CHAPTER III

FINANCIAL STATEMENT ANALYSIS
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INTRODUCTION

The term ‘financial analysis’ is also known as analysis and interpretation of financial statements. The purpose of financial analysis is to diagnose the information contained in financial statements so as to judge the profitability and financial soundness of the firm.

The technique of financial analysis is typically devoted to evaluate the past, current and projected performance of a business firm. In general business usage, financial analysis is concerned with the analysis of financial statements such as balance sheet, profit and loss account, etc. Broadly, the term financial analysis is applied to almost any kind of detailed inquiry into financial data. A financial executive has to evaluate the past performance, present financial position, liquidity situation, enquire into profitability of the firm and to plan for future operations. For all this, they have to study the relationship among various financial variables in a business as disclosed in various financial statements.

The analysis of financial statements is an attempt to determine the significance and meaning of the financial statements data so that the forecast
may be made of the future prospects for earnings, ability to pay interest and
debt maturities (both current and long-term) and profitability.

**OBJECTIVES OF FINANCIAL ANALYSIS**

The following are the main objectives of the analysis of financial
statements:-

1. To estimate the earning capacity of the firm.
2. To judge the financial position and financial performance of the firm.
3. To determine the debt capacity of the firm.
4. To determine the long-term liquidity of the funds as well as solvency.
5. To decide about the future prospects of the firm.

As a matter of fact, the objectives of analysis of these statements,
depends to a large extent on the point of the view of the analyst, the degree
of interest in the company and the need for depth of enquiry and finally on
the amount and quality of the data available. A trade creditor considering
what action to take on long overdue accounts may well focus his inquiry on
the immediate financial condition have the firm and liquidity in the
resources. In contrast, a security analysis considering a purchase of equity
shares may tend to centre its efforts on the measurement of financial
condition and future profitability of the firm. The object of the analysis
determines the extent, depth and the nature of analysis. If a thorough
analysis is desired and the full data needed are not available or if the suspicion exists that the firm is trying to hide or confuse its real position, the financial analyst must be virtual detective in order to find out the truth.

**Main Tools or Techniques of Financial Analysis:**

To analyse the financial statement of a firm, the popular tools of analysis are as follows:

2. Preparation of Comparative Statements.
6. Trend Analysis.

**PROCEDURE OF ANALYSIS OF FINANCIAL STATEMENTS**

The following procedure is adopted for the analysis and interpretation of financial statements.

1. **Deciding upon the Extent of Analysis:**

First of all the depth, object and extent of analysis will be determined by the analyst. The determination of these basic facts determines the scope of analysis, tool of analysis and the amount and quality of financial data to
be required. For example, to measure the financial position of the firm, the balance sheet of the firm will be analysed.

2. Going through the Financial Statements:

Before analysing and preparing any statements or composing financial ratios, it is necessary for the analyst to go through the various Financial Statements of the firm.

3. Collection of Necessary Information:

The analyst should collect other useful information from the management useful for analysis but now being revealed from the published financial statement.

4. Rearrangement of Financial Data:

Before making actual analysis and interpretation the analyst must rearrange the data provided by these statements in useful manner. The approximating of figures, re-classification of consolidation of items, etc. is done in this step.

5. Analysis:

Now the actual analysis is made. For analysis, any of the above technique may be used.
6. Interpretation and Presentation:

After analyzing the statements, the interpretation is made and the inferences drawn from this analysis are presented to the management in the form of reports.

REQUIREMENTS OF FINANCIAL STATEMENTS

The analysis and interpretation of financial statements is an important accounting activity. The end-users of business financial statements are interested in these statements primarily as an aid to determine the financial position and the results of the operations. There are different parties interested in the financial analysis of these statements and their aim and objectives of analysis also differ significantly. The following are the use of financial statement analysis to different parties:

1. To the Financial Executives:

The first party interested in the financial statement analysis is the financial departments of the business concern itself. To the financial manager such analysis provides a deep insight into the financial condition of the enterprise, and a view of the past performance, which helps in future decision-making. The financial statements give vital information concerning the position of the enterprise as well as the results of the operations.
2. To the Top Management:

The top management of the concern is also increased in the analysis of these statements because it helps them in reaching conclusion regarding

(i) Performance appraisal of over-all business activities,

(ii) Inquiry about the current financial position,

(iii) Questions concerning the relationship of earnings to trend in sales, etc. and

(iv) Questions concerning the relationship of earnings to investment.

3. To the Creditors:

The analysis of these statements is very useful to the creditors also. Some of the aspects of an enterprise's operations which are of interest to the creditors. In this regard the liquidity of funds, soundness of the financial structure, profitability of the operations, effectiveness of working capital management, etc. the bankers and creditors of a business enterprise are interested in its cash generation and credit worthiness. They went assets that whether the enterprise will be able to meet commitments relating to repayments of principal amount advanced as well as interest payments due as per agrees schedules. They get this all information from the analysis of balance sheet and income statement of the company.
4. To the Investors and Others:

Investors presents as well as prospective are also interested in the measurement of earning capacity of the securities. Investors have been increasingly concerned with the cash generation capability of enterprises primarily in terms of the flexibility available to such enterprises to acquire other business and new assets on an advantageous basis. For this purpose, cash-flow analysis and fund flow analysis has proved to be very useful.

Besides the above-mentioned parties, the information provided by the analysis and interpretation of various financial statements is important and useful to these groups also that are interested in the working of the business due to one or the other motive. They are employees of the business and their unions, government, consumer and general public.

LIMITATIONS OF FINANCIAL STATEMENT ANALYSIS

The analysis of financial statements has certain limitations also. Hence any person using this technique must keep in mind those limitations. Main limitations are as follows:

1. Based on Past data:

The nature of financial statements is historical. Past cannot be the index of future and cannot be cent percent basis for future estimation, forecasting, budgeting and planning.
2. Financial Statements analysis cannot be a substitute for judgement:

Analysis is a tool which can be utilized usefully by an expert but may lead to erroneous conclusions by unskilled analyst. Thus results of analysis cannot be considered as judgement or conclusion.

3. Reliability of figures:

The accuracy and reliability of analysis depends on reliability of figures derived from financial statements. If financial statements are manipulated by window-dressing, analysis based on those figures will be misleading or meaningless.

4. Different Interpretations:

Results of the analysis may be interpreted differently by different users.

5. Change in accounting method:

Analysis will be effective if the figures taken from financial statements are comparable. If there are frequent changes in accounting policies and methods, the figures of different periods will be different and uncomparable. Then the analysis will have little meaning and value.
6. Price level changes:

Ever rising inflation erodes the value of money in the present day economic situation, which reduces the validity of analysis.

7. Limitations of the tools of analysis:

Different techniques of analysis are used by an analyst. These tools are suitable for different types of analysis. Application of a particular tool or technique depends on the skill and expertise of the analyst.

TYPES OF FINANCIAL ANALYSIS

The process of financial statement analysis is of different types. The process of analysis is classified on the basis of information used and 'modus operandi' of analysis, or the object of the analysis.

1. External Analysis:

This analysis is based on published financial statements of a firm. Outsiders have limited access to internal records of the concern. Thus, the analysis done by outsiders namely creditors, bank, suppliers, investors and government agencies is known as external analysis. This analysis serves a very limited purpose.
2. Internal Analysis:

Such analysis is made by the finance and accounting department to help the top management. These people have direct approach to the relevant financial records so they can peep behind the two basic financial statements (Balance Sheet and Income Statements) and narrate the inside story. Such analysis emphasizes on the performance appraisal and assessing the profitability of different activities.

3. Short-term Analysis:

The short-term analysis of financial statement is mainly concerned with the working capital analysis. In the short run, a company must have ample funds readily available to meet its current needs and sufficient borrowing capacity to meet the contingencies. Hence, in short-term analysis the current assets and current liabilities are analysed and cash position (liquidity) of the concern is determined. For short-term analysis the ratio analysis is very useful.

4. Long-term Analysis:

In the long-term the company must earn a minimum amount sufficient to maintain a suitable rate of return on the investment to provide for the necessary growth and development of the company and to meet the cost of
capital. Financial planning is also necessary for the continued success of a company. Thus, in the long run analysis the stress is on the stability and earning potentially of the concern. In long-term analysis the fixed assets, long-term debt structure and the ownership interest is analysed.

The short-term and long-term — both type of analysis are important, proper planning for the future requires fairly sufficient knowledge of the company’s current position, which may be determined from short-term financial analysis only. The need of short-term analysis for long-term planning is useful in the same way as a driver consulting a road map for the best route to his destination must know his present location exactly.

5.Horizontal Analysis:

This is also known as ‘dynamic’ or ‘trend’ analysis. In case of this type of analysis, financial statements for a number of years are reviewed and analysed. The current year’s figures are compared with the standard or base year. The analysis statement usually contains figures for two or more years and the changes are shown regarding each item from the base year usually in the form of percentage. Such an analysis gives the management considerable insight into levels and areas of strength and weakness.
6. **Vertical Analysis:**

Vertical Analysis is also known as ‘Static Analysis’ or ‘Structural Analysis’. This analysis is made on the basis of a single set of financial statements prepared at a particular date. Under vertical analysis, quantitative relationship is established between different items shown in a particular statement. Common-size statements are a form of vertical analysis. Different items shown in the statement are expressed as a percentage to any one item as base.

**VARIOUS TOOLS AVAILABLE TO THE FINANCIAL ANALYSIS**

The analysis of financial statements consists of a study of relationships and trends to determine whether or not the financial position of the concern and its operating efficiency have been satisfactory. In the process of this analysis, various tools or methods or devices are used by the financial analysis. The analytical tools generally available to an analyst for this purpose are as follows:

1. Comparative Financial Statements
2. Common-size Statements
3. Trend Ratios and Trend Analysis
4. Average Analysis
5. Statement of changes in working capital
1. **Comparative Financial Statements:**

Financial Statements are presented as on a particular date or for a particular period. A financial analyst is interested in knowing whether the business is moving in a favourable or unfavourable direction. For this purpose, figures of the current year have to be compared with those of the previous year(s). Comparative financial statements provide information to assess the direction of change in the business. The comparative statement may show:

- Absolute figures (rupee amounts).
- Changes in absolute figures i.e. increase or decrease in absolute figures.
- Absolute data in terms of percentages.
- Increase or decrease in terms of percentages.

The two comparative statements are (i) Balance Sheet and (ii) Income Statement.
(i) **Comparative Balance Sheet:**

The comparative Balance Sheet analysis is the study of the trend of the same items, group of items and computed items in two or more balance sheets of the same business enterprise on different dates. 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. While interpreting comparative Balance Sheet, the interpreter is expected to study the following aspects:

- Current financial position and liquidity position.
- Long-term financial position.
- Profitability of the concern.

After studying various assets and liabilities an opinion should be formed about the financial position of the concern. A concluding word about the overall financial position must be given at the end.

(ii) **Comparative Income Statement:**

An Income Statement shows the operating results of a business for a designated period of time. A comparative income statement shows the operating results for a number of accounting periods so as to facilitate comparison. It gives an idea of the progress of a business over a period of time. It gives an idea about the improvement in sales, profits and other
expenses over the previous year(s). The changes in absolute data in money values and percentages can be determined to analyse the profitability of the business.

2) Common-size Statements:

Financial Statements present absolute figures. A comparison of absolute figures could be misleading. Hence, for a better understanding and comparison, the figures are converted into percentage of some common base. The statements which report the figures as a percentage of some common base are called common size statements.

(i) Common-size Balance Sheet:

In the Common-size Balance Sheet, total assets or liabilities is taken as the common base. Each item is expressed as a percentage of the total. The comparison of figures in different periods is not useful because total figures may be affected by a number of factors. It is not possible to establish standard norms for various assets.

(ii) Common-size Income Statement:

Sales is taken as the common base in the common size income statement. All expenses are recorded as a percentage of sales. In case the volume of sales increases to a considerable extent, administrative and
financial expenses may go up. In case the sales are declining, the selling expenses should be reduced at once.

Common-size Statements are useful to a financial analyst. They make comparison easy and meaningful.

(3) Trend Analysis:

Trend Analysis is also an important tool of horizontal financial analysis. Under this technique of financial analysis, the ratios of different items for various periods are calculated and then a comparison is made. An analysis of the ratios over the past few years may well suggest the trend or direction in which the concern is going upward or downward.

These ratios can be calculated for the company over a definite period of time – say 3 to 5 years and then we can analyse the trends highlighted by such ratios over the specified period of time. It might also be useful to compare such trends with similar trends in business generally and the industry concerned specially.

METHODS OF TREND ANALYSIS:

(i) Trend Percentages:

The method of calculating trend percentages involves the calculation of percentage relationship that each item bears to the same item in the base year. Any year may be taken as the base year. It is usually the earliest year.
Each item of base year is taken as 100 and on that basis the percentages for each of the items of each of the years are calculated.

While calculating trend percentages, care should be taken regarding the following matters:

- The accounting principles and practices followed should be constant throughout the period for which analysis is made.
- The base year should be carefully selected. It should be a normal year and be representative of the items shown in the statement.
- Trend percentages should be calculated only for items having logical relationship with one another.
- Trend percentages should be studied after considering the absolute figures on which they are based.

(ii) Trend Ratios:

The second method of trend analysis is the calculation of trend ratios. "The ratios of the magnitudes of a financial statements items in a series of statements to its magnitude in one of the statements selected as the base may be called trend ratios because that reveal trend of the items with the passage of time. "In this method, the base year figures is taken as 100 and then figures of the subsequent years are shown in the term percentages."
(iii) Graphic and Diagrammatic Representation:

The trend values can be shown on graph paper also. Such representation of the figures relieves a layman from the gherao of data.

UTILITY OF TREND ANALYSIS

- It is a simple technique. It does not involve tedious calculations and requires trained experts.
- It is a brief method to indicate the future trends.
- It reduced the changes of errors as it provides the opportunity to compare the percentages with absolute figures.

(4) Average Analysis:

It is an improvement over trend analysis method. When trend ratios have been determined for the concern, these figures are compared with industry averages. These both trends can be presented on the graph paper also in the shape of curves. This presentation of facts in the shape of pictures makes the analysis and comparison more comprehensive and impressive.

(5) Statement of changes in Working Capital:

To discuss the increase or decrease in working capital over a period of time the preparation of a statement of changes in working capital is also very useful. The main objectives of this statement preparation is to derive a fairly
accurate summary of the events that affects the amount of working capital. The amount on net working capital is determined by deducting the total of current liabilities from the total of the current assets. Hence, it is rough statement, which may be prepared by using Balance Sheet data only. But it does not explain the detailed reason for the changes in working capital and methods of financing additional requirements of working capital. Hence, the preparation of funds-flow statement becomes necessary.

(6) Ratio Analysis:

Ratio Analysis involves the process of computing, determining and presenting the relationship of items or group of items of financial statements. A ratio is a mathematical relationship between two items expressed in a quantitative form.

Ratios can be defined as “Relationships expressed in quantitative terms, between figures which have cause and effect relationships or which are connected with each other in some manner or the other”.

An accounting ratio can be defined as quantitative relationship between two or more items of the financial statements connected with each other. Arithmetically, ratio is a comparison of the numerator with the denominator.

Ratios may be expressed in any one or more of the following ways:
Objects and Utility of Ratio Analysis:

Ratio analysis is an important and useful technique to check upon the efficiency with which working capital is being used in the enterprise. Some ratios indicate the trend or progress or downfall of the firm. It helps the financial management in evaluating the financial position and performance of the firm. The use of ratio analysis is not confined to the financial manager only. The credit supplier, bank, lending institutions and experienced investor all use ratio analysis as their initial tool in evaluating the firm as a desirable borrower or as potential investment outlet. It functions as a sort of health test. With the help of ratio analysis financial executive can measure whether the firm is at present financially healthy or not. The following are important managerial uses of ratio analysis.

(i) Aid in Financial Forecasting:

Ratio Analysis is very helpful in financial forecasting. Ratio relating to past sales, profits and financial positions are based for future trends.
(ii) Aid in comparison:

With the help of ratio analysis ideal ratio can be composed and they can be used for comparison of a particular firm's progress and performance.

(iii) Aid in Cost Control:

Ratios are very useful for measuring the performance and very useful in cost control.

(iv) Communication Value:

Different financial ratios communicate the strength and financial standing of the firm to the internal and external parties.

(v) Other uses:

Financial ratios are very helpful in the diagnosis and financial health of a firm. They highlight the liquidity, solvency, profitability and capital gearing, etc., of the firm. They are useful tools of analyzing financial performance.

Limitations of Ratio Analysis:

Though ratios are simple to calculate and easy to understand, they must be used very carefully. If due case is not taken, they might confuse rather than clarify the situation. Ratios never provide a definite answer to financial problems. There is always the question of judgement as to what significance should be given to the figures. So one must rely upon one's own
good sense in making ratio analysis and an analyst must use this technique keeping in mind the following short comings of this technique:

(i) **Limited use of a Single Ratio:**

Ratios can be useful only when they are computed in a sufficient large number. A single ratio would not be able to convey anything. At the same time, if too many ratios are calculated, they are likely to confuse instead of revealing any meaningful conclusion.

(ii) **Lack of Proper Standards:**

While making comparison, it is analysis a challenging job to find out an adequate standard. It is not possible to calculate exact and well-accepted absolute standard. So a qualify range is used for this purpose. If actual performance is within this range, it may be regarded as satisfactory.

(iii) **Lack of Qualitative Analysis of the Problem:**

Ratio analysis gives only a good basis for quantitative analysis of financial problems. But it suffers from qualitative aspects.
(iv) **Effect of inherent limitations of accounting:**

Because ratios are computed from historical accounting records, so they also possess those limitations and weakness as accounting records possess.

(v) **Arithmetical Window Dressing:**

In ratio analysis arithmetical window-dressing is possible and firms may be successful in concealing the real position.

(vi) **Past is indicator of future:**

It is not always to make future estimates on the basis of the past, as it always does not come true.

(vii) **Background Overheads:**

When an inter-firm comparison is made on the basis of ratio analysis and they differ substantially in size, age and nature of products, ratio analysis cannot give satisfactory results, as these factors are not considered here.

(viii) **No Allowance for change in price level:**

While making comparison of ratios, no allowance for changes in general price level is made. A change in price level can seriously affect the validity of comparisons of ratios computed for different time periods.
(ix) **Differences in Definitions:**

Comparisons are also made difficult due to differences in definitions of various financial terms. The terms like gross profit, net profit, operating profit, etc., have no precise definitions and well-accepted procedure for their computation.

(x) **Effect to personal ability and bias of the analyst:**

Ratios are only means of financial analysis not an end in themselves. They can be affected with the personal ability and bias of the analyst.

(xi) **Limited uses:**

Ratio analysis is not a substitute for sound judgement rather is a helpful tool to aid in applying judgement to otherwise complex situations. So conclusions drawn with the help of ratios should be verified with other techniques too.