

**SYLLABUS****Class – B.Com III Year****Subject – Management Accounting**

UNIT – I	Management Accounting: Meaning, nature, scope and functions of management accounting, Role of management accounting in decision making management accounting v/s financial accounting and cost accounting, tools and techniques of management accounting.
UNIT – II	Financial statement: Meaning and types financial statement; limitations of financial statement. Objectives and method of financial statement analysis; Ratio analysis, classification of ratios- profitability ratios, turnover ratios and financial ratios, advantages of ratio analysis, limitations of accounting ratios. Funds flow Statement, Cash Flow Statement as per AS-3
UNIT – III	Process Cost Concepts Types and Method, Standard cost- variance analysis, Concept and types.
UNIT – IV	Marginal costing: Marginal Costing as tool for decision making- make or buy; change of product mix
UNIT – V	Budgetary Control; Management reports, types of reports, quality of good report



## UNIT-I

### What is Management Accounting?

Management accounting is the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of financial information used by management to plan, evaluate and control within an organization and to assure appropriate use of and accountability for its resources. Management accounting also comprises of preparation of the financial reports for management groups such as shareholders, creditors, regulating agencies and tax authorities.

### Management accounting thus is the process of

1. **Identification** – the recognition and evaluation of business transactions and other economic events for appropriate accounting action.
2. **Measurement** – the qualification including estimates of business transactions or other economic events that have occurred or may occur.
3. **Accumulation** – the disciplined and consistent approach to recording and classifying appropriate business transactions and other economic events.
4. **Analysis** – the determination of resources for, and the relationships of the reported activity with other economic events and circumstances.
5. **Preparation and Interpretation** – the meaningful coordination of accounting and/or planning data to identify need of information, presented in a logical format, and if appropriate, including conclusions drawn from those data.
6. **Communication** – the reporting of pertinent information to management and others for internal and external uses.

### Management accounting is used by management to :

1. **Plan** – to gain an understanding of expected business transactions and other economic events and their impact on the organization.
2. **Evaluate** – to judge the implications of various past and/or future events.
3. **Control** – to insure the integrity of financial information concerning to an organization or its resources.
4. **Assure accountability** – to implement the system of reporting that is closely aligned to organizational responsibilities and that contributes to the effective measurement of management performance.

The essence of the management process is decision making. Decision making is an unavoidable and continuous management activity. It may be directed towards some specific objectives, or it may result as a reaction of environmental factors as they occur. An enterprise would operate successfully if it does not simply react to events, rather it directs its efforts toward the accomplishment of desired purposes. Objectives tend to make decisions purposeful to the firm. The decision making process should be both efficient and effective. It would be effective when management's objectives are achieved. The decision making system is said to be efficient when objectives are realized with the minimum use of resources.

The process of decision making involves two basic management functions, of planning and controlling. As discussed in the previous section, management accounting accumulates, measures and reports relevant information in such a way that planning and control functions of management are facilitated.

### NATURE OR CHARACTERISTICS OF MANAGEMENT ACCOUNTING

The nature and main characteristics of management accounting are as follows:

1. **Both as a Science and an art:** In management accounting data are collected systematically and they are analysed with the help of various formulae and techniques and on this basis it is a science. On the other hand, subjective judgment of management and various needs of the organization are also taken into account while taking decisions and on this basis it is an art. As a



whole, management accounting is both- a science as well as an art.

2. **Accounting Service:** Management accounting is a function of accounting service towards management. Under this service, necessary informations are provided to various levels of management.
3. **Integrated System:** Management accounting is an integrated system in which technique related to various subjects are used in the process of data collection, analysis and decision-making.
4. **More concerned with Future:** Management accounting is more concerned with 'future'. No doubt, analysis and interpretation are made on the basis of historical data, but the important objective of management accounting is to determine policies for future.
5. **Selective Nature:** Management accounting is selective in nature. It selects only those plans or alternative which seems to be more attractive and profitable.
6. **More Emphasis on the Nature of Element of Cost:** Management accounting lays more emphasis on the recognition and study of the nature of various elements of cost. In this context the total cost is divided into fixed, variable and semi-variable components.
7. **Cause and Effect Analysis:** Management accounting lays emphasis on the analysis of 'cause' and 'effect' of different variables.
8. **Rules are not Precise and Universal:** In management accounting no set of rules or standards are followed universally. Though the tools of management accounting are the same, their usage differs from concern to concern.
9. **Supplies Information and not decision:** An important nature of management accounting is that it provides requisite information and not decisions. However, decisions are taken by management with the help of these informations.
10. **Achieving of Objectives:** In management accounting, the accounting information is used in such a way so that organizational objectives and targets may be achieved and efficiency of business may be improved.

### Objectives of Management Accounting

The fundamental objective of management accounting is to enable management to maximize profits or minimize losses. Following are the important objectives or purposes of management accounting:

1. **Policy formulation-** Policy formulation and planning are the primary functions of management. The objective of management accounting is to supply necessary data to the management for formulating plans. The figure supplied and opinion given by the management accountant helps management in policy formulation.
2. **Helpful in decision making-** The management is required to take various important decisions. Management accounting techniques help in collecting and analyzing data relating to cost, volume and profit which provide a base for taking sound decision.
3. **Helpful in controlling-** Management accounting is a useful device of managerial control. Various accounting techniques such as standard costing and budgetary control are useful in controlling performance. The actual results are compared with pre-determined targets to know the deviations.
4. **Motivation-** Another important objective of management accounting is to help the management in selecting best alternatives of doing things. Delegation of authority as well as responsibility increases the job satisfaction of employees and encourages them to look forward.
5. **Interpretation of financial information-** Financial information is of technical nature and must be presented in such a way that it can be easily understood. It is the duty of management accountant who uses statistical devices like charts, diagrams etc. so that the information can be easily understood.
6. **Reporting-** One of the primary objectives of management is to be fully informed about the latest position of the concern. Management accounting provides data as well as different alternative plans before the management for comparative study. The performance of various departments is also communicated regularly to the top management.



7. **Helpful in co-ordination-** Management accounting provides tools which are helpful for this purposes. Co-ordination is maintained through functional budgeting. It is the duty of management accounting to act as a coordinator and reconcile the activities of different department.

**SCOPE OF MANAGEMENT ACCOUNTING :**

The scope of management accounting covers all the tools and techniques which help the management in effective discharge of their functions. The scope, therefore is very wide and broad based, covering mainly the following aspects of management accounting.

- (i) **Financial Accounting :** Financial accounting provides the data base on the basis of which management accounting processes information to the management to serve their needs. Proper designed financial accounting system forms the very base on which management accounting prepares relevant and analytical report to facilitate management decision making. Management accounting assembles and presents the financial accounting data in meaningful terms for resolution of managerial issues. Hence, without the support of Financial Accounting feeding system, management accounting functions are not possible.
- (ii) **Cost Accounting :** Cost accounting provides the most sophisticated techniques of Marginal Costing, Budgetary Control, Standard Costing, Inter firm comparison which enables Management Accounting to provide necessary information for effective decision making and control. Cost accounting helps in performance appraisal and formulation of pricing policies with costing information. It is, in fact the integral arm of management, without the support system of costing accounting, the inefficiencies in various operations can not be highlighted to management.
- (iii) **Tools and Techniques of Management control :** Management accounting makes a detailed analysis and interpretation of financial statements through the tools of comparative statements, trend ratios, ratio analysis and fund flow statement. Accounting Ratios help in the evaluation of operating performance and in judging the liquidity and solvency of the enterprise. Fund flow statement focuses on the management of funds in the operations of the business variance analysis aims at controlling the various elements of costs, reporting the adverse variation for management action.
- (iv) **Statistical and Quantitative Techniques:** A number of statistical tools and technique is like linear programming, regression analysis facilitates in providing information in a meaningful manner for effective control and decision making. Hence management accounting also includes these techniques in its scope.
- (v) **Inflation Accounting:** This is also referred as revaluation accounting which is concerned in maintaining capital in real terms and accordingly profit is calculated. This involves the exercise of revaluing the assets at current prices and shows the increase/decrease in the value of capital. On the assumption that the monetary unit value is unstable; the impact on capital is ascertained as a result of changes in value of money. This is therefore another technique which falls within the orbit of management accounting.
- (vi) **Tax Accounting:** Tax planning is another important area which has a serious impact on the profitability of the concern. Without proper planning of tax, the profits of the enterprise are hijacked which affects adversely the business operations. Hence, it is an important activity of management accounting.
- (vii) **Management Reporting:** Management report forms the integral aspect of management accounting system. They identify the areas where management attention is desired for corrective action. Decision making is facilitated based on the information provided by the report. The reports should portray all the relevant aspects concerning the operative efficiency of the business. Report have to be well designed and frequent to help the management. This is an essential part of management accounting.

**FUNCTIONS OF MANAGEMENT ACCOUNTING :**

The basic functions of management accounting is to furnish relevant information along with analytical data to the management to enable timely decisions for appropriate actions. It helps in the



effective discharge of management functions of planning, organizing, directing and controlling. The following are the main functions of management accounting.

- (a) **Furnishing of relevant and vital data** : Relevant and vital data is collected from concerned sources and presented through meaningful reports to management which facilitates decision making. Accounting data provides a strong base for furnishing financial figures to management to enable appropriate and timely action.
  - (b) **Compilation of data in suitable form** : Accounting data as it may not serve a meaningful and useful purpose to management for decision making. This data is required to be suitably modified and amended in manner that suits the management purpose. Hence the data is classified and rearranged in a way that helps the management to gain insight into the situation.
  - (c) **Analysis and Interpretation** : Management accounting provides the tools and techniques for analysis and interpretation of data. Information is furnished in a comparable and analytical manner for easy grasp of the situation. This facilitates planning and decision making.
  - (d) **Means of communication and reporting** : Management accounting system constitutes an important segment of the management communication system providing information and guidance for prospective planning and control. Reports are well prepared and presentation makes the management more effective in controlling business operations. It helps in co-ordinating the operations of various department.
  - (e) **Facilitates control function** : Management accounting helps in control function through the techniques of budgeting control and standard costing. These techniques enable comparison of actual performance with the targets and standards set analysis of the deviations from such standards, taking corrective action as a result of analysis and follow up to appraise the effectiveness of corrective action.
  - (f) **Planning** : Planning involves determination of different courses of actions based on this purpose facts and considered estimates. It helps in planning the strategy to be adopted in achieving the targets. It renders necessary help in planning for future the business goals and objectives.
  - (g) **Guides the management in judgment**: It assists the management in forming its judgment about the financial condition or the profitability of the business operation. Suitable action can be taken in laying down future plans and policies for improvement and advancement.
  - (h) **Decision - making** : Decision making is a management process of making right choices amongst the various courses of action. Decision can be taken only when the data is assembled and presented in meaningful terms and the areas requiring management attention are highlighted. Management accounting makes this decision making more effective.
1. Reporting is usually at the end of the year; when the events have already taken place for which nothing can be done.
  2. Financial accounting offers a macro view of the entire activities of the organization; it shows the results of the business as a whole without showing the results of the individual departments or products. Hence there is a fusion of all positive and negative results culminating into one result.
  3. Financial accounting is subject to statutory audit which is compulsory as per the provisions of the Companies Act, 1956. Management Accounting is not subject to any such statutory audit.
  4. Financial accounting considers only the monetary aspect. Management accounting considers both the monetary as well as non monetary aspects.

#### **ROLE OR IMPORTANCE OR SIGNIFICANCE OF MANAGEMENT ACCOUNTING OR**

#### **MANAGEMENT ACCOUNTING AS A TOOL OF MANAGEMENT**

In the present complex business world, management accounting has become an integral part and useful tool of management system. The report prepared and data edited on the basis of management accounting become the foundation of successful operation of managerial activities. The role of management accounting as a tool of management can be studied under following headings:

1. **Increase in Efficiency**: Management accounting increases efficiency of various business



activities. The targets of different departments are fixed in advance on the basis of forecasting and planning and later on actual performance is compared with them. This process helps in measuring and increasing the efficiency of the enterprise.

2. **Proper Planning:** Planning is a primary function of management and management accounting has an important role in making it proper. Management is able to plan various activities with the help of accounting information. On the basis of information provided by management accountant, the work-load of each and every individual is fixed in advance and the activities of the concern are planned in a systematic manner.
3. **Measurement of Performance:** Management accounting also plays an important role in measurement and management of work performance through the techniques of standard costing and budgetary control.
4. **Effective Management Control:** Efficiency of management depends upon its effective control and from this point of view, management accounting has its specific role. Nowadays the function of control has become a continuous process.
5. **Improved Services to Customers:** The installation of various types of control through management accounting leads to reduction in cost and price and maintenance of standard level of quality of goods produced and services rendered.
6. **Maximizing Profits:** The thrust of various techniques of management accounting is to control cost of production and to increase operational efficiency. Everything results in maximizing the profits.
7. **Prompt and Correct Decision:** Management accounting provides continuous information and analysis to various levels of management in respect of various aspects of business operations. It helps in prompt and correct decision by management.
8. **Reduction in Business Risks:** The collection and analysis of historical information in management accounting provides knowledge to the management with respect to nature of fluctuations and their causes and effects. Management can prepare such plans which may minimize the impact of trade cycle or seasonal fluctuations and consequently reduction in various types of business risks.

### LIMITATIONS OF MANAGEMENT ACCOUNTING:

Management accounting is not free from limitations:

1. **Data Base :** Management accounting depends for data on the financial and cost records. If the financial and cost accounting contains incorrect and inaccurate information management accounting also gets affected to that extent. Discrepancies of financial and cost accounting penetrates into the management accounting system giving unreliable results. Therefore, effectiveness of management accounting system depends upon the efficiency of system followed for recording and compiling financial and cost records.
2. **Intuitive Decision making:** Most of the times management is prone to take decisions without reference to information provided by management accounting system. They are tempted to take decision in an easy and short cut manner rather than on scientific basis. Their decision may be based on mere guess work and ignore the information provided by management accounting system.
3. **Absence of Objectivity:** Management accounting provides both qualitative and quantitative information which offers scope for subjective element. The report are therefore influenced by opinion judgment based on personal bias and prejudice. These make the reports more subjective rather than objective.
4. **Developing discipline:** Management accounting is still a new and developing. It has yet to sharpen its tools and techniques and seek perfection in its application. As a evolving discipline it is subject to certain obstacles and impediments which are to be cleared before it emerges as a fully developed science.
5. **Expensive proposition:** It is an expensive proposition to install the system with necessary facilities and highly skilled persons. Therefore, small concerns cannot afford to adopt it. Only large concerns can taken advantage of it where the benefits outweigh the cost in many ways.



6. **Wide scope:** Management accounting embraces many disciplines and its scope is very wide. Hence it requires a through knowledge and understanding of many subjects to make the data more meaningful and informative. This makes the task of management accounting difficult.
7. **Resistance:** This subject demands a change in the method and style of working which may meet opposition and non co-operation from certain vested interests. It may be construed by some persons as a tool for their exploitation. They dislike being guided in decision making through scientific approach. Proper education of the system is necessary to help them break away from the traditional style of working.
8. **Cannot replace Management:** Management accounting with all its tools and techniques can only facilitate decision making process for the management. It cannot be treated as an alternative or substitute for management. Ultimately it depends on the management for execution. Therefore, it is only a tool in the hands of management and cannot replace management. Management accounting processes quantitative data and collaborates with qualitative data. Only qualitative and unquantified data cannot be easily processed by management accounting.

### TOOLS AND TECHNIQUES OF MANAGEMENT ACCOUNTING

A number of tools and techniques are used to supply the information required by the management. Any one technique can not satisfy all managerial needs. The tools and techniques used in management accounting are as follows:

1. **Financial Policy and Accounting** – every concern has to take a decision about the sources of raising funds. The funds can be raised either through the issue of share capital or through the raising of loans. Capital or preference share capital. The second decision concerns the raising of the loans. Whether the loans should be long-term or short-term is again a matter of policy. The proportion between share capital and loans should also be decided.
2. **Analysis of Financial Statements-** The analysis of financial statement is meant to classify and present the data in such a way that it becomes useful for the management. The meaning and significance of the data is explained in it in non-technical language. The techniques of financial analysis include comparative financial statements, ratios, funds flow statement, trend analysis etc.
3. **Historical Cost Accounting-** The system of recording actual cost data on or after the date when it has been incurred is known as historical cost accounting. The actual cost is compared to the standard cost and it gives an idea about the performance of the concern.
4. **Budgetary Control-** It is a system which uses budgets as a tool for planning and control. The budgets of all functional departments are prepared in advance. The actual performance is recorded and compared with the pre-determined targets. The timing of budgets and finding out deviations is an important tool for planning and controlling.
5. **Standard Costing-** Standard costing is an important technique for cost control purposes. In standard costing system, costs are determined in advance. The actual costs are recorded and compared with standard costs. The variances, if any, are analysed and their reasons are ascertained.
6. **Marginal Costing-** This is a method of costing which is concerned with changes in costs resulting from changes in the volume of production. Under this system, cost of product is divided into marginal (variable) and fixed cost. The latter part of cost (fixed) is taken as fixed and is recorded over a level of production and every additional production unit involves only variable cost.
7. **Decision Accounting-** An important work of management is to take decisions. Decision taking involves a choice from various alternatives. There may be decisions about capital expenditure, whether to make or buy, what price to be charged, expansion or diversification, etc.
8. **Revaluation Accounting-** This is also known as Replacement Accounting. The preservation of capital in the business is the main objective of management. The profits are calculated in such a way that capital is preserved in real terms. During periods of rising prices, the value of capital is greatly affected.
9. **Control Accounting-** Control accounting is not a separate accounting system. Different systems



have their control devices and these are used in control accounting. In control accounting we can use internal check, internal audit, statutory audit and other similar methods for control purposes.

- 10. Management Information Systems-** With the development of electronic devices for recording and classifying data, reporting to management has considerably improved. The data relevant planning, co-ordination and control is supplied to the management. Feedback of information and responsive can be used as control techniques.

### **Difference between Financial Accounting and Management Accounting**

<b>Basis of Difference</b>	<b>Financial Accounting</b>	<b>Management Accounting</b>
<b>1. Objective</b>	Its objective is to record various transactions and to know, on that basis, profit or loss during a particular period and financial position at the end of that period.	Its objective is to provide necessary accounting information to the management which may help in taking decisions and formulating policies.
<b>2. Subject-matter</b>	It is concerned with assessing the results of business as a whole.	It is concerned with assessing the activities of different units, departments and cost centers i.e., it examines efficiency not only of the whole enterprise but of different departments also.
<b>3. Historical/ Futuristic</b>	It is mainly concerned with the historical data.	It focuses its attention on future and uses historical data only for taking decisions for the future.
<b>4. Compulsion</b>	Generally, financial accounting is compulsory.	Management accounting is used voluntarily and generally its procedure is also not determined by law
<b>5. Reporting</b>	It is used to find out profitability and financial position of the concern	The main idea for preparing reports in this accounting is to provide information as per requirements of the management.
<b>6. Description</b>	It records only those transactions or events which can be expressed in monetary terms.	It covers all such monetary and non-monetary events which influence managerial decisions.
<b>7. Quickness of Communication</b>	The communication of information in this accounting is very slow and time consuming.	There is relatively more emphasis on quick and prompt communication of information.
<b>8. Accounting Principles</b>	They are prepared generally on the basis of certain accepted accounting principles and conventions.	No set accounting principles are followed in this accounting
<b>9. Period</b>	Generally, its duration is one year and it is called as accounting year or financial year.	It collects and supplies information from time to time during the whole year.
<b>10. Publication</b>	As per Companies Act, every company is required to send a copy of its final accounts to the Registrar of Companies. Moreover, its publication is compulsory in case of Public Company.	They are prepared for the use of management only and thus they are not published.
<b>11. Audit</b>	These accounts can be audited	There is no such provision in this



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		accounting.
<b>12. Scope</b>	Its scope is limited	Its scope is much wider.



## Users of Financial Statements

The major job of the accounting system is to collect and provide information. It gathers, classifies, analyses, processes, interprets and communicates data about the economic activities of the firm in form of financial statements. Financial statements are needed by a variety of people. Some users of the financial statements have a direct interest in the firm, while others have an indirect interest. Those who are directly interested in the financial information are owners, managers, creditors, investors, employees, customers and tax authorities. The indirect users include financial analysts, trade associations, or trade unions.

### The following are the important users of financial statements:

- a) **Owners** have the primary interest in the financial information. They have entrusted their financial resources to the firm and, therefore, would like to know periodically its performance. Managers are the custodians of their investments and, therefore, they must submit periodical financial reports to owners.
- b) **Managers** are responsible for the overall performance of the firm. They make several decisions and, therefore, need information. Financial statements provide relevant information in which managers have a direct interest.
- c) **Creditors** supply financial resources to the firm. They are interested in the continuing profitable performance of the firm so that they may regularly receive interest and repayment of the principal sum. They need financial statements to evaluate the firm's performance and to determine the degree of risk to which they are exposed.
- d) **Potential** investors, creditors or owners, get an idea about the firm's financial strength and performance from its financial reports. They are generally interested in the earnings, dividend and growth trends of the firm. Usually they take the services of financial analysis in evaluating the performance of the firm.
- e) **Employees** and trade unions also make use of the financial information revealed in the financial statements. They can bargain on matters relating to salary determination, bonus, fringe benefits, or working conditions on the basis of the accounting information. Thus, financial information is useful to employees and unions, as they get insight into matters affecting their economic and social interests.
- f) **Customers** might be interested in the financial information because a careful study of the financial statements may provide information about the prices being charged by the firm.
- g) **Government** also has an interest in the financial statement for regulatory purposes. The tax department of government has an interest in determining the taxable income of the firm.

Financial statements information to the various users. It may not be possible for accounting system to serve the needs of all users equally well. Sometimes the interests of users may conflict. In such situations, priority is given to the interests of owners and creditors. Financial statements present general purpose financial information that is designed to serve the common needs of owners, creditors, managers, and other users, with primary emphasis on the needs of present and potential owners and creditors.



## Unit II

### Financial statement

**Meaning:** Generally financial statement may refer to any statement or document which discloses financial information relating to a business concern but technically financial statement include income statement or profit & loss account and balance sheet.

“The financial statements provide a summary of accounts of business enterprises, the balance sheet reflecting the assets, liabilities and capital as on a certain date and the income statement showing the result of operation during a certain period.

**Types of financial statements:** on the whole financial statements consist of the following:

1. Income statement or trading and profit & loss account which is preparing by a business concern in order to know financial results or earnings during a specified period.
2. Position statement or balance sheet which is prepared by a business concern on a particular date in order to know its financial position.
3. Other statements such as statement of retained earnings, fund flow statement, cash flow statement etc.

**Objectives of financial statements :** the objectives of financial statements in general are as follows:

1. Source of information
2. Information of earning
3. Information of financial position
4. Information of change in financial position
5. Help in financial forecasting
6. Information to meet users needs.

**Limitations of financial statements –**

- 1) **Lack of preciseness:** The information furnished by the financial statements are not precise.
- 2) **Based only on Financial Factors:** Financial statements don't disclose the correct financial position of the business concern.
- 3) **Static picture:** Balance sheet is considered to be a static document; and it reflects the position of the concern at a moment of time.
- 4) **Values shown are not real values:** Balance sheet is not a valuation statement. In other words, the values shown in it are not real values of assets or values for which these can be sold
- 5) **Estimated profit:** Profit disclosed by the profit and loss account is also not a real profit.

**Objectives of analysis and interpretation of financial statements –**

Though every user of financial statements has a distinct objective for which he attempts to analyze and interpret, some common but important objectives of this process are as follows:

- 1) **Earning capacity:** To determine and examine the current earning capacity and to estimate future prospects.
- 2) **Managerial efficiency:** To estimate overall as well as segment-wise performance efficiency and managerial ability in a business concern.
- 3) **Solvency:** To determine long-term as well as short-term solvency, which decides credit worthiness of the firm also.
- 4) **Forecasts and Budgets:** To forecast the future results and prepare the budgets.
- 5) **Inter-firm Comparison:** To make inter-firm comparison on the basis of operational efficiency and financial position of various firms engaged in the same industry.
- 6) **Financial Weakness:** To identify financial weaknesses of the firm and to suggest remedial measures.
- 7) **Growth Prospects:** To determine the growth prospects of different divisions as well as of the firm as a whole.



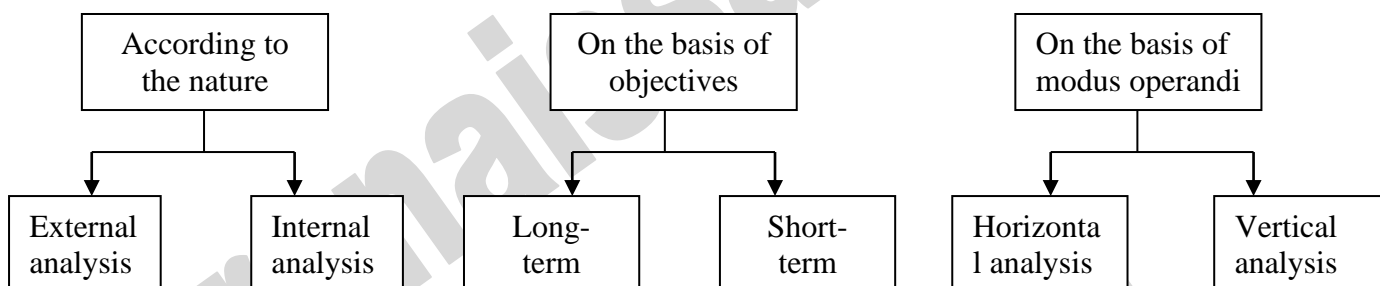
## MEANING & CONCEPT OF FINANCIAL ANALYSIS

The term 'Financial Analysis' Which is also known as 'analysis and interpretation of financial statements' refer to process of determining financial strength and weaknesses of the firm by stabilizing relationship between the items of balance sheet, profit & loss a/c and other operative data.

## TYPES OF FINANCIAL ANALYSIS

There may be different types of financial statement analysis because it depends upon various factors, such as nature of the analyst, objective and modus operandi of analysis, etc. Some important types of financial statement analysis are as follows

### TYPES OF FINANCIAL ANALYSIS



## TOOLS OR METHODS OF FINANCIAL ANALYSIS

Following are the methods generally used for analysis and interpretation of financial statement.

1. Comparative financial statements
2. Common size statements
3. Trends analysis
4. Fund flow analysis
5. Cash flow analysis
6. Ratio analysis
7. Cost-volume-profit analysis

## COMPARATIVE FINANCIAL STATEMENTS

The comparative financial statements are the statements of the financial position at different periods of time. The elements of financial position are shown in a comparative form to give an idea of the financial position of two or more periods. Generally two financial statements (balance sheet and income statements) are prepared in comparative form for the purpose of financial analysis. For example, when figure of sales of previous periods are given along with the figures of current period, the analyst will be able to see the trends of sales over different period of time.

### THE COMPARATIVE STATEMENTS ARE-

1. Balance sheet
2. Income statement

## COMPARATIVE BALANCE SHEET

Comparative balance sheet as on two different dates can be used for comparing assets and liabilities and finding out on increase or decrease in those items.

While interpreting comparative balance sheet, the interpreter is expected to consider the following points.

- a. **Current financial position-** For studying the current financial position, one should see the working capital for both the year. A study of increase or decrease in current assets and current liabilities enable to see the current financial position.



- b. **Long term financial position-** The long term financial position of the concern can be analyzed by studying the changes in fixed assets, long term liabilities & capital. An increase in fixed assets should be compared to the increase in long term loans and capitals.
- c. **Profitability of the concern-** The study of increase or decrease in retained earnings will enable the interpreters to see whether the profitability has improved or not.

### 1) COMPARATIVE INCOME STATEMENT-

The income statement shows net profit or net loss on accounts of operations of a business. The comparative income statement gives an idea of the progress of a business over a period of time. The interpretation of income statements will involve

- a. The increase or decrease in sales should be compared with the increase or decrease of cost of goods sold.
- b. The second step is to study the operational profits.
- c. The effect of non-operating expenses such as interest, loans on profit should be studied.

### 2) COMMON SIZE STATEMENTS

Common size statements are those in which the figures are converted into percentage on some common basis. The use of these helps in making inter period & inter firm comparison and also in highlighting upon the trends in performance, efficiency & financial position. However any material change in the techniques procedure & principles would render these statements users & insignificant tool of financial analysis.

- a. **Common size balance sheet-** A statement in which balance sheet items are expressed as the assets and the ratio of each liability is expressed as a ratio of total liabilities is called common size balance sheet.
- b. **Common size income statements-** When the items of income statements are known as a percentage of sales to show the relationship of each item to sales it is known as the common size income statements.

### 3) TRENDS ANALYSIS

The financial statement may be analyzed by computing trends of several years

The methods of calculating trend percentage involve the calculation of percentage relationship that each item bears to the same item in the base year. It is very important from the point of view of forecasting or budgeting. It discloses the change in the financial and operating data between specific periods. However, no. of precautions should be taken, while using trends ratios as a tool.

**4) RATIO ANALYSIS :** Ratio analysis is a technique of analysis, comparison and interpretation of financial statements. It is a process through which various ratios are calculated and on that basis conclusions are drawn which become the base of managerial decisions.

### 5) FUND FLOW ANALYSIS

Financial statements can also be analyzed by preparing Funds Flow Statement and in that case it is known as funds Flow analysis. This statement is prepared in order to reveal the sources from which funds are obtained and the uses to which they are being put.

### 6) CASH FLOW ANALYSIS

The technique is very useful in the management of cash analysis of short-term liquidity. Under this method a statement is prepared to show the inflow and outflow of cash related to various activities in the concern during a specific period.

**7) C.V.P. ANALYSIS :** Cost volume profit analysis is an important tools in the process of managerial decisions and it is extremely helpful to management in variety of problems involving planning and control.



## Users of Financial Statements

The major job of the accounting system is to collect and provide information. Financial statements are needed by a variety of people. Some users of the financial statements have a direct interest in the firm, while others have an indirect interest. Those who are directly interested in the financial information are owners, managers, creditors, investors, employees, customers and tax authorities. The indirect users include financial analysts, trade associations, or trade unions.

### The following are the important users of financial statements:

- h) **Owners** have the primary interest in the financial information. They have entrusted their financial resources to the firm and, therefore, would like to know periodically its performance. Managers are the custodians of their investments and, therefore, they must submit periodical financial reports to owners.
- i) **Managers** are responsible for the overall performance of the firm. They make several decisions and, therefore, need information. Financial statements provide relevant information in which managers have a direct interest.
- j) **Creditors** supply financial resources to the firm. They are interested in the continuing profitable performance of the firm so that they may regularly receive interest and repayment of the principal sum. They need financial statements to evaluate the firm's performance and to determine the degree of risk to which they are exposed.
- k) **Potential** investors, creditors or owners, get an idea about the firm's financial strength and performance from its financial reports. They are generally interested in the earnings, dividend and growth trends of the firm. Usually they take the services of financial analysis in evaluating the performance of the firm.
- l) **Employees** and trade unions also make use of the financial information revealed in the financial statements. They can bargain on matters relating to salary determination, bonus, fringe benefits, or working conditions on the basis of the accounting information. Thus, financial information is useful to employees and unions, as they get insight into matters affecting their economic and social interests.
- m) **Customers** might be interested in the financial information because a careful study of the financial statements may provide information about the prices being charged by the firm.
- n) **Government** also has an interest in the financial statement for regulatory purposes. The tax department of government has an interest in determining the taxable income of the firm.

## Ratio analysis

### Meaning of Ratio Analysis –

Ratio analysis is a technique of analysis, comparison and interpretation of financial statements. It is a process through which various ratios are calculated and on that basis conclusions are drawn which become the base of managerial decisions.

### Advantages of Ratio Analysis –

- 1) Useful in simplifying accounting figures.
- 2) Useful in financial position analysis
- 3) Useful in assessing the operational efficiency
- 4) Helpful in financial forecasting and planning.
- 5) Useful in locating the weak spots of the business.



- 6) Useful in comparative study
- 7) Helpful in communication and coordination.
- 8) Useful in control

### **Classification or types of ratios –**

Accounting ratios may be classified in a number of ways keeping in view the purpose of study. However, for the sake of convenience and simplicity ratios may be classified as follows –

- i) Profitability ratios –
- ii) Turnover or activity ratios
- iii) Liquidity ratios
- iv) Long-term solvency ratios

### **Profitability ratios –**

The primary objective of each business enterprise is to earn profits. In fact profit earning is considered essential not only for the survival of business but is also required for its expansion and diversification. Generally, profitability ratios are expressed in terms of percentage.

### **I) General Profitability Ratios –**

This group consists of profitability ratios based on sales and the important ratios of general profitability are as follows-

- 1) Gross profit ratio – This ratio establishes relationship of gross profit to net sales of a firm.
- 2) Net profit ratio – This ratio establishes the relationship in term of percentage between 'NP' and 'Net sales'.
- 3) Operating ratio – This ratio establishes relationship between operating cost and net sales.
- 4) Expenses ratio – This ratios are calculated to ascertained the relationship that exists between operating expenses and volume of sales.

**II) Overall Profitability Ratios –** The overall profitability of a business can be measured in terms of profits related to investments made in the business. The main ratios measuring overall profitability are as follow:

- 1) Return on proprietor's funds or shareholder's investment – This ratio determines the earning capacity related to owners capital or investment.
- 2) Return on equity capital – Return on equity capital is very important from the view of equity share holders because dividend on equity shares depends upon the profit available for equity share holders.
- 3) Return on capital employed – It establishes the relationship between profits and capital employee.
  - a. Net capital employed
  - b. Proprietor's Net capital employed.

**Turnover Ratios –** These ratios are also called as 'Activity Ratios' or 'Performance Ratios'. The main objective of these ratios is to judge the work performance of the enterprise and effectiveness of managerial decisions. The greater ratio the more will be efficiency of asset usage. The lower ratio reflects the under utilization of the resources available at the disposal of the firm.

### **The following are important turnover or activity ratios –**



- 1) Stock turnover ratio – This ratio establishes relationship between the cost of goods sold during a given period and the average amount of inventory carried during that period.
- 2) Debtor's turnover ratio - This ratio establishes relationship between net credit sales and average debtors of the year and indicates the number of times on the average the receivables are turnover in each year.
- 3) Average collection period or debt collection period – Indicates the average period of collection due from debtors.
- 4) Creditor's turnover ratio – This ratio establishes relationship between net credit purchases and average creditors during a year.
- 5) Average payment period - Indicates the average period of payment due to creditors.
- 6) Working capital turnover ratio – It indicates the number of times the working capital is rotated in the course of a year.

**Liquidity Ratios** - Liquidity refers to the ability of a concern to meet its current obligations as and when they become due. Liquidity ratios measure the short-term solvency and for this purpose following ratios can be computed –

- 1) **Current ratio** – Current ratio is most widely used ratio to judge short term financial position of a firm.
- 2) **Liquid ratio** – This ratio tests the short-term liquidity of the firm in its strict meaning because it compares current liabilities with liquid or quick assets and not with current assets.
- 3) **Absolute liquid ratio** – Establishes relationship between absolute liquid assets and liquid liabilities.

### **Solvency Ratios –**

Solvency means ability of a firm to pay its liabilities on due date. In broader sense the analysis of solvency can be divided into two groups –

- (A) Short-term solvency – It examines the ability of a concern to meet its current obligations as and when they become due and for this purpose liquidity ratios are used which have already been discussed in detail earlier in this chapter.
- (B) Long-term solvency – Such solvency is tested on the basis of the ability of a concern to pay its long-term liabilities at due time. The ratios to be used for this purpose are called as 'Ratios of Financial Position' or 'Stability Ratios'. The main ratios of this category are as follows –
  - a. Debt-Equity ratio – This ratio reflects the long-term financial position of a firm.
  - b. Proprietary ratio – This ratio indicates the relationship between proprietor's funds and total assets.
  - c. Solvency ratio – This ratio examines whether the total realizable amount from all assets of a firm is enough to repay all of its external liabilities or not.
  - d. Fixed assets ratio – According to sound financial policy the fixed assets should be acquired out of the long-term funds or liabilities only and on this basis fixed assets.
  - e. Capital gearing ratio – This ratio establishes the relationship between fixed cost bearing capital (Preference Shares + Debentures + Long-term Loan) and Equity Share Capital Fund (Equity Share Capital + Reserves & Surplus).
  - f. Interest coverage ratio or debt service ratio – This ratio indicates the ability of a concern to pay the interest due.



## SUMMARY OF IMPORTANT FORMULAE

Description	Formula	Form
<b>General Profitability Ratios</b>		
• Gross Profit Ratio	$= \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$	Percentage
• Net Profit Ratio	$= \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$	Percentage
• Net Operating Profit Ratio	$= \frac{\text{Net Operating Profit}}{\text{Net Sales}} \times 100$	Percentage
• Operating Ratio	$= \frac{\text{Cost of Goods sold} + \text{Operating Exp.}}{\text{Net Sales}} \times 100$	Percentage
• Specific Expense Ratio	$= \frac{\text{Specific Expense}}{\text{Net Sales}} \times 100$	Percentage
<b>Over all Profitability Ratios</b>		
• Return on Proprietor's Funds or Shareholder's Investment	$= \frac{\text{Net Profit (after interest \& tax)}}{\text{Shareholder's Funds}} \times 100$	Percentage
• Return on Equity Shareholder's Funds	$= \frac{\text{Net Profit after interest \& tax} - \text{Preference Dividend}}{\text{Equity Shareholder's Funds}} \times 100$	Percentage
• Return on Equity Capital	$= \frac{\text{Net Profit after Interest \& tax} - \text{Preference Dividend}}{\text{Paidup Equity Capital}} \times 100$	Percentage
• Return on Capital Employed		
(i) Gross Capital Employed	$= \frac{\text{Net Profit before interest \& tax}}{\text{Total Assets}} \times 100$	Percentage
(ii) Net Capital Employed	$= \frac{\text{Net Profit before interest \& tax}}{(\text{Net}) \text{ Capital Employed}} \times 100$	Percentage
	<p><i>Note : (Net) Capital Employed = Total Assets - Current Liabilities Or Share Capital + Reserves &amp; Surplus + Long-term Liabilities</i></p>	
• Earning per Share (EPS)	$= \frac{\text{Net Profit Available for Equity Shareholders}}{\text{No. of Equity Shares}}$	in Rs.



<b>(III) Turnover Ratios or Activity Ratios</b>		
● Stock Turnover or Inventory Turnover or Merchandise Turnover	$= \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$	Times
● Debtors Turnover or Receivables Turnover	$= \frac{\text{Net Credit Sales}}{\text{Average Debtors/Receivables}}$	Times
● Average Collection Period	$= \frac{\text{Average Debtors/Receivables}}{\text{Net Credit Sales}} \times 365 \text{ or } 12$	Days or months
● Creditors Turnover or Payables Turnover	$= \frac{\text{Net Credit Purchases}}{\text{Average Creditors/Payables}}$	Times
● Average Payment Period	$= \frac{\text{Average Creditors/Payable}}{\text{Net Credit Purchases}} \times 365 \text{ or } 12$	Days or months
● Working Capital Turnover	$= \frac{\text{Cost of Goods Sold (or Sales)}}{\text{Working Capital}}$	Times
● Total Assets Turnover	$= \frac{\text{Net Sales or Cost of Goods Sold}}{\text{Total Assets}}$	Times
● Fixed Assets Turnover	$= \frac{\text{Net Sales or Cost of Goods Sold}}{\text{Fixed Assets}}$	Times
● Current Assets Turnover	$= \frac{\text{Cost of Goods Sold (or Sales)}}{\text{Current Assets}}$	Times
<b>(IV) Liquidity Ratios</b>		
● Current Ratio or Working Capital Ratio	$= \frac{\text{Current Assets}}{\text{Current Liabilities}} \text{ (Ideal Level 2 : 1)}$	Pure Ratio or Fraction
● Liquid or Quick or Acid Test Ratio	$= \frac{\text{Liquid Assets}}{\text{Current Liabilities}} \text{ (Ideal Level 1 : 1)}$	Pure Ratio or Fraction
	<i>Note : Some authors use Current Liabilities in place of Liquid Liabilities.</i>	
● Absolute Liquid Ratio	$= \frac{\text{Absolute Liquid Assets}}{\text{Liquid Liabilities}} \text{ (Ideal Level 0.5:1)}$	Pure Ratio or Fraction
<b>(V) Miscellaneous</b>		
● Net Profit to Paid-up Capital	$= \frac{\text{Net Profit}}{\text{Paid-up Capital}} \times 100$	Percentage
● Proprietor's Liabilities Ratio	$= \frac{\text{Proprietor's (Shareholders') Fund}}{\text{Outside Liabilities}}$	Pure Ratio
● Solvency Ratio	$= \frac{\text{Total Assets}}{\text{Total Outside Liabilities}}$	Pure Ratio
● Debt-equity Ratio	$= \frac{\text{Outside Funds}}{\text{Shareholders' Fund}}$ or $= \frac{\text{Long-term Debt}}{\text{Shareholders' Funds}}$	Pure Ratio



## Some Important Terminologies

### 1. Miscellaneous expenses.

Under this head we include fictitious assets which are as under-

- a) Preliminary expenses
- b) Underwriting Commission
- c) Discount on issue of shares and debentures
- d) Development expenditure
- e) Debit balance of P/L A/c (loss)

### 2. Current Assets

- a) Cash in hand
- b) Cash at bank
- c) Bills receivables
- d) Debtors
- e) Short term investments/Marketable securities/ Government securities
- f) Accrued income
- g) Prepaid expenses
- h) Stock or inventory

### 3. Liquid Assets

Assets Which can be easily converted into cash is known as liquid assets.

$$\text{Liquid Assets} = \text{Current Assets} - \text{Stock} - \text{Prepaid Expenses}$$

### 4. Absolute Liquid Assets

$$\text{Cash} + \text{Bank} + \text{Marketable Securities}$$

### 5. Current Liabilities

- a) Creditors
- b) Bills Payables
- c) Outstanding Expenses
- d) unearned income advance income
- e) Short term loans
- f) Bad debts reserves
- g) Provision for tax
- h) Bank overdraft
- i) Tax Payable
- j) Dividend Payable/Unclaimed dividend

### 6. Liquid liabilities

$$\text{Liquid liabilities} = \text{Current Liabilities} - \text{Bank overdraft}$$

### 7. Working Capital

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

### 8. Long term loans / liabilities / Long term Debts

- a) Debentures
- b) Mortgage loan
- c) Bank loan
- d) Unsecured loans
- e) Secured loans

### 9. Total debts/ total liabilities/ external liabilities

$$\text{Total debts} = \text{Current liabilities} + \text{long term liabilities}$$

### 10. Capital employed

$$\text{Net Capital Employed} = \text{Total real assets} - \text{Current Liabilities}$$

OR

$$\text{Share capital} + \text{Reserves and Surplus} + \text{Secured loans} + \text{Unsecured loans} - \text{misc. Expenditure}$$

### 11. Cost of goods sold

$$\text{COGS} = \text{Sales} - \text{Gross profit}$$

Or

$$\text{Opening stock} + \text{Purchases} + \text{Direct Expenses} - \text{Closing stock}$$



**12. Operating net profit**

$$\begin{aligned}\text{Operating Net Profit} &= \text{Gross Profit} - \text{Operating expenses} \\ \text{Or} \\ \text{Net profit} &+ \text{non operating expenses} - \text{non operating income}\end{aligned}$$

**13. Average Stock**

$$\text{Average Stock} = \frac{\text{Opening stock} + \text{Closing stock}}{2}$$

**14. Receivables**

$$\text{Receivables} = \text{Debtors} + \text{Bills receivables}$$

**15. Payables**

$$\text{Payables} = \text{Creditors} + \text{Bills payables}$$

**16. Proprietors fund/ shareholders fund/ owners equity/ equity/ Net worth/ Net assets**

$$\begin{aligned}&= \text{Total real assets} - \text{External liabilities} \\ \text{Or} \\ &\text{Share capital} + \text{Reserve \& Surplus} - \text{accumulated losses and fictitious assets}\end{aligned}$$

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