



JEPPIAAR

ENGINEERING COLLEGE

DEPARTMENT OF MANAGEMENT STUDIES

I YEAR / I SEMESTER

BA4104 ACCOUNTING FOR DECISION MAKING

STUDY MATERIAL - NOTES

Faculty In charge

Dr. E. Gopi



Anna University Chennai

Regulation 2021



DEPARTMENT OF MANAGEMENT STUDIES

VISION

To build Jeppiaar Engineering College as an institution of academic excellence in technology and management education, leading to become a world class university..

MISSION

- To excel in teaching and learning, research and innovation by promoting the principles of scientific analysis and creative thinking.
- To participate in the production, development and dissemination of knowledge and interact with national and international communities.
- To equip students with values, ethics and life skills needed to enrich their lives and enable them to contribute for the progress of society.
- To prepare students for higher studies and lifelong learning, enrich them with the practical skills necessary to excel as future professionals and entrepreneurs for the benefit of Nation's economy.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS):

MBA programme curriculum is designed to prepare the post graduate students

- To have a thorough understanding of the core aspects of the business.
- To provide the learners with the management tools to identify, analyze and create business opportunities as well as solve business problems.
- To prepare them to have a holistic approach towards management functions.
- To inspire and make them practice ethical standards in business.

PROGRAMME OUTCOMES (POS)

On successful completion of the programme,

1. Ability to apply the business acumen gained in practice.
2. Ability to understand and solve managerial issues.
3. Ability to communicate and negotiate effectively, to achieve organizational and individual goals.
4. Ability to understand one's own ability to set achievable targets and complete them.
5. Ability to fulfill social outreach
6. Ability to take up challenging assignments

COURSE OUTCOMES (COs)

1. A thorough grounding of financial accounting concepts
2. Preparation of financial statement analysis
3. Understand the management and cost accounting techniques
4. Apply the management and cost accounting techniques for decision making
5. Assess the accountancy standards of practices in India

BA4104 ACCOUNTING FOR DECISION MAKING

Course Objectives

- Acquire a reasonable knowledge in accounts analysis and evaluate financial statements

UNIT I FINANCIAL ACCOUNTING 9

Introduction to Financial, Cost and Management Accounting – Generally accepted accounting principles– Double Entry System – Preparation of Journal, Ledger and Trial Balance Preparation of Final Accounts: Trading, Profit and Loss Account and Balance Sheet - Reading the financial statements

UNIT II ANALYSIS OF FINANCIAL STATEMENTS 9

Financial ratio analysis, Interpretation of ratio for financial decisions - Dupont Ratios – Comparative statements - common size statements. Cash flow (as per Accounting Standard 3) and Funds flow statement analysis – Trend Analysis.

UNIT III COST ACCOUNTING 9

Cost Accounts – Classification of costs – Job cost sheet – Job order costing – Process costing – (excluding Interdepartmental Transfers and equivalent production) – Joint and By Product Costing – Activity Based Costing, Target Costing.

UNIT IV MARGINAL COSTING 9

Marginal Costing and profit planning – Cost, Volume, Profit Analysis – Break Even Analysis – Decisionmaking problems -Make or Buy decisions -Determination of sales mix - Exploring new markets - Add or drop products -Expand or contract.

UNIT V BUDGETING AND VARIANCE ANALYSIS 9

Budgetary Control – Sales, Production, Cash flow, fixed and flexible budget – Standard costing and Variance Analysis – (excluding overhead costing) -Accounting standards and accounting disclosure practices in India.

TOTAL : 45 PERIODS

REFERENCES:

1. R. Narayanaswamy, Financial Accounting, PHI, sixth edition, 2017.
2. M.Y. Khan & P.K. Jain, Management Accounting, Tata McGraw Hill, 8 th edtion, 2018.
3. T.S. Reddy & A. Murthy, Financial Accounting, Margham Publications, 2014
4. Jan Williams, Susan Haka, Mark S bettner, Joseph V Carcello, Financial and Managerial Accounting - The basis for business Decisions, 18th edition, Tata McGraw Hill Publishers, 2017
5. Charles T. Horngren, Gary L.Sundem, David Burgstahler, Jeff Schatzberg, Introduction toManagement Accounting, PHILearning, 2014 , 16th edition.
6. Earl K. Stice& James D.Stice, Financial Accounting, Reporting and Analysis, 8th edition,

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UNIT I

INTRODUCTION TO FINANCIAL ACCOUNTING

Financial accounting is a specialized branch of accounting that keeps track of a company's financial transactions. Using standardized guidelines, the transactions are recorded, summarized, and presented in a financial report or financial statement such as an income statement or a balance sheet.

Companies issue financial statements on a routine schedule. The statements are considered *external* because they are given to people outside of the company, with the primary recipients being owners/stockholders, as well as certain lenders. If a corporation's stock is publicly traded, however, its financial statements (and other financial reporting's) tend to be widely circulated, and information will likely reach secondary recipients such as competitors, customers, employees, labor organizations, and investment analysts.

It's important to point out that the purpose of financial accounting is not to report the value of a company. Rather, its purpose is to provide enough information for others to assess the value of a company for themselves.

Because external financial statements are used by a variety of people in a variety of ways, financial accounting has common rules known as *accounting standards* and as *generally accepted accounting principles (GAAP)*. the Financial Accounting Standards Board (FASB) is the organization that develops the accounting standards and principles. Corporations whose stock is publicly traded must also comply with the reporting requirements of the Securities and Exchange Commission (SEC).

Double Entry and Accrual Accounting

At the heart of financial accounting is the system known as double entry bookkeeping (or "double entry accounting"). Each financial transaction that a company makes is recorded by using this system.

The term "double entry" means that every transaction affects at least two accounts. For example, if a company borrows \$50,000 from its bank, the company's **Cash** account increases, and the company's **Notes Payable** account increases. Double entry also means that one of the accounts must have an amount entered as a **debit**, and one of the accounts must have an amount entered as a **credit**. For any given transaction, the debit amount must equal the credit amount. (To learn more about debits and credits, visit our **Explanation of Debits & Credits**.)

The advantage of double-entry accounting is this: at any given time, the balance of a company's asset accounts will equal the balance of its liability and stockholders' (or owner's) equity accounts. (To learn more on how this equality is maintained, visit our **Explanation of Accounting Equation**.)

Meaning, Definition & Scope of Financial Accounting

It is the art of recording, summarizing, analyzing, and reporting business transactions of the enterprises by **Financial Statements**. These statements include the income statement, balance sheet, and cash flow statement

In 1966, American Accounting Association defined it as, "the process of identifying, measuring, communicating financial information to permit judgements and decisions by users of accounts."

Accountancy refers to a systematic knowledge of accounting. It tells us how to prepare the books of accounts and how to summarize the accounting information to communicate it to the users of information. The users are creditors or suppliers of raw materials and finished goods, debtors or customers, investors, employees, tax authorities to levy a tax, management to take useful decisions, government and their agencies, and the general public. The users are interested in the performance or profit or loss of a business entity.

SCOPE OF FINANCIAL ACCOUNTING



Records Financial Transactions

Financial accounting record each and every financial transaction taking place in the business organisation. It maintains a clear and systematic record of all information in the form of journals and various subsidiary books. It avoids any confusion or loss because if any problem arises these records can be easily checked. All transaction cannot be just memorized by humans without recording them and that makes the financial accounting important part of every business.

Classify and Summarize Information

Information collected and recorded by financial accounting is properly categorized according to their nature. Financial accounting involves classifying and summarizing all financial information recorded at the initial step. All transactions of similar nature are grouped together under one head by making accounts like Sales, Purchase, Rent, Salaries, Interest etc. Grouping of same nature transactions together adds convenience in understanding of information collected.

Prepares Financial Statements

Financial accounting prepares financial statements like cash flow statement, income statement, balance sheet etc. These financial statements depict the true financial position of business. Financial statements are the result of various information collected and analysed in overall process of financial accounting. All financial strength and weakness of business are determined by preparation of financial statements.

Interprets Financial Information

Financial accounting interprets information from several analysis conducted and financial statements prepared. It understands and explains the results of several relationships establishes by analysis to different users for easy understanding and decision making. It simplifies the accounting information so that it is well understood by persons having limited or no knowledge of accounting subject.

Communicates All Outcomes

Financial accounting serves the needs of all external stakeholders by delivering them true and accurate picture of the company's financial affairs. It communicates them all financial information by providing them with financial reports routinely. All interested parties to business are fully aware of all business financial matters and this helps them in making conclusions. It helps them in knowing profitability and future growth aspects through these reports.

Determines and Maintains Financial Position

Financial accounting determines fair and actual image of financial position of business. Finance is termed as lifeline of business activities and its management is quite important for every organisation. Mismanagement of financial resources may have adverse effects on the company's performance. Financial accounting records and analyse each financial aspect of business.

It delivers all information to internal management team from time to time for their decision making. Management are able to take all necessary steps whenever required related to financial resources which will improve the overall productivity. This all helps in maintaining a proper financial position for every business.

NATURE OF FINANCIAL ACCOUNTING



Maintaining Systematic Records Of Transactions

The objective of Financial accounting is to Systematic record the financial transactions of an organization in the books of account. Records are in chronological order or date and time wise. It can use in the future when we require it for further process.

Ascertaining Profit Or Loss

To ascertain whether the organization have earned profit or incurred loss an Income statement or Trading and profit & loss account is prepared. The income statement gives the data of profit and loss of a financial year. The balance sheet gives the overall position of the organization.

Ascertaining Financial Position

Another objective of Accounting is to ascertain the financial position by preparing the Balance sheet. The balance sheet contains assets and liability that give information about the financial position of the organization.

Assisting The Management

Financial accounting Provides financial information to management for decision making. The information includes the debtors and creditor, profit & loss and other information.

Provide Accounting Information To Users

Financial Accounting provides the required information to interested users Who analyze them as per their requirement. Users can be internal or external. Internal users are the management, employees, and external user are creditors, tax authorities, investors, etc.

CONCEPT OF MANAGEMENT ACCOUNTING:

In ordinary language any system of accounting, which assists management in carrying out its functions more efficiently may be termed as management accounting. The Institute of Chartered Accountants of England and Wales has stated that “any form of accounting, which enables a business to be conducted more efficiently can be regarded as Management Accounting.”

On the same lines, Robert N. Antony has stated, “Management accounting is concerned with accounting information which is useful to management.” However, these definitions are very general in nature.

Some of the important specific definitions are as follows:

The Institute of Cost and Management Accountants, London has defined Management Accounting as the “application of professional knowledge and skill in the preparation of accounting information in such a way as to assist management in the formation of policies and in the planning and control of the operations of the undertakings”.

THE AMERICAN ACCOUNTING ASSOCIATION HAS DEFINED AS FOLLOWS:

“Management Accounting is the application of appropriate techniques and concepts in processing historical and projected economic data of an entity to assist management in establishing plans for reasonable economic objectives in the making of rational decisions with a view towards these objectives.”

In the words of Brown and Howard, management accounting may be defined broadly as that aspect of accounting, which is concerned with the efficient management of a business through the presentation to management of such information as, will facilitate efficient and opportune planning and control.

The above definitions clearly indicate that management accounting is concerned with accounting information, which is useful to management. The common thread underlying these definitions is that management accounting is concerned with the efficiency of the various phases of management.

However, it should be clearly understood that it does not supplant financial or cost accounting systems; rather it supplements them in order to serve the diverse requirements of modern management.

FUNCTIONS OF MANAGEMENT ACCOUNTING:

The basic function of management accounting is to assist the management in performing its functions effectively.

The manner in which management accounting satisfies the requirements of the management for arriving at appropriate business decisions may be described as follows:

1. Modification of Data:

Accounting data as such are not suitable for managerial decision-making and control purposes. However, they may be used as the basis for making future estimates and projections.

In fact management accounting modifies the available accounting data by rearranging the same, by resorting to a process of classification and combination, which enable retention of the similarities of data without eliminating the dissimilarities.

For example, the sales figures for different months may be classified to know the total sales made during the period product-wise, salesman-wise, and territory-wise.

2. Analysis and Interpretation of Data:

The accounting data is analyzed and interpreted meaningfully for effective planning and decision-making. For this purpose the data is presented in a comparative form. Analytical tools such as Comparative Financial Statements, Common-size Statements, Trend percentages, and ratio Analysis are used and likely trends are projected.

3. Facilitating Management Control:

Management accounting enables all accounting efforts to be directed towards the attainment of goals efficiently by controlling the operations of the company more effectively.

Standards of performance and measure of variation there from are the essential elements of any control system. All these are made possible through standard costing and budgetary control systems, which are an integral part of management accounting.

4. Use of Qualitative Information:

Mere financial data and its analysis and interpretation are not sufficient for decision-making purposes. The management may need qualitative information, which cannot be readily converted into monetary terms.

Such information may be obtained from statistical compilations, engineering records, case studies, minutes of meetings, etc. Management accounting does not restrict itself to financial data alone for helping management; it also uses such [qualitative] information.

5. Satisfaction of Informational Needs of Different Levels of Management:

Different levels of management such as top level, middle level, and lower level managements need different types of information. The top management needs concise information covering the entire field of business activities at relatively long intervals.

The middle level management requires technical data regularly, and the lower level management is interested in detailed figures relating to the particular sphere of activity at short intervals.

Hence, the main function of management accounting is to process accounting and other data in such a way as to satisfy the needs of different levels of management.

SCOPE OF MANAGEMENT ACCOUNTING

The main purpose of management accounting is to utilize the accounting information in solving the business problems and taking scientific decisions. Moreover, the scope of management accounting is very wide. Therefore, it is very difficult of pinpoint the exact scope of management accounting. However, the scope of management accounting are listed below.

1. Financial Accounting

Financial accounting is relating to the recording of business transactions immediately soon after the transaction taken place or afterwards incurring the expenses. The business transaction may be relating to income, expenses, inventory movement, assets, liabilities, cash receipts and payments and so on.

The process of financial accounting includes the preparation of financial statements regularly at the end of each accounting year for knowing operating results for a definite period. The term financial statements includes profit and loss account and balance sheet.

Management is unable to exercise the coordination and control out of the information supplied by financial accounting system. But, the financial accounting system information is the basis of future business planning and financial forecasting.

2. Cost Accounting

Cost accounting is concerned with the ascertainment of various elements of costs for different business operation and activities. These cost data are used in the management accounting system for further analysis so as to solve business problems and take quality decision.

3. Budgeting and Forecasting

Management accounting includes budgetary control and forecasting techniques also. Under budgetary control system, the budgets are prepared on functional basis and measure the actual performance, find the difference between the actual and standard for taking corrective actions. In this way, budgeting assists the management for identifying responsibility and ensuring coordination.

4. Revaluation Accounting

This type of accounting system is ensuring that the capital is maintained intact in real terms. By keeping this fact in mind, correct amount of profit is calculated and used for managerial decision making.

5. Cost Control Procedures

Cost control procedures are an integral part of management accounting process. It includes inventory control, cost control, time control, budgetary control, standard costing etc.

6. Statistical Methods

In order to analyze the financial accounting data, tables, diagrams and graphs are used in the management accounting system. These are nothing but statistical methods.

7. Inventory Control

Inventory control refers to exercising control over the utilization of raw materials, processing of work in progress and disposal of finished goods for a specific period.

8. Reporting

Reporting is divided into two types. They are interim reporting and external reporting. Interim reporting is supplying information to the top management. External reporting is supplying information to outsiders i.e. shareholders, banks and financial institutions.

Interim reporting deals with the submission of financial results by means of weekly, fortnightly, monthly, quarterly or half yearly accounts or statements to the top management.

9. Taxation

It includes the computation of corporate income tax in accordance with the tax laws, filing of returns and making tax payments.

10. Methods and Procedures Design and Installation

Management accounting is relating to the most efficient and economic system of accounting suitable to any size and type of undertaking. Moreover, it employ best use of mechanical and electronic devices.

11. Internal Audit

Internal audit is conducted by the business organization with the help of paid employee who has thorough accounting knowledge. All the relevant records are maintained under the management accounting system so that the internal audit is conducted in an effective manner.

12. Office Services

It includes maintenance of proper data processing and other office management services.

13. Financial Management

Every owner of the business concern expects fair rate of return on investments. It is possible through the effective utilization of the finance. Hence, it is termed as financial management and considered as separate discipline. The tools in financial management are developed through management accounting system.

14. Interpretation

Management accounting is relating to the interpretation of financial data to management and advising them on decision-making.

DIFFERENCE BETWEEN FINANCIAL ACCOUNTING AND MANAGEMENT ACCOUNTING

Points of Difference	Financial Accounting	Management Accounting
Aim	The main aim is to provide information to outside parties. Outside parties include creditors, investors, customers, etc. Hence, it is mainly aimed at assisting investors in making informed decisions.	Here, the aim is different than financial accounting. Generally, management accounting information is meant for management to make informed business decisions.
Regulatory Requirements	It is a mandatory requirement for every public organization by the government. Thus, they are governed by Accounting Standard Boards, companies' law and government.	It is at the discretion of management. There is no mandatory requirement but still, institutes like CIMA, ICWAI, etc provide some framework and formats.
Governing principles	Financial accounting statements are prepared based on 'Generally Accepted Accounting Principles (GAAP)'. This GAAP is different for different countries with more or less the same features.	There is no standard basis for preparing management accounting statements. Hence, they are prepared based on the requirement of the management team.
Time Horizon	The time horizon for financial accounting is 'past'. Generally, it is one accounting year.	It has no specific time horizon but the main focus is on the future.
Reporting beneficiaries	It is prepared for outside or external parties. External parties like shareholders, suppliers, customers, government, banks, etc.	Reports prepared under management accounting are useful to internal parties like CEO, directors, promoters, and higher-level managers, etc.
Outputs	Financial accounting reports consist of profit and loss statements, balance sheets and cash flow statements.	Management accounting reports are the monthly, weekly, or yearly analysis of products, geographies, functions, etc.
Relevance and Precision of Data	Data of financial accounting are 100% verifiable and precise. Hence, everything has evidence to support it.	Data of management accounting is not necessarily 100% verifiable. So, the data should be relevant, timely and logical. For instance, nobody can forecast sales perfectly.
Independent Audit	Independent audit of financial accounting reports is mandatory in most countries. For instance, in the USA, CPA conducts such audits and in India, Chartered Accountants (CA)	There is no specific requirement for an independent audit. But, management at its discretion can take the initiative to conduct an independent audit, for the sake of efficient and effective

	conducts such audits.	management.
Confidentiality	Financial accounting statements are publicly published statements and are meant for the public only. So, there is no question of confidentiality.	Management accounting statements are meant for management and confidentiality of the statements is the key concern. It is because they contain business secrets.
Segment Reporting	It is concerned with the whole business and it is an end in itself. Thus, Some accounting standards in some countries bind the companies to do segment reporting in defined formats.	On the other hand, it is concerned with a specific area or segment for their analysis. Hence, segments may be a product line, geography, manufacturing unit, etc.
Perspective	It has a historical perspective.	It has a futuristic perspective.
Nature of Information Input	Information required for financial accounting statements is financial in nature.	Both, financial and non-financial information is utilized in the preparation of management accounting reports.

WHAT IS COST ACCOUNTING?

Cost Accounting is a branch of accounting that deals explicitly with the costs which have been incurred through the course of a production. The information generated through cost accounting is used to keep track and adjust the operations effectively to maximise both profit and their efficiency.

For instance, with the help of cost accounting firm owners identify and record allocation of resources and determine the cost involved with each level of production of goods and dissemination of services.

Therefore, it can be said that cost accounting enables business owners to analyse and classify expenditure of a specific production unit. It also helps to determine the input cost required to appoint labour and purchase raw materials at each level. In turn, it allows firm owners to control and lower unwarranted expenses significantly.

Check Your Progress: Name three expenses that would be recorded and accounted for in cost accounting.

OBJECTIVES OF COST ACCOUNTING

These are among the significant objectives of cost accounting –

Determination of the cost per unit of goods that have been produced by the firm.

Accurate reporting of both operational and processing cost.

Formulating a report on cost-utility and recommendations to maximise profit on production.

Formulating data and guidelines to determine the accurate cost of manufacturing goods and rendering services.

Next, let's move on to the perks that accompany cost accounting.

Benefits of Cost Accounting

These following pointers offer an overview of the perks accompanying cost of accounting

- a. Cost objects analysis.
- b. Analysing trends to identify and lower associated expenses.
- c. Cost determination.
- d. Analysis of expansion capacity.

To move on to the next step of cost accounting vs financial accounting, let's learn about the aspects of financial accounting in brief.

DEFINITION OF ACCOUNTING:

The *American Institute of certified public accountants (AICPA)* defines accounting as “the art of recording, classifying and summarizing in a significant manner and in terms of money transactions and events which are in part at least of a financial character and interpreting the results thereof”.

Users of Accounting Information - Internal & External

Accounting information helps users to make better financial decisions. Users of financial information may be both internal and external to the organization. Internal users (Primary Users) of accounting information include the following:

Management: for analyzing the organization's performance and position and taking appropriate measures to improve the company results.

Employees: for assessing company's profitability and its consequence on their future remuneration and job security.

Owners: for analyzing the viability and profitability of their investment and determining any future course of action.

Accounting information is presented to internal users usually in the form of management accounts, budgets, forecasts and financial statements.

External users (Secondary Users) of accounting information include the following:

Creditors: for determining the credit worthiness of the organization. Terms of credit are set by creditors according to the assessment of their customers' financial health. Creditors include suppliers as well as lenders of finance such as banks.

Tax Authorities': for determining the credibility of the tax returns filed on behalf of the company.

Investors: for analyzing the feasibility of investing in the company. Investors want to make sure they can earn a reasonable return on their investment before they commit any financial resources to the company.

Customers: for assessing the financial position of its suppliers which is necessary for them to maintain a stable source of supply in the long term.

Regulatory Authorities: for ensuring that the company's disclosure of accounting information is in accordance with the rules and regulations set in order to protect the interests of the stakeholders who rely on such information in forming their decisions.

External users are communicated accounting information usually in the form of financial statements. The purpose of financial statements is to cater for the needs of such diverse users of accounting information in order to assist them in making sound financial decisions.

Accountancy encompasses the recording, classification, and summarizing of transactions and events in a manner that helps its users to assess the financial performance and position of the entity. The process starts by first identifying transactions and events that affect the financial position and performance of the company. Once transactions and events are identified, they are recorded, classified and summarized in a manner that helps the user of accounting information in determining the nature and effect of such transactions and events.

Accounting is a very dynamic profession which is constantly adapting itself to varying needs of its users. Over the past few decades, accountancy has branched out into different types of accounting to cater for the different needs of the users.

LIMITATIONS OF FINANCIAL ACCOUNTING

1. Only transactions which can be measured in terms of money can be recorded in the books of accounts. However events which may be important to the business do not find a place in the accounts if they cannot be measured in terms of money.
2. According to the cost concept assets are recorded at the cost at which they are acquired and therefore, the changes in values of assets brought about by changing value of money and market factors are ignored.
3. There is conflict between one accounting principle and another. For example, current assets are valued on the basis of cost or market price whichever less according to the principle of conservatism is. Therefore in one year cost basis may be taken, whereas in another year market price may be taken. This principle contravenes the principle of consistency.
4. The balance sheet is largely the result of the personal judgment of the accountant with regard to the adoption of accounting policies and as such objectivity factor is lost.
5. Financial accounting can be understood only by persons who have accounting knowledge.
6. Inter firm comparison and comparative study of two periods is not possible under this system as required past information cannot be made available.
7. Financial accounting does not indicate the cost behaviour, therefore cost control cannot be adopted.

COST ACCOUNTING

DEFINITION: According to the *Institute of Cost and Works Accountants (ICWA)*, London, Cost accounting is “the process of accounting for costs from the point at which expenditure is incurred or

committed to the establishment of its ultimate relationship with cost centers and cost units. In its widest usage it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of the profitability of activities carried out or planned.”

OBJECTIVES OF COST ACCOUNTING:

1. To aid in the development of long range plans by providing cost data that acts as a basis for projecting data for planning.
2. To ensure efficient cost control by communicating essential data costs at regular intervals and thus minimize the cost of manufacturing.
3. Determine cost of products or activities, which is useful in the determination of selling price or quotation.
4. To identify profitability of each product, process, department etc of the business
5. To provide management with information in connection with various operational problems by comparing the actual cost with standard cost, this reveals the discrepancies or variances.

LIMITATIONS OF COST ACCOUNTING

Cost Accounting like other branches of accountancy is not an exact science but is an art which was developed through theories and accounting practices based on reasoning and commonsense. These practices are dynamic. Hence, it lacks a uniform procedure applicable to all the industries across. It has to be customized for each industry, company etc.

MANAGEMENT ACCOUNTING

DEFINITION: According to M.A.Sahaf, Management Accounting is “a system for gathering, summarizing, reporting and interpreting accounting data and other financial information primarily for the internal needs of the management. It is designed to assist internal management in the efficient formulation, execution and appraisal of business plans.”

Management Accounting covers not only the use of financial data and a part of costing theory but extends beyond these aspects. It **scope** covers

1. Financial accounting
2. Cost accounting
3. Financial statement analysis
4. Budgeting
5. Inflation accounting
6. Management reporting
7. Quantitative techniques
8. Tax accounting
9. Internal audit
10. Office services

FUNCTIONS OF MANAGEMENT ACCOUNTING:

1. To help the management in planning, forecasting and policy formulation
2. To help in analysis and interpretation of financial information
3. To help in decision making- long term as well as short term
4. To help in controlling and coordinating the business operations
5. To communicate and report the operational results to the share and stock holders of the business.

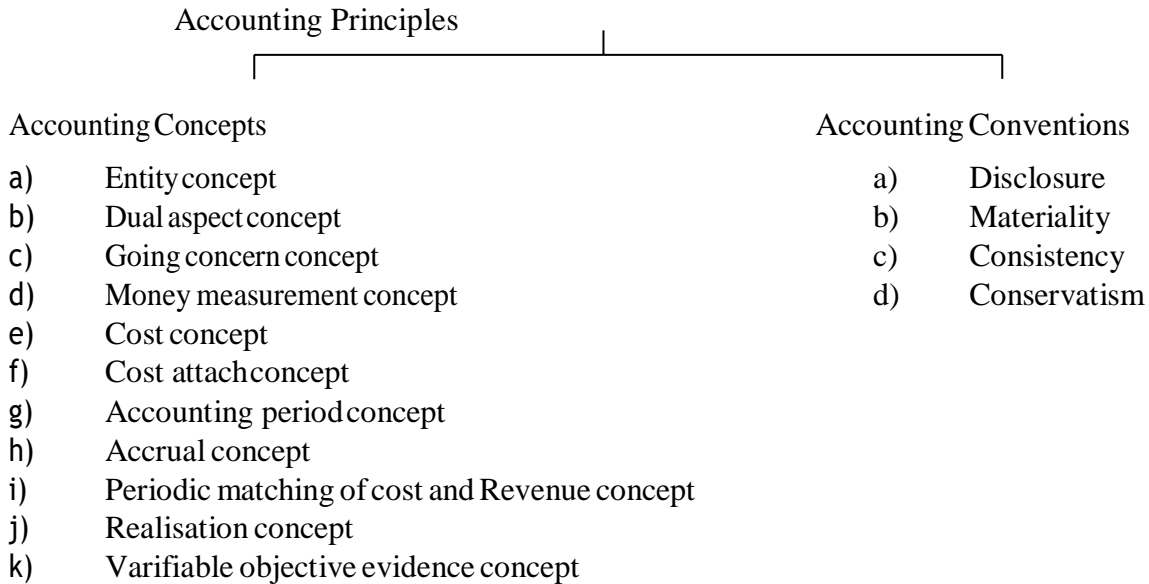
6. To motivate the employees by encouraging them to look forward
7. To help the management in tax administration

DIFFERENCE BETWEEN COST ACCOUNTING AND FINANCIAL ACCOUNTING

Basis for Comparison	Cost Accounting	Financial Accounting
Meaning	Cost Accounting is an accounting system, through which an organization keeps the track of various costs incurred in the business in production activities.	Financial Accounting is an accounting system that captures the records of financial information about the business to show the correct financial position of the company at a particular date.
Information type	Records the information related to material, labor and overhead, which are used in the production process.	Records the information which are in monetary terms.
Which type of cost is used for recording?	Both historical and pre-determined cost	Only historical cost.
Users	Information provided by the cost accounting is used only by the internal management of the organization like employees, directors, managers, supervisors etc.	Users of information provided by the financial accounting are internal and external parties like creditors, shareholders, customers etc.
Valuation of Stock	At cost	Cost or Net Realizable Value, whichever is less.
Mandatory	No, except for manufacturing firms it is mandatory.	Yes for all firms.
Time of Reporting	Details provided by cost accounting are frequently prepared and reported to the management.	Financial statements are reported at the end of the accounting period, which is normally 1 year.
Profit Analysis	Generally, the profit is analyzed for a particular product, job, batch or process.	Income, expenditure and profit are analyzed together for a particular period of the whole entity.
Purpose	Reducing and controlling costs.	Keeping complete record of the financial transactions.
Forecasting	Forecasting is possible through budgeting techniques.	Forecasting is not at all possible.

CONCEPTS&CONVENTIONSINACCOUNTING

Accounting provides financial information about a business organisation. For this information to be prepared on uniform basis entire accounting is based on certain principles which are listed below:



ACCOUNTING CONCEPTS/ GAAP/ ACCOUNTING STANDARD

Concepts represent abstract ideas which serve to systematize function. It is an opinion formulated over the years based on experience. Following are the accounting concepts:-

1] ENTITY CONCEPT:

For accounting purposes the "business" is treated as a separate entity from the proprietor (s). This concept helps in keeping private affairs of the proprietor away from the business affairs. Thus a proprietor invests ` 1,00,000/ in the business, it is deemed that the proprietor has given ` 1,00,000 to the "business" and it is shown as a "liability" in the books of the business. (because business has to ultimately repay to the proprietor). Similarly, if the proprietor withdraws ` 10,000/ from the business it is charged to him.

Accounting entity concept enables to record transactions between business and the proprietor. It ensures that accounting records reflect only the activities of the business. It separates business transactions from personal transactions of the proprietor.

This concept is applicable to all forms of business organisations. Although in the eyes of law a sole trader & his business or the partners & their business are one & the same, for accounting purposes they are regarded as separate entities. It is the "business" with which we are concerned.

2] DUAL ASPECT CONCEPT :-

As per this concept, every business transaction has a dual effect. According to Dual Aspect Concept, every transaction has two aspects:-

- 1) It increases one asset and decreases another asset.
- 2) It increases an asset and simultaneously increases liability.

- 3) It decreases an asset and increases another asset.
- 4) It decreases an asset and decreases a liability.
- 5) It increases one liability and decreases another liability.
- 6) It increases a liability and increases an asset.
- 7) It decreases liability and increases other liability.
- 8) It decreases a liability and decreases an asset.

Example: If goods are purchased on cash basis for ` 1,00,000 stock of goods is increased and balance of cash is decreased.

3] GOING CONCERN CONCEPT (CONTINUITY OF ACTIVITY) :

Enterprise is normally viewed as a going concern that is continuing in operation for the foreseeable future. It is assumed that the enterprise has neither the intention nor the necessity of liquidation of curtailing materially the scale of the operation. It is assumed that the business concern will continue for a fairly long time, unless & until it has entered into a state of liquidation. It does not imply permanent existence but simply stability & continuity for a period sufficient to carry business plans. It implies that assets are acquired for utilisation & not for sale. Similarly, depreciation on assets is provided on the basis of expected lives of the assets rather than on their market values.

4] MONEY MEASUREMENT CONCEPT :-

In accounting, everything is recorded in terms of money. Events or transactions which cannot be expressed in terms of money are not recorded in the books of accounts, even if they are very important or useful for the business. Purchase and sale of goods, payment for expenses and receipt of income are monetary transactions which find place in accounting. Death of an executive, resignation of a manager, integrity of persons are the events which cannot be expressed in money. These are not included in accountings systems.

Transactions which affect business materially but not convertible in money cannot be recorded in the books of accounts. To assess financial health of business it is necessary to decide total value of assets & liabilities. e.g. A business concern has a big building constructed on a plot of 1000 sq. ft., furniture consisting of 20 chairs, 10 tables and 10 Godrej cupboards, amount to be received from the customers for 5000 units sold on credit, amount payable to supplier for 300 units purchased. From the above details it is very difficult to assess financial health unless the above items are expressed in terms of money. It is clear that nonmonetary events cannot be recorded in the books of accounts. The transactions, events or assets which are expressed in terms of equivalent monetary value are recorded in the books of accounts.

5] COST CONCEPT (OBJECTIVITY CONCEPT):

This concept does not recognise the realisable value, the replacement value of the real worth of an asset. Thus as per cost concept :- An asset is ordinarily recorded at the price paid to acquire it i.e. at its cost, and this cost is the basis for all subsequent accounting for the assets. The cost concept does not mean that the asset will always be shown at cost. It only means that the cost becomes the basis for all subsequent accounting for the asset. Thus the asset recorded at cost at the time of purchase may systematically be reduced by the process of depreciation. The cost concept also implies that if nothing has been paid to acquire an asset, it cannot be shown as an asset in the books of accounts.

6] COST-ATTACH CONCEPT:-

This concept is also known as “cost merge” concept. When a finished good is produced from the raw material there are certain process and costs which are involved like labor cost, power and other overhead expenses. These costs have a capacity to “merge” or “attach” when they are brought together.

7] ACCOUNTING PERIOD CONCEPT:

An accounting period is the interval of time at the end of which the income statement and financial position statement (balance sheet) are prepared to know the results and resources of the business.

8] ACCOUNTING PERIOD CONCEPT:-

An accounting period is the interval of time at the end of which the income statement and financial position statement (balance sheet) are prepared to know the results and resources of the business.

9] ACCRUAL CONCEPT:-

It implies recording of revenues & expenses of a particular accounting period, whether they are received/ paid in cash or not. Under cash system of accounting, the revenues & expenses are recorded only if they are actually received/ paid in cash irrespective of the accounting period to which they belong. But under accrual method, the revenues & expenses relating to that particular accounting period only are considered. The Accountant records revenues as they are earned and expenses as they are incurred.

10] PERIODIC MATCHING OF COST AND REVENUE CONCEPT:

This concept is based on the period concept. Making profit is the most important objective that keeps the proprietor engaged in business activities. That is why most of the accountant's time is spent in evolving techniques for measuring the profit/profitability of the concern. To ascertain the profit made during a period, it is necessary to match "revenues" of the period with the "expenses" of that period. Income (profit) earned by the business during a period is

11] REVENUE RECOGNITION (REALISATION CONCEPT) :

According to this concept profit should be accounted for only when it is actually realised. Revenue is recognised only when sale is affected or the services are rendered. Sale is considered to be made when the property in goods passes to the buyer and he is legally liable to pay. However, in order to recognise revenue, receipt of cash is not essential. Even credit sales result in realisation, as it creates a definite asset called debtor. Similarly income like commission, interest, rent etc. are shown in Profit & Loss Account on accrual basis though they may not be realised in cash on the date of preparing accounts.

12] VERIFIABLE OBJECTIVE EVIDENCE CONCEPT:-

According to this concept all accounting transactions should be evidenced and supported by objective documents. These documents include invoices, contract, correspondence, vouchers, bills, passbooks, cheque etc.

compared with the expenditure incurred to earn the revenue.

ACCOUNTING CONVENTIONS

Conventions are the customs or traditions guiding the preparation of accounting statements. They are adapted to make financial statements clear and meaningful. They represent usage or methods generally accepted and customarily used. These exist in cases where there are different alternatives, which are equally logical and some of these are generally accepted having consideration of cost, time, habit or convenience. Following are the accounting conventions: -

1] CONVENTION OF DISCLOSURE :-

This means that the accounts must be honestly prepared and they must disclose all material information. The accounting reports should disclose full and fair information to the proprietors, creditors, investors and others. The term disclosure only implies that there must be a sufficient disclosure of information which is of material interest to proprietors, and potential creditors and investors

2] CONVENTION OF MATERIALITY :-

The accountant should attach importance to material details and ignore insignificant details. If this is not done, accounts will be overburdened with minute details. Therefore, keeping the convention of materiality in view, unimportant items are either left out or merged with other items. Whether the information is material or not depends upon the circumstances of the case & commonsense. The rule to be kept in mind is that if omission of the information impairs the decision or conduct of its user, it should be regarded as material.

However, an item may be material for one purpose but immaterial for another, material for one concern but immaterial for another or material for one year but immaterial for the next year.

3] CONVENTION OF CONSISTENCY

The comparison of one accounting period with the other is possible only when the convention of consistency is followed. It means accounting from one accounting period to another should be on the same basis. If stock is valued at cost or market price whichever is less this principle should be followed every year. Any change from one method to another would lead to inconsistency. However consistency does not mean non-flexibility. It should permit introduction of improved techniques of accounting.

4] CONVENTION OF CONSERVATISM :-

As per this convention all prospective losses are taken into consideration but not all prospective profits. In other words anticipate no profit but provide for all possible losses. This convention is being criticised on the ground that it goes not only against convention of full disclosure but also against the concept of matching cost & revenues. It encourages creation of secret reserves by making excess provision for depreciation, bad and doubtful debts etc. The income statement shows a lower net income & the balance sheet overstates the liabilities & understates the assets.

Following are the examples of application of conservatism :-

- 1) Making provision for doubtful debts and discount on debtor
- 2) Not providing for discount on creditor
- 3) Valuing stock in trade at cost or market price whichever is less.
- 4) Creating provisions against fluctuations in the price of investments.
- 5) Showing joint life policy at surrender value and not at the paid up amount.
- 6) Amortization of intangible assets like goodwill which has indefinite life.

ACCOUNTING CYCLE

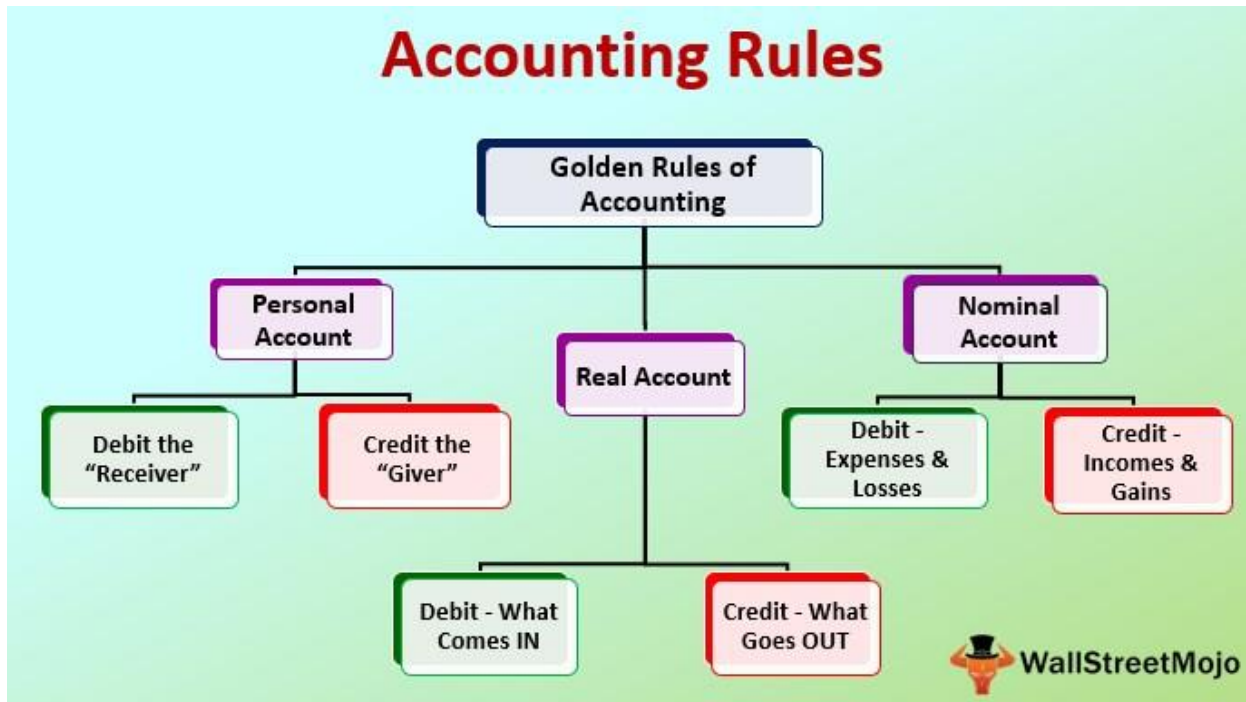
- For any transaction in the company, there are multiple effects on the books and it has to follow a certain procedure which is known as Accounting Cycle, from the definitive purpose it is divided into 8 steps as shown below:



- **Transaction:** This is the stage which triggers the whole accounting process, any financial transaction happens in the company must be recorded in the books. Without financial transactions what will the company keep track of, transactions can vary and it might have various kinds like debt payoff, asset purchase, a loan taken, acquisition of any company, and so on. Also, a very crucial thing is to identify the type of transaction or it to be recorded accurately in the books.
- **Journal Entries:** While the transactions are set in motion there are journal entries to be passed to record every transaction in the right books. The entries should be passed in a systematic and chronological manner, where all debits and credits should eventually match. Commonly known as double entry bookkeeping, where every transaction has two entries which helps to manage and develop a balance sheet, income statement, and cash flow.
- **Posting to General Ledger:** Now is the time to record these journal entries into the ledger where a summary of all the transactions to the real, individual, or nominal account can be easily seen and analyzed. In short, the General ledger provides a breakdown on all the recorded accounting activities step by step account wise. A general ledger helps the bookkeeper to analyze the financial positions of the company account wise and keep a track of the liquidity through the cash account.
- **Trial Balance:** Trial balance is prepared at the end of the accounting period, which can be quarterly, monthly, or annually. It calculates the total balance of all the accounts and shows the unadjusted balances in every account.
- **Worksheet:** With the unadjusted entries in the trial balance, the debits and credits are bound to mismatch, so in this stage, the accountant has to make adjustments that are tracked on the worksheet.
- **Adjusting Entries:** Towards the end of accounting period adjusting entries must be posted in the respective accounts for accruals or deferrals and are posted as journal entries where necessary.
- **Financial**
- **Statements:** Now finally, with all the data and recording we have it will be easier to prepare a balance sheet, income statement, and cash flow statement using the balances from the entries.
- **Closing:** Eventually, the company closes the books of accounts at a specified closing date, where revenues and expenses are closed for the upcoming accounting cycle. Only income statements accounts are closed as the income statements reflect the performance during a specific period, unlike the balance sheet.

Difference between the Accounting Cycle and Budget Cycle

- The accounting cycle is used to record the business transaction in the accounting books whereas the budget cycle maintains the cost of the inventory and other related expenses, and constantly compares if the incurred costs are in line with the proposed budget.
- The focus of the accounting cycle is to maintain the books of accounts for accurate recording of transactions and the purpose of the budget cycle depends on the analysis done from the financial statements.



Example

Ram draw rs **10000 CASH**

RAM P A/C Dr	CASH R A/C CR
--------------------	---------------------

PURCHASE **FURNITURE RS 20000**

FURNITURE R A/C DR	CASH R A/C CR
--------------------------	---------------------

RENT RECEIVED Rs 10000

Salary paid Rs 15000

SOLD GOOD Rs 50000

Purchased goods Rs 3000

Purchased **stationary Rs 2000**

RENT N A/C CR.	CASH R A/C DR
SALARY N A/C Dr.	CASH R A/C Cr.

JOURNAL ENTRIES

Particulars		Dr.	Cr.
RAM	A/C.	10000	
Dr.			10000
TO CASH A/C			
		20000	
FURNITURE	A/C		20000
Dr.			
TO CASH A/C		10000	
			10000
CASH	A/C		
Dr.		15000	
TO RENT A/C			15000
SLARY	A/C	50000	
Dr.			50000
TO CASH A/C			
		30000	
Cash	A/C		30000
Dr.			
To sales a/c		2000	
			2000
Purchase	A/C		
Dr.			
To cash A/c			
Stationary	A/C		
Dr.			
To cash A/c			

What is a Journal?

A journal is a subsidiary book of account that records monetary transactions according to accounting standards. These transactions get recorded in chronological order, and it gives details about the accounts that are affected by each transaction. It is known as the first step of the accounting process.

What are its features?

The features of a journal are as follows:

- **Chronology:** The journal entries get recorded in a date-wise order, and it helps in checking the transactions much more quickly.
- **Double Entry System:** Journal entries follow a system where every transaction is entered both on the debit and credit sides. It is an example of a dual entry system. One account gets debited and the other gets credited with the same value.
- **Daybook:** A journal records transactions on a day-to-day basis for consistency and ease.
- **Compound Entry:** A single entry can have two or more accounts on the same day, and a journal can also have more than one related transaction.
- **Explanation:** Each transaction includes a short description known as the narration (within brackets). It helps to explain the nature and purpose of the transaction.

What is a Ledger?

A Ledger is a principal book of account, and its primary purpose is to transfer transactions from a journal and then classify it into separate accounts. Ledger is also known as the book of final entry as it helps businesses prepare accounting statements like the Trial Balance.

What are its features?

The features of a ledger are as follows:

- **Two Sides:** Every Ledger has two sides – Debit and Credit. The debit entries come on the left side of a ledger, while the credit entries come on the right side.
- **Transaction:** Every transaction impacts two or more ledger accounts, and it is because the transaction is related to a particular person, asset, expense or income.
- **Balancing the ledger:** The total debit and credit sides of a ledger must always be the same. But that is not always the case since the debit side could be more than the credit side and vice versa. To balance the ledger, we have to record the difference between the two on the deficient side. When the debit side is more than the credit side, the balance gets recorded on the credit side, known as debit balance. Similarly, when the credit side exceeds the debit side, the balance is recorded on the credit side, known as a credit balance.

What are the differences between Journal and Ledger?

The main differences between Journal and Ledger are as given below:

Journal	Ledger
Definition	
Journal is a subsidiary book of account that records transactions.	Ledger is a principal book of account that classifies transactions recorded in a journal.
Order	
The journal transactions get recorded in chronological order on the day of their occurrence.	The ledger classifies the transactions from the journal under the respective accounts to which they are related.
Explanation	
Each journal entry has a detailed narration of the transaction.	The ledger accounts do not have a detailed narration of each transaction.
Result	
The journal does not reveal the total results of a transaction.	The Ledger accounts help reveal the result of transactions for a particular account.
Trial Balance	
The journal cannot help prepare the Trial Balance directly.	The ledger helps to prepare the Trial Balance.
Financial Statements	
The journal does not have a direct role in the preparation of financial statements like Profit and Loss Account or Balance Sheet.	The balances from different ledger accounts help to prepare financial statements like Profit and Loss Account or Balance Sheet.
Opening Balance	
A journal does not have an opening balance, and it is only concerned with the current transactions that occur on a day-to-day basis.	Some ledger accounts have an opening balance, which is the closing balance from the previous year.

JOURNAL, LEDGER & TRAIL BALANCE

Problem 1

Transaction

Purchased goods Rs. 200000

Purchased machinery Rs. 20000

Purchase return goods RS. 10000

Sold goods for 200000

Rent received rs 5000

Rent paid Rs 2000

Sold goods to ramu Rs 500000

Purchased furniture Rs. 20000

Browed loan Rs 200000

JOURNAL ENTRIES

Cash A/c

Particulars	Dr.	Cr.
Purchase Goods A/C	200000	
Dr.		200000
To cash A/C		
(being goods purchased)		
	20000	
Machinery A/c		20000
Dr.		
To cash A/c	10000	
		10000
Cash A/c		
Dr.	200000	
To Purchase return A/c		200000
	5000	
Cash A/c		5000
Dr.		
To Sales A/c		
	2000	
Cash A/c		2000
Dr.		
To rent received A/c	500000	
		500000
Rent A/c		
Dr.	20000	
To cash A/c		20000
	200000	
Cash A/c		200000
Dr.		
To sales A/c		
Furniture A/c		
Dr		
To Cash A/c		
Cash A/c		
Dr.		
To loan A/C		

Purchase A/c

Particulars	Rs.	Particulars	Rs.
To cash A/c	200000	By cash A/c	10000
		By balance c/d	190000
	200000		200000
To purchase return A/c	10000	By purchase goods A/c	200000
To sales A/c	200000	By Machinery A/c	20000
To rent received A/c	5000	By rent A/c	2000
To sales A/c	500000	By furniture A/c	20000
To loan A/c	200000		
		By balance c/d	673000
	915000		915000

Machinery A/c

Particulars	Rs.	Particulars	Rs.
To cash A/c	20000	By balance c/d	20000
	20000		20000

Sales A/c

Particulars	Rs.	Particulars	Rs.
By balance b/d	700000	By cash A/c	200000
		By cash A/c	500000
	700000		700000

Rent Received A/c

Particulars	Rs.	Particulars	Rs.
To balance b/d	5000	By cash A/c	5000
	5000		5000

Rent A/c

Particulars	Rs.	Particulars	Rs.
To cash A/c	2000	By balance c/d	2000
	2000		2000

Furniture A/c

Particulars	Rs.	Particulars	Rs.
To cash A/c	20000	By balance c/d	20000
	20000		20000

Loan A/c

Particulars	Rs.	Particulars	Rs.
To balance b/d	200000	By cash A/c	200000
	200000		200000

TRAIL BALANCE

Particulars	Rs.	Particulars	Rs.
purchase	190000	Sales	700000
cash	673000	Rent received	5000
Machinery	20000	Loan	200000
Rent	2000		
Furniture	20000		
	905000		905000

Final Accounts for Sole Trader

Introduction

So far in this unit you have looked at different adjustment needed before the final accounts can be prepared. The final accounts for a sole trader business are the Income Statement (Trading and Profit & loss Account) and the Balance Sheet. The final accounts give a picture of the financial position of your business. It shows where or not your business has made a profit or loss during the accounting period and whether you are able to pay your debts as they become due. Let's now have a look at the final accounts of a sole trader business.

Final Accounts

After your trial balance is completed your final accounts are prepared. The final accounts of a sole trader business include the Income Statement (trading and Profit & loss account) and the balance sheet. Remember that your trial balance is the summary of the balances in all your accounts. Some of these balances (those from your nominal accounts) affect the profit and are transferred to the Income statement; the others (real and personal accounts) are transferred to your balance sheet. The Income Statement and the Balance Sheet are prepared at the end of each financial period to record how well the business operated during that financial period.

What is a Trading Account?

A trading account helps in determining the gross profit or gross loss of a business concern, made strictly out of trading activities. Trading involves buying and selling activities. In the trading account, the cost of goods sold is subtracted from net sales for the period to calculate gross profit. Only direct revenue and direct expenses are considered in it. Trading account is prepared mainly to know the profitability of the goods bought by the businessman.

Learn about Balance Sheet and Opening Entry here in detail.

The difference between selling price and cost of goods sold is the earning for the businessman, which is also known as gross profit. Whereas, net profit means all revenues minus all expenses including the cost of goods sold, the selling, general and administrative expenses, and the non-operating expenses. Thus in order to calculate the gross earning, it is necessary to know the cost of goods sold and sales figures. Also,
$$\text{Gross Profit} = \text{Sales} - \text{COGS} (\text{Sales} + \text{Closing Stock}) - (\text{Stock in the beginning} + \text{Purchases} + \text{Direct Expenses})$$

Items included on the debit side are opening stock, purchases, and direct expenses and on the credit side are sales and closing stock. The resultant figure is either gross profit or gross loss.

Income Statement

One of the most important financial statements of any business is the Income Statement. It is used to determine the following:

1. how profitable a business is being run;
2. comparing the results received with the results expected.

The Income Statement can be divided into two sections the trading account and the Profit & loss account. The gross profit which is the amount of profit made before the expenses are deducted is calculated in the trading account. The purpose of the trading account is to determine the gross profit made from sales. Therefore the accounts that are directly related to buying and selling (trading) will be transferred to the trading account. The accounts directly related to trading are:

- Sales
- Purchase
- Sales Return
- Purchases Return
- Carriage Inwards

Gross profit is calculated as:

Gross Profit = Net Sales – Cost of Goods Sold (COGS)

Along with gross profit the net sales, cost of goods sold (COGS) and the cost of goods available for sale (COGAFS) is also calculated in the trading account:

Net Sales = Sales – Sales Return (Return Inwards)

Net sales are the total sales figure after allowances have been made for sales returned to the business.

COGS = Cost of goods available for sale (COGAFS) – Closing Stock

COGS = Sales – Gross Profit

The net profit of your business is calculated in the Profit & loss account. Net profit is the balance of profit after allowance is made for revenue and expenses. It is calculated as:

Net Profit = Gross profit + Revenue – expenses

Balance Sheet

The other half of our final accounts is the Balance Sheet. The Balance Sheet is a financial statement showing the book values of the assets, liabilities and capital at the end of the financial period. It shows what the business owes and what it owns. The assets of the business is divided into two categories and recorded as follows

1. **Non-Current Assets** are assets that:

- are expected to be of use in the business for long time;
- are to be used in the business; and
- were not bought only for the purpose of resale.

Non-current assets are recorded in the balance sheet starting with those assets that will in the business the longest down to those that will be kept for a shorter period. Example of non-current assets and the order of record are:

- Land and Buildings.
- Fixtures and Fittings.
- Machinery.
- Motor Vehicles.

2. **Current Assets** are recorded next. These are assets will change within the next twelve months. They are recorded as follows:

- Stock (goods bought for resale)
- Debtors.
- Cash at Bank.

- Cash in Hand.

3. **Non-current Liability** - Sometime referred to as long term liability are those debts that take more than a year to settle. This includes large loans and mortgages.

4. **Current Liability** - are debts that will be settled in one year or less. This includes creditors and small loans.

CONCEPT OF TRIAL BALANCE

Trial balance is an internal report generated by a company's accounting department that lists general ledger accounts as well as its balances. The columns in the trial balance show the credit balance and debit balance amounts.

The figures in these columns are subsequently summed up for showing that the consolidated credit balance is equal to the consolidated debit balance.

Importance of Trial Balance

Trial balance acts as the precursor to the preparation of financial statements as well as assessing the arithmetical accuracy. It is used for the verification of actual amounts from various ledgers. It also leads to the determination of the balances of all ledger accounts, which are eventually used for the financial statements.

It assists in the rectification of errors and makes due adjustments. Such adjustments are relevant only for the particular accounting year. Trial balance also helps in the comparative analysis with a previous year's balances and the current one.

CONCEPT OF BALANCE SHEET

As an external reporting document, the balance sheet forms a part of the financial statement of a company. It is primarily a summary and report on the balances generated out of liabilities, assets and the equity accounts held by stockholders in the general ledger of a company.

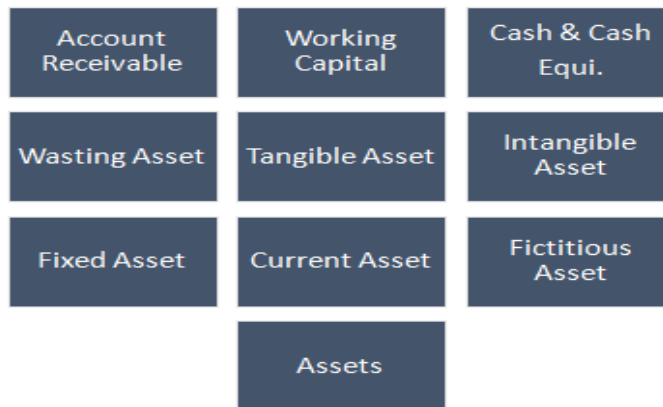
Due to this fact, a balance sheet is also referred to as "Statement of financial position". This financial statement pertains to a particular date which is usually the accounting period's last date.

Importance of Balance Sheet

The importance of balance as a part of a company's financial statement can be understood along with the documents of cash flow and income statements. All of these combined together help in indicating the financial position of the company to the interested parties. It imparts the information about what the company owes and owns.

Such information is particularly crucial for such investors who seek to derive insights on the operations and financial health of a company for considering whether it will be a sound investment option. **BALANCE SHEET**

A balance sheet reflects the financial position of a business for the specific period of time. The balance sheet is prepared by tabulating the assets (fixed assets + current assets) and the liabilities (long term liability + current liability) on a specific date.



Assets

Assets are the economic resources for the businesses. It can be categorized as –

- **Fixed Assets** – Fixed assets are the purchased/constructed assets, used to earn profit not only in current year, but also in next coming years. However, it also depends upon the life and utility of the assets. Fixed assets may be tangible or intangible. Plant & machinery, land & building, furniture, and fixture are the examples of a few Fixed Assets.
- **Current Assets** – The assets, which are easily available to discharge current liabilities of the firm called as Current Assets. Cash at bank, stock, and sundry debtors are the examples of current assets.
- **Fictitious Assets** – Accumulated losses and expenses, which are not actually any virtual assets called as Fictitious Assets. Discount on issue of shares, Profit & Loss account, and capitalized expenditure for time being are the main examples of fictitious assets.
- **Cash & Cash Equivalents** – Cash balance, cash at bank, and securities which are redeemable in next three months are called as Cash & Cash equivalents.
- **Wasting Assets** – The assets, which are reduce or exhausted in value because of their use are called as Wasting Assets. For example, mines, queries, etc.
- **Tangible Assets** – The assets, which can be touched, seen, and have volume such as cash, stock, building, etc. are called as Tangible Assets.
- **Intangible Assets** – The assets, which are valuable in nature, but cannot be seen, touched, and not have any volume such as patents, goodwill, and trademarks are the important examples of intangible assets.
- **Accounts Receivables** – The bills receivables and sundry debtors come under the category of Accounts Receivables.
- **Working Capital** – Difference between the Current Assets and the Current Liabilities are called as Working Capital.

Liability

A liability is the obligation of a business/firm/company arises because of the past transactions/events. Its settlement/repayments is expected to result in an outflow from the resources of respective firm.

There are two major types of Liability –

- **Current Liabilities** – The liabilities which are expected to be liquidated by the end of current year are called as Current Liabilities. For example, taxes, accounts payable, wages, partial payments of long term loans, etc.
- **Long-term Liabilities** – The liabilities which are expected to be liquidated in more than a year are called as Long-term Liabilities. For example, mortgages, long-term loan, long-term bonds, pension obligations, etc.

Grouping of Assets and Liabilities

There may be two types of Marshalling and grouping of the assets and liabilities –

- **In order of Liquidity** – In this case, assets and liabilities are arranged according to their liquidity.
- **In order of Permanence** – In this case, order of the arrangement of assets and liabilities are reversed as followed in order of liquidity.

Financial Statements with Adjustments Entries and their Accounting Treatment

In order to prepare a true and fair financial statement, there are some very important adjustments those have to be done before finalization of the accounts (*as shown in the following illustration*) –

Sr.No.	Adjustments	Accounting Treatments
1	Closing Stock Unsold stock at the end of Financial year called Closing stock and valued at " <i>Cost or market value whichever is less</i> "	First Treatment Where an opening and closing stock adjusted through a purchase account and the value of Closing Stock given in Trial Balance – Closing stock will be shown as adjusted purchase account on the debit side of Trading account and will appear in the Balance Sheet under current Assets.
2	Outstanding Expenses Expenses which are due or not paid called as outstanding expenses.	Accounting Treatment Outstanding expenses will be added in Trading or Profit & Loss account in particular expense account and will appear in liabilities side of the Balance Sheet under the current liabilities.
3	Prepaid Expenses Expenses which are paid in advance are called as Prepaid Expenses.	Accounting Treatment Prepaid Expenses will be deducted from the particular expenses as appear in Trading & Profit & Loss account and will be shown in the Balance Sheet under

		the current assets.
4	<p>Accrued Income</p> <p>The income, which is earned during the year, but not yet received at the end of the Financial Year is called as Accrued Income.</p>	<p>Accounting Treatment</p> <p>Accrued income will be added to a particular income under the Profit & Loss account and will be shown in the Balance Sheet as current assets.</p>
5	<p>Income Received in Advance</p> <p>An income received in advance, but not earned like advance rent etc.</p>	<p>Accounting Treatment</p> <p>An income to be reduced by the amount of advance income in profit & loss account and will appear as current liabilities in the Balance Sheet.</p>
6	<p>Interest on Capital</p> <p>Where an interest paid on the capital introduced by the proprietor or partner of the firm.</p>	<p>Accounting Treatment</p> <ul style="list-style-type: none"> • Debit Side of Profit & Loss account • Add to capital account (Credit side of Capital account).
7	<p>Interest on Drawing</p> <p>Where an interest paid on the capital introduced by the proprietor or partner of the firm.</p>	<p>Accounting Treatment</p> <ul style="list-style-type: none"> • Credit Side of Profit & Loss account • Reduced from capital account (Debit side of Drawing account).
8	<p>Provision for Doubtful Debts</p> <p>If there is any doubt on the recovery from Sundry Debtors.</p>	<p>Accounting Treatment</p> <ul style="list-style-type: none"> • Debit Side of Profit & Loss Account • In a Balance Sheet, provision for the Doubtful will be deducted from the Sundry Debtors' Account.
9	<p>Provision for Discount on Debtors</p> <p>If there is any offer of discount to pay the debtors within certain period.</p>	<p>Accounting Treatment</p> <ul style="list-style-type: none"> • Debit Side of Profit & Loss Account • In a Balance Sheet, provision for the Discount on Debtors will be deducted from the Sundry Debtors Account.
10	<p>Bad Debts</p> <p>Unrecovered debts or irrecoverable debts</p>	<p>Accounting Treatment</p> <ul style="list-style-type: none"> • Debit Side of Profit & Loss Account • In a Balance Sheet, Sundry debtors will be shown after deducting the Bad Debts.
11	<p>Reserve for Discount on Creditors</p>	<p>Accounting Treatment</p>

	<p>If there is any chance to get discount on the payment of sundry creditors within certain period.</p>	<ul style="list-style-type: none"> • Credit Side of Profit & Loss Account • In a Balance Sheet, Sundry Creditors will be shown after deducting the Reserve for Discount.
12	<p>Loss of Stock by fire</p> <p>There may be three conditions in this case</p>	<p>Accounting Treatment</p> <p>1. If Stock is fully insured</p> <ul style="list-style-type: none"> • Credit Side of Trading Account • Assets side of Balance Sheet • (With full value of loss) <p>2. If Stock is partially insured</p> <ul style="list-style-type: none"> • Credit side of Trading Account (With Total value of Loss) • Debit side of Profit & Loss a/c (With value of loss unrecoverable) • Asset Side of Balance Sheet (With value recoverable) <p>3. If Stock is not insured</p> <ul style="list-style-type: none"> • Credit Side of Trading Account • Debit side of Profit & Loss Account
13	<p>Reserve Fund</p>	<p>Accounting Treatment</p> <ul style="list-style-type: none"> • Debit side of Profit & Loss Account • Liabilities side of Balance Sheet
14	<p>Free Sample to Customers</p>	<p>Accounting Treatment</p> <ul style="list-style-type: none"> • Credit side of Trading Account • Debit Side of Profit & Loss Account
15	<p>Managerial Commission</p>	<p>Accounting Treatment</p> <ul style="list-style-type: none"> • Debit side of Profit & Loss Account • Liabilities side of Balance Sheet as commission payable
16	<p>Goods on Sale or Approval Basis</p> <p>If there is any un-approved stock lying with the customers at the end of financial year.</p>	<p>Accounting Treatment</p> <ul style="list-style-type: none"> • Sales AccountDr To Debtors A/c

		<p>(With Sale Price)</p> <ul style="list-style-type: none"> • Stock AccountDr <p>To Trading Account</p> <p>(with cost price)</p>
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Trial Balance vs Balance Sheet

The table below shows how to distinguish between trial balance and balance sheet.

Sl.No	Parameters	Trial Balance	Balance sheet
1.	Meaning	Trial balance is the compilation of the balances in all ledger accounts	Balance sheet is the reporting of the financial condition of a company by way of a financial statement.
2.	Preparation	After all the ledger accounts have been balanced and totalled, trial balance can be prepared	After the compilation of trial balance and the profit and loss account is drawn up, balance sheet can be prepared
3.	Format	There is a columnar format in trial balance with the right column indicating credit balances and debit balances shown in the left column	Balance sheet has both a Report form and Account form. Within Report form, asset, liability and equity accounts are presented in a vertical format. Within Account form, the right side represents liabilities and equities, and assets are indicated in the left side
4.	Balances	Trial balance includes real, personal and nominal account	Balance sheet only includes real and personal account
5.	Purpose	The purpose of trial balance is to ascertain the arithmetical accuracy in the items and expenses recorded and posted	The purpose of balance sheet is to determine a company's financial position on a given date

6.	Inclusion in Financial statement	Trial balance is only a list of accounts, and it is not included in the financial statement	Balance sheet is an integral part of the financial statement
7.	Signature of Auditor	As trial balance is not a part of financial statements, there is no need for the signature of auditor	Balance sheet is one of the important documents in the financial statement. Hence, auditor's signature is mandatory
8.	Usage	Trial balance is intended for internal reporting	Balance sheet is prepared for external reporting
9.	Frequency	Trial balance may be prepared multiple times in the course of an accounting year	Balance sheet is prepared only once at the conclusion of an accounting year
10.	Filing	Trial balance need not to be presented before any entity	Balance sheet has to be presented before the Registrar of Companies if the operating entity is a company

Table 1: Trial balance and balance sheet difference

Trial Balance Example

Let, the following be the trial balance of a consulting company, XYZ.

Account Title	Credit (in Rupees)	Debit (in Rupees)
Cash		7000
Accounts Receivable		3000
Office Equipment		5000
Office Supplies		3000
Common stock	10000	
Consulting revenue	7000	
Accounts Payable	1000	

Bank loan	5000	
Utilities expense		700
Supplies used		1200
Salary expense		2500
Rent expense		600
Total	Rs.23000	Rs.23000

Table 2: Trial balance of XYZ

Table 2 shows that the credit equals the debit. However, the figures in the trial balance do not indicate accuracy, and it is entirely possible that an item or transaction may have been missed or a wrong expense account has been entered.

Balance Sheet Example

Assets	(in Rupees)	(in Rupees)
Office Equipment		5000
Office Supplies		3000
Accounts Receivable		3000
Cash		7000
Total Assets		Rs.18000
Liabilities		
Accounts Payable	1000	
Bank Loan	5000	
		Rs.6000
Equity		
Common Stock	10000	
Net Income	2000	
		Rs.12000
Total Liabilities and Equity		Rs.18000

1. What is a Balance Sheet? A balance sheet is essentially a financial statement indicating a company's liabilities, assets as well as equities held by shareholders within a specific duration. Balance sheet acts as the basis for computation of the rate of return and the evaluation of its capital structure.

2. What is Trial Balance? Trial balance is primarily an accounting report that helps in balancing the general ledger accounts of a company. In a trial balance report, it can be seen that one column includes credit amounts, and the other, debit amounts. It has to be noted that the aggregate of these two columns should have to be necessarily identical.

FINAL ACCOUNTS STATEMENT

TRADING A/C

Particular	Amount	Particulars	Amount
	Rs.		Rs.
To Opening Stock		By Sales	
To Purchases		<i>Less:</i> Sales Returns	
<i>Less:</i> Purchase Returns		or Returns inwards	
or Returns outward		By Gross loss	
To Wages		(if any) transferred to	
To Wages & Salaries		Profit and Loss A/c	
To Direct Expenses		(Balancing Figure)	
To Carriage inwards, (purchase)			
To Gas, Fuel, Lighting and Power			
To Freight, octroi and cartage			
To Manufacturing Expense (or) Productive Expenses			
To Factory Expenses, such as:			
Factory Lighting			
Factory Rent etc.			
To Dock Charges and Clearing charges			
To Import Duty or Custom duty			
To Royalty			
To Gross Profit			
Transferred to P & L A/c			
(Balancing Figures)			

PROFIT AND LOSS A/C
(for the year ending.....)

Particular	Amount	Particulars	Amount
	Rs.		Rs.
To Gross Loss b/d (if any) (Transferred from Trading A/c)		By Gross Profit b/d (Transferred from Trading A/c)	
Office Expenses:		By Rent from Tenant	
To Salaries		By Rent (Cr.)	
To Salaries & Wages		By Discount received or discount (Cr.)	
To Rent, Rates & Taxes		By Commission Received	
To Printing & Stationery		By Interest on Investments	
To Postage & Telegram		By Dividend on Shares	
To Insurance Premium		By Bad-Debts Recovered	
To Telephone Charges		By apprentice Premium*	
To Legal Charges		By Profit on sale of Assets	
To Audit Fees		By Income from other Sources	
To Travelling Expenses		By Miscellaneous Receipts	
To Establishment Expenses		By Net Loss (if any)	
To Trade Expenses		Transferred to Capital A/c	
To General Expenses			
To apprentice salary			
Selling and Distribution Expenses:			
To Carriage Outwards, or Carriage on Sales			
To Advertisement			
To Commission			
To Brokerage			
To Bad-debts			
To Export Duty			

Packing charges
 To Delivery Van Expenses
 To Stable Expenses
Miscellaneous Expenses:
 To Discount
 To Repairs
 To Depreciation
 To Interest (Dr.)
 To Bank Charges
 To Entertainment Expenses
 To Conveyance Expenses
 To Donation and Charity
 To Loss on Sale of Assets
 To Income Tax
 To Life Insurance Premium
 To Net Profit:
 Transferred to Capital A/c

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BALANCE SHEET

as on or as at.....

Particular	Amount	Particulars	Amount
	Rs.		Rs.
Capital: xxxxxx		Fixed Assets:	
<i>Add:</i> Net Profit xxx		Furniture	xxxxxxx
<i>Less:</i> Drawings xxx		Loose Tools	Xxxxxxx
Less : Net Loss xxx	xxxxxxxxx	Motor Vehicle	Xxxxxxx
Preference share capital	xxxxxxxxx	Long Term Investments	Xxxxxxx
Reserve and surplus	xxxxxxxxx	Plant and Machinery	Xxxxxxx
Secured securities :	xxxxxxx	Land and Buildings	Xxxxxxx
Debenture	xxxxxxx	House hold premises	Xxxxxxx
Bond	xxxxxxx	Free hold premises	Xxxxxxx
Long term loan	xxxxxxx	Patents	Xxxxxxx
Mortgage	xxxxxxx	Goodwill	Xxxxxxx

Pledge		Copy right	xxxxxxx
Current Liabilities:	xxxxxxx	Current Assets:	
Bank Overdraft	xxxxxxx	Cash in Hand	Xxxxxxx
Bill Payable	xxxxxxx	Cash at Bank	Xxxxxxx
Sundry Creditors		Bills Receivable	Xxxxxxx
Contingent liabilities	xxxxxxx	Short Term Investments	Xxxxxxx
Outstanding Expenses	xxxxxxx	Sundry Debtors	Xxxxxxx
Unearned Income		Closing Stock	Xxxxxxx
		Contingent Assets	
		Prepaid Expenses	Xxxxxxx
		Accrued Income	xxxxxxx

Problem. 1

Let's now prepare the final accounts from the trial balance on the below

Trial Balance as at 31 December 2011		
	Dr.	Cr.
	\$	\$
Discount Allowed	410	
Discount Received		506
Carriage Inwards	309	
Carriage Outwards	218	
Return Inwards	1,384	
Return Outwards		810
Sales		120,320
Purchases	84,290	
Stock 31 December 2010	30,816	
Motor expenses	4,917	
Repairs to premises	1,383	
Pay	16,184	
Sundry expenses	807	
Rates and insurance	2,896	
Premises at cost	40,000	
Motor Vehicle at cost	11,160	
Provision for depreciation motors as at 31 December 2010		3,860
Debtors	31,640	

Creditors		24,320
Cash at bank	4,956	
Cash in hand	48	
Drawings	8,736	
Capital		50,994
Loan from P. Holland		40,000
Bad Debts	1,314	
Provision for bad debts as at 31 December 2010		658
	241,468	241,468

The following should be considered on 31 December 2011

- 1) Stock \$36,420
- a) Expenses owing
- b) Sundry expenses \$62
- 2) Motor expenses \$33
- 3) prepayments
 - a) Rates \$166
- 4) Provision for bad debts to be reduced to \$580
- 5) Depreciation for motors to be \$2,100 for the year
- 6) Part of the premises were let to a tenant who owed \$250 at 31 December 2011
- 7) Loan interest owing to P. Holland, \$4,000

Prepare the Income Statement and Balance Sheet as at 31 December 2011.

Trading and Profit and loss statement for the year ended 31 December 2011					
	\$	\$		\$	\$
Opening Stock		30,816	Sales	120,320	
Add Purchases	84,290		Less Sales Returns	1,384	118,936
Less Purchases Return	810	83,480			
Add Carriage Inwards		309			
COGAFS		114,605			
Less Closing Stock		36,420			
COGS		78,185			
Gross Profit c/d		40,751			
		118,936			118,936
Less Expenses			Gross Profit b/d		40,751
Motor Expenses	4,917		Add Revenue		
Add Motor expenses owing	33	4,950	Discount Received	506	
Pay		16,184	Rent Receivable	250	
Carriage Outwards		218	Reduction in Provision for Bad Debts	78	834
Discount Allowed		410			41,585
Repairs to Premises		1,383			
Sundry Expenses	807				

Add sundry expenses owing	62	869			
Bad Debts		1,314			
Rates and Insurance	2,896				
Less prepaid rates and insurance	166	2,730			
Loan Interest		4,000			
Depreciation: Motor		2,100			
Net Profit		7,427			
		41,585			41,585

MDAR Retailer Balance Sheet as at 31 December 2011						
Non-Current Assets	\$	\$	\$	Capital	\$	\$
Premises at cost			40,000	Balance as at 1 Jan 2011		50,994
Motor Vehicle at cost		11,160		Add Net Profit		7,427
Less Depreciation to date		5,960	5,200			58,421
			45,200	Less Drawings		8,736
Current Assets						49,685
Stock		36,420		Non-Current Liability		
Debtors	31,640			Loan from P. Holland		40,000
Less Provision for Bad Debts	580	31,060				89,685
Prepaid Expense		166				
Revenue owing		250		Current Liabilities		
Cash at bank		4,956		Creditors	24,320	
Cash in hand		48	72,900	Expenses owing	4,095	28,415
			118,100			118,100

UNIT II

CLASSIFICATION RATIO ANALYSIS

There are actually two ways in which financial ratios can be classified. There is the classical approach, where ratios are classified on the basis of the accounting statement from where they are obtained. The other is a more functional classification, based on the uses of the ratios and the purpose for which they are calculated.

I TRADITIONAL CLASSIFICATION

Traditional Classification has three types of ratios, namely

- i. Profit and Loss Ratios
- ii. Balance Sheet Ratios
- iii. Composite Ratios

1] Profit and Loss Ratios

When both figures are derived from the statement of Profit and Loss A/c we will call it a Profit and Loss Ratio. It can also be known as Income Statement Ratio or Revenue Statement Ratio. One such example is the Gross Profit ratio, which is the ratio of Gross Profit to Sales or Revenue. As you will notice, both these amounts will be derived from the Profit and Loss A/c. Other examples include Operating ratio, Net Profit ratio, Stock Turnover Ratio etc.

2] Balance Sheet Ratios

Just as above, if both the variables are obtained from the balance sheets, it is known as a balance sheet ratio. When such a ratio expresses the relation between two accounts of the balance sheet, we also call them financial ratios (other than accounting ratios).

Take for example Current ratio that compares current assets to current liabilities, both derived from the balance sheet. Other examples include Quick Ratio, Capital Gearing Ratio, Debt-Equity ratio etc.

3] Composite Ratios

A composite ratio or combined ratio compares two variables from two different accounts. One is taken from the Profit and Loss A/c and the other from the Balance Sheet. For example the ratio of Return on Capital Employed. The profit (return) figure will be obtained from the Income Statement and the Capital Employed is seen in the Balance Sheet. A few other examples are Debtors Turnover Ratio, Creditors Turnover ratio, Earnings Per Share etc.

II FUNCTIONAL RATIO ANALYSIS

Financial ratios help a company's owner or its current and potential investors better understand the overall health of the company as well as its condition in various specific financial performance categories. In addition, tracking financial ratios over a period of time, against other companies and against the company's industry as a whole offer a powerful way to identify trends in their early stages.

Lenders and business analysts often use ratios to determine a company's financial stability and standing. Financial ratios are time sensitive, however; they can only show a picture of a business at a given point in time. The best way to use financial ratios is to conduct ratio analysis on a consistent basis.

Commonly-used financial ratios can be divided into the following five categories.

Liquidity or Solvency Ratios

The liquidity or solvency ratios focus on a firm's ability to pay its short-term debt obligations. As such, they focus on the firm's current assets and current liabilities on the balance sheet.

The most common liquidity ratios are the current ratio, the quick ratio, and the burn rate (interval measure). The quick ratio, as the name implies, determines how much money is available in the nearest term to pay current liabilities.

The current ratio is a similar, but less stringent liquidity evaluation ratio. Burn rate measures how long a business can continue when current expenses exceed current income. It's a common measure used in evaluating start-ups, which almost always lose money as they begin to do business. Burn rate answers the important question: how long at the current rate is the company going to be able to keep its doors open.

Financial Leverage or Debt Ratios

The financial leverage or debt ratios focus on a firm's ability to meet its long-term debt obligations. It looks at the firm's long-term liabilities on the balance sheet such as bonds.

1. The most common financial leverage ratios are the total debt ratios, the debt/equity ratio, the long-term debt ratio, the times interest earned ratio, the fixed charge coverage ratio, and the cash coverage ratio.

Although all slightly different, these financial leverage ratios all tell you about different aspects of the company's overall financial health and, in most instances, quantify shareholder equity.

$$\text{i) Earnings price ratio} = \frac{\text{EPS}}{\text{MP}}$$

$$\text{ii) Price - earnings ratio} = \frac{\text{MP}}{\text{EPS}}$$

$$\text{iii) Dividend - yield ratio} = \frac{\text{DPS}}{\text{MP}}$$

$$\text{iv) Pay - out ratio} = \frac{\text{DPS}}{\text{EPS}}$$

$$\text{EPS} = \frac{\text{Net profit after preferred dividend}}{\text{No. of outstanding ordinary shares}}$$

$$\text{DPS} = \frac{\text{Dividends for ordinary shares}}{\text{No. of outstanding ordinary shares}}$$

$$\text{MP} = \text{Market price per share}$$

Asset Efficiency or Turnover Ratios

The asset efficiency or turnover ratios measure the efficiency with which the firm uses its assets to produce sales. As a result, it focuses on both the income statement (sales) and the balance sheet (assets).

The most common asset efficiency ratios are the inventory turnover ratio, the receivables turnover ratio, the days' sales in inventory ratio, the days' sales in receivables ratio, the net working capital ratio, the fixed asset turnover ratio, and the total asset turnover ratio.

Asset efficiency ratios are particularly valuable in describing the business from a dynamic viewpoint. Used together, they describe how well the business is being run, telling how fast the company's products are selling, how long customers take to pay and how much capital is tied up in inventory.

Profitability Ratios

The profitability ratios are just what the name implies. They reveal a firm's ability to generate a profit and an adequate return on assets and equity. These ratios measure how efficiently the firm uses its assets, how effectively it manages its operations, and they answer such basic questions as "How profitable is this business?" and "How does it measure up to its competitors?" Common profitability ratios include the gross profit margin, net income margin, return on assets, and return on equity.

i) **Operating ratio =**

$$\frac{\text{Operating expenses (cost of goods sold + Administrative and selling expenses)}}{\text{Net sales}} \times 100$$

ii) **Operating profit to sales =** $\frac{\text{operating profit}}{\text{Net sales}}$

iii) **Net profit to sales =** $\frac{\text{Net profit}}{\text{Net sales}} \times 100$

iv) **Coverage of Earning Before interest and Taxes**

v) **Return on investment =** $\frac{\text{EBIT}}{\text{Capital employed}} \times 100$ (or)
 $= \frac{\text{Net profit after preference dividend}}{\text{Net worth}}$

i) **Assets Turnover =** $\frac{\text{Net sales}}{\text{Net fixed assets + Current asse}}$

ii) **Net Working (Capital turnover) =** $\frac{\text{Net sales}}{\text{Net working capitals}}$

iii) **Receivables turnover (collection period) =** $\frac{\text{Sundry debtors}}{\text{Net sales}} \times 100$

iv) **inventory turnover =** a) $\frac{\text{Sales}}{\text{Ending inventory}}$
 b) $\frac{\text{Cost of Goods sold}}{\text{Average inventory}}$

Market Value Ratios

Market value ratios can be calculated for publicly traded companies only as they relate to stock price. There are many market value ratios, but a few of the most commonly used are price/earnings (P/E), book value to share value and dividend yield.

LIMITATION OF RATIO ANALYSIS

Ratio analysis can be used to compare information taken from the financial statements to gain a general understanding of the results, financial position, and cash flows of a business. This analysis is a useful tool, especially for an outsider such as a credit analyst, lender, or stock analyst. These people need to create a picture of the financial results and position of a business just from its financial statements. However, there are a number of limitations of ratio analysis to be aware of. They are:

- *Historical.* All of the information used in ratio analysis is derived from actual historical results. This does not mean that the same results will carry forward into the future. However, you can use ratio analysis on pro forma information and compare it to historical results for consistency.
- *Historical versus current cost.* The information on the income statement is stated in current costs (or close to it), whereas some elements of the balance sheet may be stated at historical cost (which could vary substantially from current costs). This disparity can result in unusual ratio results.
- *Inflation.* If the rate of inflation has changed in any of the periods under review, this can mean that the numbers are not comparable across periods. For example, if the inflation rate was 100% in one year, sales would appear to have doubled over the preceding year, when in fact sales did not change at all.
- *Aggregation.* The information in a financial statement line item that you are using for a ratio analysis may have been aggregated differently in the past, so that running the ratio analysis on a trend line does not compare the same information through the entire trend period.
- *Operational changes.* A company may change its underlying operational structure to such an extent that a ratio calculated several years ago and compared to the same ratio today would yield a misleading conclusion. For example, if you implemented a constraint analysis system, this might lead to a reduced investment in fixed assets, whereas a ratio analysis might conclude that the company is letting its fixed asset base become too old.
- *Accounting policies.* Different companies may have different policies for recording the same accounting transaction. This means that comparing the ratio results of different companies may be like comparing apples and oranges. For example, one company might use accelerated depreciation while another company uses straight-line depreciation, or one company records a sale at gross while the other company does so at net.

- *Business conditions.* You need to place ratio analysis in the context of the general business environment. For example, 60 days of sales outstanding for receivables might be considered poor in a period of rapidly growing sales, but might be excellent during an economic contraction when customers are in severe financial condition and unable to pay their bills.
- *Interpretation.* It can be quite difficult to ascertain the reason for the results of a ratio. For example, a current ratio of 2:1 might appear to be excellent, until you realize that the company just sold a large amount of its stock to bolster its cash position. A more detailed analysis might reveal that the current ratio will only temporarily be at that level, and will probably decline in the near future.
- *Company strategy.* It can be dangerous to conduct a ratio analysis comparison between two firms that are pursuing different strategies. For example, one company may be following a low-cost strategy, and so is willing to accept a lower gross margin in exchange for more market share. Conversely, a company in the same industry is focusing on a high customer service strategy where its prices are higher and gross margins are higher, but it will never attain the revenue levels of the first company.
- *Point in time.* Some ratios extract information from the balance sheet. Be aware that the information on the balance sheet is only as of the last day of the reporting period. If there was an unusual spike or decline in the account balance on the last day of the reporting period, this can impact the outcome of the ratio analysis

ADVANTAGES OF RATIO ANALYSIS:

Ratio analysis is widely used as a powerful tool of financial statement analysis. It establishes the numerical or quantitative relationship between two figures of a financial statement to ascertain strengths and weaknesses of a firm as well as its current financial position and historical performance. It helps various interested parties to make an evaluation of certain aspect of a firm's performance.

The following are the principal advantages of ratio analysis:

1. Forecasting and Planning:

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

2. Budgeting:

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

3. Measurement of Operating Efficiency:

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

4. Communication:

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

5. Control of Performance and Cost: ADVERTISEMENTS:

Ratios may also be used for control of performances of the different divisions or departments of an undertaking as well as control of costs.

6. Inter-firm Comparison:

Comparison of performance of two or more firms reveals efficient and inefficient firms, thereby enabling the inefficient firms to adopt suitable measures for improving their efficiency. The best way of inter-firm comparison is to compare the relevant ratios of the organisation with the average ratios of the industry.

7. Indication of Liquidity Position:

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

8. Indication of Long-term Solvency Position:

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

9. Indication of Overall Profitability:

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

10. Signal of Corporate Sickness:

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

11. Aid to Decision-making:

Ratio analysis helps to take decisions like whether to supply goods on credit to a firm, whether bank loans will be made available etc.

12. Simplification of Financial Statements:

Ratio analysis makes it easy to grasp the relationship between various items and helps in understanding the financial statements.

WHAT IS DUPONT ANALYSIS?

DuPont Analysis is a framework used to break apart the underlying components of the return on equity (ROE) metric to determine the strengths and weaknesses of a company.

Originally devised in the 1920s by Donaldson Brown at DuPont Corporation, the chemical company, the model is used to analyze the return on equity (ROE) as broken down into different parts in order to analyze the contribution of each part.

FORMULA or mula and Calculation of DuPont Analysis

The Dupont analysis is an expanded return on equity formula, calculated by multiplying the net profit margin by the asset turnover by the equity multiplier.

$$\text{DuPont Analysis} = \text{Net Profit Margin} \times \text{AT} \times \text{EM}$$

where:

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Revenue}}$$

AT = Asset turnover

$$\text{Asset Turnover} = \frac{\text{Sales}}{\text{Average Total Assets}}$$

EM = Equity multiplier

$$\text{Equity Multiplier} = \frac{\text{Average Total Assets}}{\text{Average Shareholders' Equity}}$$

DuPont Analysis Components

DuPont analysis breaks ROE into its constituent components to determine which of these factors are most responsible for changes in ROE.

Net Profit Margin

The net profit margin is the ratio of bottom line profits compared to total revenue or total sales. This is one of the most basic measures of profitability.

The profit margin can be improved if costs for the owner were reduced or if prices were raised, which can have a large impact on ROE. This is one of the reasons that a company's stock will experience high levels of volatility when management makes a change to its guidance for future margins, costs, and prices.

Asset Turnover Ratio

The asset turnover ratio measures how efficiently a company uses its assets to generate revenue. Imagine a company had \$100 of assets, and it made \$1,000 of total revenue last year. The assets generated 10 times their value in total revenue, which is the same as the asset turnover ratio and can be calculated as follows:

$$\text{Asset Turnover Ratio} = \frac{\text{Revenue}}{\text{Average Assets}} = \frac{\$1,000}{\$100} = 10$$

A normal asset turnover ratio will vary from one industry group to another. For example, a discount retailer or grocery store will generate a lot of revenue from its assets with a small margin, which will make the asset

turnover ratio very large. On the other hand, a utility company owns very expensive fixed assets relative to its revenue, which will result in an asset turnover ratio that is much lower than that of a retail firm.

The ratio can be helpful when comparing two companies that are very similar. Because average assets include components like inventory, changes in this ratio can signal that sales are slowing down or speeding up earlier than it would show up in other financial measures. If a company's asset turnover rises, its ROE will improve.

Financial Leverage

Financial leverage, or the equity multiplier, is an indirect analysis of a company's use of debt to finance its assets. Assume a company has \$1,000 of assets and \$250 of owner's equity. The balance sheet equation will tell you that the company also has \$750 in debt (assets - liabilities = equity). If the company borrows more to purchase assets, the ratio will continue to rise. The accounts used to calculate financial leverage are both on the balance sheet, so analysts will divide average assets by average equity rather than the balance at the end of the period, as follows:

$$\text{Financial Leverage} = \frac{\text{Average Assets}}{\text{Average Equity}} = \frac{\$1,000}{\$250} = 4$$

Most companies should use debt with equity to fund operations and growth. Not using any leverage could put the company at a disadvantage compared with its peers. However, using too much debt in order to increase the financial leverage ratio—and therefore increase ROE—can create disproportionate risks.

Example of DuPont Analysis Use

An investor has been watching two similar companies, SuperCo and Gear Inc., that have recently been improving their return on equity compared to the rest of their peer group. This could be a good thing if the two companies are making better use of assets or improving profit margins.

In order to decide which company is a better opportunity, the investor decides to use DuPont analysis to determine what each company is doing to improve its ROE and whether that improvement is sustainable.

	SuperCo		GearInc	
	Year 1	Year 2	Year 1	Year 2
Net Income	\$1,000.00	\$1,200.00	\$2,100.00	\$2,100.00
Revenue	\$10,000.00	\$10,000.00	\$17,500.00	\$17,500.00
Profit Margin	0.1	0.12	0.12	0.12
Revenue	\$10,000.00	\$10,000.00	\$17,500.00	\$17,500.00
Ave. Assets	\$5,000.00	\$4,800.00	\$8,750.00	\$8,750.00
Asset Turnover	2	2.08	2	2
Ave. Assets	\$5,000.00	\$4,800.00	\$8,750.00	\$8,750.00
Ave. Equity	\$2,000.00	\$2,000.00	\$5,000.00	\$3,500.00
Financial Leverage	2.5	2.4	1.75	2.5
ROE	50%	60%	42%	60%

As you can see in the table, SuperCo improved its profit margins by increasing net income and reducing its total assets. SuperCo's changes improved its profit margin and asset turnover. The investor can deduce from the information that SuperCo also reduced some of its debt since average equity remained the same.

Looking closely at Gear Inc., the investor can see that the entire change in ROE was due to an increase in financial leverage. This means Gear Inc. borrowed more money, which reduced average equity. The investor is concerned because the additional borrowings didn't change the company's net income, revenue, or profit margin, which means the leverage may not be adding any real value to the firm.

DuPont Analysis vs. ROE

The return on equity (ROE) metric is net income divided by shareholders' equity. The Dupont analysis is still the ROE, just an expanded version. The ROE calculation alone reveals how well a company utilizes capital from shareholders.

With a Dupont analysis, investors and analysts can dig into what drives changes in ROE, or why an ROE is considered high or low. That is, a Dupont analysis can help deduce whether its profitability, use of assets, or debt that's driving ROE.

Limitations of Using DuPont Analysis

The biggest drawback of the DuPont analysis is that, while expansive, it still relies on accounting equations and data that can be manipulated. Plus, even with its comprehensiveness, the Dupont analysis lacks context as to why the individual ratios are high or low, or even whether they should be considered high or low at all.

What Does DuPont Analysis Tell You?

DuPont analysis is a useful technique used to decompose the different drivers of return on equity (ROE) for a business. This allows an investor to determine what financial activities are contributing the most to the changes in ROE. An investor can use analysis like this to compare the operational efficiency of two similar firms.

What Is the Difference Between 3-Step and 5-Step DuPont Analysis?

There are two versions of DuPont analysis, one utilizing decomposition of ROE via 3 steps and another utilizing 5 steps. The three-step equation breaks up ROE into three very important components:

$$\text{ROE} = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Shareholders' Equity}}$$

The five-step version instead is:

$$\text{ROE} = \frac{\text{EBT}}{\text{S}} \times \frac{\text{S}}{\text{A}} \times \frac{\text{A}}{\text{E}} \times (1 - \text{TR})$$

where:

EBT = Earnings before tax

S = Sales

A = Assets

E = Equity

TR = Tax rate

Why Is It Called DuPont Analysis?

In the 1920s, the American chemicals and manufacturing giant, DuPont Corporation, created an internal management tool to better understand where its operating efficiency was coming from and where it was falling short. By breaking down ROE into a more complex equation, DuPont analysis shows the causes of shifts in this number.

What Are Some Limitations of Using DuPont analysis?

While DuPont analysis can be a very helpful tool for managers, analysts, and investors, it is not without its weaknesses. The expansive nature of the DuPont equations means that it requires several inputs. As with any calculation, the results are only as good as the accuracy of the inputs. DuPont analysis utilizes data from a company's income statement and balance sheet, some of which may not be entirely accurate. Even if the data used for calculations are reliable, there are still additional potential problems, such as the difficulty of determining the relative values of ratios as good or bad compared to industry norms. Seasonal factors, depending on the industry, can also be an important consideration, since these factors can distort ratios. Some companies always carry a higher level of inventory at certain times of the year, for example. Different accounting practices between companies can also make accurate comparisons difficult.

COMPARATIVE AND COMMON SIZE ANALYSIS

A common size financial statement displays line items as a percentage of one selected or common figure. Creating common size financial statements makes it easier to analyze a company over time and compare it with its peers. Using common size financial statements helps investors spot trends that a raw financial statement may not uncover.

All three of the primary financial statements can be put into a common size format. Financial statements in dollar amounts can easily be converted to common size statements using a spreadsheet, or they can be obtained from online resources like *Mergent Online*.¹ Below is an overview of each financial statement and a more detailed summary of the benefits, as well as drawbacks, that such an analysis can provide investors.

Financial statements are prepared for presenting the financial information of the company to the users of accounting information like owners, stakeholders, creditors, banks, investors, etc. It can also be used to compare the financial performance of a business with its previous years as well as other competitors.

There are two main types of presenting information of financial statements, which are:

1. Comparative Financial Statement
2. Common size Financial Statement

Comparative financial statement is a document that represents the financial performance of the business by comparing them at different time periods. It is helpful for investors to analyse the trends of the business and make proper investment decisions.

Also see:

- Uses and Importance of Financial Statements
- Financial Statements MCQs
- Tools of Analysis of Financial Statements
- Limitations of Financial Statements

Common size statements are financial statements that are expressed in the form of percentage. The assets, liabilities and sales all are presented in the form of percentages. This method analyses financial statements by taking into consideration each of the line items as a percentage of the base amount, for that particular accounting period.

Let us have a look at some of the points of difference between the comparative and common size financial statements.

Comparative Financial Statement	Common Size Financial Statement
Definition	
Comparative financial statement is a kind of document that presents the financial performance of the organisations side by side with the previous year performances, in order to compare the growth of business over a period of time	Common size financial statement is a way of presenting financial information of a business by expressing the components of financial statements as percentages.
Type of analysis	
Comparative statements are also known as horizontal analysis as financial statements are compared side by side	Common size statements are also known as vertical analysis as data is analysed vertically
Purpose	
Comparative statements are used for comparing financial performance for internal purposes and for inter-firm comparison	Common size statements are prepared for the reference of stakeholders.
Types of comparison made	
Comparative statements make use of both absolute figures and percentages	Common size statements use only percentage form

TOOLS AND TECHNIQUES OF FINANCIAL STATEMENT ANALYSIS

1. Comparative Statement or Comparative Financial and Operating Statements.
2. Common Size Statements.
3. Trend Ratios or Trend Analysis.
4. Average Analysis.
5. Statement of Changes in Working Capital.
6. Fund Flow Analysis.
7. Cash Flow Analysis.
8. Ratio Analysis.
9. Cost Volume Profit Analysis

A brief explanation of the tools or techniques of financial statement analysis presented below.

1. Comparative Statements

Comparative statements deal with the comparison of different items of the Profit and Loss Account and Balance Sheets of two or more periods. Separate comparative statements are prepared for Profit and Loss Account as Comparative Income Statement and for Balance Sheets.

As a rule, any financial statement can be presented in the form of comparative statement such as comparative balance sheet, comparative profit and loss account, comparative cost of production statement, comparative statement of working capital and the like.

2. Comparative Income Statement

Three important information are obtained from the Comparative Income Statement. They are Gross Profit, Operating Profit and Net Profit. The changes or the improvement in the profitability of the business concern is find out over a period of time. If the changes or improvement is not satisfactory, the management can find out the reasons for it and some corrective action can be taken.

3. Comparative Balance Sheet

The financial condition of the business concern can be find out by preparing comparative balance sheet. The various items of Balance sheet for two different periods are used. The assets are classified as current assets and fixed assets for comparison. Likewise, the liabilities are classified as current liabilities, long term liabilities and shareholders' net worth. The term shareholders' net worth includes Equity Share Capital, Preference Share Capital, Reserves and Surplus and the like.

4. Common Size Statements

A vertical presentation of financial information is followed for preparing common-size statements. Besides, the rupee value of financial statement contents are not taken into consideration. But, only percentage is considered for preparing common size statement.

The total assets or total liabilities or sales is taken as 100 and the balance items are compared to the total assets, total liabilities or sales in terms of percentage. Thus, a common size statement shows the relation of each component to the whole. Separate common size statement is prepared for profit and loss account as Common Size Income Statement and for balance sheet as Common Size Balance Sheet.

5. Trend Analysis

The ratios of different items for various periods are found out and then compared under this analysis. The analysis of the ratios over a period of years gives an idea of whether the business concern is trending upward or downward. This analysis is otherwise called as *Pyramid Method*.

6. Average Analysis

Whenever, the trend ratios are calculated for a business concern, such ratios are compared with industry average. 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.

7. Statement of Changes in Working Capital

The extent of increase or decrease of working capital is identified by preparing the statement of changes in working capital. The amount of net working capital is calculated by subtracting the sum of current liabilities from the sum of current assets. It does not detail the reasons for changes in working capital.

8. Fund Flow Analysis

Fund flow analysis deals with detailed sources and application of funds of the business concern for a specific period. It indicates where funds come from and how they are used during the period under review. It highlights the changes in the financial structure of the company.

9. Cash Flow Analysis

Cash flow analysis is based on the movement of cash and bank balances. In other words, the movement of cash instead of movement of working capital would be considered in the cash flow analysis. There are two types of cash flows. They are actual cash flows and notional cash flows.

10. Ratio Analysis

Ratio analysis is an attempt of developing meaningful relationship between individual items (or group of items) in the balance sheet or profit and loss account. Ratio analysis is not only useful to internal parties of business concern but also useful to external parties. Ratio analysis highlights the liquidity, solvency, profitability and capital gearing.

11. Cost Volume Profit Analysis

This analysis discloses the prevailing relationship among sales, cost and profit. The cost is divided into two. They are fixed cost and variable cost. There is a constant relationship between sales and variable cost. Cost analysis enables the management for better profit planning.

What is Cash Flow Statement?

A Cash Flow Statement implies the statement containing cash inflows and outflows of an enterprise during a particular period of time. To prepare a cash flow statement, a financial statement of two different financial years is required.

Understanding Cash Flow

The term 'cash flow' is a combination of two words 'cash' and 'flow' wherein the words cash refers to the cash balance in hand and at the bank, whereas flow implies the movement of cash in and out of the organization, which can be increased or decrease. It deals with those items which involve cash transactions. Thus, it indicates the changes in the cash status of the company, be it related to receipts, payment, or disbursement.

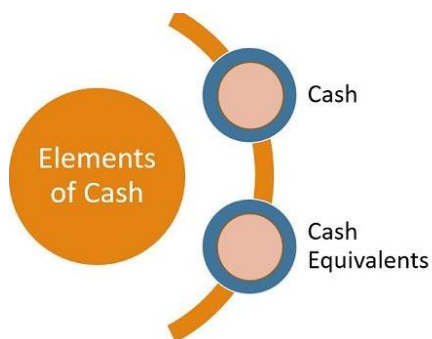
The cash flow statement reports the **Net Cash Flow**. Net Cash Flow is the difference between cash inflow and cash outflow, from each activity of the business concern. When there is a change in cash position resulting in the increase in cash, it is called inflow of cash, whereas when there is a change in cash position leading to the decrease in cash position, is called outflow of cash. It involves the reconciliation of opening and closing cash balances.

The economic decision-making by the investors is based on the analysis of the company's ability to generate cash and cash equivalents, as well as the timing and certainty of generation.

Elements of Cash

As

per Accounting Standard – 3:



- **Cash:** Cash in hand and demand deposits with the bank. **Example:** Cash in hand and cash at bank
- **Cash equivalent:** Short-term highly liquid investments readily convertible into cash. Securities with a short maturity period, usually less than or equal to three months from the date of acquisition. **Example:** Treasury Bills, Commercial Papers, Commercial Bills, Certificate of Deposit, Call Money, etc.

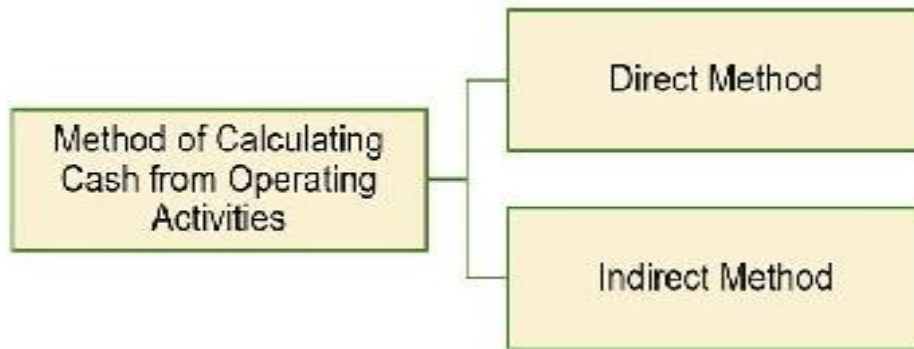


Classification of Cash Flow Activities

1. **Operating Activities:** Operating Activities are the primary revenue-earning activities of the company. It indicates the degree to which a company's regular business operations have generated enough cash flows in order to maintain operating efficiency, pay dividends to shareholders, repay loans, invest in acquiring assets, etc.
2. **Investing Activities:** Such activities involve the acquisition and sale of long-term assets and other investments, which are not covered in cash equivalents. It indicates the extent to which the company has spent money in acquiring resources that are intended to generate income and cash flows in the future.
3. **Financing Activities:** Activities that cause the size and composition of the owner's capital and borrowings of the company to change are financing activities. This ascertains the claims of shareholders on future cash flows of the company.

Calculation of Cash from Operating Activities

There are two methods for calculating cash from operating activities:



- **Direct Method:** In this method, gross cash receipts and gross cash payments are taken into consideration, which is available through accounting records.
- **Indirect Method:** In this method, operating activities are ascertained by making a number of necessary adjustments in the net profit or loss, as shown by the profit and loss account.

Format of Cash Flow Statement

Indirect Method

Cash Flow Statement (Indirect Method)		
Particulars	₹	₹
I. Cash from Operating Activities:		
A. Net Profit before taxation and extraordinary item		xxxx
Adjustment for Non-cash and Non-Operating Item		
B. Add: Non-Cash Expenses:		
Depreciation	xxxx	
Interest on Debentures and Loans	xxxx	
Preliminary Expenses or Underwriting Commission or Discount on issue of debentures or Shares written off	xxxx	
Goodwill/Trademark/Patent/Copyright amortized	xxxx	
Loss on Sale of investment	xxxx	
Premium Payable on redemption of preference shares or debentures	xxxx	
C. Less: Non-Cash Incomes		
Profit on sale of investment	(xxxx)	
Income from investment	(xxxx)	xxxx
D. Operating Profit before Working Capital changes (A+B-C)		xxxx
E. Add: Decrease in Current Assets and Increase in Current Liabilities:		
Decrease in Inventories	xxxx	
Decrease in Trade Receivables	xxxx	
Decrease in Prepaid Expenses	xxxx	
Decrease in Accrued Commission	xxxx	
Increase in Trade Payables	xxxx	
Increase in Outstanding Expenses	xxxx	
Increase in Commission received in advance	xxxx	
Increase in Provision for Doubtful Debts or Discount on Debtors	xxxx	

F. Less: Increase in Current Assets and Decrease in Current Liabilities:		
Increase in Inventories	(xxxx)	
Increase in Trade Payables	(xxxx)	
Increase in Prepaid Expenses	(xxxx)	
Increase in accrued Commission	(xxxx)	
Decrease in Trade Payables	(xxxx)	
Decrease in Outstanding Expenses	(xxxx)	
Decrease in Commission received in advance	(xxxx)	
Decrease in Provision for Doubtful Debts/Discount on Debtors	(xxxx)	xxxx
G. Net Cash Flow from Operating Activities before Tax (D+E-F)	xxxx	
H. Less: Income Taxes Paid (Less of Refund)	(xxxx)	
I. Net Cash flow from Operating Activities Before Extraordinary Item	xxxx	
J. Extraordinary Item (Add/Less)	xxxx	xxxx
I. Net Cash flow from (used in) Operating Activities		xxxx
II. Cash Flow From Investing Activities:		
Add: Sale of Machinery/Land & Building for Cash	xxxx	
Sale of Investments for cash	xxxx	
Sale of Patents/Trademark/Copyrights for cash	xxxx	
Income received from Investments	xxxx	
Less: Purchase of Machinery/Land & Building for cash	(xxxx)	
Purchase of Investments for cash	(xxxx)	
Purchase of Patents/Trademarks/Copyrights/Goodwill for cash	(xxxx)	xxxx
II. Net Cash flow from (used in) Investing Activities		xxxx

III. Cash Flow from Financing Activities:		
Add: Proceeds from Issue of Share Capital for cash	xxxx	
Proceeds from issue of Debentures for Cash	xxxx	
Proceeds from loan raised	xxxx	
Less: Redemption of preference shares/ Buy-back of equity shares	(xxxx)	
Redemption of Debentures for cash	(xxxx)	
Loans repaid	(xxxx)	
Interest paid on debentures/loans	(xxxx)	
Interim dividend paid	(xxxx)	
Final Dividend paid	(xxxx)	xxxx
III. Net Cash Flow from (used in) Financing Activities		xxxx
IV. Net Increase (Decrease) in Cash and Cash Equivalents (I+II+III)	xxxx	
Add: Cash and Cash Equivalents at the Beginning of the Period		
Cash in Hand	xxxx	
Cash at Bank	xxxx	
Cash Equivalents	xxxx	xxxx
Less: Cash and Cash Equivalent at the end of the period		
Cash in hand	(xxxx)	
Cash at Bank	(xxxx)	
Cash Equivalents	(xxxx)	(xxxx)
		xxxx

Cash Flow Statement (Direct Method)

Particulars	₹	₹
I. Cash from Operating Activities:		
A. Operating cash receipts:		
Add: Cash sales	xxxx	
Cash received from customers	xxxx	
Trading commission received	xxxx	
Royalties received	xxxx	xxxx
B. Operating cash payments:		
Less: Cash purchase	(xxxx)	
Cash paid to the supplier	(xxxx)	
Cash paid for business expenses	(xxxx)	(xxxx)
C. Cash generated from operation (A – B)		xxxx
Less: Income tax paid		(xxxx)
Cash flow before extraordinary items		xxxx
Adjusted extraordinary items (+/–)		xxxx
Net cash flow from (or used in) operating activities		xxxx

Note: It is to be noted that the format of Cash from Investing Activities and Cash from Financing Activities will remain the same, as in the case of the indirect method.

What is Fund Flow Statement?

Fund Flow Statement refers to a statement depicting the **means** by which the business gets funds and the **uses** of the funds, between two balance sheet dates. It is devised to assess the changes in the financial position of the firm between two different balance sheet dates. It is a record of the movement of financial assets in and out of the enterprise, for a particular time.

The basis of inclusion or non-inclusion of a financial event in the fund flow statement depends on the flow of funds. Here the term '**flow of funds**' refers to the changes in the company's working capital during the cycle of business operations. In short, it is the movement indicating the change in the company's economic resources, i.e. from a particular asset or liability to

Fund flow format

Fund Flow Statement	
Particulars	Amount
Sources of Funds:	
Funds from Operations	xxxx
Sale of Fixed Assets	xxxx
Sale of Investment	xxxx
Issue of Shares	xxxx
Issue of Debentures	xxxx
Long term Borrowings	xxxx
Decrease in Working Capital	xxxx
Total	xxxx
Application of Funds:	
Loan from Operations	xxxx
Payment of Dividend	xxxx
Payment of Taxes	xxxx
Purchase of Fixed Assets	xxxx
Repayment of Loans	xxxx
Redemption of Debentures	xxxx
Redemption of Preference Shares	xxxx
Increase in Working Capital	xxxx
Total	xxxx

So, there are two things we need to calculate first prior to the preparation of a fund flow statement – Changes in working capital and funds from operation.

Format of Statement of Changes in Working Capital

Statement of Changes in Working Capital

Particulars	Previous Year	Current Year	Effect on Working Capital	
			Increase	Decrease
Current Assets:				
Cash in hand	xxxx	xxxx		
Debtor	xxxx	xxxx		
Inventory	xxxx	xxxx		
Bills Receivable	xxxx	xxxx		
Total Current Assets (A)	xxxx	xxxx		
Current Liabilities:				
Trade Creditors	xxxx	xxxx		
Bills Payable	xxxx	xxxx		
Total Current Liabilities (B)	xxxx	xxxx		
Total Working Capital (A-B)	xxxx	xxxx		
Change in Working Capital	xxxx	xxxx		
Total	xxxx	xxxx	xxxx	xxxx

Format of Funds from Operation

Statement of Funds from Operations

Particulars		Amount
A. Net Profit After Tax for the year		xxxx
B. Add: Non-Operating Expenses:		
Depreciation	xxxx	
Loss on Sale of Fixed Assets	xxxx	
Interest on Debentures	xxxx	
Goodwill Written off	xxxx	
Provision for Tax	xxxx	
Proposed Dividend	xxxx	
Interim Dividend	xxxx	
Transfer from Profit and Loss Account	xxxx	xxxx
C. Less: Non-Operating Incomes:		
Interest on Investment	(xxxx)	
Dividend Received	(xxxx)	
Profit on Sale of fixed Assets	(xxxx)	
Interest on Bank Deposit	(xxxx)	
Refund of Tax	(xxxx)	(xxxx)
D. Total (A+B-C)		xxxx
E. Less: Net Profit After Tax (Previous Year)		(xxxx)
Funds from Operations (D-E)		xxxx

DIFFERENCE BETWEEN CASH FLOW AND FUND FLOW STATEMENTS

Basis for Comparison	Cash Flow Statement	Fund Flow Statement
Meaning	Cash Flow Statement is the summarized statement of cash receipts and cash payments of the firm between two financial periods.	Fund Flow Statement is a financial tool, designed to analyse the changes in financial position of the firm, comparing two financial years.
Basis of Accounting	Cash Basis of Accounting	Accrual Basis of Accounting
Discloses	Inflows and Outflows of Cash	Sources and applications of funds
Tool for	Short term financial analysis	Long term financial analysis
Objective	To explain the cash movement amidst two points of time.	To explain the causes of changes in the balance sheet items, i.e. asset and liabilities between two financial year.
Opening Balance	Opening balance is present	No opening balance
Difference in sides	Indicates the closing balance of cash	Indicates the increase or decrease in working capital
Part of Financial Statement	Yes	No

UNIT III

What is a Job Cost Sheet?

Job Cost Sheet is an important document which is prepared for the ascertainment of cost of each job in Job costing. Job cost sheet is otherwise called as job card. A separate cost sheet is prepared for each job on which direct material, direct labour and other costs are charged relating to a job.

Both direct materials and direct labour are recorded at usual cost and overheads ie manufacturing overheads are charged at predetermined overhead rate. Each job sheet bears a job number, which is used for easy identification, description of work, and details of cost of material, labour and overheads.

Format of Job Cost Sheet

There is no fixed format for job cost sheet or job card. The format of a job cost sheet depends upon manufacturing characteristics and type of work. As soon as the job is completed, the concerned job cost sheet is prepared and calculate the cost of the job.

The total costs, which are collected from the job cards, are debited to the work in progress account periodically. On completion of a job, the total costs incurred for the specific job is credited to the work in progress account. The balancing figure is the value of job not yet complete.

Specimen copy of Job Cost S

Nox Job Cost Sheet							
Job Number <u>78</u>		Date Initiated <u>May 16</u>					
Supervisor _____		Date Completed _____					
Item <u>Kitchen cabinets</u>		Units Completed _____					
Direct Materials		Direct Labor			Manufacturing Overhead		
Req. No.	Amount	Ticket	Hours	Amount	Hours	Rate	Amount
		Cost Summary					
		Direct Materials					
		Direct Labor					
		Manufacturing Overhead					
		Total Cost					
		Unit Cost					

PROCEDURE OF JOB COSTING

The following procedure is followed in the job costing method.

1. Direct Material Cost

Direct materials form part of the finished product. The cost of direct materials constitutes a major portion of the total costs of a job. Therefore, the actual cost of materials used for job is directly charged to the specific job. Indirect materials form part of manufacturing overheads, which are also distributed to each job separately.

The information of cost of direct materials used can be obtained from bill of materials or the stores requisition slip if the materials are received from the stores. Sometimes, the materials can be purchased from the open market and used for the job. If so, cost of materials information is obtained from the invoice.

2. Direct Labour Cost

Direct labour costs should be ascertained and charged to each job separately. The information of direct labour costs are obtained from various records like job cards, time cards or piece work cards. The time of commencement of work and the time of stopping the work are recorded on the job time ticket.

Sometimes, labourers work on time rate basis. If so, the wages is calculated by multiplying the number of hours worked on each job on an hourly rate. The direct total labour cost is debited to the job account and the wage control account is credited. Indirect labour costs are debited to the indirect manufacturing cost control account.

3. Direct Expenses

The direct expenses are also charged to each job separately. The cost information like direct expenses can be collected or obtained from vouchers. Hence, the invoice is marked with the number of the job to which the costs are to be allocated. All the direct expenses relating to a job is debited to the specific job account or the work in progress account and credited the general ledger adjustment account.

4. Overheads

The direct material cost, direct labour cost and direct expenses are charged at actual cost. But, the overhead costs can be determined by jobs or production order. The reason is that the factory is considered as a cost centre for collecting manufacturing expenses.

Generally, the actual incurred costs are applied to each job. If not so, the predetermined overhead rate is used to charge manufacturing overhead. Likewise, administration, selling and distribution overheads are absorbed by each job on suitable basis. The total cost of collected overheads are debited to the job or to the work in progress account and credited to the overhead control account.

Job order costing is a system of assigning the cost of production to a specific manufacturing job and is mainly used by organizations providing customer-specific jobs. Also, this system is used when each output is different from others. It means others cannot use the same product.

For example, services provided by professionals like doctors, lawyers, and chartered accountants are client-specific. Therefore, determining the cost of these services is calculated by the job order costing method.

Types of Costs Involved in Job Order Costing

A job order costing typically involves 3 types of costs:



- **Direct Material – Direct materials** are the major contributors to job order costing. Raw materials which are directly consumed for completion of specific jobs or manufacturing of finished goods come under direct material. These costs are entirely dependent on the quality and quantity of finished goods.
- **Direct Labor** – In job order costing, cost of labor used in a specific job is identified and added to the cost of production. Direct labor cost is calculated based on workforce and hours worked. If the particular job provides service, then direct labor cost comprises almost 80%–90% of the total cost.

- **Overhead** – Overhead costs incur in the manufacturing of a product or providing service other than the direct labor and direct material like rent, electricity, depreciation, legal fees, and any other. Some overhead costs are variable, and some are fixed.

Features of Job Order Costing System

- In job order, each job has its characteristics.
- In this type of cost, each job is done against customer orders only, not as a regular production.

Job Order Costing



- In this costing method, each job is treated as a cost cent er.

Example of Job Order Costing

Notebook Inc is a printing & stationery company that has received an order of 5000 copies of invoices from one of its customers. According to the specification provided by the customer as of August 1, 2019, notebook Inc has to deliver on or before August 20, 2019. As per the company, they can finish the work within 10 days. Therefore, they started on August 5, 2019, and assigned this work as a job no. 10/2019. The below cost has been incurred by the company while completing this job:

Direct Materials: In the production of one copy of the invoice, two units of raw material are required. Therefore, for the production of 5000 documents, 10000 units of natural material will be consumed, which the company has procured at different dates as per requirement. Initially, the cost of raw material was \$10 per unit. However, from August 13, 2019, it has increased by \$1 because of a shortage of raw material in the market. As a result, the total cost of raw material consumed is \$ 10,500.

Direct Labor: In the production of one copy of the invoice, one workforce hour is required, and the cost of one workforce hour is \$5. For completion of this job, 5000 workforce hours have been consumed which company has taken on different days according to the availability of raw material. The total cost of direct labor is \$ 25,000.

Manufacturing Overhead: The cost incurred by the company is \$20,000, which includes depreciation of plant and machinery, factory and office rent, and other overheads consumed in the production of these 5000 copies of invoices.

Job Order Cost Sheet
Notebook Inc

Job No. - 10/2019

Job Requirements - 5000 Copies of Invoice

Requisition Date 1-Aug-19
 Promised Delivery Date 20-Aug-19
 Wrok Start Date 5-Aug-19

Direct Material

Date	Requisition No.	Units	Cost Per Unit (In \$)	Total Cost (In \$)	Production Cost (In \$)
8/5/2019	M - 101	1000	10	10000	
8/7/2019	M - 102	2000	10	20000	
8/10/2019	M - 103	2000	10	20000	
8/13/2019	M - 104	2500	11	27500	
8/15/2019	M - 105	2500	11	27500	105000

Direct Labor

Date	Requisition No.	No. of Manpower hours	Cost per hour (In \$)	Total Cost (In \$)	
8/5/2019	L - 101	500	5	2500	
8/7/2019	L - 102	1000	5	5000	
8/10/2019	L - 103	1000	5	5000	
8/13/2019	L - 104	1250	5	6250	
8/15/2019	L - 105	1250	5	6250	25000

Manufacturing Overhead Cost

	20000
Total Cost of Job no. 10/2019	150000
No. of Invoice Copies Produced	5000
Cost Per Copy	30

Advantages of Job Order Costing

- It helps management analyze the material, labor & overhead cost incurred in production or completion of the job.
- It helps in the identification of the efficiency of machines and the workforce.
- The job order costing method helps in cost control/wsm-tooltip and better utilization of resources.
- With the help of the job order costing method, management can ascertain which job is profitable and which is not.
- It helps compare a similar job that will be done in the future and become the basis of future employment.
- It also helps identify the scrap and defects that arise in the production or completion of the job, and take steps to minimize this.

Disadvantages of Job Order Costing

- It is time-consuming and costly as it involves daily and specific job-wise recording of material, labor, and overhead.
- A cost comparison is problematic because, in this method, the cost sheet is prepared for each job separately according to the specification.
- If two or more jobs are going simultaneously, there is a risk of posting the cost of one position in another job.
- In job order costing, overhead costs are based on estimates. It is also challenging to know if the overhead cost is directly linked with the specific job because most overhead facilities are used for more than one job. "Cost Allocation is the procedure of recognizing & assigning costs to different cost objects like a product, department, program, customer, etc., as per the cost driver serving as the base for this process. "
- It mainly depends on the expertise of the production manager. Therefore, a person allocating cost to a specific job must have knowledge of it. A small mistake can change the product's price.

What is Process Costing?

Process costing is used when there is mass production of similar products, where the costs associated with individual units of output cannot be differentiated from each other. In other words, the cost of each product produced is assumed to be the same as the cost of every other product. Under this concept, costs are accumulated over a fixed period of time, summarized, and then allocated to all of the units produced during that period of time on a consistent basis. When products are instead being manufactured on an individual basis, job costing is used to accumulate costs and assign the costs to products. When a production process contains some mass manufacturing and some customized elements, then a hybrid costing system is used.

Examples of the industries where this type of production occurs include oil refining, food production, and chemical processing. For example, how would you determine the precise cost required to create one gallon of aviation fuel, when thousands of gallons of the same fuel are gushing out of a refinery every hour? The cost accounting methodology used for this scenario is process costing.

Types of process costing

A company can use several different methods of process costing to determine the total costs incurred before, during and after production, as well as the total amount of units produced. Standard process costing may be used for simply calculating production costs, while averaging assigns costs to specific units of production, and first-in, first-out calculates unit costs as they are started and completed.

A company may use one or all methods of calculating process costing, depending on what they produce, how they produce it and how they track their production processes. The most common methods of process costing include:

Standard cost

Standard cost refers to calculating costs for production units instead of actual costs. Actual costs are compared with the total costs accumulated based on standard costs, and the difference between the total costs accumulated and the actual costs accumulated is recorded and charged to another account, in this instance, a variance account.

Weighted average

This type of process costing groups together all the costs associated with production and assigns them to the units the company produced. This type of method may not take into account the time period of production and can be the simplest type of process costing to calculate.

First-in, first-out

This method of process costing focuses on assigning costs to units in the order that they are produced. Products that are produced first are assigned a cost first, and then, they are the first products to ship or otherwise put out. Furthermore, first-in, first-out assigns one set of costs to products started in prior accounting periods but not finished, and another set of costs for products started in the current accounting period.

Using the process costing method

There are five steps in the process costing method that can be used to assign relevant costs to inventory, completed at the beginning, during and the end of an accounting or production period. By following the steps of the process costing method, you can calculate the total costs associated with any inventory and production processes that occur within your company.

1. Analyze the inventory.
2. Convert inventory costs.
3. Calculate applicable costs.
4. Calculate the cost per unit.
5. Designate costs for complete and incomplete products.

1. Analyze the inventory

The first step in calculating process costing is to analyze the inventory by evaluating cost-flow of the inventory. By determining the costs of each process of production, a company can determine the amount of inventory that was accounted for at the start of the period, the amount that was completed during the accounting period and how much of the inventory was left as in-process at the end of the accounting period.

2. Convert inventory costs

The second step in calculating process costing is to convert any inventory that was considered as in-process at the end of the period to an amount of equal units.

For example, if a manufacturing company that produces ink cartridges determined 4,200 cartridges were in-process at the end of the accounting period, and each of these cartridges were 50% completed, then the company would consider that inventory as equal to 2,100 cartridges produced.

3. Calculate applicable costs

Then, after converting any inventory to its equivalent amount in produced units, calculate the total costs, both indirect and direct, that are accumulated through the manufacturing process. This amount is then applied between the inventory that is completed and the inventory that was left in-process. Both indirect and direct costs of production include the costs of the inventory at the starting period and the costs accumulated during the period.

4. Calculate the cost per unit

Once you have calculated all costs associated with the production process for complete and in-process inventory, calculate the costs per unit. This includes the costs for completed units and equivalents of finished units at the end of the accounting period.

For instance, if the company that manufactures ink cartridges completed 3,000 cartridges and left 2,000 cartridges 50% complete, the company would divide the costs by 4,000.

5. Designate costs for complete and incomplete products

Finally, split up the costs by allocating the appropriate amounts to the number of products completed, as well as to the inventory that was considered in-process at the end of the period.

JOINT AND BY PRODUCT COSTING

Meaning

Joint products are produced simultaneously along with the main product and same raw material by a common process or series of processes, with each product possessing almost equal value in the form it is produced. These products are having equal importance.

For example, in petrol extraction, diesel and kerosene are Joint Products. A Joint product cost is the cost that arises from common processing or manufacturing of products produced from a common raw material. When two or more different

products are made from a single cost factor, a joint product cost results. A joint cost is incurred before the point at which separately identifiable products produced from the same process. In some cases, Joint products may incur further costs after their point of separation. In the process of manufacturing main product, other products of relatively small value which are unavoidably and incidentally produced are termed By-products. The sale value of these products is very less as compared to the main product or joint products. By products are of two categories (a) Those sold in their original form without need of further processing (b) those which require for the processing in order to be saleable. For example, in extraction of sugar molasses is by- product..

METHODS OF APPORTIONMENT OF THE JOINT

PRODUCTION COSTS

The apportionment of the joint production cost incurred up to the split off point can be made by

- 1) Market or sales value method
- 2) Reverse Cost Method
- 3) Physical unit method
- 4) Average unit cost method
- 5) Survey method

Market or Sales Value Method

Under this method the total market value is ascertained on the basis of market value of each product. It is more scientific method. The method is really a weighted market value basis using the total market value or sale value of each unit/quantity sold. Under this method, joint costs are apportioned on two basis (i) On the basis of sale price per unit or (ii) on the basis of total sale value.

On the basis of sale price per unit: In this method, joint costs are apportioned to each product in the ratio of sale price per unit of joint products without considering the quantities produced. This approach is suitable when the production of all joint products are equal. ii) On the basis of total sale value : Under this type, apportionment is done based on the ratio of weighted sale value (number of units) produced selling price per unit. It considers the quantities of joint products produced.

Illustration 1:

The Joint Products A,B,C, and D are produced at a total joint production costs of Rs. 1,20,000. Quantities produced are A 20,000 units, B 15,000 units, C 10,000 units and D 15,000 units. Product A sells for Rs. 16; B Rs. 4; C Rs. 8 and D for Rs. 4. These figures are at the split off point. Required to show the apportionment of joint costs by using.

(a) Sale price per unit method and (b) Total sale value method

Solution :

Apportionment of Joint Cost by Sales Price per unit Method

Apportionment of Joint Cost by Sales Price per unit Method

Product	Selling Price per unit	Apportionment of costs ratio (16:4:8:4)	Apportionment of Joint Costs Rs.
A	Rs.16	$\frac{16}{32} \times 1,20,000$	= 60,000
B	Rs. 4	$\frac{4}{32} \times 1,20,000$	= 15,000
C	Rs.8	$\frac{8}{32} \times 1,20,000$	= 30,000
D	Rs.4	$\frac{4}{32} \times 1,20,000$	= 15,000
		Total Joint Costs	Rs. 1,20,000 rounded off

Apportionment of Joint Cost by Total Sale Value Method

$$\text{Formula} = \frac{\text{Total Sale Value of each Product}}{\text{Total Sale value of all products}} \times \text{Joint Costs}$$

Joint Products	Units Produced (a)	Market Value per unit (Rs.) (b)	Total Market Value (b)	Calculations	Apportionment of product their costs Rs.
A	20,000	16	3,20,000		73,846
B	15,000	4	60,000		13,846
C	10,000	8	80,000		18,462
D	15,000	4	60,000		13,846
Total	60,000		Rs.5,20,000		Rs. 1,20,000

Ratio of Product value to total market value

A: B:C:D

16:4:8:4

16.5.2 Reverse Cost Method

This method of apportionment of Joint Costs, generally followed when products are not sold at the split off stage from the main product but further processing is required to sell. Under this method, Joint costs are apportioned based on the net value of each product. Thus it is also called Net Realisable

Physical Unit Method

The total joint cost, under this method, are distributed on the basis of relative quantity, weight, volume, units measurement. The Joint products must be measureable by basic measurement unit. This method is suitable only where the products are capable of being expressed in same physical unit. If this is not possible, the joint costs must be converted to a denominator common to all units produced. For example, in the manufacturer of Coke, products such as coal tar, benzol, sulfate of ammonia and gas are measured in different units. The yield of these recovered units are measured on the basis of the quantity of product extracted per ton of coal. The method assumes that production of all joint products are equally desirable and suitable.

Average Units Cost Method

Under this method the total production cost to the various products are apportioned on the basis of average unit cost. The unit cost is ascertained by dividing the total joint costs by the total number of units produced of all products. Thus, the average cost per unit of all the product is same. The following illustration explain the application.

Survey Method

This method is adopted after a technical survey of all factors involved in production and distribution of products. Percentage or weightage is assigned to each product to show its relative importance. Next weighted quantities are to be obtained by multiplying the assigned weights with their respective production of products and joint costs are apportioned on the basis of the ratio of weighted quantities.

The percentages or weightage is computed arbitrating by management. The method is also similar to weighted average method. It is also known as point value method. The percentages or weights can be used for a period, but it becomes necessary to compute new schedule necessitated by changes in quantities used, the time taken, the type of labour used, selling prices etc. The following illustration help you to understand the apportionment of costs under this method.

ABC COSTING

Activity-based costing (ABC) is a methodology for more precisely allocating overhead to those items that actually use it. The system can be used for the targeted reduction of overhead costs. ABC works best in complex environments, where there are many machines and products, and tangled processes that are not easy to sort out. Conversely, it is of less use in a streamlined environment where production processes are abbreviated.

The Activity Based Costing Process Flow

Activity-based costing is best explained by walking through its various steps. They are:

Identify costs. The first step in ABC is to identify those costs that we want to allocate. This is the most critical step in the entire process, since we do not want to waste time with an excessively broad project scope. For example, if we want to determine the full cost of a distribution channel, we will identify advertising and warehousing costs related to that channel, but will ignore research costs, since they are related to products, not channels.

Load secondary cost pools. Create cost pools for those costs incurred to provide services to other parts of the company, rather than directly supporting a company's products or services. The contents of secondary cost pools typically include computer services and administrative salaries, and similar costs. These costs are later allocated to other cost pools that more directly relate to products and services. There may be several of these secondary cost pools, depending upon the nature of the costs and how they will be allocated.

Load primary cost pools. Create a set of cost pools for those costs more closely aligned with the production of goods or services. It is very common to have separate cost pools for each product line, since costs tend to occur at this level. Such costs can include research and development, advertising, procurement, and distribution. Similarly, you might consider creating cost pools for each distribution channel, or for each facility. If production batches are of greatly varying lengths, then consider creating cost pools at the batch level, so that you can adequately assign costs based on batch size.

Measure activity drivers. Use a data collection system to collect information about the activity drivers that are used to allocate the costs in secondary cost pools to primary cost pools, as well as to allocate the costs in primary cost pools to cost objects. It can be expensive to accumulate activity driver information, so use activity drivers for which information is already being collected, where possible.

Allocate costs in secondary pools to primary pools. Use activity drivers to apportion the costs in the secondary cost pools to the primary cost pools.

Charge costs to cost objects. Use an activity driver to allocate the contents of each primary cost pool to cost objects. There will be a separate activity driver for each cost pool. To allocate the costs, divide the total cost in each cost pool by the total amount of activity in the activity driver, to establish the cost per unit of activity. Then allocate the cost per unit to the cost objects, based on their use of the activity driver.

Formulate reports. Convert the results of the ABC system into reports for management consumption. For example, if the system was originally designed to accumulate overhead information by geographical sales region, then report on revenues earned in each region, all direct costs, and the overhead derived from the ABC system. This gives management a full cost view of the results generated by each region.

Act on the information. The most common management reaction to an ABC report is to reduce the quantity of activity drivers used by each cost object. Doing so should reduce the amount of overhead cost being used.

We have now arrived at a complete ABC allocation of overhead costs to those cost objects that deserve to be charged with overhead costs. By doing so, managers can see which activity drivers need to be reduced in order to shrink a corresponding amount of overhead cost. For example, if the cost of a single purchase order is \$100, managers can focus on letting the production system automatically place purchase orders, or on using procurement cards as a way to avoid purchase orders. Either solution results in fewer purchase orders and therefore lower purchasing department costs.

Uses of Activity Based Costing

The fundamental advantage of using an ABC system is to more precisely determine how overhead is used. Once you have an ABC system, you can obtain better information about the following issues:

Activity costs. ABC is designed to track the cost of activities, so you can use it to see if activity costs are in line with industry standards. If not, ABC is an excellent feedback tool for measuring the ongoing cost of specific services as management focuses on cost reduction.

Customer profitability. Though most of the costs incurred for individual customers are simply product costs, there is also an overhead component, such as unusually high customer service levels, product return handling, and cooperative marketing agreements. An ABC system can sort through these additional overhead costs and help you determine which customers are actually earning you a reasonable profit. This analysis may result in some unprofitable customers being turned away, or more emphasis being placed on those customers who are earning the company its largest profits.

Distribution cost. The typical company uses a variety of distribution channels to sell its products, such as retail, Internet, distributors, and mail order catalogs. Most of the structural cost of maintaining a distribution channel is overhead, so if you can make a reasonable determination of which distribution channels are using overhead, you can make decisions to alter how distribution channels are used, or even to drop unprofitable channels.

Make or buy. ABC provides a comprehensive view of every cost associated with the in-house manufacture of a product, so that you can see precisely which costs will be eliminated if an item is outsourced, versus which costs will remain.

Margins. With proper overhead allocation from an ABC system, you can determine the margins of various products, product lines, and entire subsidiaries. This can be quite useful for determining where to position company resources to earn the largest margins.

Minimum price. Product pricing is really based on the price that the market will bear, but the marketing manager should know what the cost of the product is, in order to avoid selling a product that will lose a company money on every sale. ABC is very good for determining which overhead costs should be included in this minimum cost, depending upon the circumstances under which products are being sold.

Production facility cost. It is usually quite easy to segregate overhead costs at the plant-wide level, so you can compare the costs of production between different facilities.

Clearly, there are many valuable uses for the information provided by an ABC system. However, this information will only be available if you design the system to provide the specific set of data needed for each decision. If you install a generic ABC system and then use it for the above decisions, you may find that it does not provide the information that you need. Ultimately, the design of the system is determined by a cost-benefit analysis of which decisions you want it to assist with, and whether the cost of the system is worth the benefit of the resulting information.

Problems with Activity Based Costing

Many companies initiate ABC projects with the best of intentions, only to see a very high proportion of the projects either fail or eventually lapse into disuse. There are several reasons for these issues, which are:

Cost pool volume. The advantage of an ABC system is the high quality of information that it produces, but this comes at the cost of using a large number of cost pools – and the more cost pools there are, the greater the cost of managing the system. To reduce this cost, run an ongoing analysis of the cost to maintain each cost pool, in comparison to the utility of the resulting information. Doing so should keep the number of cost pools down to manageable proportions.

Installation time. ABC systems are notoriously difficult to install, with multi-year installations being the norm when a company attempts to install it across all product lines and facilities. For such comprehensive installations, it is difficult to maintain a high level of management and budgetary support as the months roll by without installation being completed. Success rates are much higher for smaller, more targeted ABC installations.

Multi-department data sources. An ABC system may require data input from multiple departments, and each of those departments may have greater priorities than the ABC system. Thus, the larger the number of departments involved in the system, the greater the risk that data inputs will fail over time. This problem can be avoided by designing the system to only need information from the most supportive managers.

Project basis. Many ABC projects are authorized on a project basis, so that information is only collected once; the information is useful for a company's current operational situation, and it gradually declines in usefulness as the operational structure changes over time. Management may not authorize funding for additional ABC projects later on, so ABC tends to be "done" once and then discarded. To mitigate this issue, build as much of the ABC data collection structure into the existing accounting system, so that the cost of these projects is reduced; at a lower cost, it is more likely that additional ABC projects will be authorized in the future.

Reporting of unused time. When a company asks its employees to report on the time spent on various activities, they have a strong tendency to make sure that the reported amounts equal 100% of their time. However, there is a large amount of slack time in anyone's work day that may involve breaks, administrative meetings, playing games on the Internet, and so forth. Employees usually mask these activities by apportioning more time to other activities. These inflated numbers represent misallocations of costs in the ABC system, sometimes by quite substantial amounts.

Separate data set. An ABC system rarely can be constructed to pull all of the information it needs directly from the general ledger. Instead, it requires a separate database that pulls in information from several sources, only one of which is existing general ledger accounts. It can be quite difficult to maintain this extra database, since it calls for significant extra staff time for which there may not be an adequate budget. The best work-around is to design the system to require the minimum amount of additional information other than that which is already available in the general ledger.

Targeted usage. The benefits of ABC are most apparent when cost accounting information is difficult to discern, due to the presence of multiple product lines, machines being used for the production of many products, numerous machine setups, and so forth – in other words, in complex production environments. If a company does not operate in such an environment, then it may spend a great deal of money on an ABC installation, only to find that the resulting information is not overly valuable.

The broad range of issues noted here should make it clear that ABC tends to follow a bumpy path in many organizations, with a tendency for its usefulness to decline over time. Of the problem mitigation suggestions noted here, the key point is to construct a highly targeted ABC system that produces the most critical information at a reasonable cost. If that system takes root in your company, then consider a gradual expansion, during which you only expand further if there is a clear and demonstrable benefit in doing so. The worst thing you can do is to install a large

and comprehensive ABC system, since it is expensive, meets with the most resistance, and is the most likely to fail over the long term.

CLASSIFICATION OF COSTING / TYPE OF COST

Cost classification involves the separation of a group of expenses into different categories. A classification system is used to bring to management's attention certain costs that are considered more crucial than others, or to engage in financial modeling. Here are several types of cost classifications:

Cost Classification by Time

Historical Cost:

The historical cost is the actual cost, determined after the event. Historical cost valuation states costs of plant and materials, for example, at the price originally paid for them.

Costs reported by conventional financial accounts are based on historical valuations. But during periods of changing price levels, historical costs may not be correct basis for projecting future costs. Naturally historical costs must be adjusted to reflect current or future price levels.

ii. Predetermined Cost:

These costs relating to the product are computed in advance of production, on the basis of a specification of all the factors affecting cost and cost data. Predetermined costs may be either standard or estimated.

iii. Standard Cost:

It is a predetermined calculation of how much costs should be under specified working conditions. It is built up from an assessment of the value of cost elements and correlates technical specifications and the quantification of materials, labour and other costs to the prices and/or usage rates expected to apply during the period in which the standard cost is intended to be used.

Its main purpose is to provide basis for control through variance accounting for the valuation of stock and work-in-progress and in some cases, for fixing selling prices. A standard cost is a planned cost for a unit of product or service rendered.

iv. Estimated Cost:

It is a predetermined cost based on past performance adjusted to the anticipated changes. No minute appraisal of each individual component cost. It can be used in any business situation or decision making which does not require accurate cost.

It is used in budgetary control system and historical costing system. Its emphasis is on the level of costs not to be exceeded. It is used in decision making and selection of alternative with maximum profitability. It is also used in price fixation and tendering. It is determined generally for the period.

i. Marginal Cost:

The term 'marginal cost' is defined as the amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit. It is a variable cost of one unit of a product or a service i.e., a cost which would be avoided if that unit was not produced or provided.

ii. Differential Cost:

It is also known as 'incremental cost'. It is the difference in total cost that will arise from the selection of one alternative to the other. It is an added cost of a change in the level of activity.

This concept is similar to the economists' concept of marginal cost which is defined as the additional cost incurred by producing one more unit of product. It refers to any kind of change like add or drop a new product/existing product,

changing distribution channels, add or drop business segments, adding new machinery, sell or process further, accept or reject special orders etc.

iii. Opportunity Cost:

It is the value of a benefit sacrificed in favour of an alternative course of action. It is the maximum amount that could be obtained at any given point of time if a resource was sold or put to the most valuable alternative use that would be practicable. Opportunity cost of good or service is measured in terms of revenue which could have been earned by employing that good or service in some other alternative uses.

Opportunity cost can be defined as the revenue forgone by not making the best alternative use. Opportunity costs represent income foregone by rejecting alternatives. They are, therefore not incorporated into formal accounting systems because they do not incorporate cash receipts or outflows.

iv. Relevant Cost:

The relevant cost is a cost appropriate in aiding to make specific management decisions. Business decisions involve planning for future and consideration of several alternative courses of action. In this process the costs which are affected by the decisions are future costs. Such costs are called relevant costs because they are pertinent to the decisions in hand.

The cost is said to be relevant if it helps the manager in taking a right decision in furtherance of the company's objectives. A relevant cost is a future cost which differs between alternatives. It can also be defined as any cost which is affected by the decision at hand. The relevant cost must be a future cost, i.e., one which is expected to be incurred and not a historic or sunk cost which has already been incurred.

v. Sunk Cost:

The sunk cost is one for which the expenditure has taken place in the past. This cost is not affected by a particular decision under consideration. Sunk costs are always results of decisions taken in the past. This cannot be changed by any decision in future. The sunk costs are those costs that have been invested in a project and which will not be recovered if the project is terminated.

The sunk cost is one for which the expenditure has taken place in the past. This cost is not affected by a particular decision under consideration. Sunk-costs are always results of decisions taken in the past;-This cost cannot be changed by any decision in future. Investment in plant and machinery as soon as it is installed, its cost is sunk cost and is not relevant for decisions.

Amortisation of past expenses, e.g., depreciation is a sunk cost. Sunk costs will remain the same irrespective of the alternative selected. Thus, it need not be considered by the management in evaluating the alternatives as it is common to all of them.

vi. Replacement Cost:

The replacement cost is a cost at which material identical to that is to be replaced could be purchased at the date of valuation (as distinct from actual cost price at the date of purchase). The replacement cost is a cost of replacing an asset at any given point of time either at present or in the future (excluding any element attributable to improvement).

vii. Normal Cost:

The normal cost is normally incurred at a given level of output in the conditions in which that level of output is achieved. Normal cost includes those items of cost which occur in the normal situation of production process or in the normal environment of the business. The normal idle time is to be included in the ascertainment of normal cost.

viii. Abnormal Cost:

It is an unusual or a typical cost whose occurrence is usually irregular and unexpected and due to some abnormal situation of the production. Abnormal cost arises due to idle time for some heavy break down or abnormal process loss. They are not considered in the cost of production for decision making and charged to Profit and Loss Account.

ix. Avoidable Cost:

The avoidable costs are those costs which under given conditions of performance efficiency should not have been incurred. Avoidable costs are logically associated with some activity or situation and are ascertained by the difference of actual cost with the happening of the situation and the normal cost.

When spoilage occurs in manufacture in excess of normal limit, the resulting cost of spoilage is avoidable cost. Cost variances which are controllable may be termed as avoidable cost. These costs are also called as 'escapable costs'. The avoidable cost will not be incurred if an activity is not undertaken or discontinued.

Avoidable cost will often correspond with variable costs. Avoidable cost can be identified with an activity or sector of a business and which would be avoided if that activity or sector did not exist. It refers to costs which can be reduced due to a contraction in the activities of a business enterprise. It is the net effect on costs that is important, not just the costs directly avoidable by the contraction.

x. Unavoidable Cost:

The unavoidable costs are 'inescapable costs' which are essentially to be incurred, within the limits or norms provided for. It is the cost that must be incurred under a program of business restriction. It is fixed in nature and inescapable.

xi. Pre-Production Cost:

The costs incurred prior to the starting of commercial production are called as 'pre-production costs'. These costs include preliminary expenses, trial run costs etc. These costs are incurred from the initiation of project till its formal commercial production.

When a new factory is in the process of establishment or a new product line or product is taken-up, a new project is undertaken, but the commercial operations have not started, during such period all costs incurred are considered as pre-production costs and are treated as deferred revenue expenditure except the costs which have been capitalized. Such deferred expenses are charged to future production.

xii. Product Cost:

The product cost is aggregate of costs that are associated with a unit of product. Such costs may or may not include an element of overheads depending upon the type of costing system in force – absorption or direct. Product costs are related to goods produced or purchased for resale and are initially identifiable as part of inventory.

These product or inventory costs become expenses in the form of cost of goods sold only when the inventory is sold. Product cost is associated with unit of output. The costs of inputs in forming the product viz., the direct material, direct labour, factory overhead constitute the product costs.

xiii. Period Cost:

The period cost is a cost that tends to be unaffected by changes in level of activity during a given period of time. Period cost is associated with a time period rather than manufacturing activity and these costs are deducted as expenses during the current period without previously classified as product costs. Selling and distribution costs are period costs and are deducted from the revenue without their being regarded as part of the inventory cost.

xiv. Traceable Cost:

The traceable costs are those which can be identified easily and indisputably with a unit of operation or costing unit or cost centre. Costs of direct material, direct labour and direct expenses can be directly allocated or identified with particular cost centres or cost units and can be directly charged to such cost centres or cost units.

xv. Common Cost:

The common costs cannot be allocated but which can be apportioned to cost centres or cost units. The indirect costs are not traceable to any plant, department, operation or to any individual final product. All overhead costs are indirect costs. Cost of indirect material, indirect labour and indirect expenses in aggregate constitute the overhead costs and are the indirect component of the total cost.

The concepts of direct and indirect costs are meaningless without identification of the relevant cost unit or cost centre. Segregation of costs into direct and indirect costs is essential for proper accounting and control of costs and also for managerial decision making purpose.

xvi. Controllable Cost:

The controllable cost is a cost chargeable to a budget or cost centre, which can be influenced by the actions of the person in whom control of the centre is vested. It is always not possible to predetermine responsibility, because the reason for deviation from expected performance may only become evident later.

For example excessive scrap may arise from inadequate supervision or from latent defect in purchased material. The controllable cost is a cost that can be influenced and regulated during a given time span by the actions of a particular individual within an organization.

xvii. Uncontrollable Cost:

These costs cannot be influenced by the action of a specified member of the organization. The controllability of cost depends upon the level of responsibility under consideration. Direct costs are generally controllable by the shop level management. The uncontrollable cost is a cost that is beyond the control (i.e., uninfluenced by actions) of a given individual during a given period of time.

xviii. Short-Run Cost:

The short-run costs are costs that vary with output when fixed plant and capital equipment remain the same and become relevant when a firm has to decide whether or not to produce more in the immediate future.

xix. Long-Run Cost:

The long-run costs are those which vary with output when all input factors including plant and equipment vary and become relevant when the firm has to decide whether to setup a new plant or to expand the existing one.

xx. Past Cost:

The past costs are actual costs incurred in the past and are generally contained in the financial accounts. These costs report past events and the time lag between event and its reporting makes the information out of date and irrelevant for decision-making. These costs will just act as a guide for future course of action.

xxi. Future Cost:

The future costs are costs expected to be incurred at a later date and are the only costs that matter for managerial decisions because they are subject to management control. Future costs are relevant for managerial decision making in cost control, profit projections, appraisal of capital expenditure, introduction of new products, expansion programs and pricing etc.

xxii. Explicit Cost:

These costs are also called as 'out of pocket costs'. The explicit cost is a cost that will necessitate a corresponding outflow of cash. These costs involve cash outlay or payment to other parties. Explicit costs are relevant in some decision making problems such as fluctuation of prices during recession, make or buy decisions etc. These costs are recorded in the books of account and can be easily measured.

xxiii. Implicit Cost:

These costs are also called as 'imputed costs' or 'notional costs'. The implicit cost is a cost which doesn't involve actual cash outlay, which are used only for the purpose of decision making and performance evaluation. Interest on capital is common type of implicit cost. No actual payment of interest is made but the basic concept is that, had the funds been invested elsewhere they would have earned interest.

Thus, implicit costs are a type of opportunity costs which cannot be recorded in the books of account but are important for certain types of managerial decisions such as replacement of equipment, evaluation of profitability of two alternative courses of action.

xxiv. Book Cost:

The book costs are those which do not require current cash payments. Depreciation, is a notional cost in which no cash transaction is involved. Book costs can be converted into out of pocket costs by selling the assets and having them on hire. Rent would then replace depreciation and interest.

xxv. Shutdown Cost:

The shutdown costs are the costs incurred in relation to the temporary closing of a department / division / enterprise. Such costs include those of closing, as well as, those of reopening. The shutdown costs are defined as those costs which would be incurred in the event of suspension of the plant operation and which would be saved if the operations are continued.

Examples of such costs are costs of sheltering the plant and equipment and construction of sheds for storing exposed property. Further, additional expenses may have to be incurred when operations are restored e.g., reemployment of workers may involve cost of recruitment and training.

xxvi. Abandonment Cost:

The abandonment cost is the cost incurred in closing down a department or a division or in withdrawing a product or ceasing to operate in a particular sales territory etc. The abandonment costs are the cost of retiring altogether a plant from service. Abandonment arises when there is a complete cessation of activities and creates a problem as to the disposal of assets.

xxvii. Urgent Cost:

The urgent costs are those which must be incurred in order to continue operations of the firm. For example, cost of material and labour must be incurred if production is to take place.

xxviii. Postponable Cost:

The postponable cost is that cost which can be shifted to the future with little or no effect on the efficiency of current operations. These costs can be postponed at least for some time, e.g., maintenance relating to building and machinery.

xxix. Conversion Cost:

It is the cost incurred to convert raw materials into finished goods. It is the sum of direct wages, direct expenses and manufacturing overheads.

Cost Classification by Nature of Production Process:

Depending on the nature of production process, the cost can be classified into the following:

1. Batch Cost:

It is the aggregate cost related to a cost unit which consists of a group of similar articles which maintain its identity throughout one or more stages of production.

2. Process Cost:

When the production process is such that goods are produced from a sequence of continuous or repetitive operations or processes, the cost incurred during a period is considered as process cost. The process cost per unit is derived by dividing the process cost by number of units produced in the process during the period. Accounts are maintained for cost of a process for a period. The average cost per unit produced during the period is process cost per unit.

3. Operation Cost:

It is the cost of a specific operation involved in a production process or business activity. When there are distinctly separate operations involved in a process, cost for each operation is found out for effective control mechanism.

4. Operating Cost:

It is the cost incurred in conducting a business activity. Operating costs refer to the cost of undertakings which do not manufacture any product but which provide services.

5. Contract Cost:

It is the cost of a contract with some terms and conditions of adjustment agreed upon between the contractee and the contractor. Contract cost usually implied to major long- term contracts as distinct from short-term job costs. Escalation clause is sometimes provided in the contract in order to take care of anticipated change in material price, labour cost etc.

6. Joint Cost:

These are the common costs of facilities or services employed in the output of two or more simultaneously produced or otherwise closely related operations, commodities or services.

When a production process is such that from a set of same input, two or more distinguishably different products are produced together, products of greater importance are termed as joint products and products of minor importance are termed as by-products and the costs incurred prior to the point of separation of the products are termed as joint costs.

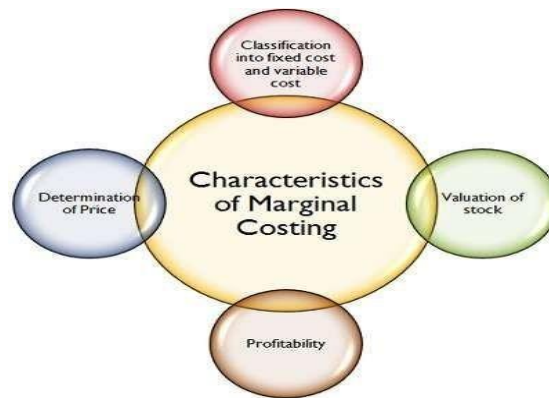
For example, in a petroleum refinery industry, petrol, diesel oil, kerosene oil, naphtha, tar etc. are produced jointly in the refinery process. By-product cost is the cost assigned to the by -products.

The preceding examples of cost classifications should make it clear that costs can be subdivided in many ways. Only a few of these classifications are provided for within the formal accounting system (mostly to classify costs by department). Other types of classifications must be performed manually, usually with an electronic spreadsheet.

MARGINAL COSTING UNIT IV

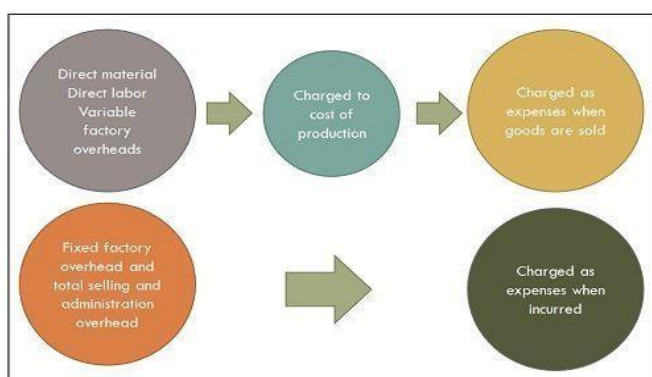
Definition: Marginal Costing is a costing technique wherein the marginal cost, i.e. variable cost is charged to units of cost, while the fixed cost for the period is completely written off against the contribution. Marginal cost is **the change in the total cost when the quantity produced is incremented by one.**

Characteristics of Marginal Costing



- **Classification into Fixed and Variable Cost:** Costs are bifurcated, on the basis of variability into fixed cost and variable costs. In the same way, semi variable cost is separated.
- **Valuation of Stock:** While valuing the finished goods and work in progress, only variable cost are taken into account. However, the variable selling and distribution overheads are not included in the valuation of inventory.
- **Determination of Price:** The prices are determined on the basis of marginal cost and marginal contribution.
- **Profitability:** The ascertainment of departmental and product's profitability is based on the contribution margin.

Marginal Costing Approach



The difference between product costs and period costs forms a basis for marginal costing technique, wherein only **variable cost is considered as the product cost while the fixed cost is deemed as a period cost**, which incurs during the period, irrespective of the level of activity.

Facts Concerning Marginal Costing

- **Cost Ascertainment:** The basis for ascertaining cost in marginal costing is the nature of cost, which gives an idea of the cost behavior, that has a great impact on the profitability of the firm.
- **Special technique:** It is not a unique method of costing, like contract costing, process costing, batch costing. But, marginal costing is a different type of technique, used by the managers for the purpose of decision making. It provides a basis for understanding cost data so as to gauge the profitability of various products, processes and cost centers.
- **Decision Making:** It has a great role to play, in the field of decision making, as the changes in the level of activity pose a serious problem to the management of the undertaking.

Marginal Costing assists the managers in taking end number of business decisions, such as replacement of machines, discontinuing a product or service, etc. It also helps the management in ascertaining the appropriate level of activity, through break even analysis, that reflect the impact of increasing or decreasing production level, on the company's overall profit.

Marginal cost is the change in the total cost when the quantity produced is incremented by one. That is, it is the cost of producing one more unit of a good. For example, let us suppose:

Variable cost per unit	=	Rs 25
Fixed cost	=	Rs 1,00,000
Cost of 10,000 units	=	$25 \times 10,000 =$ Rs 2,50,000
Total Cost of 10,000 units	=	Fixed Cost + Variable Cost
	=	$1,00,000 + 2,50,000$
	=	Rs 3,50,000
Total cost of 10,001 units	=	$1,00,000 + 2,50,025$
	=	Rs 3,50,025
Marginal Cost	=	$3,50,025 - 3,50,000$
	=	Rs 25

Need for Marginal Costing

- Variable cost per unit remains constant; any increase or decrease in production changes the total cost of output.
- Total fixed cost remains unchanged up to a certain level of production and does not vary with increase or decrease in production. It means the fixed cost remains constant in terms of total cost.
- Fixed expenses exclude from the total cost in marginal costing technique and provide us the same cost per unit up to a certain level of production.

Features of Marginal Costing

- Marginal costing is used to know the impact of variable cost on the volume of production or output.
- Break-even analysis is an integral and important part of marginal costing.
- Contribution of each product or department is a foundation to know the profitability of the product or department.
- Addition of variable cost and profit to contribution is equal to selling price.
- Marginal costing is the base of valuation of stock of finished product and work in progress.
- Fixed cost is recovered from contribution and variable cost is charged to production.
- Costs are classified on the basis of fixed and variable costs only. Semi-fixed prices are also converted either as fixed cost or as variable cost.

Ascertainment of Profit under Marginal Cost

‘Contribution’ is a fund that is equal to the selling price of a product less marginal cost. Contribution may be described as follows:

$$\begin{aligned} \text{Contribution} &= \text{Selling Price} - \text{Marginal Cost} \\ \text{Contribution} &= \text{Fixed Expenses} + \\ \text{Profit} &= \text{Contribution} - \text{Fixed Expenses} = \text{Profit} \end{aligned}$$

Income Statement under Marginal Costing

Income Statement			
For the year ended 31-03-2014			
Particulars	Amount	Total	
Sales		25,00,000	
Less: Variable Cost:			
Cost of goods manufactured	12,00,000		
Variable Selling Expenses	3,00,000		
Variable Administration Expenses	50,000		
	15,50,000		
Contribution		9,50,000	
Less: Fixed Cost:			
Fixed Administration Expenses	70,000		
Fixed Selling Expenses	1,30,000	2,00,000	
		7,50,000	

Advantages of Marginal Costing

- Easy to operate and simple to understand.
- Marginal costing is useful in profit planning; it is helpful to determine profitability at different level of production and sale.
- It is useful in decision making about fixation of selling price, export decision and make or buy decision.
- Break even analysis and P/V ratio are useful techniques of marginal costing.
- Evaluation of different departments is possible through marginal costing.
- By avoiding arbitrary allocation of fixed cost, it provides control over variable cost.
- Fixed overhead recovery rate is easy.
- Under marginal costing, valuation of inventory done at marginal cost. Therefore, it is not possible to carry forward illogical fixed overheads from one accounting period to the next period.
- Since fixed cost is not controllable in short period, it helps to concentrate in control over variable cost.

Module 12 : Cost Volume Profit Analysis

Lecture 1 : Cost Volume Profit Analysis

Objectives

In this lecture you will learn the following

Cost Volume Profit (CVP)

- Introduction.
- Fixed costs.
- Variable costs.
- Semi variable costs.
- Contribution margin.
- Break even point.
- PV Ratio.

CVP Analysis

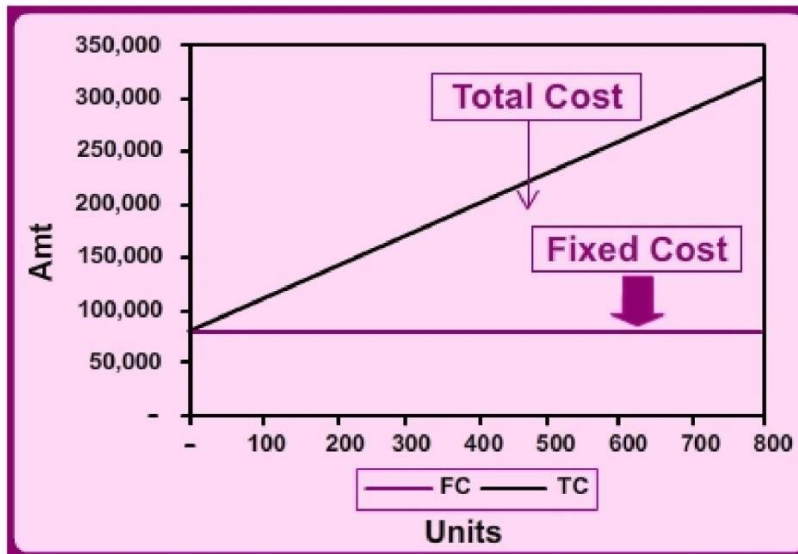
CVP analysis is the analysis of three variable viz. cost, volume and profit. Such analysis explores the relationship existing amongst costs, revenue, activity level and resulting profit. It aims at measuring variation of cost with profit.

Fixed Cost

These are the costs which incurred for a period and which within certain output and turnover limits, tend to be unaffected by fluctuations in the levels of activity (Output or turnover).

For example: Rent, insurance of factory building etc. remain the same for different levels of production.

Fixed Cost Graph

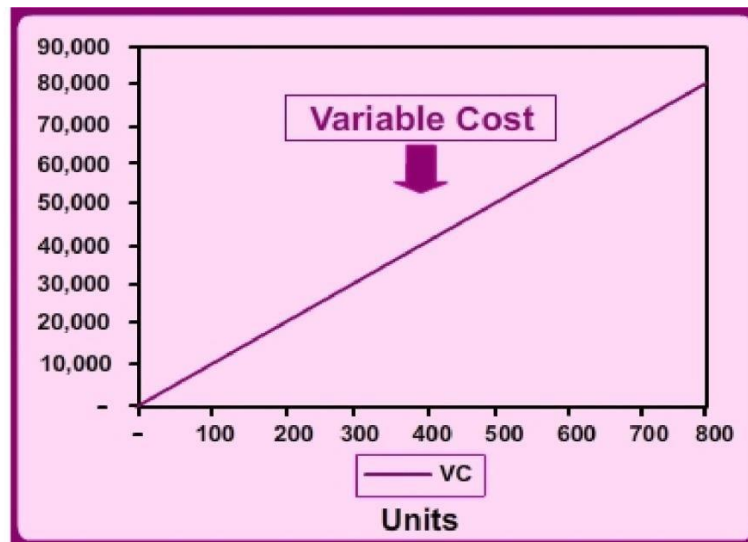


Variable Cost

These costs tend to vary with the volume of activity. Any increase in activity results in an increase in the variable cost and vice versa.

For example: Cost of direct labour, direct material, etc.

Variable Cost Graph

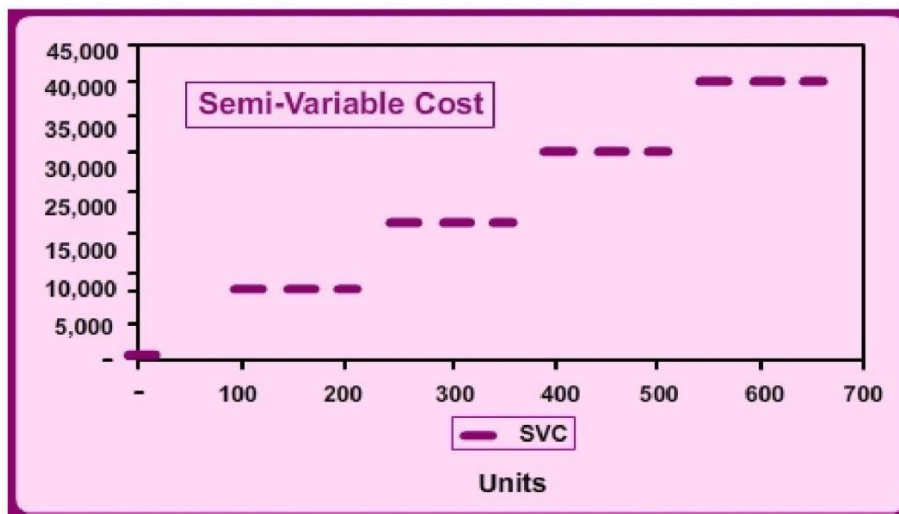


Semi-Variable Cost

These costs contain both fixed and variable components and thus partly affected by fluctuation in the level of activity.

Examples of semi variable costs are telephone bill, gas and electricity etc.

Semi-Variable Cost Graph



Cost-Volume-Profit Analysis

CVP analysis:

- Takes into account
 - the total costs (fixed and variable)
 - the total sales revenues
 - desired profits vis-a-vis the sales volume

It is used for forecasting or predicting how the changes in costs and sales volume affect profit. It is also known as 'Break-Even Analysis'.

CVP analysis could be helpful in the following situations:

Budget planning: for forecasting profit by considering cost and profit relation, and volume of production volume. This will help in determining the sales volume required to make a profit.

- To make decisions regarding pricing and sales volume.

Determining the sales mix of different products, in what proportions each of the products can be sold.

- Preparing flexible budget considering costs at different levels of production.

Objectives of CVP Analysis

- Understand the interaction among

- Prices of products.
- Volume or level of activity.
- Per unit variable cost.
- Total fixed cost.
- Mix of product sold.

Assumptions of CVP Analysis

- Expenses can be classified as either variable or fixed.
- CVP relationships are linear over a wide range of production and sales.
- Sales prices, unit variable cost, and total fixed expenses will not vary within the relevant range.
- Volume is the only cost driver.
- The relevant range of volume is specified.
- Inventory levels will be unchanged.
- The sales mix remains unchanged during the period.

Calculations

Profit Equation and Contribution Margin

1. Profit = Sales - Total costs
2. Profit = Sales - Total variable costs - Total Fixed costs
3. Contribution margin = Total revenue - Total variable costs

Sales	XX
-Variable Cost	(XX)
Contribution	XX
-Fixed Cost	(XX)
Profit	XX

- Profit = (S-V)*Q - FC
- $Q = \frac{(FC + \text{Expected Profit})}{(S - VC)}$
- Q is the no. of units required to be sold to obtain target profit.
- S = Selling Price p.u.
- VC = Variable cost p.u.
- FC = Fixed Cost.

Example:

Suppose that Super Bikes wants to produce a new mountain bike called Hero1 and has forecast the following information.

- Price per bike = ₹800
- Variable cost per bike = ₹300
- Fixed costs related to bike production = ₹55,00,000
- Target profit = ₹2,00,000
- Estimated sales = 12,000 bikes

We determine the quantity of bikes needed for the target profit as follows:

- Quantity = $(₹55,00,000 + ₹2,00,000) / (₹800 - ₹300) = 11,400$ bikes

Profit Volume Ratio (PV)

The contribution margin ratio (CMR) i.e. PV ratio is the percentage by which the selling price (or revenue) per unit exceeds the variable cost per unit, or contribution margin as a percentage of revenue.

Example

For Hero1, we could use the forecast information about volume (12,000 bikes) to determine the contribution margin ratio.

- Total revenue = ₹800 * 12,000
= ₹96,00,000
- Total variable cost = ₹300 * 12,000
= ₹36,00,000
- Total contribution margin = ₹96,00,000 - ₹36,00,000
= ₹60,00,000
- Contribution margin ratio = ₹60,00,000 / ₹96,00,000
= 0.625

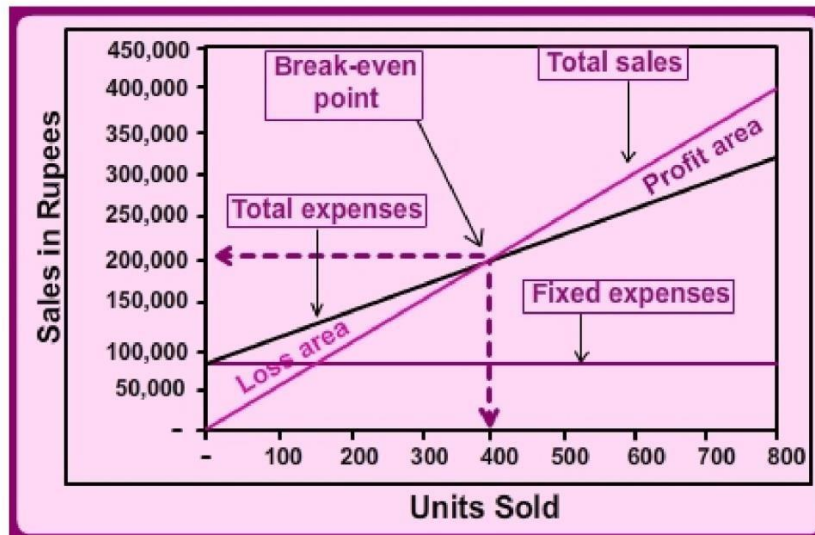
BEP analysis

- Breakeven analysis is used to find the minimum level of production required.
- Evaluates both fixed and variable costs.
- Uses:
 1. To find a suitable product mix.
 2. To find the sales required to reach a desired revenue.
 3. The profits at certain price level and sales.

Break even Point (BEP)

- A CVP analysis can be used to determine the BEP, or level of operating activity at which revenues cover all fixed and variable costs, resulting in zero profit.
- In other words this is the point where no profit or losses have been made.

Cost-Volume-Profit Graph



Break even Applications

- New Product decisions :- Enables to determine the sale volume required for a firm (or an individual product) to breakeven, given expected sales price and expected costs.
- Pricing decisions :-

- Enables to study the effect of changing price and volume relationship on total profits.
- Modernizations or automation decisions:-
Analysis the profit in implication of a modernization or automation programme.
- Expansion Decisions :-
studies the aggregate effect of a general expansion in production and sales.

Formulae

- $$\text{BEP in units} = \frac{\text{Total fixed costs}}{(\text{Sales price} - \text{variable cost p.u.})}$$

$$= \frac{\text{Fixed cost}}{\text{Contribution per unit}}$$
- $$\text{BEP in sales value} = \frac{\text{Fixed cost}}{\text{PV Ratio}}$$

Example

- Sales 5000 units.
- Sales price per unit Rs. 50.
- Variable cost per unit Rs. 30.
- Fixed cost Rs. 35000.
- Therefore, contribution per unit = 50 - 30 = Rs. 20

$$\text{BEP in units} = \frac{35000}{20}$$

$$= 1750 \text{ units}$$

$$1750 * 50 = \text{Rs. } 87500$$
- $$\text{BEP in sales value} = \frac{35000 * 250000}{87500}$$

$$= \text{Rs. } 100000$$

Margin of safety

- Represents the strength of the business.
- Margin of Safety = Actual Sale - BEP Sale
- Margin of safety % = $(\text{Sales} - \text{BEP}) / \text{Sales} \times 100$
- $$\text{Margin of safety} = \frac{(5000 - 1750)}{5000}$$

$$= 65 \%$$
- Hence even if the sales decrease by 65%, the business wont face any loss.

Make or Buy Decision

Make or Buy Decision' is a problem in respect of which management has to take decision continuously, In this context, the management has to decide whether a certain product or component should be made in the factory itself or bought from outside suppliers.

The nature of decision regarding make or buy may be of the following types:

Stopping the production of the part and buying it from the market: A business co is already making a part or component which is used in the business. Now due to some decision has to be taken whether this part or component should be bought from the market additional requirement due to increase in production of main factory should be made in factory or should be bought from the market.

In the case of a decision like stopping the production of the part or component and buying it from market, it is to be remembered that there would not be additional fixed cost in case and only marginal cost is the relevant factor to be considered. If the marginal cost is less than

buying price, additional requirement of the component should be met by making rather than buying.

Similarly, if buying price is less than marginal cost, it will be advantageous to purchase it from the market.

Stopping the purchase of a component and to produce it in own factory: The second aspect of the problem of make or buy may be that a component or part thus far being purchased from the market should be produced or made in factory or not. In this case, normally some extra arrangement regarding space, labour, machine etc. will be required. This may involve capital investment too. Some special overheads may also be necessary. If the decision for making requires the setting up of a new and separate factory, separate supervisory staff may also be needed. All these arrangements will require additional costs. As such, the price being paid to outsiders should be compared with additional costs which will have to be incurred in the form of raw materials, wages, salaries of additional supervisors, interest on capital investment, depreciation on new machine, rent of premises etc. If such additional cost are less than the buying price, the component should be manufactured and vice-versa.

Change in Product Mix

- A)** Introducing a new line or department: The problem of introducing a new product or line involves decision in two respects- whether a new product or line should be added to the existing production or not, and if it should be introduced, then what should be the model or design or shape of the new product. In other words, if new product can be produced in more than one model, which model should be introduced? The marginal cost of new product in all its possible models should be considered. It also possible that a portion of the cost of facilities relating to the original production may be used for the purpose of producing new product.
- B)** Selecting optimum product mix: When a company is engaged in a number of lines or products, there may arise a problem of selecting most optimum product mix which would maximize the earnings. This problem becomes complicated, when one of the factors happens to be limiting or key factors. Under such a situation, profitability will be improved only by economizing the scarce resources. As pointed out earlier, contribution per unit of key factor is the real index of profitability under such case. Thus, while deciding a profitable mix of products, contribution per unit of key factor should be considered.

Shut-Down Decisions

Shut-down decisions may be of two types- closure of entire business and dropping a line or product or department.

Closure of entire business: Sometimes, a business concern may not be in a position to carry out its trading activities in an adequate volume due to trade recession or cut throat competition. As such, the management of such business concern may be faced with a problem of suspending the trading activities.

Shut-down point = Net escapable fixed cost / contribution per unit Or

Shut-down point = Avoidable expenses / contribution per unit of raw materials

Explanation with Solved Example:

Sometimes businesses encounter a situation where they have to decide between making a particular product themselves or to buy it from an outside supplier. ***The decision is based on both financial and non-financial factors.***

In general proposed purchased price is compared with the marginal cost of production. If marginal cost of the production are more than the price offered by the outside supplier then clearly buying goods in finished form is a better option. When manufacture of goods displaces existing production, the alternative use of plant etc., currently employed in manufacturing must be taken into consideration.

To make or buy decision may well be influenced by the availability of spare capacity. If the business has spare capacity and other conditions are favorable then it will be relatively cheap to manufacture the product. However, if the spare capacity is not available, the firm will have to displace production of another product in order to make capacity available to manufacture the product.

Factors to Make or Buy Decisions:

There are two important factors to make or buy decisions:

(1) Quantitative factors and (2) Qualitative factors

(1) Quantitative Factors to Make or Buy Decisions:

To understand about quantitative factors, read the following example:

Solved Example:

Furniture Inn manufactures computer tables. Recently a supplier has offered the tables of the same quality @ \$14 each with an assurance of continued supply. The following is the budget for 4000 units prepared for the quarter ending 30 September 2016:

	\$
Raw material cost	20000
Direct wages	18000
Production overheads:	
Variable	12000
Fixed	14000
Distribution costs:	
Variable	6000
Fixed	7500
Administration costs:	
Variable	5000
Fixed	12500

Required:

- (a) Should Furniture Inn accept the offer from the supplier?
- (b) What would be the decision if the supplier offered the tables at \$12 each?

Solution:

Calculation of per table marginal cost of production

	\$
Direct material cost	20000
Direct labor cost	18000
Production overheads: Variable	<u>12000</u>
Marginal cost of production	50000
/ Number of units produced	<u>/ 4000</u>
Per table marginal cost of production	<u><u>12.50</u></u>

(a) As marginal cost of production is less than the buying price offered by the supplier so Furniture Inn should continue production of tables. The distribution, administration and fixed production are irrelevant in the decision as presumptively they will be incurred in either case.

(b) As in this case they buy in price \$12 is less than the marginal cost of production so Furniture Inn should buy the tables from the supplier and discontinue production of tables provided other things are favorable.

(2) Qualitative Factors to Make or Buy Decision:

Though quantitative considerations are important and may be decisive but make or buy decision may not be appropriate if relevant qualitative factors are ignored. Some of the ***qualitative factors relating to make or buy decision*** are as follows:

(1) Quality and reliability of goods to be bought as a defective component may damage the reputation and reliability of the firm's ability.

2) Reliability of the supplier on timely deliveries of goods as an interruption in the delivery of a component part may significantly affect a firm's operations.

(3) Possibility of ceasing production in near or medium distance future.

(4) Can guarantee be obtained from the supplier about no price change in foreseeable future? A long term contract with a reliable supplier may solve this problem.

(5) Can an alternative use be found for resources made idle by a decision to purchase from outside.

(6) How long it would take to start manufacturing the product/component again if supplier fails to deliver as promised. Retaining and rehiring of personnel may be important considerations.

(7) What would be the cost of closing down the production line?

(8) Foreign exchange rates and their effects on the decision.

(9) Import policies and their consistency.

ADD OR DROP DECISIONS

Managers need to decide which product lines to continue, add or drop. An add or drop decision is based only on the relevant costs involved in the process. As we have discussed earlier, some costs are not relevant to a decision, so as we look at options between our product lines, we need to decide which costs should be considered as decisions are made. It isn't always the item we sell for the highest price! Costs **can** outweigh revenues, and in those cases, we need to evaluate and analyze to determine what items to manufacture, offer as services or stock on our shelves.

Let's look at a grocery store example. We have five flavors of ice cream in our freezer, but would like to determine how to best utilize the freezer space. Our accounting department gives us the following information regarding revenues and costs for our ice cream freezer:

Morrie's Grocery: Ice Cream Cooler—What Should We Stock?					
	Vanilla	Chocolate	Strawberry	Neapolitan	Butter Pecan
Sales	1000	1200	900	700	1050
Variable Costs	400	720	270	490	577.5
<u>Contribution Margin</u>	<u>600</u>	<u>480</u>	<u>630</u>	<u>210</u>	<u>472.5</u>

Direct Fixed Costs	100	180	90	105	105
Allocated Fixed Costs	150	180	135	140	157.5
<u>Net Income</u>	<u>350</u>	<u>120</u>	<u>405</u>	<u>-35</u>	<u>210</u>

From this spreadsheet, it would look like dropping the Neapolitan would be a good idea, right? Let's look a little closer at this situation to determine if that is the right decision.

So, if we get rid of the Neapolitan flavor, what expenses will be relevant to our decision?

Variable costs would go away, as that cost is directly related to the Neapolitan ice cream. Direct fixed costs would also go away, as those costs are directly attributed to that flavor too. But what happens to the allocated fixed costs? Those costs would need to be distributed among the remaining flavors. Remember things like rent and utilities will occur regardless of what products we carry.

Drop the Neapolitan?		
Variable Costs Avoided	490	
Direct Fixed Costs Avoided	<u>105</u>	595
Less: Sales Revenue Lost		<u>700</u>
Decrease in Net Income		<u>105</u>

The variable costs and direct fixed costs are called avoidable costs. These are the costs that would go away by eliminating this flavor.

So you can see now, that eliminating the Neapolitan would have a negative effect on the net income. What if we drop chocolate?

Drop the Chocolate?		
Variable Costs Avoided	720	
Direct Fixed Costs Avoided	<u>180</u>	900
Less: Sales Revenue Lost		<u>1200</u>
Decrease in Net Income		<u>300</u>

So who would drop chocolate anyway, right?

So you can see the decision to add or drop a product isn't as easy as it looks! They may increase the sales of chocolate, if they eliminated another flavor. Remember that is called an opportunity cost!

WHAT IS SALES MIX?

Sales mix refers to the ratio of the various products and services your company offers. It reflects each item sold and the profit margin it generates. After all, each product or service your business provides likely has a different price point and a unique profit margin. Changing your company's mix can completely change the net profit you collect, even when sales numbers remain stable.

By doing a sales mix analysis, you can identify the items that earn your company the greatest profit. Then you can pinpoint which products or services deserve your team's focus. If one service generates significantly more profit than the others, you might decide to devote more research and development (R&D) resources, design a high-impact marketing campaign to promote it or assign a larger customer service team to support it. After refining your focus and altering your sales mix, your organization's net profits could increase.

Conversely, your sales mix analysis could also highlight low-profit items that demand a smaller percentage of your marketing and sales resources. Instead of promoting low-profit items, you might shift your marketing or R&D budget to high-profit offerings instead. As a result, your profits could increase while your costs remain the same.

How to calculate sales mix

Use the sales mix formula:

$$\text{Sales Mix Variance} = (\text{Actual Unit Sales} \times (\text{Actual Sales Mix Percentage} - \text{Planned Sales Mix Percentage})) \times \text{Planned Contribution Margin Per Unit}$$

To determine your optimal approach, you have to do some basic sales mix accounting:

- Profit = Sales Price – Cost of Materials
- Profit Margin = Profit / Sales Price

For example, your clothing line may sell T-shirts for \$10 and sweaters for \$20. The cost of materials maybe \$2 and \$10, respectively. Your sales mix calculator would look like this:

- T-shirts have a profit margin of 80%.
- Sweaters have a profit margin of 50%.

Even though T-shirts have a lower sales price, their profit margin is much higher. That means if T-shirts become a bigger factor in your sales mix, you could generate a larger profit than you could if you sold more sweaters.

UNIT V

BUDGETING AND VARIANCE ANALYSIS

What is Budgetary Control?

Budgetary control is a system of controlling cost which includes preparation of Budgets coordinating the departments and establishing responsibilities comparing performance with budgeted and acting upon results to achieve the maximum profitable.

Objectives of Budgetary Control

An effective budgeting system plays a crucial role in the success of a business organization.

The budgeting system has the following objectives, which are of paramount importance in the overall efficiency and effectiveness of the business organization.

These objectives are discussed below.

1. Planning

Planning is necessary for regularly doing any work. A well- prepared plan helps the organization to use the scarce resources efficiently and thus achieving the predetermined targets becomes easy.

A budget is always prepared for the future period and it lays down targets regarding various aspects like purchase, production, sales, manpower planning, etc. This automatically facilitates planning.

2. Coordination

For achieving the predetermined objectives, apart from planning, coordinated efforts are required. Budgeting facilitates coordination in the sense that budgets cannot be developed in isolation.

For example, while developing the production budget, the production manager will have to consult the sales manager for a sales forecast and purchase manager for the availability of the raw material.

The production budget cannot be developed in isolation.

Similarly, the purchase and sales budget, as well as other functional budgets like cash, capital expenditure, manpower planning, etc, cannot be developed without considering other functions. Hence the coordination is automatically facilitated.

3. Control

The preparation of budgets involves detailed planning about various activities like purchase, sales, production, and other functions like marketing, sales promotion, manpower planning. But planning alone is not sufficient.

There should be a proper system of control which will ensure that the work is progressing as per the plan.

Budgets provide the basis for such controlling in the sense that the actual performance can be compared with the budgeted performance.

Any deviation between the two can be found out and analyzed to ascertain the reasons behind the deviation so that necessary corrective action can be taken to rectify the same. Thus budgeting helps immensely in controlling function.

Types of Budgetary Controlling Techniques

Budgetary control is a system for monitoring an organization's process in monetary terms. Types of budgetary controlling techniques are;

1. Financial Budgets.
2. Operating Budget.
3. Non-Monetary Budgets.

Financial Budgets

Such budgets detail where the organization expects to get its cash for the coming period and how it plans to spend it. Usual sources of cash include sales revenue, the sales of assets, the issuance of stock, and loans.

On the other hand, the common uses of cash are to purchase new assets, pay expenses, repay debts, or pay dividends to shareholders.

Financial budgets may be of the following types:

1. Cash budget

This is simply a forecast of cash receipts and disbursements against which actual cash "experience" is measured

It provides an important control in an enterprise since it breaks down incoming and outgoing cash into monthly, weekly, or even daily periods so that the organization can make sure it can meet its current obligations.

The cash budget also shows the availability of excess cash, thereby making it possible to plan for profit-making investment of surpluses.

2. Capital expenditure budget

This type of financial budget concentrates on major assets such as a new plant, land or machinery. Organizations often acquire such assets by borrowing significant amounts through, say, long-term bonds or securities.

All organizations, large or small, business or non-business, pay close attention to such a budget because of the large investment usually associated with capital expenditure.

3. The balance sheet budget

It forecasts what the organization's balance sheet will look like if all other budgets are met.

Hence it serves the purpose of overall control to ensure that other budgets mesh properly and yield results that are in the best interests of the organization.

OPERATING BUDGETS

This type of budget is an expression of the organization's planned operations for a particular period. They are usually of the following types:

1. The sales or revenue budget

It focuses on the income the organization expects to receive from normal operations. It is important since it helps the manager understand what the future financial position of the organization will be.

2. The expense budget

It outlines the anticipated expenses of the organization in a specified period. It also points out upcoming expenses so that the manager can better prepare for them.

3. The project budget

It focuses on anticipated differences between sales or revenues and expenses i.e. profit. If the anticipated profit figure is too small, steps may be needed to increase the sales budget or cut the expense budget.

NON-MONETARY BUDGETS

Budgets of this type are expressed in non-financial sales or revenues and expenses, i.e. profit. If the anticipated profit figure is too small steps may be needed to increase the sales budget or cut the expense budget.

Fixed and variable budgets

Regardless of their purpose, most budgets must account for the three following kinds of costs:

1. Fixed costs

They are the expenses that the organization incurs whether it is in operation or not. Salaries of managers may be an example of such a cost.

2. Variable costs

Such costs vary according to the scope of operations.

The best example may be the raw materials used in production. If \$5 worth of material is used per unit. 10 units would cost \$50, 20 units would cost \$100 and so on.

3. Semi-variable costs

They also vary, but in a less direct fashion. Costs for advertising, repairs, and maintenance, etc. may fall under this category.

All these categories of cost must be accurately accounted for in developing a budget. Fixed costs are usually the easiest to deal with. Variable costs can also be forecast, although with less precision from projected operations.

Semi-variable costs are the most difficult to predict because they are likely to vary, but not in direct relation to operations. For these costs, the manager must often rely on experience and judgment.

BENEFITS OF BUDGETARY CONTROL

Budgeting plays an important role in planning and controlling. It helps in directing the scarce resources to the most productive use and thus ensures overall efficiency in the organization.

The benefits derived by an organization from an effective system of budgeting can be summarized as given below.

1. Budgeting facilitates the planning of various activities and ensures that the working of the organization is systematic and smooth.

2. Budgeting is a coordinated exercise and hence combines the ideas of different levels of management in the preparation of the same.
3. Any budget cannot be prepared in isolation and therefore coordination among various departments is facilitated automatically.
4. Budgeting helps planning and controlling income and expenditure to achieve higher profitability and also acts as a guide for various management decisions.
5. Budgeting is an effective means for planning and thus ensures sufficient availability of working capital and other resources.
6. It is extremely necessary to evaluate the actual performance with predetermined parameters. Budgeting ensures that there are well-defined parameters and thus the performance is evaluated against these parameters.

ESSENTIALS OF A GOOD BUDGETARY CONTROL SYSTEM

A good budgetary control system depends upon the following conditions:

1. Support from top management

The effective implementation of the budgetary control system depends upon the attitude and perception of management towards it.

If the top executive takes the budgeting as a mere routine job and does not take any interest in its implementation, it will be a futile exercise.

2. Quantification of organizational goal

The goal of the organization should be clearly expressed and quantified. There should not be any misconception and confusion in the minds of employees regarding goals to be attained.

3. Creation of responsibility center

The entire organization should be divided into sections and subsection with clear assignment of duties and responsibilities for each of them.

4. The split of organizations' goals

The goals of each department or responsibility center should be spelled out towards the attainment of the overall goals of the organization. The functional goals should be compatible with the organizational goal.

5. Realistic

The target to be set in the budget should be fairly attainable.

If it is set at a level beyond the capacity of employees, they will lose their interest in its implementation, on the other hand, if it is set at a very low level, it will be meaningless as the job, in any case, will be done.

6. Participation

All the key employees should be made involved in the preparation of the budget. Participation brings in commitment. Commitment enhances the efficiency and productivity of employees.

7. Good accounting system

The accounting system should be designed in such a way that the actual performance of various responsibility centers can be readily available for comparison with the target.

8. Coverage

To reap the benefit of a budgetary control system it should cover all the areas organization. It should not be partially applied.

9. Creation of environment conducive to budgetary control

A proper environment should be developed in the organization for the successful implementation of budgetary control. The employees should be educated about the utility of the system.

They should be convinced that it is not a tool of pressurization upon them to work more but a way to the prosperity of the organization which will ultimately benefit them.

So seminar, lecture, executive development program, etc. should be held for this purpose.

10. Coordination

Co-ordination is an important requirement of budgetary control. It brings in common thinking, mutual trust, and confidence amongst various departments.

11. Flexibility

A budget should be amenable to change if the changing situation so warrants.

12. Reporting system

The success of budgetary control depends upon a good reporting system. The actual performance vis-a-vis the target should be continuously reported to the management to enable them to take corrective action in the areas which are not performing well.

STEPS OF BUDGETARY CONTROL

1. Developing Budgets

The first stage in budgetary control is developing various budgets. It will be necessary to identify the budget centers in the organization and budgets will have to develop for each one of them.

Thus budgets are developed for functions like purchase, sale, production, manpower planning as well as for cash, capital expenditure, machine hours, labor hours and so on.

Utmost care should be taken while developing the budgets. The factors affecting the planning should be studied carefully and budgets should be developed after a thorough study of the same.

2. Recording Actual Performance

There should be a proper system of recording the actual performance achieved. This will facilitate the comparison between the budget and the actual. An efficient accounting and cost accounting system will help to record the actual performance effectively.

3. Comparison of Budgeted and Actual Performance

One of the most important aspects of budgetary control is the comparison between the budgeted and the actual performance.

The objective of such a comparison is to find out the deviation between the two and provide the base for taking corrective action.

4. Corrective Action

Taking appropriate corrective action based on the comparison between the budgeted and actual results is the essence of budgeting.

A budget is always prepared for the future and hence there may be a variation between the budgeted results and actual results.

There is a need for investigation of the same and take appropriate action so that the deviations will not repeat in the future. Responsibilities can be fixed on proper persons so that they can be held responsible for any such deviations.

PREPARATION FOR BUDGETARY CONTROL

1. BUDGET COMMITTEE

For the successful implementation of the budgetary control system, there is a need for a budget committee. In small or medium-sized organizations, the budget-related work may be carried out by the Chief Accountant himself.

Due to the size of the organization, there may not be too many problems in the implementation of the budgetary control system.

However, in large size organization, there is a need for a budget committee consisting of the chief executive, budget officer and heads of main departments in the organization.

The main functions of the budget committee are to get the budgets prepared and then scrutinize the same, to lay down broad policies regarding the preparation of budgets, to approve the budgets, to suggest for revision, to monitor the implementation and to recommend the action to be taken in a given situation.

2. Budget Centers

The establishment of budget centers is another important pre-requisite of a sound budgetary control system. A budget center is a group of activities or a section of the organization for which budget can be developed.

For example, manpower planning budget, research and development cost budget, production and production cost budget, labor hour budget and so on.

Budget centers should be defined clearly so that preparation becomes easy.

3. Budget Period

A budget is always prepared before a defined period. This means that the period for which a budget is prepared is decided in advance.

Thus a budget may be prepared for three years, one year, six months, one month or even for one week. The point is that the period for which the budget is prepared should be certain and decided in advance.

Generally, it can be said that functional budgets like sales, purchase, production, etc. are prepared for one year and then broken down monthly. Budgets like capital expenditure are generally prepared for a period from 1 year to 3 years.

Thus depending upon the type of budget, the period of the same is decided and it must be decided well in advance.

4. Preparation of an Organization Chart

There should be an organization chart that shows clearly defined authorities and responsibilities of various executives. The organization chart will define clearly the functions to be performed by each executive relating to the budget preparation and his relationship with other executives.

The organization chart may have to be adjusted to ensure that each budget center is controlled by an appropriate member of the staff.

5. Budget Manual

A budget manual is defined by ICMA as ‘a document which sets out the responsibilities of the person engaged in, the routine of and the forms and records required for budgetary control’.

The budget manual thus is a schedule, document or booklet, which contains different forms to be used, procedures to be followed, budgeting organization details, and set of instructions to be followed in the budgeting system.

DIFFERENCE BETWEEN STRENGTHS AND WEAKNESSES

	Strengths	Weaknesses
1.	Budgets facilitate effective control.	Budgets may be used too rigidly.
2.	Budgets facilitate coordination and communication.	Budgets may be time-consuming.
3.	Budgets facilitate record keeping.	Budgets may limit innovation and change.
4.	Budgets are a natural complement to planning.	However; Budgets hampers development, change, the flexibility of the plan.

DIFFERENCE BETWEEN BUDGET AND BUDGETARY CONTROL

Point of Difference	Budget	Budgetary Control
Nature	Budgeting is the formulation of the plan of the organization.	Budgetary control refers to the control of business activities.
Aims	The budget sets the target to be achieved	Budgetary control aims at attaining that target.

Dependency	Budget can be set without follow up action i.e., without budgetary control.	But budgetary control is not possible without a budget. However budget without the budgetary control will not be of much
Assumption and Actual	The budget is forward-looking. It charts out the course of action to be followed in the future.	But budgetary control is concerned with actual performance. Its objective is to make the actual performance confirm
Continuity	Budgeting is a one time job done before the budget period. However, due to the changing situation, the budget may require revision during the budget period.	Implementation of budgetary control involves the measurement of actual performance and comparison of the same with the target to analyze the variance. The process is continuous and carried out throughout the budget period.

MAKING BUDGETARY CONTROL EFFECTIVE

Budgetary control can be made effective if an organization can ensure the following:

1. Setting appropriate standard

This is key to successful budgeting. Many budgets fail for lack of such standards, and some upper-level managers hesitate to allow subordinates to submit budget plans for fear that they may have no logical basis for reviewing budget requests.

2. Ensuring top-management support

Budget making and administration must receive the whole-hearted support of top 'management.

If top management supports budget making, requires departments and divisions to make and defend their budgets, and participate in this review, then budgets encourage alert management throughout the organization.

3. Participation by users in budget preparation

Besides the support of top management, the concerned managers at lower levels should also participate in its preparation. Real participation in budget preparation is necessary to ensure success.

It may also prove worthwhile to give department managers a reasonable degree of latitude in changing their budgets and in shifting funds, as long as they meet their total budgets.

4. Providing information to managers about performance under budget

If budgetary control is to work well, managers need ready information about actual and forecast performance under budgets by their departments. Such information must be so designed as to show them how well they are doing.

CLASSIFICATION OF BUDGET

Budgets classified according to 4 bases;

1. Based on Time;
2. Based on Condition;
3. Based on Functions; and,
4. Based on Flexibility.

These are explained below;

Types of Budget Based on Time

Based on time factor budgets can be classified into two types;

1. Long-term Budget, and
2. Short-term Budget.

Long-term Budget

This budget is related to the planning operations of an organization for a period of 5 to 10 years. The long-term budget may be adversely affected due to unpredictable factors. Therefore, from a control point of view, the long-term budget should be supplemented by short-term budgets.

Example: Research and Development Budget, Capital Expenditure Budget, etc.

Short-term Budget

This budget is drawn usually for one year. Sometimes a budget may be prepared for a shorter period (like monthly budget, quarterly budget, etc.). Shortterm budgets are prepared in detail and these budgets help to exercise control over day-to-day operations.

Example: Material Consumption Budget, Labor Utilization Budget, Cash Budget, etc.

Types of Budget Based on Condition

Based on conditions prevailing, a budget can be classified into 2 types;

1. Basic Budget, and
2. Current Budget.

Basic Budget

A budget that is established for use as unaltered over a long period is called Basic Budget.

This budget does not take into consideration changes occurring from the external environment which are beyond the control of management. This budget is more useful for top-level management for formulating policies.

Current Budget

A budget that is established for use over a short period and is related to the current conditions is called the Current Budget. This budget is adjusted to the current conditions prevailing in the business.

Types of Budget Based on Functions

Based on activities or functions of a business, budgets can be classified into 2 types

1. Master Budget, and
2. Functional Budgets.

Master Budget

The final integration of all functional budgets by the Budget Officer provides the Master Budget. When functional budgets have been completed, the Budget Officer prepares the Master Budget.

Master Budget is the summary budget incorporating its component functional budgets, which is finally approved, adopted and employed. [C. I. M. A. (London)].

Master Budget shows the operating profit of the business for the budget period and budgeted balance sheet at its close. This Budget portrays the overall plan for the budget period.

The master budget consists of several separate but interdependent budgets. The first step in the budgeting process is the preparation of the sales budget, which is a detailed schedule showing the expected sales for the budget period. An accurate sales budget is the key to the entire budgeting process.

If the sales budget is inaccurate, the rest of the budget will be inaccurate. The sales budget is based on the company's sales forecast, which may require the use of sophisticated mathematical models and statistical tools.

We will not go into the details of how sales forecasts are made. This is a subject that is most appropriately covered in marketing courses.

The sales budget helps determine how many units need to be produced.

Thus, the production budget is prepared after the sales budget. The production budget, in turn, is used to determine the budgets for manufacturing costs including the direct materials budget, the direct labor budget, and the manufacturing overhead budget.

These budgets are then combined with data from the sales budget and the selling and administrative expense budget to determine the cash budget.

A cash budget is a detailed plan showing how cash resources will be acquired and used. After the cash budget is prepared, the budgeted income statement and then the budgeted balance sheet can be prepared.

Functional Budgets

Functional Budgets relate to functions of the business such as product sales etc. In other words, Functional Budgets are prepared in respect of various functions performed in a business.

Functional Budgets which are commonly found in a business concern are as follows;

1. Sales Budget;
2. Production Budget;
3. Material Budget;
4. Labor Budget;
5. Production Overhead Budget;
6. Administration Overhead Budget;
7. Selling & Distribution Overhead Budget;
8. Plant Utilization Budget;
9. Cash Budget
10. Research & Development Budget and more.

Sales Budget

The sales budget is the starting point in preparing the master budget. The sales budget is constructed by multiplying budgeted unit sales by the selling price.

A schedule of expected cash collections is prepared after the sales budget. This schedule will be needed later to prepare the cash budget.

Cash collections consist of collections on credit sales made to customers in prior periods plus collections on sales made in the current budget period.

Production Budget

The production budget is prepared after the sales budget. The production budget lists the number of units that must be produced to satisfy sales needs and to provide for the desired ending inventory.

Production needs can be determined as follows:

Budgeted unit sales.....	XXXX
Add the desired ending inventory...	XXXX
Total needs.....	XXXX
Less beginning inventory.....	XXXX
Required production.....	XXXX

Note that production requirements are influenced by the desired level of the ending inventory. Inventories should be carefully planned. Excessive inventories tie up funds and create storage problems.

Insufficient inventories can lead to lost sales or last-minute, high-cost production efforts. At Hampton Freeze, management believes that an ending inventory equal to 20% of the next quarter's sales strikes the appropriate balance.

Cash Budget

The cash budget is composed of four major sections:

1. The receipts section.
2. The disbursements section
3. The cash excess or deficiency section.
4. The financing section.

The receipts section lists all of the cash inflows, except for financing, expected during the budget period. Generally, the major source of receipts is from sales.

The disbursements section summarizes all cash payments that are planned for the budget period.

These payments include raw materials purchases, direct labor payments, manufacturing overhead costs, and so on, as contained in their respective budgets.

The budget is the forecast of expected cash receipts and cash disbursement during the budget period. The importance of cash budget need not be overemphasized. Cash is the lifeblood of the business. Without sufficient cash, a business can not be run smoothly.

Cash is required for the purchase of raw material, payment of wages and other expenses, acquisition of assets, fulfillment of commitment to investors and so on.

The preparation of functional budgets will be a useless job unless the requisite amount of cash is made available to implement them.

That is why; the cash budget has assumed enormous importance. It reflects possible receipts of cash from various sources and the expected requirement of cash for meeting various obligations.

In this way, it highlights well in advance neither the need for taking necessary measures to streamline the cash flows so that there is neither any cash shortage nor the surplus of cash.

A cash budget is prepared for the budget period, however, for effective cash management, it is generally divided monthly, weekly or even daily.

Standard Costing and Variance Analysis

Standard Cost

Standard Cost as defined by the Institute of Cost and Management Accountant, London "is the Predetermined Cost based on technical estimate for materials, labour and overhead for a selected period of time and for a prescribed set of working conditions."

Standard Costing

Chartered Institute of Management Accountants England defines Standard Costing as "the Preparation and use of standard costs, their comparison with actual costs and the analysis of variances to their causes and points of incidence."

Advantages of Standard Costing

The following are the important advantages of standard costing :

- (1) It guides the management to evaluate the production performance.
- (2) It helps the management in fixing standards.
- (3) Standard costing is useful in formulating production planning and price policies.
- (4) It guides as a measuring rod for determination of variances.
- (5) It facilitates eliminating inefficiencies by taking corrective measures. .

Limitations of Standard Costing

Besides all the benefits derived from this system, it has a number of limitations which are given below:

- (1) Standard costing is expensive and a small concern may not meet the cost.
- (2) Due to lack of technical aspects, it is difficult to establish standards.
- (3) Standard costing cannot be applied in the case of a- concern where non-standardised products are produced.
- (4) Fixing of responsibility is' difficult. Responsibility cannot be fixed in the case of uncontrollable variances.
- (5) , Frequent revision is required while insufficient staff is incapable of operating this system.

Differences : Though Standard Costing and Budgetary Controls are aims at the maximum efficiencies and Marginal Cost, yet there are some basic differences between the two from the objectives of using the two costs.

Budgetary Control	Standard Costing
(1) Budgets are projections of financial accounts.	(1) Standard Costing is a projection of cost accounts.
(2) As a statement of both income and expenses it forms part of budgetary control.	(2) Standard costing is not used for the purpose of forecasting.
(3) Budgets are estimated costs. They are "what the cost will be."	(3) Standard Cost are the "Norms" or "what cost should be."
(4) It is applied to any industry engaged in mass production.	(4) It is applicable to concern engaged in construction work.
(5) It is a part of accounting system and standard costing variances are recorded in the books of accounts.	(5) It is not a part of accounting system because it is based on statistical facts and figures.

Preliminary Steps for establishing Standard Costing System

For establishing a standard costing system in an organisation, the following preliminary steps are to be adopted:

- ❖ *Establishment of Cost Centres:* Establishment of cost centres with clearly defined areas of responsibility is the first step for establishing a standard costing system.
- ❖ *Classification of Accounts:* Classification of accounts for the purpose of identifying each expense and revenue by function and deciding the responsibility of such expenses and revenues.
- ❖ *Types of Standard:* Standards may be set out as per the situation and according to suitability of their achievement. In this context, generally five types of standard are available, viz. Basic Standard, Current Standard, Ideal Standard, Normal Standard and Expected / Practical Standard.

Types of Standard

Standard may be classified into the following five types:

- *Basic Standard:* Basic standard is a standard which is established for us over a long period of time. This type of standard remains constant over a long period of time. In this type of standard, a base year is chosen for comparison purpose.
- *Current Standard:* Current standard is established for a short period and for current condition.
- *Ideal Standard:* Ideal Standard is a standard which may be attained under most favourable conditions. This standard is based on the best possible operation conditions.
- *Normal Standard:* Normal standard is a standard which can be achieved under normal operating conditions this standard is difficult to set as it require significant degree of forecasting.
- *Expected or Practical Standard:* Expected or practical standard is a standard which is based on expected operating performance after making a reasonable allowance for unavoidable losses. This is an attainable and realistic standard.

VARIANCE ANALYSIS

Standard Costing guides as a measuring rod to the management for determination of "Variances" in order to evaluate the production performance. The term "Variances" may be defined as the difference between Standard Cost and actual cost for each element of cost incurred during a particular period. The term "Variance Analysis" may be defined as the process of analyzing variance by subdividing the total variance in such a way that management can assign responsibility for off-Standard Performance.

The variance may be favourable variance or unfavourable variance. When the actual performance is better than the Standard, it resents "Favourable Variance." Similarly, where actual performance is below the standard it is called as "Unfavourable Variance."

Variance analysis helps to fix the responsibility so that management can ascertain

- (a) The amount of the variance
- (b) The reasons for the difference between the actual performance and budgeted performance
- (c) The person responsible for poor performance
- (d) Remedial actions to be taken

Types of Variances: Variances may be broadly classified into two categories (A) Cost Variance and (B) Sales Variance.

(A) **Cost Variance:** Total Cost Variance is the difference between Standards Cost for the Actual Output and the Actual Total Cost incurred for manufacturing actual output. The Total Cost Variance Comprises the following :

I. Direct Material Variances/ Material Cost Variances (MCV): The Material Cost Variance is the difference between the Standard cost of materials for the Actual Output and the Actual Cost of materials used for producing actual output.

$$\text{MCV} = \text{SC} - \text{AC}$$

OR

$$\text{MCV} = (\text{SQ} \times \text{SP}) - (\text{AQ} \times \text{AP})$$

Where,

SC = standard cost; AC = actual cost; SQ = standard quantity; SP = standard price; AQ = actual quantity; AP = actual price.

(1) **Material Price Variance (MPV) :** MPV is the difference between the standard cost of actual quantity and actual cost for actual quantity.

$$\text{MPV} = (\text{SP} - \text{AP}) \times \text{AQ}$$

(2) **Material Usage Variance (MUV):** MUV is the difference between the standard cost of standard quantity of material for actual output and the Standard cost of the actual material used.

$$\text{MUV} = \text{SP} \times (\text{SQ} - \text{AQ})$$

(3) **Material Mix Variance (MMV) :** It is the portion of the material usage variance which is due to the difference between the Standard and the actual composition of mix. Material Mix Variance is calculated under two situations as follows :

(a) When Actual Weight and Standard Weight of Mix are equal :

(i) The formula is used to calculate the Variance:

$$\text{MMV} = \text{SP} \times (\text{SQ} - \text{AQ})$$

(ii) In case standard quantity is revised due to shortage of a particular category of materials, the formula will be changed as follows :

$$\text{MMV} = \text{SP} \times (\text{RSQ} - \text{AQ})$$

Where, RSQ = Revised standard quantity

(b) When Actual Weight and Standard Weight of Mix are different:

(i) The formula used to calculate the Variance is :

$$\text{MMV} = \left(\frac{\text{Total weight of actual mix}}{\text{Total weight of standard mix}} \times \text{standard cost of standard mix} \right) - \text{standard cost of actual mix}$$

(ii) In case the standard is revised due to the shortage of a particular category of materials, the alternative formula will be as follows:

$$\text{MMV} = \left(\frac{\text{Total weight of actual mix}}{\text{Total weight of standard mix}} \times \text{standard cost of revised standard mix} \right) - \text{standard cost of actual mix}$$

(3) **Materials Yield Variance (MYV):** It is the portion of Material Usage Variance. This variance arises due to spoilage, low quality of materials and defective production planning etc. Materials Yield Variance may be defined as "the difference between the Standard Yield Specified and the Actual Yield Obtained." This variance may be calculated as under:

$$\text{MYV} = \text{SR} \times (\text{AY} - \text{SY})$$

Where, AY= Actual Yield, SY = Standard Yield and
Standard Rate is calculated as follows :

Standard Rate = Standard cost of standard mix / Net standard output.

Verification:

1. MCV = MPV + MUV
2. MUV = MMV + MYV

Notes- positive means favourable(F) and negative means adverse(A).

Question 1

Zenith Ltd. manufactures a simple product, the standard mix of which is :

Material A : 40% at ₹10 per Kg.

Material B : 60% at ₹20 per kg.

Normal loss in production is 20% of input. During a month, 165 kgs. of product were produced from the use of 95 kgs. of Material A at ₹ 9 and 105 kgs. of Material B at ₹ 20 per kg. Calculate Material Variances.

[CU B.Com.(Hons), 2017]

Solution

Here, Actual production during the month = 165 kg.

Standard production loss = 20% of the input.

∴ Standard input for actual production = $100 / 80 \times 165 \text{ kg.} = 206.25 \text{ kg.}$

Then, Standard input Material A = 40% of 206.25 kg. = 82.50 kg.

And, Standard input Material B = 60% of 206.25 kg. = 123.75 kg.

Now, the information have been re-arranged as below:

	Standard			Actual		
	Qty. Kg.	Rate ₹	Amount ₹	Qty. Kg.	Rate ₹	Amount ₹
Material A	82.50	10	825	95	9	855
Material B	123.75	20	2,475	105	20	2,100
Input	206.25		3,300	200		2,955
Less: Loss (20%)	41.25		-	35		-
Output	165		3,300	165		2,955

(a) **Materials Cost Variance (MCV)**

= Standard material cost of actual output – Actual material cost of actual output
 = ₹ 3,300 – ₹ 2,955 = ₹ 345 (F).

(b) **Material Price Variance (MPV)**

= (SP – AP) AQ × AO

Material A : $(10 - 9) \times 95 = ₹ 95 (F)$

Material B : $(20 - 20) \times 105 = ₹ Nil$

₹ 95 (F)

(c) **Materials Usage Variance (MUV)**

= SP (SQ × AO – AQ × AO)

Materials A : $10 [82.5 - 95] = ₹ 125 (A)$

Materials B : $20 [123.75 - 105] = ₹ 375 (F)$

₹ 250 (F)

(d) *Material Mix Variance (MMV)*

= SP [Standard mix for actual input – Actual mix for actual input]

Materials A : 10 [(82.50 / 206.25 × 200) – 95] = ₹ 150 (A)

Materials B : 20 [(123.75 / 206.25 × 200) – 105] = ₹ 300 (F)

₹ 150 (F)

(e) *Materials Yield Variance (MYV)*

= Standard Yield Rate [Actual output for actual input – Standard output for actual input]

= ₹ 3,300 / 165 kg. [165 – (165 / 206.25 × 200)] = ₹ 100 (F)

Test:

(i) $MCV = MPV + MUV$

Here, ₹ 345 (F) = ₹ 95 (F) + ₹ 250 (F) = ₹ 345 (F), checked.

(ii) $MUV = MMV + MYV$

Here, ₹ 250 (F) = ₹ 150 (F) + ₹ 100 (F) = ₹ 250 (F), checked.

II. Labour Variances

(a) Labour Cost Variance (LCV): Labour Cost Variance is the difference between the Standard Cost of labour allowed for the actual output achieved and the actual wages paid.

Labour Cost Variance = Standard Cost of Labour - Actual Cost of Labour

(or)

Labour Cost Variance = {SR x SH for AO} - {AR x AH}

Where, SR = Standard Rate, ST = Standard Hour, AO = Actual Output, AR = Actual Rate, AT = Actual Hour.

(b) Labour Rate Variance (LRV): It is that part of labour cost variance which is due to the difference between the standard rate specified and the actual rate paid. This variances arise from the following reasons:

- Change in wage rate.
- Faulty recruitment.
- Payment of overtime.
- Employment of casual workers etc.

It is expressed as follows :

$$LRV = AH (SR - AR)$$

(c) Labour Efficiency Variance (LEV): Labour Efficiency Variance otherwise known as Labour Time Variance. It is that portion of the Labour Cost Variance which arises due to the difference between standard labour hours specified and the actual labour hours spent. The usual reasons for this variance are (a) poor supervision (b) poor working condition (c) increase in labour turnover (d) defective materials. It may be calculated as following:

$$LEV = SR (SH - \text{effective AH})$$

(d) Labour Idle Time Variance: Labour Idle Time Variance arises due to abnormal situations like strikes, lockout, breakdown of machinery etc. In other words, idle time

occurs due to the difference between the time for which workers are paid and that which they actually expend upon production. It is calculated as follows :

$$\text{Idle Time Variance} = \text{Idle Hours} \times \text{Standard Rate}$$

(e) Labour Mix Variance (LMV): It is otherwise known as Gang Composition Variance. This variance arises due to the differences between the actual gang composition than the standard gang composition. Labour Mix Variance is calculated in the same way of Materials Mix Variance. This variance is calculated in two ways:

(i) When Standard and actual times of the labour mix are same: The formula for its computation may be as follows :

$$\text{LMV} = \text{Standard cost of standard labour mix} - \text{Standard cost of Actual labour mix.}$$

(ii) When Standard and actual times of the labour mix are different : Changes in the composition of a gang may arise due to shortage of a particular grade of labour. It may be calculated as follows :

$$\text{LMV} = (\text{RSH} - \text{AH}) \times \text{SR}$$

Where, Revised Standard Hour (RSH) = Total Actual Hour/ Total standard hour X actual hour.

(f) Labour Yield Variance (LYV): This variance is calculated in the same way as Material Yield Variance. Labour Yield Variance arises due to the variation in labour cost on account of increase or decrease in yield or output as compared to relative standard. The formula for this purpose is as follows:

$$\text{LYV} = \text{Standard labour cost per unit of output} \times (\text{Standard output for actual hour} - \text{actual output})$$

Verification:

1. Labour Cost Variance = Labour Rate Variance + Labour Efficiency Variance
2. Labour Efficiency Variance = Labour Mix Variance + Labour Yield Variance

Question 2

The following information is available from the books of ABC Ltd. For the month of January, 2016 :

Materials purchased	:	24,000 kg for ₹ 1,05,600
Materials consumed	:	22,800 kg
Actual wages paid for 5,940 hours	:	₹ 29,700
Units produced	:	2,160 units

Standard prices and rates are :

Direct material price is ₹ 4 per kg.

Direct labour rate is ₹ 4 per hour.

Standard input is 10 kg of raw material for one unit.

Standard labour requirement is 2.5 hours per unit.

Calculate all material and labour variances for the month of January, 2016. [CU B.Com.(Hons), 2016]

A. Material Variances:

(i) *Material Cost Variance (MCV)*

= Standard material cost for actual output – Actual material cost for actual output

$$= SP \times SQ \times AO - AP \times AQ \times AO$$

$$= (\text{₹ } 4 \times 10 \text{ kg.} \times 2,160 \text{ units}) - (\text{₹ } 4.40 \times 22,800 \text{ kg.})$$

$$= \text{₹ } 86,400 - \text{₹ } 1,00,320 = \text{₹ } 13,920 \text{ (A).}$$

(ii) *Material Price Variance (MPV)*

$$= (SP - AP) AQ \times AO$$

$$= (4 - 4.40) \times 22,800 = \text{₹ } 9,120 \text{ (A).}$$

(iii) *Material Quantity Variance (MQV)*

$$= SP [SQ \times AO - AQ \times AO]$$

$$= 4 [(10 \text{ kg.} \times 2,160 \text{ units}) - 22,800 \text{ kgs.}]$$

$$= \text{₹ } 4,800 \text{ (A).}$$

Test : $MCV = MPV + MQV$

Here, $\text{₹ } 13,920 \text{ (A)} = \text{₹ } 9,120 \text{ (A)} + \text{₹ } 4,800 \text{ (A)} = \text{₹ } 13,920 \text{ (A)}$, checked.

B. Labour Variances:

(i) *Labour Cost Variance (LCV)*

= Standard labour cost for actual output – Actual labour cost for actual output

$$= SR \times SH \times AO - AR \times AH \times AO$$

$$= (\text{₹ } 4 \times 2.50 \text{ hours} \times 2,160 \text{ units}) - (\text{₹ } 5 \times 5,940 \text{ hours})$$

$$= \text{₹ } 21,600 - \text{₹ } 29,700 = \text{₹ } 8,100 \text{ (A).}$$

(ii) *Labour Rate Variance (LRV)*

$$= (SR - AR) AH \times AO$$

$$= (4 - 5) \times 5,940$$

$$= \text{₹ } 5,940 \text{ (A).}$$

(iii) *Labour Efficiency Variance (LEV)*

$$= SR [SH \times AO - AH \times AO]$$

$$= 4 [(2.50 \text{ hours} \times 2,160 \text{ units}) - 5,940 \text{ hrs}]$$

$$= 4 (5,400 - 5,940)$$

$$= \text{₹ } 2,160 \text{ (A).}$$

Test : $LCV = LRV + LITV + LEV$

Here, $\text{₹ } 8,100 \text{ (A)} = \text{₹ } 5,940 \text{ (A)} + \text{₹ } 2,160 \text{ (A)} = \text{₹ } 8,100 \text{ (A)}$, checked.

Working Notes:

Here, Standard price of material per kg. = $SP = \text{₹ } 4$

Standard quantity of materials required for one unit of output = $SQ = 10 \text{ kg.}$

Actual output = $AO = 2,160 \text{ units.}$

Actual quantity of materials used for actual output = $AQ \times AO = 22,800 \text{ kgs.}$

Actual price of material per kg. = $AP = \text{₹ } 1,05,600 / 24,000 \text{ kg} = \text{₹ } 4.40$

Again, Standard hours required for one unit of output = $SH = 2.50 \text{ hours.}$

Actual hours taken for actual output = $AH \times AO = 5,940 \text{ hours}$

Standard labour rate per hour = $SR = \text{₹ } 4$

Actual labour rate per hour = $AR = \text{₹ } 29,700 / 5,940 \text{ hrs} = \text{₹ } 5.$

Question 3

The details regarding the composition and the weekly wage rates of labour force engaged on a job scheduled to be completed in 30 weeks are as follows :

Category of Workers	Standard		Actual	
	No. of workers	Weekly wage Rate per worker	No. of workers	Weekly wage Rate per worker
Skilled	75	60	70	70
Semi-Skilled	45	40	30	50
Unskilled	60	30	80	20

The work was actually completed in 32 weeks. Calculate the various labour variances.

Solution:

(1) Labour Cost Variance = Standard Labour Cost – Actual Labour Cost

Calculation of Standard Labour Cost :

Category of Standard Workers :

		Week		Rate Rs.		Amount Rs.
Skilled	=	75	x	30	= 2,250	x 60 = 1,35,000
Semi Skilled	=	45	x	30	= 1,350	x 40 = 54,000
Unskilled	=	60	x	30	= 1,800	x 30 = 54,000
					<u>5,400</u>	<u>2,43,000</u>

Calculation of Actual Labour Cost :

		Actual Week		Rate Rs.		Amount Rs.
Skilled	=	75	x	32	= 2,240	x 70 = 1,56,800
Semi Skilled	=	30	x	32	= 960	x 50 = 48,000
Unskilled	=	80	x	32	= 2,560	x 20 = 51,200
					<u>5,760</u>	<u>2,56,000</u>

(1) Labour Cost Variance = Standard Labour - Actual Labour Cost
= 2,43,000 – 2,56,000 = Rs. 13,000 (A)

(2) Labour Rate Variance = (Standard Rate – Actual Rate) x Actual Time
 Skilled = (Rs. 60 – Rs. 70) x 2,240 = Rs. 22,400 (A)
 Semi Skilled = (Rs. 40 – Rs. 50) x 960 = Rs. 9,600 (A)
 Unskilled = (Rs. 30 – Rs. 20) x 2,560 = Rs. 25,600 (F)
 Labour Rate Variance = Rs. 6,400 (A)

(3) Labour Efficiency Variance = $\left\{ \begin{array}{l} \text{Standard} \\ \text{Time} \end{array} - \begin{array}{l} \text{Actual} \\ \text{Time} \end{array} \right\} \times \text{Standard Rate}$

Skilled = (2,250 – 2,240) x 60 = Rs. 600 (F)
 Semi Skilled = (1,350 – 960) x 40 = Rs. 15,600 (F)
 Unskilled = (1,800 – 2,560) x 30 = Rs. 22,800 (A)
 Labour Efficiency Variance = Rs. 6,600 (A)



$$(4) \text{ Labour Mix Variance} = \left\{ \frac{\text{Revised Standard Time}}{\text{Total Standard Time}} - \frac{\text{Actual Time}}{\text{Total Standard Time}} \right\} \times \text{Standard Rate}$$

Where :

$$\text{Revised Standard Time} = \frac{\text{Standard Time}}{\text{Total Standard Time}} \times \text{Actual Time}$$

Skilled	=	$\frac{2,250}{5,400}$	x 5,760	=	2,400 hours
Semi Skilled	=	$\frac{1,350}{5,400}$	x 5,760	=	1,440 hours
Unskilled	=	$\frac{1,800}{5,400}$	x 5,760	=	1,920 hours

Labour Mix Variance

Skilled	=	(2,400 - 2,240)	x	60	=	Rs. 9,600 (F)
Semi Skilled	=	(1,440 - 960)	x	40	=	Rs. 19,200 (F)
Unskilled	=	(1,920 - 2,560)	x	30	=	Rs. 19,200 (A)
Labour Mix Variance					=	<u>Rs. 9,600 (F)</u>

$$(5) \text{ Labour Revised Efficiency Variance} = \left\{ \frac{\text{Standard Time}}{\text{Total Standard Time}} - \frac{\text{Revised Standard Time}}{\text{Total Standard Time}} \right\} \times \text{Standard Rate}$$

Skilled	=	(2,250 - 2,400)	x	Rs. 60	=	Rs. 9,000 (A)
Semi Skilled	=	(2,350 - 1,440)	x	Rs. 40	=	Rs. 3,600 (A)
Unskilled	=	(1,800 - 1,920)	x	Rs. 30	=	Rs. 300 (A)
Labour Revised Efficiency Variance					=	<u>Rs. 16,200 (A)</u>

Verification :

$$(1) \text{ Labour Cost Variance} = \frac{\text{Labour Rate Variance}}{\text{Variance}} + \frac{\text{Labour Efficiency Variance}}{\text{Variance}}$$

Rs. 13,000 (A)	=	Rs. 6,400 (A)	+	Rs. 6,600 (A)
Rs. 13,000 (A)	=	Rs. 13,000 (A)		

$$(2) \text{ Labour Efficiency Variance} = \frac{\text{Labour Mix Variance}}{\text{Variance}} + \frac{\text{Labour Revised Variance}}{\text{Variance}}$$

$$\text{Rs. 6,600 (A)} = \text{Rs. 9,600 (F)} + \text{Rs. 16,200 (A)}$$

$$\text{Rs. 6,600 (A)} = \text{Rs. 6,600 (A)}$$

III. Overhead Variances (concept only as per syllabus)

Overhead may be defined as the aggregate of indirect material cost, indirect labour cost and indirect expenses. Overhead Variances may arise due to the difference between standard cost of overhead for actual production and the actual overhead cost incurred. The Overhead Cost Variance may be calculated as follows:

$$\text{Overhead Cost Variance} = \text{Standard overhead rate per unit} - \text{Actual overhead cost}$$

Classification of Overhead Variance

Overhead Variances can be classified as :

I. Variable Overhead Variances:

(1) Variable Overhead Cost Variance

- (2) Variable Overhead Expenditure Variance
- (3) Variable Overhead Efficiency Variance

II. Fixed Overhead Variance:

- (a) Fixed Overhead Cost Variance
- (b) Fixed Overhead Expenditure Variance
- (c) Fixed Overhead Volume Variance
- (d) Fixed Overhead Capacity Variance
- (e) Fixed Overhead Efficiency Variance
- (f) Fixed Overhead Calendar Variance

ACCOUNTING STANDARDS AND ACCOUNTING DISCLOSURE PRACTICES IN INDIA

MEANING OF ACCOUNTING STANDARDS

Accounting Standards are written policy documents issued by expert accounting body or by the government or other regulatory body covering the aspects of recognition, measurement, treatment, presentation, and disclosure of accounting transactions in financial statements

CLASSIFICATION OF ENTERPRISES

The enterprises are classified and labeled as Level I, Level II and Level III companies. Based on this classification and the category in which they fall the Accounting standards are applicable to the enterprises

Level I Enterprises

Enterprises which fall under any one or more category below mentioned are termed as Level I Companies

1. Enterprises whose equity or debt securities are listed whether in India or outside India
2. Enterprises which are in the process of listing their equity or debt securities. Board of directors' resolution must be available as an evidence
3. Banks including co-operative banks
4. Financial institutions
5. Enterprises carrying on insurance business
6. All commercial, industrial and business reporting enterprises, whose turnover not including 'other income' for the immediately preceding accounting period on the basis of audited financial statements exceeds Rs. 50 crore
7. All commercial, industrial and business reporting enterprises having borrowings, including public deposits, in excess of Rs. 10 crores at any time during the accounting period
8. Holding and subsidiary enterprises of any one of the above at any time during the accounting period

Level II Enterprises

Enterprises which fall under any one or more category below mentioned are termed as Level II Companies

1. All commercial, industrial and business reporting enterprises, whose turnover (excluding 'other income') for the immediately preceding accounting period on the basis of audited financial statements is greater than Rs. 40 lakhs but less than Rs. 50 crore
2. All commercial, industrial and business reporting enterprises having borrowings, including public deposits, is greater Rs. 1 crore but less than Rs. 10 crores at any time during the accounting period
3. Holding and subsidiary enterprises of any one of the above at any time during the accounting period

Level III Enterprises:

Enterprises which do not fall under Level I and Level II, are considered as Level III enterprises

APPLICABILITY OF ACCOUNTING STANDARDS

Accounting Standard	Level I	Level II	Level III
<u>AS 1 Disclosure of Accounting Principles</u>	Yes	Yes	Yes
<u>AS 2 Valuation of Inventories</u>	Yes	Yes	Yes
<u>AS 3 Cash Flow Statements</u>	Yes	No	No
<u>AS 4 Contingencies and Events Occurring After the Balance Sheet Date</u>	Yes	Yes	Yes
<u>AS 5 Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies</u>	Yes	Yes	Yes
<u>AS 7 Construction Contracts (Revised 2002)</u>	Yes	Yes	Yes
<u>AS 9 Revenue Recognition</u>	Yes	Yes	Yes
<u>AS 10 Accounting for Fixed Assets</u>	Yes	Yes	Yes

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<u>AS 11 The Effects Of Changes In Foreign Exchange Rates (Revised 2003)</u>	Yes	Yes	Yes
<u>AS 12 Accounting for Government Grants</u>	Yes	Yes	Yes
<u>AS 13 Accounting for Investments</u>	Yes	Yes	Yes
<u>AS 14 Accounting for Amalgamations</u>	Yes	Yes	Yes
<u>AS 15 Employee Benefits (Revised 2005)</u>	Yes	Yes	Yes
<u>AS 16 Borrowing Costs</u>	Yes	Yes	Yes
<u>AS 17 Segment Reporting</u>	Yes	No	No
<u>AS 18 Related Party Disclosures</u>	Yes	No	No
<u>AS 19 Leases</u>	Yes	Partial	Partial
<u>AS 20 Earnings Per Share</u>	Yes	Partial	Partial
<u>AS 21 Consolidated Financial Statements</u>	Yes	No	No
<u>AS 22 Accounting for taxes on income</u>	Yes	Yes	Yes
<u>AS 23 Accounting for Investments in Associates in Consolidated Financial Statements</u>	Yes	No	No
<u>AS 24 Discontinuing Operations</u>	Yes	No	No
<u>AS 25 Interim Financial Reporting</u>	Yes	No	No
<u>AS 26 Intangible Assets</u>	Yes	Yes	Yes
<u>AS 27 Financial Reporting of Interests in Joint Ventures</u>	Yes	No	No
<u>AS 28 Impairment of Assets</u>	Yes	Yes	Yes
<u>AS 29 Provisions, Contingent Liabilities and Contingent Assets</u>	Yes	Partial	Partial

AS 1 – DISCLOSURE OF ACCOUNTING POLICIES

The information presented in the financial statements of an organisation is of its financial position. The profit or loss can be affected to a large degree by the accounting policies followed. The accounting policies followed vary from organisation to organisation. It is important to disclose significant accounting policies followed to make the financial statements understandable. The disclosure is required by law in certain cases. In recent years, organisations in India have adopted the practice of including a separate statement of accounting policies followed in their annual reports to shareholders.

Many organisations list the accounting policies followed by them in the notes to their financial statements, but there is no consistency in the disclosures among organisations. In other words, the disclosure forms part of accounts in some cases, while in others it is given as supplementary information. The purpose of this standard is to promote a better understanding of financial statements by establishing the practice of disclosure of significant accounting policies followed and the manner in which they are disclosed in the financial statements. Such disclosure would also facilitate a more meaningful comparison between financial statements of different organisations.

Fundamental Accounting Assumptions

Certain assumptions are used in the preparation of financial statements. They are usually not specifically stated because they are assumed to be followed. Disclosure is necessary only if they are not followed. The following have been generally accepted as fundamental accounting assumptions:

Going Concern: The organisation is normally viewed as a going concern, that is to say, it will be in continuing operations for the foreseeable future. It is assumed that the organisation has neither the intention nor the necessity of shutting down or reducing the scale of operations.

Consistency: It is assumed that accounting policies are consistently followed from one period to another. No frequent changes are expected.

Accrual: Revenues and costs are recorded when they are earned or incurred (and not as money is received or paid) in the periods to which they relate.

Nature of Accounting Policies

Accounting policies refer to accounting principles and the methods of applying these principles adopted by the organisation in the preparation of their financial statements. There is no single list of accounting policies that are applicable in all circumstances. The different circumstances in which organisations operate make alternative accounting principles acceptable. The choice of the appropriate accounting principles calls for a large degree of judgement by the management of the organisation.

The various standards of the Institute of Chartered Accountants of India, combined with the efforts of the Government and other regulatory agencies have reduced the number of acceptable alternatives in recent years, particularly in case of corporates. While continuing

efforts in this regard in the future are likely to reduce the number still further, the availability of alternative accounting principles is not likely to be eliminated altogether keeping in mind the different circumstances faced by the organisations.

Areas in which differing Accounting Policies are possible

The following are examples of areas in which different accounting policies may be adopted by organisations.

1. Methods of depreciation, depletion and amortisation
2. Treatment of expenditure during construction
3. Conversion or translation of foreign currency items
4. Valuation of inventories
5. Treatment of goodwill
6. Valuation of investments
7. Treatment of retirement benefits
8. Recognition of profit on long-term contracts
9. Valuation of fixed assets
10. Treatment of contingent liabilities

The above list of examples is not exhaustive.

Considerations in the Selection of Accounting Policies

The primary consideration in the selection of accounting policies by an organisation is that the financial statements should represent a true and fair picture of the financial position for the period. For this purpose, the major considerations governing the selection and application of accounting policies are:

- **Prudence:** In view of the uncertainty of future events, profits are not anticipated but recognised only when earned, though not necessarily in cash. However, provision is made for all known liabilities and losses even though the amount cannot be determined with certainty and represents only an estimate.
- **Substance over Form:** The accounting treatment and presentation of transactions and events in financial statements should be governed by their substance and not merely by the legal form.
- **Materiality:** Financial statements should disclose all “material” items, i.e. items, the knowledge of which might influence the decisions of the user of the financial statements.

Disclosure of Accounting Policies

To ensure proper understanding of financial statements, it is necessary that all significant accounting policies adopted in the preparation and presentation of financial statements must be disclosed. Such disclosure should form part of the financial statements. It would be helpful to the reader of financial statements if they are all disclosed in one place instead of being scattered over several statements, schedules and notes. Any change in an

accounting policy which has a significant effect should be disclosed.

The amount by which any item in the financial statements is affected by such change should also be disclosed to the extent it can be calculated. Where such amount is not ascertainable, wholly or in part, the fact should be disclosed.

If a change is made in the accounting policies which has no material effect on the financial statements for the current period but is expected to have a material effect in later periods, the fact of such change should be appropriately disclosed in the period in which the change is adopted. Disclosure of accounting policies or of the changes is not a remedy for any wrong or inappropriate treatment of items in the accounts.

AS 2 – VALUATION OF INVENTORIES

This accounting standard is applicable to all companies irrespective of their level (Level I, II and III). This standard prescribes the accounting treatment for inventories and sets the guidelines to determine the value at which the inventories are carried in the financial statements.

It explains the different methods of accounting the inventory or closing stock which has a huge impact on the business revenue and the assets. Topics discussed in this article: In this article, we cover the following topics:

Valuation of Inventories

This Standard should be applied in accounting for all inventories except the following : (a) work in progress in the construction business, including directly related service contracts (b) work in progress of service business (consulting, banking etc) (c) shares, debentures and other financial instruments held as stock in trade (d) Inventories like livestock, agricultural and forest products, mineral oils etc These inventories are valued at net realizable value

Definition

I. Definition of the Inventory includes the following:

- A. Held for sale in the normal course of business i.e finished goods
- B. Goods which are in the production process i.e work in progress
- C. Raw materials which are consumed during production process or rendering of services (including consumable stores item)

II. Net Realisable Value (NRV):

“Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale”

VALUATION OF INVENTORIES

Inventories should be valued at lower cost and net realizable value. Following are the steps for valuation of inventories: A. Determine the cost of inventories B. Determine the net

realizable value of inventories C. On Comparison between the cost and net realizable value, the lower of the two is considered as the value of inventory.

A comparison can be made the item by item or by the group of items. (*Refer Case studies given at the end of the article*)

Let's discuss the important items of Inventory valuation in detail:

A. Cost of InventoriesThe cost of inventories includes the following

1. Purchase cost
2. Conversion cost
3. Other costs which are incurred in bringing the inventories to their present location and condition.

B. Cost of Purchase While determining the purchase cost, the following should be considered:

1. Purchase cost of the inventory includes duties and taxes (except those which are subsequently recoverable from the taxing authorities)
2. Freight inwards
3. Other expenditure which is directly attributable to the purchase
4. Trade discounts, rebates, duty drawbacks and other similar items are deducted in determining the costs of purchase

C. Cost of Conversion Cost of conversion includes all cost incurred during the production process to complete the raw materials into finished goods. Cost of conversion also includes a systematic allocation of fixed and variable overheads incurred by the enterprise during the production process.

Following are the categories of conversion cost:

I. Direct Cost

All the cost directly related to the unit of production such as direct labor

II. Fixed Overhead Cost

Fixed overheads are those indirect costs which are incurred by the enterprise irrespective of production volume. These are the cost that remains relatively constant regardless of the volume of production, such as depreciation, building maintenance cost, administration cost etc.

The allocation of fixed production overheads is based on the normal capacity of the production facilities. In case of low production or idle plant allocation of these fixed overheads are not increased consequently.

III. Variable Overhead Cost

Variable overheads are those indirect costs of production that vary directly with the volume of production. These are the cost that will be incurred based on the actual production volume such as packing materials and indirect labor.

D. Other Cost

All the other cost which are incurred in bringing the inventories to the current location and condition. For (eg) design cost which is incurred for the specific customer order. If there are by-products during the production of main products, their cost has to be separately identified. If they are not separately identifiable, then allocation can be made on the relative sale value of the main product and the by-product. Some of the cost which should not be included are:

- a. Cost of any abnormal waste materials cost
- b. Selling and distribution cost unless those costs are necessary for the production process
- c. A normal loss which occurs during the production process is apportioned over the remaining no of units and abnormal loss is treated as an expense

(Refer Case studies given at the end of the article)

Methods of Inventory Valuation

The cost of inventories of items which *can be segregated for specific projects* should be assigned by specific identification of their individual costs (Specific identification method). All other items cost should be assigned by using the first-in, first-out (FIFO), or weighted average cost (WAC) formula. The formula used should reflect the fairest possible approximation to the cost incurred in bringing the items of inventory to their present location and condition.

However, when it is difficult to calculate the cost using above methods, Standard cost and Retail cost can be used if the results approximate the actual cost.

Accounting Disclosure

The following should be disclosed in the financial statements:

1. Accounting policy adopted in inventory measurement
2. Cost formula used
3. Classification of the of inventory such as finished goods, raw material & WIP and stores and spares etc
4. Carrying amount of inventories carried at fair value less sale cost
5. Amount of inventories recognized as expense during the period
6. Amount of any write-down of inventories recognized as an expense and its subsequent reversal if any.

COMPARISON BETWEEN AS 2 AND ICDS

Given below are some of the key differences between As 2 and Income Computation and Disclosure Standards (ICDS):

Sl.No	Particulars	AS 2	ICDS
1	Methods of Valuation	Standard Cost and Retail cost methods are allowed if its close to actual cost	Standard Cost method is not allowed to be used
2	Change in method of valuation	Allowed if it provides more appropriate presentation	Not allowed unless there is a reasonable cause
3	Opening Inventory of New Business	Value of opening inventory should be "Nil"	Shall be the cost of inventory available on the day of commencement of business

Some of the Major Differences between Ind AS (IAS) and AS 2

1. Scope of AS 2 does not deal with the inventory treatment related to Service Providers whereas IAS 2 details the treatment related to the cost of inventories of Service Providers
2. AS 2 requires lesser disclosure in the financial statements when compared to IAS 2
3. Cost of Inventories does not include "selling and distribution costs" under AS 2 and it is expensed in the period in which they are incurred whereas IAS 2 specifically excludes only "Selling Costs" and not "Distribution Costs".
4. AS 2 requires the inventory value of goods which cannot be segregated for specific projects should be assigned using FIFO or WAC whereas IAS requires the same formula to be used for all the inventories with similar nature.

Applicability of AS 3 Cash Flow Statements

The applicability of Cash flow statement has been defined under the Companies Act, 2013. As per the definition in the act, a financial statement includes the following:

- Balance sheet
- Profit and loss account / Income and expenditure account
- Cash flow statement
- Statement of changes in equity
- Explanatory notes Thus, cash flow statements are to be prepared by all companies but the act also specifies a certain category of companies which are *exempted* from preparing the same. Such companies are *One Person Company (OPC), Small Company and Dormant Company*.

◆ **OPC** means a company which has only one single person as its member.

◆ **A Small Company** is a private company with a maximum paid up capital of Rs. 50 lakhs and a maximum turnover of Rs. 2 crores.

◆ **A Dormant Company** is an inactive company which is formed for some future projects or only to hold an asset and has no significant transactions.

Cash and Cash Equivalents

Cash equivalents are held by an enterprise for meeting its short-term cash commitments instead of the purpose of investment or such other purposes. For investments to qualify as cash equivalents:

- An investment must be easily convertible into cash and
- Must be subject to a very low level of risk with respect to changes in its value. Hence, an investment would qualify to be a cash equivalent only when such an investment has a short maturity of three months or less from its acquisition date. AS 3 Cash Flow Statements states that cash flows should exclude the movements between items which forms part of cash or cash equivalents as these are part of an enterprise's cash management rather than its operating, financing and investing activities. Cash management consists of the investment of excess cash in the cash equivalents.

Presentation of Cash Flow

A cash flow statement must depict the cash flows within the period classifying them as

- Operating activities
- Investing
- Financing activities. Companies must prepare and present cash flows from operating, financing as well as investing activities in such manner that is apt to their business. Grouping the activities provide information which enables the users in assessing the impact of such activities on the overall financial position of an enterprise and also assess the value of the cash and cash equivalents.

Operating Activities

Cash flows from operating activities predominantly result from the main revenue-generating activities of an enterprise. For example:

- Cash received from the sale of goods and services
- Cash received in form of fees, royalties, commissions and various other revenue forms
- Cash paid to a supplier of goods and services

Investing Activities

Cash flows from investing activities represent outflows are made for resources intended for generating cash flows and future income. For instance:

- Cash paid for acquiring fixed assets
- Cash received from disposal of fixed assets (including intangibles)

- Cash paid for acquiring shares, warrants or debt instruments of other companies and interests in JVs

Financing Activities

Financing activities are those which brings changes in composition and size of owner's capital and borrowings of an enterprise. For instance:

- Cash received from issuing shares or other similar securities
- Cash received from issuing loans, debentures, bonds, notes, and other short-term or long-term borrowings
- Cash repaid on borrowings

Cash flow from operating activities

A company must report its cash flows from operating activities using:

1. Direct method – Where all the major classes of cash receipts and cash payments are presented; or

2. Indirect method – Where the net profit or net loss is adjusted for:

- Effects of transactions that are non-cash in nature such as depreciation, deferred taxes, provisions, etc.
- Accruals or deferrals of future or past operating cash proceeds or payments
- Any expense or income related to financing or investing cash flows

Cash Flow from Investing and Financing Activities

A company must separately record all the major classes of cash receipts and cash payments that arise from financing and investing activities, barring the ones which need to be reported on a net basis.

Cash flow on Net Basis

Cash flows which arise from below-mentioned operating, financing or investing activities might be reported on a net basis:

- Proceeds and payments in cash on behalf of a client where cash flows reflect the activities of such client rather than that of the company itself
- Proceeds and payments in cash for items where the amounts are huge, turnover is quick, and maturities are short.

Cash flows which arise from each of the below-mentioned activities of any financial enterprise might be reported on the net basis:

- Proceeds and payments in cash for acceptances and repayments of deposits having fixed maturities
- Placement and withdrawal of deposits from other financial enterprises

- Loans and cash advances are given to clients/customers and repayment of such loans and advances

Foreign Currency Cash Flows

Cash flows that arise from the transactions in the foreign currencies must be recorded in the company's reporting currency by using the below method: Foreign currency amount * FX rates between the reporting and foreign currency at the date of cash flow. A rate which approximates actual rate might be used in case the outcome is largely the same as it would have been if the rate at the date of cash flows was used. The impact of changes in the exchange rate on cash and cash equivalents which is held in the foreign currencies must be reported as a distinct and separate part of the reconciliation of changes in the cash and cash equivalent during the relevant period.

Extraordinary Items, Dividends & Interests

The cash flows related to the extraordinary items must be categorized as arising from operating, financing or investing activities as apt and disclosed distinctly. Cash flows from dividends and interest received and paid must be separately disclosed. Cash flows which arise from dividends and interest received and paid in the case of financial enterprises must be categorized as cash flows from operating activities. For other enterprises, cash flows which arise from interest paid must be categorized as cash flows from the financing activities whereas dividends and interest received must be categorized as cash flows from the investing activities. Any dividends paid must be categorized as cash flows from the financing activities.

Taxes on Income

Cash flows which arise from taxes on income must be disclosed separately and must be reported as cash flows from the operating activities except if they could be explicitly related to investing and financing activities.

Acquisitions and Disposal of Business Units including Subsidiaries

The aggregate cash flows which arise from acquisition and from the disposal of business units including subsidiaries must be shown as investing activities and reported separately. Enterprises must present, in total, with respect to both the acquisitions and disposals of other business units including subsidiaries within the period the followings:

- Aggregate purchase or disposal value
- The amount of purchase or disposal value which is discharged by way of cash and cash equivalents

Non-Cash Transactions

Financing and investing transactions which don't require cash or cash equivalents mustn't be included in the cash flow statement. Those transactions must be presented elsewhere in financial statements in a way which gives relevant information about such financing and investing activities.

Disclosure

Enterprises must disclose, along with management commentary, the amount of substantial cash and cash equivalents held by an enterprise which isn't available for use. Commitments that may arise from discounted bills of exchange and other similar obligations that are undertaken by an enterprise are typically disclosed in financial statements by means of notes, even in case the probability of loss is remote.

MAJOR DIFFERENCES BETWEEN AS 3 AND IND AS 7

Particulars	AS 3 Cash Flow Statements	Ind AS 7 Statement of Cash Flows
Bank Overdrafts	AS 3 it doesn't have any such requirement	Ind AS 7 explicitly includes bank overdrafts as a part of cash and cash equivalents that are repayable on demand
Cash flow from extraordinary activities	AS 3 necessitates cash flows related to the extraordinary activities to be classified as cash flow arising from operating, financing and investing activities	Ind AS 7 doesn't contain such requirement
Cash flow from changes in ownership interests in subsidiaries	AS 3 doesn't have any such requirements	Ind AS 7 needs classification of cash flows which arises from changes in the ownership interests in the subsidiaries which does not result in the loss of control as the cash flows from financing activities
Accounting for investments in a subsidiary or an associate	AS 3 doesn't have any such requirement	Ind AS 7 requires the use of Cost or Equity method when accounting for investments in a subsidiary or an associate
Disclosure requirements	AS 3 require fewer disclosure requirements as compared to	Ind AS 7 requires more disclosure requirements

	Ind AS 7	
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