Tools and Techniques of Financial Analysis
CHAPTER II

TOOLS AND TECHNIQUES OF FINANCIAL ANALYSIS

The body of information describing even the smallest firm is enormous, spanning the company's internal operations and its relations with the outside world. To be useful this information must be organised into an understandable, coherent and sufficiently limited set of data. Financial statement analysis can be very helpful in this respect because it highlights the performance of the business.

The purpose of financial analysis is to diagnose the current and past financial condition of a firm and to give some clues about its future condition.1

Eugene F. Brigham opines that "from an investor's standpoint predicting the future is what financial statement analysis is all about; from management's standpoint financial statement analysis is useful both as a way to anticipate future conditions and more important as a starting point for planning actions that will influence the future course of events.2

Analysis of financial statements is an exercise in the re-arrangement of complex accounting reports into simplified information.

The analysis and interpretation is essential to bring out the mystery behind the figures in financial statements.

DEVICES USED IN ANALYSING FINANCIAL STATEMENTS:

Various methods are used to study the relationship between different statements. An effort is made to use those devices which clearly analyse the financial position of the enterprise. The following methods of analysis are generally used.

1. Comparative financial statements
2. Trend analysis
3. Common size statements
4. Ratio analysis
5. Funds Flow Analysis.

COMPARATIVE FINANCIAL STATEMENTS:

The comparative financial statements will provide a comparison between two stipulated periods for an organisation. It will also provide a comparison for two or more enterprises for one or more accounting periods. These statements are designed to disclose (i) Absolute figures, (ii) Changes in absolute figures, (iii) Absolute data in terms of percentages and (iv) Changes in terms of percentages.

Comparative figures will indicate the trend and direction of financial position and operating results. The two comparative statements are Balance Sheet and Income statement of an organisation.

COMPARATIVE BALANCE SHEET:

It represents not merely the balance of accounts drawn on two different dates but also the extent of their increase or decrease between these two dates. It focuses on the changes that have taken place in one accounting period. The changes are the direct outcome of operational activities.
COMPARATIVE INCOME STATEMENT:

The comparative income statement gives an idea of the progress made of a business over a period of time. The changes in absolute money values and percentages can be determined to analyse the profitability of the business.

TREND ANALYSIS:

The financial statements may be analysed by computing trends of series of information. This method determines the direction of change over the period. It involves the computation of the percentage relationship that each item in the statement bears to the same item in the base year. The information for a number of years is taken up and the first year is taken as the base year. The figures of base year are taken as 100 and trend ratios for the subsequent years are calculated on the basis of base year. The analyst is able to ascertain the trend of figures upward or downward.

Trend analysis includes the selection of a representative period as a base and expressing all items in the financial statements of the periods studied in terms of an index.\(^5\)

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COMMON-SIZE STATEMENTS:

When the balance sheet and income statement items are shown in analytical percentages i.e., the percentages that each item bears to the total of the appropriate item such as total assets, total liabilities, capital and net sales, the common base for comparison is provided. The statements compiled in this form are termed as common size statements.

Common-size income statement shows each item as a percentage of sales and a common size balance sheet shows each item as a percentage of total assets. The significant advantage of common size statements is that they facilitate comparisons of balance sheets and income statements overtime and across companies.

RATIO ANALYSIS:

Ratio analysis is a powerful tool of financial analysis. Its application to financial statements however appears to be of recent origin. The construction of ratios is a major analytical tool in the hands of financial executives.

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ratios facilitate the analysts in pointing out the relative importance of the various items appearing in the financial statements. Each major item in the balance sheet and profit and loss account has a relationship with one or more items in either or both statements which can be expressed in ratios. But using ratios comparison with financial statements of other firms are facilitated and comparison of a firm's financial performance can too be made over a period of time.

RATIO:

Ratio is simply one number expressed in terms of another. It is an expression of relationship spelt out by dividing one figure into the other. The relationship between two figures expressed mathematically is called a ratio.

As per the Dictionary meaning Ratio represents the relation of one thing on another of which the quotient is the measure.

According to J. Batty, the term accounting ratio is used to describe the significant relationship between figures in a balance sheet, profit and loss account in a budgetary control, system or any other part of accounting organisation. 

Financial ratios portray relationships that exist between various items appearing in balance sheets and income accounts and occasionally other items. They may be expressed in simple mathematical terms. They are used to measure and evaluate the financial condition and operating effectiveness of a business enterprise.

Ratios provide the analyst with a set of summary which measures of the firm's debt burden, operating efficiency and profitability.

Financial ratios are no substitute for a crystal ball. They are just a convenient way to summarise large quantities of financial data and to compare firm's performance.

ROLE OF RATIO ANALYSIS:

Ratio analysis means the process of computing, determining and presenting relationship of items and groups of items in the financial statements. It is a device to diagnose the financial disease of an enterprise.


A single ratio in itself is meaningless - it does not furnish a complete picture. It becomes meaningful only when compared with other ratios or the same ratios over a period of time.

The ratios are diagnostic tests. A single diagnostic test does not provide adequate information about a company to evaluate its current conditions. Therefore, many diagnostic tests are used to obtain a complete picture.\(^{11}\)

Ratio analysis is a convenient means of focussing the attention of the analyst on specific relationships which require further investigation. Ratio analysis of business enterprises centers on efforts to derive quantitative measures or guides concerning the expected capacity of the firm to meet its future financial obligations. The final accounts for any period bring to light many figures which some times appear to be quite unconnected with one another, but if brought together in a particular manner, they reveal many interesting relations with one another. These results show peculiar trends in business. Ratio analysis is the best available means to relate these figures together.


Ratio analysis is also defined as the process of establishing and interpreting various ratios for helping in making certain decisions\textsuperscript{13}.

ANALYSIS AND INTERPRETATION OF RATIOS:

Analysis is the dissection of a complex statement into elements and varied compartments. Whereas Interpretation brings out the meaning of such statements with the help of analysis. There are four different ways in which ratios may be interpreted.

1. The individual ratio, by itself may have significance of its own. Thus, if the current ratio falls constantly and even goes below one, it may indicate that the liquidity position of the concern is not encouraging.

2. Ratios may be interpreted by expanding the analysis and considering a group of several related ratios. In this way, the ratios whose significance is not fully understood are made more meaningful by the computation of additional ratios like the profitability ratios.

3. The ratios may be compared over time. Moreover the same ratio or a group of ratios is studied over a period of years which indicates significant trends like increase or decrease in stability, etc.

4. The ratios of any given firm may be compared with the ratios of other firms in the same industry known as interfirm comparison. Such comparisons are significant as members of the same industry face similar financial problems.

**MERITS:**

Ratios give a better idea than the absolute figures placed side by side. Ratios become meaningful when compared with other ratios or with ratios of similar firms. It is an effective tool in controlling the entire business and planning for the future needs.

The merits of ratio analysis are:

1. Ratio analysis simplifies the comprehension of financial statements.

2. Ratios portray the whole story of changes in the financial position of the business.
3. It provides data for interfirm comparison by which one firm can improve its financial standing and compete successfully with another.

4. Ratios highlight the factors associated with successful and unsuccessful firms.

5. Ratio analysis also makes possible comparison of the performance of the same unit over a period of time. They are helpful in deciding about the efficiency or otherwise, in the past and likely performance in the future.

6. Ratio analysis helps in planning and forecasting the future activities of the firm.

7. Over a period of time, a firm or industry develops certain norms that may indicate future success or failure. Ratios are effective clues as to whether success may result if the same norms are followed.
LIMITATIONS OF RATIO ANALYSIS:

Ratio Analysis conducted in a mechanical manner is dangerous. However, used intelligently and with good judgement ratios can provide useful insights into a firm's operation.

Quantitative relations of the kind represented by ratio analysis are not ends in themselves, but are only means provided for understanding a firm's financial position. Quantitative ratio analysis is not capable of providing precise answers to all the problems faced by a financial manager or a potential fund supplier unless several ratios often related to one another are computed and compared.

Various limitations of ratios are as follows:

1. Ratios are meaningless by itself and acquire significance only when they are studied along with other ratios.

2. Ratio analysis focuses on the accounting data some of which at times turnout to be mere estimates. Any analysis based on the estimated figures, lacks precision which is very essential for the successful implementation of the physical as well as monetary targets.

3. Ratios provide only a part of the information needed in the process of decision-making. The information derived from the ratios must be used with that obtained from other sources so as to ensure a balanced approach in solving the problems.

4. Ratio analysis suffers from the serious limitations of the statistical concepts such as determination of proper standard for comparison, absence of the homogeneity of the data and danger of fallacious conclusions.

5. Financial analysis based on accounting ratios will give misleading results if the effects of changes in price level are not taken into account.

6. The qualitative factors which are important for the successful functioning of the organisation are completely ignored by the ratio analysis and hence, the conclusions drawn may get distorted.

Ratio analysis is indeed, a double edged sword which requires a great deal of understanding and sensitivity of the management process rather than mechanical financial skill. But even with these limitations and problems the use of ratios to indicate future trends in business has increased to a great extent.
Ratios calculated from the available data in the financial statements may be classified as follows:

1. PROFITABILITY RATIOS:
   Profitability ratios measure the efficiency of the company's activities and its ability to generate profits. Poor performance indicates the failure of the business which may lead to liquidation of the company in the long run.

2. SOLVENCY RATIOS:
   These ratios examine the adequacy of funds and the company's ability to pay its obligations when it becomes due. These ratios measure the short-term solvency of the company.

3. EFFICIENCY AND PERFORMANCE RATIOS:
   These ratios indicate the effective utilisation of various assets and funds invested by the creditors and shareholders. The better the management of funds and assets the larger the amount of sales, and hence the profits of the company.
FUNDS FLOW ANALYSIS:

The limitations of financial statements forced the need for a separate additional financial statement to highlight on the major financing and investment activities of a firm known as funds statement. It summarises various sources from which funds are obtained and uses to which they have been applied.

The concept of 'Funds' refers to 'Net Working Capital'. Any increase in the net working capital is a source of fund and any decrease in working capital becomes an application of fund. The various sources from which funds derived are:

1. Operations of business
2. Income from investments
3. Sale of fixed assets and long-term investments
4. Subscription by shareholders
5. Increase in long-term debts.

The funds so derived by a business concern are applied in the following ways:
1. Operating losses
2. Redemption of long-term loans and debentures
3. Redemption of Redeemable preference share capital
4. Payment of cash dividend
5. Acquisition of fixed assets
6. Purchase of investments.
The flow of funds refers to movement of funds involving 'Inflow' and 'Outflow' in the working capital. This happens when changes occur in non-current accounts such as fixed assets, long-term debts etc., and are offset by corresponding changes in current accounts such as current assets or current liabilities.

The funds flow statement which is popularly known as 'Statement of Sources and Application of Funds' focuses on the flow of funds between various assets and equity items during an accounting period. It reveals the manner in which the financial resources have been obtained and utilised during an accounting period.

Funds flow statement provide an additional perspective on the nature of the financial condition of a company.

Funds flow analysis is a decisional display of managements disposition of short and long-term funds available for operations and investment.\(^{15}\)

A statement of changes in financial position is a derivative financial statement that shows the amount by which each item on successive balance sheets have changed and in addition identifies the reason for the change\textsuperscript{16}.

A more accurate and useful analysis of changes in the distribution of resources between balance sheet dates is found in the statement of the sources and application of funds\textsuperscript{17}.

USES OF FUNDS FLOW STATEMENT:

It is through analysis of this statement a proper understanding of the changes in the distribution of resources between the two balance sheets can be had.

The funds statement shows the financial consequence of business operations. It is quite possible that a concern may operate profitably without any improvement in the liquidity position. This is wholly due to the fact that all economic values do not possess the same financial flexibility as cash and related resources. The fund flow statement reveals such irreconcilable situations.


This statement is useful to the lenders such as banks and other financial institutions, as it indicates them the liquidity position of the firm and its ability to pay interest regularly and return the principal sum.

It serves as an instrument for allocation of resources when the business concerns launch their future expansion as well as diversification programmes, the need for arrangement of the funds arises. The amount of funds made available through normal business operations is ascertained through the projection of the funds flow analysis.

The funds flow statement shows the urgencies of operational issues and facilitates settlement of priorities in a phased manner.

This statement indicates the effectiveness of the management in the handling of the working capital during the accounting period. It also helps the management in deciding whether to issue more of equity shares or increase long-terms debts. In short, the funds statement helps the management in the decision-making process in case of expansion, diversification or conservation of more funds for profitable utilisation on sound projects in subsequent years.
LIMITATIONS:

While the managerial uses of the funds statement cannot be underestimated, the use of it as a tool by the financial analyst should be done with utmost care and caution.

Though the funds statement furnishes factual information not supplied by the traditional financial statements, the fact that it ignores non-fund transactions, makes it a dangerous tool for application in financial analysis.

The funds statement is prepared on the basis of the figures from financial statements already prepared and hence, does not introduce an element of original evidence to the financial change or status.

Any projection of flow statement based on the figures from the two balance sheets deals with the past and becomes historical in nature.

In spite of the above limitations, the funds flow statement is of immense use to the management, in providing the information not furnished by the traditional financial statements and helps in the decision making process affecting the success of any business unit.
STATEMENT OF CHANGES IN WORKING CAPITAL:

In the funds statement the difference between the total of sources and the total of applications constitutes either increase or decrease in the working capital for the accounting period under review. This variation in working capital is verified through a separate statement depicting changes in working capital. This statement shows the current assets and current liabilities at the beginning and end of the accounting period and the net effect of their changes between two periods on the working capital.

The primary purpose of this Chapter is to discuss the techniques used by investors, creditors, and managers to analyse the financial statements of a business. Financial analysis is designed to determine strengths and weaknesses of a firm—whether the firm is financially sound and profitable relative to other firms in its industry and whether its position is improving or deteriorating over time. The study of financial analysis of SIVL concentrated on a set of ratios designed to highlight the key aspects of its operations. Funds Flow statement analysis was also included to assess the changes in financial position of the unit under study.