assets, liabilities and equity of the firm at a certain moment of time. Profit and loss account depicts operating results over a period of time. Both these financial statements do not depict the flows of funds and changes in the items of assets and liabilities between two dates. Hence, a funds flow of funds and statement is prepared to know the different sources of funds and their different uses. This funds flow statement is a summary report of financial operations of a business enterprise, in which it is explained, how business activities are financed and how the financial resources of the business are being used. According to Fouke, “A statement of sources and applications of funds is a technical device designed to analyze the changes in the financial conditions of business enterprise between two dates.”

2.7.5 Cash Flow Analysis

In any business, it is essential to known the sources of cash and the items on which it is spent. Funds flow statement does not provide such information, because many items not relating to cash are included in funds flow statement. Therefore, to know about the flows of cash during an accounting period, a separate statement known as cash flow statement is prepared. Thus, cash flow statement is a statement of inflows (sources) and outflows (users) of cash and cash equivalents in an enterprise during a specified period of time. With this statement, the causes for variation in the cash balance between any two dates are interpreted.

2.7.6 Ratio Analysis

Ratio analysis is a technical of presenting internal and external events affecting the business transactions relating to its operations, operating results and attainment of pre-determined goals and objectives of a business in brief and summary form. Ratio analysis is the process of determining and presenting the relationship of items or group of items in the financial statements. In ratio analysis, a definite conclusion is drawn by establishing quantitative relationship between two or more items of financial statements. External parties such as investors, shareholders, creditors etc.
require information about the financial soundness or weakness of the concern. Therefore, ratio analysis is used by all these parties including management to evaluate the performance of the concern. With the help of these ratios, the liquidity position, long-term solvency, operating efficiency or profitability and efficiency of a concern can be evaluated.

2.7.7 **Break-Even Analysis**

Profit is a function and resultant of the interplay of costs, profit and volume, the break-even point is that point of activity (sales volume) where total revenues and total expenses are equal, it is the point of zero profit and zero loss. It guides the management to determine the optimum level of output where costs and price frequently varieties. It is an effective and efficient technique of planning and decision making.

2.8 **RATIO ANALYSIS**

Ratio analysis is one of the techniques of financial analysis where ratios are used as a yardstick for evaluating the financial condition & performance of a firm. Analysis and interpretation of various accounting ratio gives a skilled and experienced analyst a better understanding of the financial condition and performance of the firm than what he could have obtained only through a perusal of financial statements.

Ratios are relationship expressed in mathematical terms between figures which are connected with each other in some manner. Obviously, no purpose will be served by comparing two sets of figures which are not at all connected with each other. Moreover, absolute figures are also unfit for comparison. Thus, a ratio is a simple arithmetical expression of the relationship of one number to another and is obtained by dividing the former by the later, In other words, ratios are simply a means of highlighting, in arithmetical terms, the relationship between figures drawn from financial statements. In shortly, Ratio analysis is the process of determining and presenting the relationship of items or group of items in the financial statements.

Financial analysis of an enterprise by financial ratios helps the management as well as interested external parties to evaluate the firm’s financial performance and condition. Rapidly by making comparison of ratios obtained from the firm with ratio obtained from other comparable firm. In the word of Helfert, “Ratio analysis provide
guides and clue especially in spotting trends towards better or poor performance, and in finding out significant deviation from any average or relatively applicable standard.”

“A ratio in known as a symptom like the blood pressure, the pulse rate or the temperature of an individual Ratio analysis is used as a device to diagnose the financial condition of an enterprise; it points out whether the financial conditions very strong, good, partly good, questionable or poor.”

In short, it would be remembered that “Ratios are only guides in analysis of financial statements and do not conclusive ends in themselves. Besides, if a ratio is to be important, “It must not only represent a true relationship but must also aid the analyst in making his immediate decision. Thus it is necessary for a ratio to be meaningful and useful that;

1. It must produce significant relationship between related items or groups of items, selected for comparison purpose and
2. It is useful to the particular statement under observation.

2.9 CLASSIFICATION OF RATIOS

Ratio can be classified into different categories depending upon the basis of classification. The traditional classification has been on the basis of the financial statement to which determinates of a ratio belong. On this basis the ratio could be classified as: 1. Profit & Loss account Ratio, 2. Balance Sheet Ratio, 3. Composite Ratio. However the above basis of classification has been found to be crude and unsuitable because analysis of balance sheet and income statement can not be done in isolation. They have to be studied together in order to determine the profitability and solvency of the business. In order that ratio serves as a tool for financial analysis, they are now classified are:

1. Profitability Ratio
2. Coverage Ratio
3. Turn Over Ratio

The above classification of ratio can be depicted by means of the following chart

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Figure No: 2.2 Classification of Ratio
2.9.1 Profitability Ratio

Profitability is an indication of the efficiency with which the operations of the business are carried on. Poor operational performance may indicate poor sales and hence poor profits. A lower profitability may arise due to the lack of control over the expenses. Bankers, financial institutions and other creditors look at the profitability ratio as an indicator whether or not the firms earns substantially more than it pays interest for the use of borrowed funds and whether the ultimate repayment of their debt appears reasonably certain. Owners are interested to know the profitability as it indicates the return which they can get in their investments. The following are the important profitability ratio:

1. **Overall Profitability Ratio or (ROI)**

   It is also called as “Return on Investment” (ROI) or “Return on Capital Employed” (ROCE). It indicates the percentage of return on the total capital employed in the business. It is calculated on the basis of the following formula:

   \[
   \text{Return on Investment} = \frac{\text{Operating Profit}}{\text{Capital Employed}} \times 100
   \]

   The term capital employed has been different meanings by different accounts. Some of the popular meanings are as follow:

   (i) Sum - total of all assets whether fixed or current.
   (ii) Sum - total of fixed assets
   (iii) Sum - total of long term funds employed in the business, i.e. Share Capital + Reserves and Surplus + Long Term Loans – [Non business assets + Fictitious Assets]

2. **Earnings Per Share (EPS)**

   In Order to avoid confusion on account of the varied meanings of the term capital employed, the overall profitability can also be judged by calculating earning per share with the help of the following formula:

   \[
   \text{E.P.S.} = \frac{\text{Net Profit after Tax and Dividend}}{\text{No of Equity share}}
   \]
The earnings per share helps in determining the market price of the equity share of the company. A comparison of earnings per share of the company with another will also help in deciding whether the equity share capital is being effectively used or not. It also helps in estimating the company’s capacity to pay dividend to its equity shareholders.

3. Price Earnings Ratio (PER)

The ratio indicates the number of times the earning per share is covered by its market price. This is calculated according to the following formula.

\[
P.E.R. = \frac{\text{Market Price per Equity Share}}{\text{Earning Per Share}}
\]

Price earnings Ratio helps the investor in deciding whether to buy or not to buy the shares of a company at a particular market price.

4. Gross Profit Ratio

This is also known as gross margin. It is calculated by dividing gross profit by Sales. Gross Profit is the result of the relationship between prices, sales volume and costs.

A change in the gross margin can be brought about by changes in any of these factors. The gross margin represents the limit beyond which fall in sales price are outside the tolerance limit.

High ratio of gross profits to sales is a sign of good management as it implies that the cost of production of the firm is relatively low. A relatively low gross margin is definitely a danger signal, warranting a careful and detailed analysis of the factors responsible for it.

\[
\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100
\]

5. Net Profit Ratio

The net profit margin is indicative of “management’s ability” to operate the business with sufficient success not only to recover from revenues of the period, the cost of merchandise or services, the expenses of operating the business and the cost of the borrowed funds but also to leave a margin of reasonable compensation to the owners for providing the capital at risk.
The ratio helps in determining the efficiency with which affairs of the business are being managed.

\[
\text{Net Profit Ratio} = \frac{\text{Net Operating Profit}}{\text{Net Sales}} \times 100
\]

6. Operating Ratio

This ratio is a complementary of net profit ratio. In case the net profit ratio is 20% it means that the operating ratio is 80%. It is calculated as follows.

\[
\text{Operating Ratio} = \frac{\text{Operating costs}}{\text{Net sales}} \times 100
\]

This ratio is the test of the operational efficiency with which the business is being carried. The operating ratio should be low enough to leave a portion of sales to give a fair return to the investors. A comparison of the operating ratio will indicate whether the cost component is high or low in the figure of sales.

7. Payout Ratio

The payout ratio and the retained earnings ratio are indicators of the amount of earnings that have been ploughed back in the business. The lower the pay out ratio the higher will be the amount of earnings ploughed back in the business. A lower payout ratio or a higher retained earnings ratio means a stronger financial position of the company.

The ratio indicates what proportion of earning per share has been used for paying dividend.

\[
\text{Payout Ratio} = \frac{\text{Dividend Per Equity share}}{\text{Earning Per Equity share}}
\]

A complementary of this ratio is Retaining Earning Ratio. It is calculate as follows.

\[
\text{Payout Ratio} = \frac{\text{Retain Earning Per Equity share}}{\text{Earning Per Equity Share}}
\]

Or
8. Dividend Yield Ratio

This ratio is particularly useful for those investors who are interested only in dividend income. The ratio is calculated by comparing the rate of dividend per share with its market value. The ratio helps an intending investor in knowing the effective return he is going to get on the proposed investment. Its formula can be put as follows:

$$\text{Dividend Yield Ratio} = \frac{\text{Dividend Per share}}{\text{Market Price Per share}}$$

2.9.2. COVERAGE RATIO

These ratios indicate the extent to which the interests of the persons entitled to get a fixed return (invest or dividend as the case may be) or a scheduled repayment as per the agreed terms are safe. The higher the cover, the better as it is. These ratios are of three types:

1. Fixed Interest Cover

The ratio is very important from the lender’s point of view. It indicated whether the business would earn sufficient profits to pay periodically the interest charges. The higher the number the more secure the lender is in respect of his periodical interest income. It is calculated as follows.

$$\text{Fixed Interest Cover} = \frac{\text{Income Before interest and Tax}}{\text{Interest Charges}}$$

2. Fixed Dividend Cover

The ratio is important for preference share holders entitled to get dividend at a fixed rate in priority to other shareholders. The ratio is calculated as follows:

$$\text{Fixed Dividend Cover} = \frac{\text{Net Profit after interest and Tax}}{\text{Preference Dividend}}$$

3. Debt Service Coverage Ratio

The interest coverage ratio as explained above, does not tell us anything about the ability of a company to make payment of principal amounts also on time. For this purpose debt service coverage ratio is calculated as follows:
Debt Service Coverage Ratio = \frac{\text{Net Profit Before Interest} \& \text{tax} + \text{Principal Payment Installment}}{\text{Interest} + \frac{\text{Interest} + \text{Principal Payment Installment}}{1 - \text{Tax Rate}}}

2.9.3. TURNOVER RATIOS

The turnover ratios are also known as activity or efficiency ratio. They indicate the efficiency with which the capital employed is rotated in the business. The overall profitability of the business depends on two factors:

i) The rate of return on capital employed,

ii) The turn over

The turnover ratio is calculated as follows:

\text{Turnover Ratio} = \frac{\text{Sales}}{\text{Capital Employed}}

In order to find out which part of capital is efficiently employed and which part not, different turnover ratio are calculated. These ratios are as follows:

1. Fixed Asset Turnover Ratio

The ratio indicates the extent to which the investments in fixed assets contribute towards sales. If compared with a previous period, it indicates whether the investment in fixed assets has been judicious. The ratio is calculated as follows:

\text{Fixed Asset Turnover Ratio} = \frac{\text{Net Sales}}{\text{Fixed Assets(\text{net})}}

When, the ratio has been decline in the fixed assets turnover ratio though absolute figures of sales have gone up. It means increase in the investment in fixed assets has not brought about commensurate gain. However, the results for next two or three years must also be seen before commenting on judiciousness or otherwise of increase in investments in the fixed assets.

2. Working Capital Turnover Ratio

This is also known as working capital leverage ratio. This ratio indicates whether or not working capital has been effectively utilized in making sales. In case a company can achieve higher volume of sales with relatively small amount of working capital, it is an indication of the operating efficiency of the company. The ratio is calculated as follows:
Working Capital Turnover Ratio = \( \frac{\text{Net Sales}}{\text{Working Capital}} \)

Working capital turnover ratio may take different forms for different purposes. Some of them are being explained below.

**(1) Debtor’s Turnover Ratio (Debtor’s Velocity)**

Debtors constitute an important constituent of current assets and therefore the quality of debtors to a great extent determines a firm’s liquidity.

The debtors Turnover Ratio is calculated as under.

\[
\text{Debtor’s Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Accounts Receivable}(\text{Drs.+B/R})}
\]

\[
\text{Average Receivables} = \frac{(\text{Opening Debtors & B/R} + \text{Closing Debtors &B/R})}{2}
\]

Sales to Accounts Receivables Ratio indicate the efficiency of the staff entrusted with collection of books debts. The higher the ratio, the better it is, since it would be indicating that debts are being collected more promptly. For measuring the efficiency, it is necessary to set up a standard figure, a ratio lower than the standard will indicate inefficiency.

The ratio helps in cash budgeting since the flow of cash from customers can be worked out on the basis of sales.

**(2) Debt Collection Period Ratio**

The ratio indicates the extent to which the debts have been collected in time. It gives the average debt collection period. The ratio is very helpful to the lenders because it explains to them whether their borrowers are collecting money within a reasonable will result in greater blockage of funds in debtors. The ratio may be calculated by any of the following methods.

\[
\begin{align*}
(a) & \quad \frac{\text{Months (or Days )in a Year}}{\text{Debtor's Turnover}} \\
(b) & \quad \frac{\text{Average Accounts Receivable \times Months (or days) in a Year}}{\text{Credit Sales for the Year}} \\
(c) & \quad \frac{\text{Accounts Receivable}}{\text{Average Monthly or Daily Credit Sales}}
\end{align*}
\]
(3) Creditor's Turnover Ratio (Creditor's Velocity)
It is similar to debtor's turnover ratio. It indicates the speed with which the payments for credit purchase are made to the creditors. The ratio can be computed as follows:

\[
\text{Creditor's Turnover Ratio} = \frac{\text{Credit Purchase}}{\text{Average Accounts Payables}}
\]

(4) Debt Payment Period Enjoyed Ratio (Average age of Payable)
The ratio gives the average credit period enjoyed from the creditors. It can be computed by any one of the following methods.

(a) \[
\frac{\text{Months (or Days) in a Year}}{\text{Creditor's Turnover}}
\]

(b) \[
\frac{\text{Average Accounts Payable} \times \text{Months (or Days) in a Year}}{\text{Credit Purchases in the Year}}
\]

(c) \[
\frac{\text{Average Accounts Payable}}{\text{Average Monthly or Daily Credit Purchases}}
\]

(5) Stock Turnover Ratio (Turnover Ratio)
The ratio indicates whether investment in inventory is efficiently used or not. It, therefore, explains whether investment in inventories is within proper limits or not. The ratio is calculated as follows:

\[
\text{Stock Turnover Ratio} = \frac{\text{Cost of Goods During the Year}}{\text{Average Inventory}}
\]

The inventory turnover ratio signifies the liquidity of the inventory. A high inventory turnover ratio indicates brisk sales. A low inventory turnover ratio results in blocking of funds in inventory which may ultimate result in heavy losses due to deteriorate in quality.

(6) Working Capital Leverage Ratio
Working capital leverage indicates the way in which the profitability and return on the investments are affected due to working capital management. The overall return or Investment (ROI) depends basically on two factors namely; Net Profit Ratio & Capital Employed Turnover Ratio.

\[
\text{Capital Employed Constitutes of Fixed + Working Capital}
\]
The overall return on capital employed depends both on Net Profit Ratio & Turnover Ratio. The return on investment will, therefore, be affected by change in any of the following:

i. Net Profit Margin
ii. Fixed Capital
iii. Working Capital &
iv. Total Capital Employed

2.9.4 FINANCIAL RATIOS

Financial ratios indicate about the financial position of the company. A company is deemed to be financially sound if it is in a position to carry on its business smoothly and meet its obligations, both short terms as well as long term without strain. It is a sound principle of finance that the short term requirements of funds should be met out of short term funds and long term requirements should be met out of long term funds. Financial ratio can be divided into two broad categories: Liquidity Ratio & Stability Ratio

1. Liquidity Ratio

These ratios are also termed as ‘working capital ratio’ or ‘short term solving ratio’. An enterprise must have adequate working capital to run its day-to-day operations. In a decency of working capital may bring the entire business operations to a grinding halt because of the enterprise to pay for wages, materials and other regular expenses. The important liquidity ratios are as follows:

(1) Current Ratio

The ratio is an indicator of the firm’s commitment to meet the short term liabilities. It is expressed as follows:

\[
\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}
\]

Current Assets means assets that will either be used up or converted into each within a year’s time or during the normal operating cycle of the business, whichever is longer. Current liabilities mean liabilities payable within a year or during the operating cycle, whichever is longer, out of the existing current assets or by creation of current liabilities.

(2) Quick Ratio

This ratio is also termed as ‘acid test ratio’ or ‘liquidity ratio’. This ratio is ascertained by comparing the liquid assets, (i.e. assets which are immediately convertible into
cash without much loss) to current liabilities. Prepaid expenses and stoke are not taken as liquid assets. The ratio may be expressed as,

\[
\text{Quick Ratio} = \frac{\text{Liquidity Assets}}{\text{Current Liabilities}}
\]

(3) Super Quick Ratio

This is a variation of quick ratio. The ratio is calculated as follows:

\[
\text{Super Quick Ratio} = \frac{\text{Cash} \& \text{Marketable Securities}}{\text{Current Liabilities}}
\]

OR

\[
\text{Super Quick Ratio} = \frac{\text{Cash} \& \text{Marketable Securities}}{\text{Quick Liabilities}}
\]

Debtors are excluded from liquid assets for the purpose of computing super quick ratio. Current liabilities and liquid liabilities have the same meanings as explained above. The ratio is the most vigorous measure of the firm’s liquidity position.

(4) Defensive Interval Ratio

This ratio examines the firm’s liquidity position in terms of its ability to meet projected daily expenditure from operations. It is calculated as follows:

\[
\text{Defensive Interval Ratio} = \frac{\text{Quick Assets}}{\text{Project Daily Cash Requirements}}
\]

2. Stability Ratio

The ratio helps in ascertaining the long term solvency of a firm which depends basically on three factors.

- Whether the form has adequate resources to meet its long term fund requirements.
- Whether the firm has used on appropriate debt-equity mix to raise long term funds.
- Whether the firm earns enough to pay interest and instalment of long term loans in time.

The capacity of the firm to meet the last requirement can be ascertained by computing the various coverage ratios, already explained in the preceding pages. For the other two requirements, the following ratio can be calculated.

(1) Fixed Asset Ratio
This ratio explains whether the firm has raised adequate long term funds to meet its fixed assets requirements. It is expressed as follows:

\[
\text{Fixed Asset Ratio} = \frac{\text{Fixed Assets}}{\text{Long Term Funds}}
\]

Fixed assets include ‘Net Fixed Assets’ (i.e. original cost depreciation to date) and trade investments including shares in subsidiaries. Long term funds include share capital reserves and long term loans.

(2) Capital Structure Ratio
This ratio explains how the capital structure of a firm is made up or the debt-equity mix adopted by the firm. The following ratios fall in this category.

(a) Capital Gearing Ratio
Capital gearing (or leverage) refers to the proportion between fixed interest and dividend bearing funds and non fixed interest or dividend bearing funds in the total capital employed in the business. The Capital Gearing ratio can be ascertained as follows:

\[
\text{Capital Gearing Ratio} = \frac{\text{Funds Bearing Fixed Interest or Fixed dividends}}{\text{Total Capital Employed}}
\]

OR

\[
\text{Capital Gearing Ratio} = \frac{\text{Funds Bearing Fixed Interest or Fixed Dividends}}{\text{Equity Shareholder’ s Fund}}
\]

The gearing ratio is useful in indicating the extra residual benefits accruing to the equity shareholders. Such a benefit accrues to the equity shareholders because the company earns a certain rate of return on total capital employed but is required to pay to the preference shareholders and debenture holders only at a fixed rate.

(b) Debt-Equity Ratio
The debt-equity ratio is determined to ascertain the soundness of the long term financial policies of the company. It is also known as ‘External Internal Equity Ratio’. It may be calculated as follows:

\[
\text{Debt-Equity Ratio} = \frac{\text{External Equities}}{\text{Internal Equities}}
\]
The term external equities refers to total outside liabilities and the term internal equities refers to shareholders funds or the tangible net worth. It is considered to be quite satisfactory.

(c) Proprietary Ratio
It is a variant of debt-equity ratio. It establishes relationship between the proprietors’ funds and the total tangible assets. It may be expressed as:

\[
\text{Proprietary Ratio} = \frac{\text{Shareholder’s Fund}}{\text{Total Tangible Assets}}
\]

This ratio focuses the attention on the general financial strength of the business enterprise. The ratio is of particular importance to the creditors who can find out the proportion of shareholders funds in the total assets employed in the business. A high proprietary ratio will indicate a relatively little danger to the creditors. A low proprietary ratio indicates greater risk to the creditors since in the event of losses a part of their money may be lost besides loss to the proprietors of the business.

2.10 ADVANTAGES OF RATIO ANALYSIS:
Following are some of the advantages of ratio analysis:

1. Simplifies Financial Statements: Ratio analysis simplifies the comprehension of financial statements ratio tell the whole story of changes in the financial condition of the business.

2. Facilities Inter Firm Comparison: Ratio analysis provides data for inter firm comparison. Ratio highlights the factors associated with successful and unsuccessful firms. They also reveal strong firms and week firms, overvalued and undervalued firms.

3. Makers Intra Firm Comparison Possible: Ratio analysis also makes possible comparison of the performance of the different divisions of the firm. The ratios are helpful in deciding about their efficiency or otherwise in the past and likely performance in the future.

4. Helps in Planning: Ratio analysis helps in planning & forecasting over a period of time a firm or industry develops certain norms that may indicate future. If relationship changes in firm’s data over different time periods, the ratio may provide clues on trends and future problems.

Thus “ratio can assist management in its basic function of forecasting, planning, co-ordination, control and communication".
2.11 LIMITATION OF RATIO ANALYSIS

Ratio analysis, as already mentioned, is a useful tool of financial evaluation of business firms. But it should be kept in view that ratios are only guide in analyzing the financial statements and not conclusive can in the them. If this ratio is misused, the results will be incorrect and misleading. Therefore, the analyst should be aware of the weakness and limitations of ratio analysis while analyzing financial statements on the basis of these ratios. The important limitations are identified as follows.

1. **Need for Comparative Analysis**: A single ratio would not be able to convey anything, as the single ratio in itself is meaningless, it does not furnish a complete picture. Neither it can be explained, nor can any decision be taken on this basis. Hence, it is essential to ponder over all relating ratios while drawing inferences.

2. **Qualitative Factors Ignored**: Ratio are arithmetical expressions, so that qualitative aspects cannot be presented through ratios. Normally, qualitative factors that may influence the conclusions drawn are ignored while computing ratios.

3. **Possibility of Window-dressing**: Window-dressing means manipulation of accounts in a way so as to present a better picture than what it actually is. By doing so, it is possible to cover up bad financial position.

4. **Inherent Limitations of Accounting**: Ratios are calculated from accounting records which are subject to accounting principles, conventions, concepts and personal judgments. Any ratio based on the facts and figures of such financial statements suffers from inherent limitations.

5. **Different in Accounting Methods and Systems**: Comparability of financial statements is affected when various different are traced out in accounting methods and systems followed by different firms. Lack of standard formulae for calculating ratios makes it more difficult to compare, as ratios are worked out on the basis of different items in different industries.

6. **No Substitute for Sound Judgment**: Ratio analysis is one of the methods of interpretation and drawing inferences. It only provides little information for decision-making. Conclusions drawn from ratio analysis are not sure indicators of bad or good management. They merely convey certain observations which need further investigations, otherwise wrong conclusions may be drawn.

7. **Lack of Standard Ratio**: In practice, there is no uniformity in the definition of various terms used in ratio analysis. For example, some companies treat net current
assets as working capital, while others only current assets.

8. **Personal Bias**: Ratios have to be interpreted, but different people may interpreter the same ratio in different ways. Ratios are only means of financial analysis, but not an end in them. It should be clearly noted that ratios are only tools and the personal judgment of the analyst is more important.

9. **Effect of Price Level changes**: Changes in price level affect the comparability of ratios. A change in price level can seriously affect the validity of comparison of ratios for different years.

### 2.12 LIMITATIONS OF FINANCIAL STATEMENTS

- In Profit and loss Account net profit is ascertained on the basis of historical costs.
- Profit arrived at by the Profit and Loss account is of interim nature. Actual profit can be ascertained only after the firm achieves its maximum capacity.
- The net income disclosed by the Profit and Loss Account is not absolute but only relative.
- The profit and Loss Account does not disclose factors like quality of product, efficiency of the management etc.
- The net income is the result of personal judgement and bias of accountants cannot be removed in the matters of depreciation, stock valuation etc.
- The book value of assets is shown as original cost less depreciation. But in practice, the value of the assets may differ depending upon the technological and economic changes.
- The assets are valued in a Balance Sheet on a going concern basis. Some of the assets may not realize their value on winding up.
- The accounting year may be fixed to show a favourable picture of the business. In case of sugar industry the Balance Sheet prepared in off season depicts a better liquidity position than in the crushing season.
- An investor likes to analyse the present and future prospects of the business while the balance sheet shows past position. As such the use of a Balance Sheet is only limited.
- Due to flexibility of accounting principles certain liabilities like provision for gratuity etc. are not shown in the Balance sheet giving the outsiders a misleading picture.
The financial statements are generally prepared from the point of view of shareholders and their use is limited in decision making by the management, investors and creditors.

The financial statements are based on accounting policies which vary from company to company and as such cannot be formed as a reliable basis of judgment.

Financial statements do not disclose the changes in management, loss of markets, etc. which have a vital impact on the profitability of the concern.

There are certain assets and liabilities which are not disclosed by the Balance Sheet. For example the most tangible asset of a company is its management force and a dissatisfied labour force is its liability which are not disclosed by the Balance Sheet.

2.13 Use of Financial Data for the Performance Evaluation of the Unit

The goal of such analysis is to determine the efficiency and performance of firm’s management as reflected in the financial records and reports. The analyst attempt to measure the firm’s liquidity, profitability, solvency and other indicators that the business is conducted in rational and normal way ensuring enough return to the share-holders to maintain at least its market value. Keeping in view the interest of the investors and the society as a whole and organizations, performance can be evaluated broadly on two bases:

(1) On the basis of its Financial Achievements
(2) On the basis of its Social Achievements.

Although both factors have their own importance, yet an investor apart from other things first looks to get back sufficient returns on his investments. The financial performance of the organization therefore stands as the most important factor for its evaluation.

2.14 CONCLUSION

Financial statement analysis is a scientific evaluation of profitability, efficiency and of any business concern. The analysis of financial statement is an attempt made to help the preparations of the most profitable design of promising alternatives and aid in selecting the most feasible option. The financial statement analysis looks at the projected as well as past performance.
REFERENCE

- Ibid, P - 3.1 - 3.22.
- Ibid, P - 2.1 – 2.22.