

MANAGEMENT ACCOUNTING

COURSE CODE: B21CM08DC

Bachelor of Commerce
Discipline Core Course
Self Learning Material



SREENARAYANAGURU OPEN UNIVERSITY

The State University for Education, Training and Research in Blended Format, Kerala

SREENARAYANAGURU OPEN UNIVERSITY

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To increase access of potential learners of all categories to higher education, research and training, and ensure equity through delivery of high quality processes and outcomes fostering inclusive educational empowerment for social advancement.

Mission

To be benchmarked as a model for conservation and dissemination of knowledge and skill on blended and virtual mode in education, training and research for normal, continuing, and adult learners.

Pathway

Access and Quality define Equity.

Management Accounting

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Semester - IV

Discipline Core Course
Bachelor of Commerce
Self Learning Material
(With Model Question Paper Sets)



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MANAGEMENT ACCOUNTING

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Semester- IV

Discipline Core Course

Bachelor of Commerce

Academic Committee

Dr. Aji S.
P. M. Ameera Mol
Shamly K.
Dr. Jeeva Jose
Dr. Priya R.
Sreekanth M. S.
Dr. Vishnukumar S.
Joseph Deril K. S.
Dr. Bindu N.
Dr. Ajitha R. S.
Dr. Anil Kumar
N. Jayaraj

Development of the Content

Ambili K.P., Dr. Alice Mani, Jishi K.

PSC

Dr. T. Simon

Review and Edit

Abdul Latheef K.T.

Linguistics

Reshma R.

Scrutiny

Dr. Midhun V.
Dr. Athena Prince
Dr. Kavitha S.
Dr. Dany Thomas
Dr. Gopika C.G.
Mahesan K.P.

Design Control

Azeem Babu T.A.

Cover Design

Jobin J.

Co-ordination

Director, MDDC :
Dr. I.G. Shibi
Asst. Director, MDDC :
Dr. Sajeevkumar G.
Coordinator, Development:
Dr. Anfal M.
Coordinator, Distribution:
Dr. Sanitha K.K.



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MESSAGE FROM VICE CHANCELLOR

Dear learner,

I extend my heartfelt greetings and profound enthusiasm as I warmly welcome you to Sreenarayanaguru Open University. Established in September 2020 as a state-led endeavour to promote higher education through open and distance learning modes, our institution was shaped by the guiding principle that access and quality are the cornerstones of equity. We have firmly resolved to uphold the highest standards of education, setting the benchmark and charting the course.

The courses offered by the Sreenarayanaguru Open University aim to strike a quality balance, ensuring students are equipped for both personal growth and professional excellence. The University embraces the widely acclaimed “blended format,” a practical framework that harmoniously integrates Self-Learning Materials, Classroom Counseling, and Virtual modes, fostering a dynamic and enriching experience for both learners and instructors.

The University aims to offer you an engaging and thought-provoking educational journey. The Bachelor of Commerce is one of the highly popular programmes due to the current need for skilled professionals in the field. This demand guided our approach as we developed the programme's curriculum. The programme offers a comprehensive grasp of theoretical concepts alongside clear explanations of practical applications. We are careful to maintain a balance in the management components to preserve the integrity of the discipline. The Self Learning Material has been thoughtfully crafted to include illustrative examples. The Self-Learning Material has been meticulously crafted, incorporating relevant examples to facilitate better comprehension.

Rest assured, the university's student support services will be at your disposal throughout your academic journey, readily available to address any concerns or grievances you may encounter. We encourage you to reach out to us freely regarding any matter about your academic programme. It is our sincere wish that you achieve the utmost success.



Warm regards.
Dr. Jagathy Raj V. P.

01-07-2025

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BLOCK

Introduction to Management Accounting

Unit Introduction

Learning Outcomes

After completing this unit, the learner will be able to;

- ◊ define management accounting
- ◊ explain the need for management accounting
- ◊ identify the limitations of management accounting

Prerequisites

Accounting may be regarded as the language of business. It is a language that communicates information to people who have an interest in an organization. Managers, shareholders, potential investors, employees, creditors, and the government are the various parties interested in an organization. Managers require information that will help them in their decision-making and control activities.

Management Accounting is a branch of accounting that focuses on providing financial and non-financial information to an organization's internal management to support decision-making, planning, and control. Unlike financial accounting, which is primarily concerned with providing information to external stakeholders such as investors and regulators, management accounting is inward-facing and is tailored to the needs of managers at various levels within an organization.

Financial accounting records business transactions on a double-entry basis and helps in the ascertainment of profit or loss for the given period and the valuation of stock of assets and liabilities on a given date. Financial accounting enables business concerns to be careful with their liabilities and safeguard their assets; therefore, it is also known as custodial or stewardship accounting. Although primarily meant for the owners and

creditors, statutory authorities, the process of financial reporting is beneficial for the concern as a whole.

When financial accounting satisfies the needs of all stakeholders, both internal and external to the concern, management accounting primarily aims at fulfilling the needs of the management from a long-term perspective. Thus, 'Management Accounting' refers to accounting for the 'Management', which provides necessary information to assist management in the creation of policies and in the efficient management of day-to-day operations. It enables management to discharge all its functions, i.e., planning, organization, staffing, directing, and controlling efficiently, with the help of accounting information that is available as part of management accounting. This module attempts to give a detailed and theoretical view of management accounting and how it differs from financial accounting and cost accounting.

Thus, management accounting plays a crucial role in guiding an organization's strategic and operational decisions. By translating financial data into actionable insights, it empowers managers to steer the company towards its objectives effectively and efficiently.

Keywords

Management accounting, Decision making, Financial accounting & Cost accounting

Discussion

1.1.1 Management Accounting

1.1.1.1 Meaning

The term 'Management Accounting' is the combination of two words, 'Management' and 'Accounting'. Management is the art of planning, organizing, directing, and controlling human efforts in achieving the desired objectives. Accounting is the process of recording, classifying, and summarizing the monetary effects of business transactions and events so that concerned parties may know the result thereof. Thus, management accounting can be defined as an art of management and accounting. It is the accounting service to management, i.e., the use of accounting from a management point of view. That is why management accounting is also called 'Management-oriented accounting' or 'accounting for management'.

The accounting which satisfies the needs of management is called management

accounting. It refers to any and every accounting technique which may be helpful to management in discharging its functions, namely, planning, controlling, decision-making, and ensuring optimum utilization of resources. It consists of methods, systems, and techniques involved in the presentation of accounting information and data in a suitable form to management.

Thus, management accounting is the process of preparing and presenting financial and non-financial information to assist managers in making informed business decisions. It focuses on internal processes and is used to plan, control, and evaluate business operations. It refers to the process of identifying, measuring, analyzing, interpreting, and communicating financial information to help managers make informed business decisions. It is also known as **managerial accounting** and is primarily used **internally** within an organization. It is the study of the managerial aspect of financial accounting, that is, "accounting in relation to the management function." It shows how the accounting function can be re-oriented to fit it within the framework of management activity. The primary task of management accounting is, therefore, to redesign the entire accounting system so that it may serve the operational needs of the firm. It furnishes definite accounting information, past, present, and future, which may be used as a basis for management decisions and actions.

1.1.1.2 Definition

The ICMA has defined management accounting as: "the presentation of accounting information in such a way as to assist management in the creation of policy and in the day-to-day operations of an undertaking."

The **American Accounting Association** defines management accounting as: Management Accounting includes the methods and concepts necessary for effective planning, for choosing among alternative business actions, and for control through the evaluation and interpretation of performance.

Robert Anthony gives a simple definition: "Management accounting is concerned with accounting information which is useful to management."

In brief, management accounting is concerned with all such accounting information that is useful to management for performing its functions. Management accounting makes use of various techniques which include marginal costing, standard costing, budgetary control, break-even analysis, cost-volume-profit relationship, ratio analysis, inter-firm comparison, uniform costing, internal audit, etc.

1.1.2 Need for Management Accounting

Management accounting is vital because it equips management with relevant financial and operational information, enabling effective planning, control, decision-making, and improved business performance. It ensures efficient use of resources, helps reduce costs, and maximises profitability, making it indispensable for any organization aiming for growth and sustainability.

- Increase in Efficiency:** Management accounting enhances efficiency in business operations. The targets of different departments are fixed in advance, and the achievement of these targets is the tool for measuring their efficiency.
- Proper Planning:** Management is enabled to plan various operations with the help of management accounting information. The technique of budgeting is helpful in forecasting various activities.
- Measurements of Performance:** The systems of budgetary control and standard costing enable a concern to measure its performance. In standard costing, standards are determined. Thereafter, actual cost is compared with the standard cost. It enables management to find out deviations between the standard cost and the actual cost. The performance will be good if the actual cost does not exceed the standard cost. The budgetary control system is used to help in measuring the efficiency of all employees.
- Maximising Profitability:** The thrust of various management techniques is to control the cost of production and increase the efficiency of each and every individual in the organization. The steps taken in controlling costs are capable of reducing the cost of production. The profits of the enterprise are maximised with the help of a management accounting system.
- Improves Service to Customers:** The cost control devices employed in management accounting enable the reduction of prices, which is of great help to consumers. The quality of products improves as the quality standard is predetermined, and all possible steps are taken towards its achievement. The customers are supplied with good quality goods at reasonable prices. The increase in production of goods also enhances the supply of goods to customers.
- Effective Management Control:** In planning, coordinating, and controlling activities of the concern, the tools and techniques of management accounting are helpful to management. The setting of standards and assessing actual performance regularly enables management to have "management by exception".

1.1.3 Objectives of Management Accounting

The basic objective of management accounting is to select, classify, and analyse such accounting data that may assist the management in their basic functions. Recognising this fact, Brown and Howard have said, "the basic objective of management accounting should be to assist the management in controlling and decision-making functions." Following are the important objectives of management accounting:

1. Planning and Formulating Policies

To assist the process of planning and formulating policies, a management accountant provides necessary and relevant information to the management and helps them achieve the targets of the concern. Management accounting uses regression analysis and time series analysis as forecasting techniques.

2. Controlling Performance

In order to assure effective control, various techniques are used by a management

accountant, such as budgetary control, standard costing, management audit, etc. Management accounting provides a proper managerial control system to the management. Reports are provided to the management regarding the effective and efficient use of resources.

3. Interpreting Financial Statements

Collecting accounting data and analysing the same is a major objective of management accounting. Management accounting provides relevant information in a systematic way that can be used by the management in planning and decision-making. Cash flow statements, fund flow statements, ratio analysis, trend analysis, and comparative financial statements are some of the tools normally used in management accounting to interpret and analyse accounting data.

4. Motivating Employees

Management accounting provides a basis for the selection of the best alternative method of doing things. It motivates employees to improve their performance by setting targets and offering incentive schemes.

5. Making Decisions

The success of any organisation depends upon accurate decision-making. This is based on the information network provided by management accounting. Application of techniques such as differential costing, absorption costing, marginal costing, and management accounting provides useful data to the management to aid in their decision-making.

6. Reporting to Management

It is the primary role of management accounting to inform and advise the management about the latest position of the company. It covers information about the performance of various departments on a regular basis to the management, which is helpful in taking timely decisions.

A management accountant also works in the capacity of an advisor in order to overcome any existing financial or other problems of an organisation.

7. Coordinating among Departments

Management accounting is helpful in coordinating the various departments of an organisation by applying thorough functional budgeting and by providing reports for the same to the management on a regular basis.

8. Administrating Tax

Any organisation must comply with the tax systems prevailing in the country they are operating from. It is a challenge due to the ever-increasing complexity of the tax structure. Organisations need to file various kinds of returns with different tax authorities. They need to calculate the correct amount of tax and ensure timely deposit

of tax. Therefore, the management takes guidance from the management accountants to comply with the law of the land.

1.1.4 Functions of Management Accounting

The basic function of management accounting is to assist the management in performing its functions effectively. The functions of management are planning, organising, directing, and controlling. Thus,

management accounting helps in the performance of each of these functions in the following ways:

- Provides data:** Management accounting serves as a vital source of data for management planning. The accounts and documents are a repository of a vast quantity of data about the past progress of the enterprise, which are a must for making forecasts for the future.
- Modifies data:** The accounting data required for managerial decisions is properly compiled and classified. For example, purchase figures for different months may be classified to know total purchases made during each period, product-wise, supplier-wise, and territory-wise.
- Analyses and interprets data:** The accounting data is analysed meaningfully for effective planning and decision-making. For this purpose, the data is presented in a comparative form. Ratios are calculated, and likely trends are projected.
- Serves as a means of communicating:** Management accounting provides a means of communicating management plans upward, downward, and outward through the organisation. Initially, it means identifying the feasibility and consistency of the various segments of the plan. At later stages, it keeps all parties informed about the plans that have been agreed upon and their respective roles in these plans.
- Facilitates control:** Management accounting helps in translating given objectives and strategy into specified goals for attainment by a specified time and secures effective accomplishment of these goals in an efficient manner. All this is made possible through budgetary control and standard costing, which are integral parts of management accounting.
- Uses qualitative information:** Management accounting does not restrict itself to financial data for helping the management in decision-making, but also uses such information which may not be capable of being measured in monetary terms. Such information may be collected from special surveys, statistical compilations, engineering records, etc.

1.1.5 Limitations of Management Accounting

The management accountant has the responsibility of producing and providing dependable accounting and other relevant data for the use of management. The data provided, if it is to be really effective in the management process, must be:

- a. Relevant and precise



- b. Consistent and comparable
- c. Presented in an appropriate and understandable form
- d. Provided at appropriate time intervals, and
- e. Provided to meet the needs of various levels of management.

The management accountant is expected to keep in mind the above points while producing the product. However, the information and reports presented by the management accountant still suffer from the following limitations:

1. Different meaning of the same term: In accounting, different terms carry different meanings under different sets of circumstances and conditions. Such meanings and figures may superficially resemble one another, and a person who is not familiar with them may easily become confused or frustrated. The most common source of confusion is the word 'cost'.

There are historical costs, full costs, direct costs, variable costs, standard costs, original costs, residual costs, net costs, differential costs, opportunity costs, estimated costs, and incremental costs. Some of these terms are synonymous; others are not exactly synonymous though resembling each other; still, others, although not synonymous at all, may be used as if they were synonymous.

In order to avoid such confusion and misunderstanding, the management accountant should, in approaching a specific problem, define, as carefully and clearly as possible, the meaning in which such words are being used. He should, as far as possible, be consistent in prescribing the meanings of such terms.

2. Approximations: Management accounting data cannot be completely accurate in all respects. A good deal of approximation is involved in the compilation and preparation of such data. The smaller the time gap between the happening and reporting of an event, the greater will be the approximation.

In addition, in the working out of the estimates and future costs, approximation has to be resorted to. Even in the case of historical data, the cost and time required for accuracy may be prohibitive and compel the management accountant to make some approximations.

Therefore, while using the information provided by the management accountant, the management must be aware of the degree of approximation. The management accountant should follow a consistent practice in matters of approximations.

3. Incompleteness of the data: The management accountant can provide only the quantitative data as far as available, to the management. Business problems and their decisions often require additional quantitative as well as qualitative data which may be outside the purview of the management accountant. For example, the management accounting data will not disclose the extent to which the quality and utility of a product are affected by the changes in materials or methods of production. The management should guard itself against the belief that problems could be completely solved by way of numerical analysis. The management accountant should point out, as far as possible,

the qualitative factors relevant for decision-making in each case.

4. Importance of proper management action: A management accountant may provide information and figures in the most appropriate form to the management. But figures themselves are nothing more than marks on pieces of paper, and by themselves, they accomplish nothing. Anything that the business accomplishes is the result of the actions of the people. Figures can only assist people in the organisation in various ways. It is the management and the people in the organisation who are to use the figures by understanding their language and act accordingly. The same set of figures, if not acted upon by the management, becomes useless, or if misunderstood by the management, may lead to unwise actions.

Recap

- ◊ The term ‘Management Accounting’ refers to accounting for the management.
- ◊ Financial accounting is also known as custodial or stewardship accounting.
- ◊ Management accounting is the process of providing financial information and resources to the managers to help decision-making.
- ◊ Objectives of Management Accounting are Planning and Formulating Policies, Controlling Performance, Interpreting Financial Statements, Making Decisions, etc.
- ◊ Limitations of management accounting are different meaning at the same term, approximations, incompleteness of data, importance of proper managed action.

Objective Questions

1. What is Management accounting also called?
2. What is known as custodial or stewardship accounting?
3. What is concerned with the framing of budgets?
4. Standard costing, marginal costing, and opportunity cost analysis are concerned with which accounting?
5. What is the basic function of management accounting?
6. Management accounting is accounting in relation to the management function. True or False.

Answers

1. Managerial accounting
2. Financial accounting
3. Budgetary control
4. Management accounting
5. Help the management in decision-making
6. True

Self-Assessment Questions

1. Define management accounting
2. What are the objectives of management accounting?
3. Explain the need for management accounting
4. Describe the functions of management accounting
5. Describe the limitations of management accounting
6. Why is management accounting needed in organisations today?

Assignment

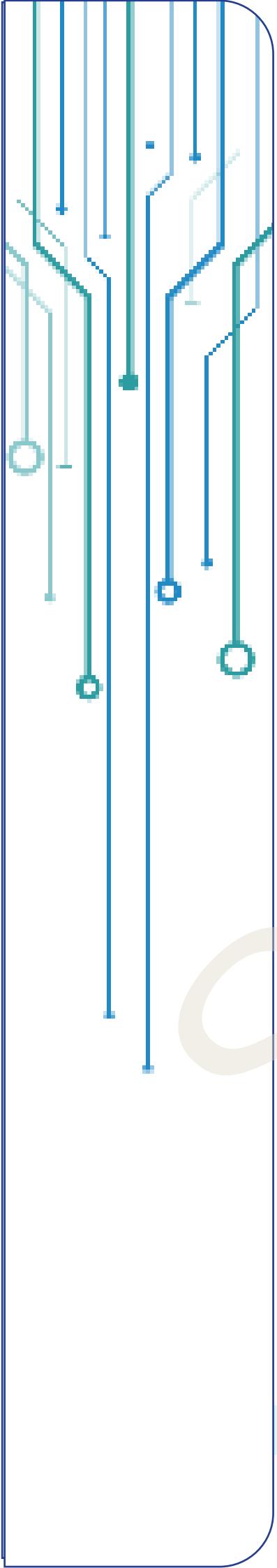
1. Explain the meaning and definition of management.
2. Write a note on objectives of management accounting.
3. Explain the limitations of management accounting.
4. Write a note on functions of management accounting.
5. "One of the major objective of management accounting is to provide useful information for decision making" - Discuss with example.

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Suggested Reading

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2. Robert N. Anthony - Management Accounting: Richard D Irwin
3. I.M. Pandey - Management Accounting: Vikas Publishing House



Unit 2

Scope of Management Accounting

Learning Outcomes

After completing this unit, the learner will be able to;

- ◊ get an awareness on the scope of Management accounting
- ◊ identify the tools and techniques of Management accounting
- ◊ difference between Financial accounting and Management accounting

Prerequisites

In the vibrant city of Jaipur, Rajasthan, Priya managed "Nature's Bounty," a company specialising in organic herbal products. Despite impressive sales, Priya noticed profits were declining. Concerned, she consulted Arjun, her accountant. Arjun utilised various tools - like budgeting and cost analysis - to examine the company's financial health. He discovered that while sales were strong, rising production costs and inefficient resource use were reducing profits. By analysing these factors, Arjun provided strategies to streamline operations and improve profitability.

Arjun's work highlighted how different accounting types support a business. Financial accounting had shown the overall profit decline, useful for external stakeholders. Cost accounting detailed the specific expenses in production, identifying inefficiencies. Management accounting combined these insights to help Priya make informed decisions to enhance her company's performance. This experience demonstrated the importance of understanding how financial, cost, and management accounting work together to guide a business toward success.

Keywords

Management accounting, Budgetary control, Cost accounting

Discussion

1.2.1 Scope of Management Accounting

The scope of management accounting is very wide. All those subjects, methods, systems, and techniques which are used in studying, analysing, and presenting data relating to present and future events and trends of a business enterprise are included in the boundaries of management accounting. The Seventh Conference of Accountants held at Amsterdam in 1957 has recommended the inclusion of the following subjects in the framework of management accounting.

1. Financial Accounting

Financial accounting forms the backbone of management accounting, providing the historical financial data required for analysis and planning. Although financial accounting is primarily concerned with recording, summarising, and reporting past financial transactions to external stakeholders, management accounting utilises this information internally. By analysing income statements, balance sheets, and cash flow statements, management accountants gain valuable insights into an organisation's past performance, which helps in forecasting future trends, planning operations, and evaluating performance. This integration ensures that all management decisions are grounded in reliable, factual data.

2. Cost Accounting

Cost accounting is a core component of management accounting that deals with determining and controlling the cost of production or services. It provides detailed cost information related to specific jobs, processes, or products, enabling management to make informed decisions on pricing, budgeting, and resource allocation. Techniques such as standard costing, marginal costing, and activity-based costing help assess the efficiency and profitability of various departments and activities. By identifying waste, inefficiencies, and high-cost areas, cost accounting supports better control over operational costs and contributes directly to improved profitability.

3. Financial Management

Management accounting encompasses various aspects of financial management, particularly those related to the planning, organisation, and control of financial resources. It assists in raising capital, allocating funds efficiently, and managing working capital to ensure smooth business operations. Financial management decisions, such as capital investment appraisals, dividend policies, and risk assessments, are informed

by management accounting tools like ratio analysis, cash flow forecasting, and return on investment (ROI) calculations. By integrating financial strategy with operational goals, management accounting ensures that business resources are used in ways that maximise returns and minimise risk.

4. Budgeting and Forecasting

Budgeting and forecasting are essential for setting financial and operational targets and planning for the future. Budgeting involves preparing detailed plans that quantify the organisation's objectives, outlining expected income and expenses over a specific period. It helps in assigning responsibility to different departments and monitoring performance by comparing actual outcomes against the budgeted figures. Forecasting, on the other hand, is the process of predicting future conditions based on historical and current data. It helps anticipate challenges and opportunities, enabling proactive decision-making. Both tools are crucial in ensuring that an organisation stays on track to meet its goals.

5. Inventory Control

Inventory control refers to the effective management of raw materials, work-in-progress, and finished goods to ensure that production runs smoothly without unnecessary delays or excesses. Management accounting plays a critical role in setting inventory levels such as minimum, maximum, and reorder levels. It also aids in inventory valuation, turnover analysis, and cost control. By ensuring that inventory is available when needed and avoiding excessive stock, management accounting helps reduce holding costs, prevent stockouts, and improve the overall efficiency of operations. This balance between supply and demand is vital for cost-effective production.

6. Reporting to Management

Timely and accurate reporting is a vital function of management accounting. Management accountants prepare various types of reports that provide insights into the financial and operational health of the business. These reports include profit and loss statements, fund flow and cash flow analyses, stock reports, and departmental performance evaluations. Reports are often supplemented with visual aids such as graphs, charts, and index numbers for easy comprehension. Regular reporting allows managers to monitor progress, identify deviations from plans, and take corrective actions promptly. It ensures transparency and supports informed, strategic decision-making.

7. Interpretation of Financial Data

One of the distinguishing roles of management accounting is the interpretation of financial and non-financial data for managerial use. It goes beyond mere data collection and presentation by offering insights and explanations that help in understanding the implications of financial statements. Management accountants interpret trends, compare current performance with past data or industry standards, and explain the impact of financial figures on business operations. This interpretative function is crucial, as misreading financial data can lead to incorrect decisions. Proper interpretation enables

managers to understand the real meaning behind numbers and make sound decisions based on that understanding.

8. Control Procedures and Methods

Control is an essential function of management that ensures activities are performed according to plans. Management accounting contributes by designing and implementing control procedures such as standard costing, budgetary control, and variance analysis. These methods help compare actual performance against predetermined standards, identify discrepancies, and take corrective actions. Control techniques also help in monitoring the efficient use of resources, reducing waste, and achieving operational excellence. Through cost control and profit planning, management accounting ensures that business objectives are met economically and efficiently.

9. Internal Audit

Internal auditing is an important aspect of management accounting that involves the systematic review and assessment of internal controls, risk management, and operational efficiency. Management accountants conduct internal audits to evaluate whether different departments are operating effectively and in accordance with company policies. It helps in identifying areas of improvement, ensuring compliance, and maintaining accountability. By comparing actual performance with set standards, internal audits highlight deviations and help managers take corrective measures. It also plays a key role in fraud prevention and enhancing the credibility of financial reports.

10. Tax Accounting

Tax planning and compliance are critical functions in any organisation, and management accounting plays a significant role in managing tax-related activities. It involves preparing income statements for tax calculation, estimating tax liabilities, and ensuring timely submission of tax returns. Management accountants help in understanding the tax obligations under different laws (central, state, and local) and develop strategies to minimise the tax burden legally. Effective tax accounting supports better cash flow management, prevents legal penalties, and contributes to the overall financial health of the business.

11. Office Services

Management accounting may also extend to supervising office operations and services that support business administration. This includes overseeing functions such as data processing, filing, record-keeping, copying, and internal communication. Management accountants may also evaluate the effectiveness and efficiency of office equipment and systems. Ensuring smooth office operations is essential for the timely preparation and dissemination of management reports and other critical information. As businesses rely increasingly on accurate data and fast communication, efficient office services play a supporting yet vital role in the scope of management accounting.

Besides the above, management accounting also covers the following aspects:

1. Performance Evaluation



2. Decision-Making Support
3. Financial Planning and Strategy
4. Risk Management
5. Reporting.

1.2.2 Tools and Techniques of Management Accounting

Management accounting employs a wide range of tools and techniques to provide useful information to managers for effective decision-making, planning, and control. These tools help interpret accounting data, analyse business situations, and suggest the best course of action. Since no single technique can meet all managerial needs, a combination is often used depending on the nature of the problem and the organisation's objectives. Below is a detailed explanation of the major tools and techniques used in management accounting:

1. Financial Policy and Accounting

One of the foundational tools of management accounting is its role in formulating financial policies. Management accounting aids in financial planning, particularly in determining the sources and structure of business finance. Decisions such as whether to raise funds through equity shares, preference shares, or loans, and determining the balance between long-term and short-term borrowing, are crucial to the financial health of an enterprise. Management accountants analyse different financing options, considering cost, risk, and control implications, to recommend the most suitable capital structure. Tax planning is an integral part of financial policy where management accountants use the existing legal framework to minimise tax liabilities while ensuring compliance.

2. Analysis of Financial Statements

This technique involves a detailed examination of financial statements to derive meaningful insights for managerial decision-making. By classifying and simplifying financial data, management accountants make it easier for non-financial managers to understand business performance. Techniques such as ratio analysis, comparative statements, trend analysis, and fund flow statements are commonly used to identify trends, financial strengths and weaknesses, liquidity positions, and overall financial stability. These analyses help management in evaluating past performance and making informed projections for the future.

3. Historical Cost Accounting

Historical cost accounting refers to the method of recording expenses and costs at the actual amount incurred. It serves as a basic framework for tracking transactions and assessing performance over time. While it is limited in predictive value, it is useful when comparing actual costs with standard or estimated costs. These comparisons help identify inefficiencies or deviations, which can then be investigated for corrective actions. This technique provides a factual base for understanding how resources have

been utilised.

4. Budgetary Control

Budgetary control is one of the most essential tools of management accounting. It involves preparing budgets for various departments in advance and using them as benchmarks for performance evaluation. These budgets are developed based on past performance and future expectations. Once actual performance is recorded, it is compared with the budgeted targets to identify variances. Budgetary control helps in planning the use of resources effectively and in holding managers accountable for their performance. It also assists in resource allocation and operational control by signalling deviations and facilitating timely corrective measures.

5. Standard Costing

Standard costing is a technique that involves setting predetermined costs for products or services, which are then compared with the actual costs incurred. Variances between standard and actual costs are analysed to determine their causes, such as inefficiency or price fluctuations. This method encourages cost consciousness and performance improvement. Standard costing supports the principle of "management by exception," where attention is focused only on significant deviations from expected results, thus saving time and effort while ensuring effective cost control.

6. Marginal Costing

Marginal costing is a technique used to understand the effect of changes in production volume on costs and profits. It separates costs into fixed and variable components, highlighting the contribution margin - the difference between sales revenue and variable cost. This approach is especially useful for short-term decision-making such as determining the optimal product mix, pricing strategies, or evaluating the profitability of individual departments or products. Marginal costing helps managers assess whether to accept special orders, close unprofitable segments, or operate under limiting factors.

7. Decision Accounting

Also referred to as decision-making accounting, this tool helps management choose the most financially viable option among various alternatives. Whether it's about expanding a business, introducing a new product, outsourcing a process, or investing in new technology, management accounting provides data-driven insights. Techniques such as cost-benefit analysis, break-even analysis, and net present value (NPV) are commonly used to evaluate each alternative. This systematic evaluation of financial consequences aids in rational and strategic decision-making.

8. Revaluation Accounting (Replacement Accounting)

Revaluation accounting, also known as replacement accounting, focuses on maintaining the real value of capital during inflationary periods. It recognises the impact of changing prices on fixed assets and aims to preserve the purchasing power of capital. By adjusting asset values to reflect current replacement costs, businesses can better estimate the true cost of asset usage and make provisions for future replacement.



This technique is vital for accurate profit measurement and long-term sustainability, especially in economies experiencing rising price levels.

9. Control Accounting

Control accounting integrates various control systems such as budgetary control, standard costing, internal checks, and audits into a unified framework. It is not a separate method but a coordinated use of multiple tools to monitor operations and ensure that organisational activities are aligned with planned objectives. Through tools like variance analysis and internal audit reports, control accounting helps in evaluating departmental performance and identifying inefficiencies or potential fraud. This ensures operational discipline and strengthens internal control mechanisms.

10. Management Information Systems (MIS)

The development of Management Information Systems has transformed how data is collected, processed, and presented to decision-makers. MIS provides timely and relevant information to managers in a structured format, aiding in effective planning, coordination, and control. With the use of computer technology, large volumes of data can be analysed quickly to generate real-time reports. Feedback systems and dashboards allow management to monitor key performance indicators (KPIs) and respond promptly to changes in the internal or external environment. MIS is indispensable for modern, data-driven management.

1.2.3 Relationship between Financial Accounting and Management Accounting

Financial accounting and management accounting are two integral branches of the accounting information system within any business organisation. Financial accounting is primarily concerned with the systematic recording of the day-to-day financial transactions of a business. These transactions are categorised according to their nature and recorded to determine the profit or loss of the organisation for a specific period. It also helps in evaluating the financial position of the business on a particular date through the preparation of key financial statements such as the Profit and Loss Account and the Balance Sheet.

On the other hand, management accounting utilises the information provided by financial accounting, along with additional internal and external data, to assist the management in planning, decision-making, controlling, and policy formulation. It interprets financial data in a meaningful way so that the management can take strategic actions for the future growth and efficiency of the business.

Although management accounting draws heavily from the data compiled through financial accounting, it extends beyond it by analysing and interpreting the data to suit managerial needs. In this sense, management accounting is considered an extension or offshoot of financial accounting. The principles and practices of financial accounting are often applied in management accounting as well, making the two closely interlinked. Despite their distinct purposes and functions, both financial and management accounting

complement each other and are essential for the smooth and efficient operation of any organisation.

However, despite their close relationship, there are several key differences between financial accounting and management accounting, which are outlined below.

1.2.4 Distinction between Financial Accounting and Management Accounting

Although financial accounting and management accounting are closely related and often work in tandem, there are several key differences between them in terms of their objectives, nature, use, and reporting methods.

1. Objective

The primary objective of financial accounting is to record financial transactions systematically to determine the financial results of an enterprise, such as profit or loss, and to assess its financial position at the end of a specific accounting period. These records are crucial for external parties like shareholders, creditors, banks, and regulatory bodies. In contrast, the main objective of management accounting is to assist the internal management in formulating policies, setting goals, planning strategies, and making informed decisions for the effective control and operation of the business.

2. Nature

Financial accounting is historical in nature as it deals with the actual transactions that have already occurred. It focuses on past performance and presents accurate and factual financial data. Management accounting, on the other hand, is forward-looking. It uses historical data only as a base for making future projections, estimating outcomes, and facilitating planning and decision-making. Hence, it relies more on forecasts and estimated figures than actual ones.

3. Subject-Matter

Financial accounting deals with the overall performance and results of the entire business. It presents a holistic view by combining all aspects of the business into consolidated financial statements. Conversely, management accounting is more detailed and segmented. It focuses on analysing the performance of individual departments, cost centres, or units separately to understand their individual contribution to the organisation and to identify specific areas for improvement.

4. Legal Compulsion

The preparation of financial accounts is mandatory for certain types of organisations, especially those governed by company laws or other regulatory frameworks. Financial statements must be prepared according to specific accounting standards and legal requirements. In contrast, management accounting is not legally required. It is a voluntary and internal function, developed purely to assist management, and its format or frequency is determined by managerial needs rather than legal obligations.



5. Precision

In financial accounting, only actual and verified figures are recorded. Accuracy and precision are crucial, as the data is often used for legal, taxation, and public reporting purposes. Management accounting, however, does not emphasise exact precision. Approximate figures, estimates, and projections are often considered more relevant and useful for managerial decisions, especially in dynamic business environments.

6. Reporting

Financial accounting produces reports such as the Profit and Loss Account and Balance Sheet, which are used primarily by external stakeholders. These are prepared for fixed accounting periods, typically yearly or quarterly. Management accounting, however, generates reports for internal use only. These reports are often produced more frequently - weekly, monthly, or even daily - and are designed to support decision-making at different levels of management.

7. Type of Information Recorded

Financial accounting only includes data that can be expressed in monetary terms. Non-quantifiable elements such as market competition, political influences, or employee morale are outside its scope. In contrast, management accounting incorporates both financial and non-financial information. It may consider economic trends, political scenarios, competitor actions, and other qualitative factors which, though not always measurable in monetary terms, are critical to managerial decision-making.

8. Speed of Reporting

The reporting process in management accounting is generally faster and more flexible. It provides real-time or frequent updates, enabling quick decision-making. Financial accounting is more time-consuming due to the need for accuracy and legal compliance. Final accounts are typically prepared only at the end of the financial year or at set reporting intervals.

9. Accounting Principles

Financial accounting adheres to generally accepted accounting principles (GAAP) and standards to ensure consistency, comparability, and compliance with statutory regulations. Management accounting is not bound by such principles. It allows flexibility in the presentation and analysis of data, adapting to the specific requirements and preferences of the organisation's management.

10. Time Period

Financial accounting is tied to specific accounting periods. For instance, the Profit and Loss Account is usually prepared for a year, and the Balance Sheet reflects the financial position on a particular date. Management accounting does not follow such fixed periods. Reports can be generated as frequently as needed, depending on managerial requirements, and are often ongoing throughout the year.

11. Publication of Reports

Financial accounting statements are published for the benefit of the public and external stakeholders. Under laws like the Companies Act, registered companies are required to submit copies of these financial statements to the Registrar of Companies. Management accounting reports, in contrast, are confidential and not intended for public dissemination. They are meant solely for internal managerial use.

12. Audit

Financial accounts are subject to statutory audit, especially in the case of registered companies. Auditing ensures that the financial statements present a true and fair view of the financial position of the business. Management accounts are not audited, as they are based on both actual and projected data. Since they are for internal use and may involve estimates, they are not subject to independent verification.

1.2.5 Relationship between Cost Accounting and Management Accounting

Cost accounting and management accounting are closely linked and serve complementary roles in an organisation. While they are distinct in scope and application, they often overlap and work together to support effective business decision-making.

The primary objective of cost accounting is not limited to merely determining the cost of products, services, or operations. It also plays a significant role in evaluating performance, controlling operational efficiency, and aiding managerial decisions. Cost data helps management minimise expenses, improve resource utilisation, and enhance overall productivity. In this way, cost accounting becomes a vital tool for informed decision-making.

On the other hand, **management accounting** uses the data generated by cost accounting, along with information from financial accounts and other sources, to assist managers in planning, controlling, and making strategic decisions. Management accounting encompasses a broader scope than cost accounting. While cost accounting focuses mainly on the measurement and analysis of costs, management accounting deals with all aspects of financial and non-financial data relevant to managerial functions.

Although there is some **overlap** between the two, they are **not identical**. Many cost accounting techniques - such as marginal costing, standard costing, and variance analysis - are extensively used in management accounting. However, management accounting goes beyond cost data and includes budgeting, financial forecasting, performance analysis, and other tools for strategic planning.

Importantly, both systems are interdependent and work best when integrated. A strong and accurate cost accounting system forms the foundation for an effective management accounting system. Without reliable cost data, management accounting cannot function efficiently, as it depends on this information for evaluating costs, setting prices, and making well-informed decisions.

While cost accounting provides the essential cost information, management accounting interprets and uses this information for broader managerial purposes. The



two disciplines, though distinct, are essential and mutually supportive components of modern business management.

1.2.6 Distinction between Cost Accounting and Management Accounting

While cost accounting and management accounting are closely related, they serve different purposes and have distinct characteristics. The key points of distinction between the two are as follows:

1. Objective

The primary objective of cost accounting is to record and analyse the cost of producing goods or delivering services. It focuses on identifying costs unit-wise or product-wise and helps in cost control, cost reduction, and matching costs with revenue. In contrast, the main objective of management accounting is to provide relevant information to the management for effective planning, coordination, and decision-making across all areas of business operations.

2. Scope

The scope of management accounting is far broader than that of cost accounting. It encompasses various functions such as financial accounting, cost accounting, budgeting, forecasting, tax planning, internal reporting, and interpreting financial data for managerial use. On the other hand, cost accounting is primarily concerned with cost ascertainment, cost analysis, and cost control.

3. Nature

Management accounting is forward-looking and generally deals with future projections. It supports strategic planning and policy formulation by using forecasts and estimates. Cost accounting, however, uses both past and present data to determine and monitor the cost of operations.

4. Type of Data Used

Cost accounting focuses strictly on quantitative data—those transactions that can be measured in monetary terms. It records measurable cost information related to production or service delivery. In contrast, management accounting uses both quantitative and qualitative data, including market trends, employee performance, customer feedback, and political or economic conditions, to support managerial decisions.

5. Principles Followed

In cost accounting, standardised principles and procedures are followed to ensure uniformity in recording and analysing costs across products and periods. These rules are often consistent and well-established. However, management accounting does not follow any fixed set of rules. The format, methods, and presentation of reports vary according to the specific needs of management and the nature of the decisions to be made.

Recap

- ◊ Management Accounting is primarily concerned with - Internal decision-making
- ◊ The relationship between cost and management accounting is – Complementary
- ◊ Standard costing is a technique of management accounting
- ◊ Variance analysis is a part of budgetary control
- ◊ Responsibility accounting is a part of Management accounting
- ◊ Cash flow statement is a tool used in Management accounting
- ◊ The primary objective of cost accounting is to record and analyse the cost of producing goods or delivering services
- ◊ Management accounting is forward-looking and generally deals with future projections

Objective Questions

1. What is the primary aim of management accounting?
2. Which technique is used to identify break-even sales?
3. What does standard costing help in identifying?
4. Why is ratio analysis used in management accounting?
5. Which accounting system is primarily used by external stakeholders?
6. What does budgetary control focus on?
7. How does management accounting help reduce costs?
8. Which accounting type focuses on unit-level cost analysis?

Answers

1. Decision-making
2. Marginal costing
3. Cost deviations
4. Comparing performance

5. Financial accounting
6. Comparing actual with planned
7. Through cost control techniques
8. Cost accounting

Self-Assessment Questions

1. How does management accounting differ from financial accounting?
2. What role does management accounting play in decision-making?
3. Explain the importance of budgetary control.
4. How does cost accounting relate to management accounting?
5. How do financial statements differ from management reports?
6. How does ratio analysis help in decision-making?
7. How does management accounting help in forecasting?
8. How does management accounting support strategic planning?

Assignments

1. Prepare a comparative report between Financial and Management Accounting.
2. Evaluate the role of budgetary control in business efficiency.
3. Develop a variance analysis report for a hypothetical company.
4. Create a responsibility accounting framework for a department.
5. Study the use of management accounting in a local business.
6. Prepare a standard costing report with favourable/unfavourable variances.

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2
BLOCK

Analysis and Interpretation of Financial Statements

Introduction to Financial Statements

Learning Outcomes

After completing this unit, the learner will be able to;

- ◊ understand the meaning of a financial statement.
- ◊ understand the importance of financial statements.
- ◊ understand the drawbacks of financial statements.

Prerequisites

Financial statements are documents that provide information relating to a business concern. It is often said that accounting is the language of business, which is used to communicate relevant financial information relating to a business. The medium that is used for such communication is financial statements. So, in short, we can say that businesses communicate to the outside world through financial statements. All relevant information that is quantitative in nature is available in the financial statements of a company. The users of such financial statements include shareholders, creditors, suppliers, employees, etc. In short, all stakeholders who are interested in the performance of a business organisation are the users of such financial statements. They provide them with important financial information that is crucial for their decision-making. In this unit, we will look into the meaning, nature, purpose, users and various limitations pertaining to financial statements.

Keywords

Financial statements, financial position, objectives, uses, limitations

Discussion

2.1.1 Financial Statements

2.1.1.1 Meaning and Definition of Financial Statements

The day-to-day transactions of the business are recorded, classified, and summarised to determine the profitability of the enterprise and also to find out the financial position. The summarised results of the enterprise are presented in the statements called financial statements.

Financial statements are formal records of the financial activities and position of a business, person, or other entity. They provide a summary of an organisation's financial performance and condition over a specific period and are primarily used by external stakeholders such as investors, creditors, regulators, and management.

The financial statements are the end products of financial accounting. They are statements containing financial information of a business enterprise. They are summarised periodical reports of financial and operative data contained in the books of account known as the General Ledger.

Thus, the term financial statements generally refers to two statements, namely;

1. The position statement or the balance sheet, and
2. The income statement or the Trading and Profit and Loss account.

Definition of Financial Statements

Financial statements may be defined as statements containing summaries of detailed information about the financial position and performance of an enterprise. They refer to a package of statements such as the balance sheet, income statement, statement of retained earnings, fund flow statement, and cash flow statement.

According to John M. Myer, “the financial statements provide a summary of the accounts of the enterprise, the balance sheet reflecting the assets, liabilities, and capital as of a certain date and the income statement showing the results of operations during a certain period.”

Smith and Asburne define financial statements as “the end product of financial accounting in a set of financial statements prepared by the accountant of a business enterprise that purports to reveal the financial position of the enterprise, the result of its recent activities, and an analysis of what has been done with earnings.”

2.1.2 Objectives of Financial Statements

Financial statements are the source of information for shareholders and stakeholders for understanding the financial viability of any business concern. They provide information about the profitability and financial position of a business concern during a specified period of time in terms of assets and liabilities. Such information provides a basis for making decisions. Thus, the primary objective of financial statements is to assist users in their decision-making. The specific objectives include the following:

- 1. To provide information about economic resources and obligations of a business:** They are prepared to provide adequate, reliable, and periodic information about economic resources and obligations of a business firm to investors and other external parties who have limited authority, ability, or resources to obtain information.
- 2. To provide information about the earning capacity of the business:** They are to provide useful financial information that can be gainfully utilised to predict, compare, and evaluate the business firm's earning capacity.
- 3. To provide information about cash flows:** They are to provide information useful to investors and creditors for predicting, comparing, and evaluating potential cash flows in terms of amount, timing, and related uncertainties.
- 4. To judge the effectiveness of management:** They supply information useful for judging management's ability to utilise the resources of a business effectively.
- 5. Information about activities of business affecting society:** They have to report the activities of the business organisation affecting society, which can be determined and described or measured and which are important in its social environment.
- 6. Disclosing accounting policies:** These reports have to provide the significant policies and concepts followed in the process of accounting and changes taken up in them during the year to understand these statements in a better way.

2.1.3 Nature of Financial Statements

- 1. Recorded Facts:** This refers to the data recorded in the books of accounts. In other words, information that finds no place in the books of accounts is usually not depicted in the financial statements, even if it consists of highly material facts. For example, the effects of factors such as the quality of management, state of competition, strikes, new competitive products, etc., are not reflected in the financial statements.
- 2. Accounting Conventions:** Certain accounting conventions are used while preparing financial statements. The principle of consistency insists upon following the same accounting principles and methods, and thus financial statements are made comparable.
- 3. Accounting concepts:** Accounting concepts are the basic assumptions upon which the entire accounting system is based. For example, as per the going concern concept, the business unit has perpetual succession or continued

existence, and the transactions are recorded from this point of view.

4. **Personal judgements:** Besides recorded facts, accounting concepts, and conventions, personal judgements or opinions will also have a significant influence on accounting statements. For example, the choice of a particular method of depreciation or valuation of stock according to any one accepted method of stock valuation or writing off preliminary expenses, etc., depends mostly on the personal judgement of the accountant.

2.1.4 Importance of Financial Statements

Financial statements are important documents that help communicate relevant information to their users. The importance of financial statements varies depending on the type of users, as described below:

1. **To the Management:** Using financial statements, the top management will be able to understand the position, progress, and prospects of the business and compare the performance of one business firm with the industry-wise average and performance of similar firms.
2. **To the Shareholders:** Financial statements enable shareholders to know about the efficiency and effectiveness of management and also the earning capacity and financial strength of the company.
3. **To prospective investors:** For those investors who intend to invest in a company, the financial statements will provide them with information to ascertain the profit-earning capacity, present position, and future prospects of the company and to make their investment decisions.
4. **To lenders or creditors:** By evaluating the financial statements, the lenders or creditors of a company will be able to know about the liquidity, profitability, and long-term solvency position of the company.
5. **To employees:** Employees can benefit from financial statements in terms of wage and bonus negotiations. Profit revealed by the profit and loss account is the basic document for such negotiations.

2.1.5 Users of financial statements:

1. Owners / Shareholders

These are the individuals or entities that own the company. They use financial statements to assess whether their investment is generating satisfactory returns. By analysing profits, assets, and equity, they can judge the company's growth, stability, and long-term performance.

2. Management

Internal managers use financial statements to plan future activities, allocate resources, control operations, and evaluate the company's financial efficiency. Budgeting, forecasting, cost control, and strategic planning are all dependent on accurate financial data.

3. Investors and Potential Investors

Current and prospective investors look at financial statements to decide whether to buy, hold, or sell shares. They assess a company's profitability, cash flow, and financial strength to determine the level of risk and potential return on their investment.

4. Creditors and Lenders

Banks and other financial institutions rely on financial statements to assess the creditworthiness of a business. They want to ensure the company has enough liquidity and stable cash flows to repay loans and interest on time.

5. Employees and Trade Unions

Employees are interested in the financial health of the company because it affects job security, wages, bonuses, and future prospects. Trade unions may use financial information during negotiations for better working conditions and compensation packages.

6. Suppliers

Suppliers provide goods or services to the business, often on credit. They use financial statements to evaluate whether the company can pay its bills on time and maintain a long-term purchasing relationship.

7. Customers

Some customers, especially large or long-term clients, review a company's financial stability to ensure it will continue to supply goods or services without interruption. This is important in business-to-business (B2B) transactions.

8. Government and Regulatory Authorities

Government departments such as income tax and GST authorities use financial statements to confirm whether the company is paying the correct amount of tax. Regulatory bodies also ensure that companies follow accounting standards and legal compliance.

9. Financial Analysts and Researchers

Analysts working for investment firms, consulting agencies, or research institutions use financial data to evaluate company performance, compare with industry benchmarks, and make market forecasts.

10. General Public

The public, particularly in the case of large corporations, may be interested in how a company is performing financially, whether it is socially responsible, and if it is contributing positively to the economy and employment.

2.1.6 Limitations of Financial Statements

- 1. Incomplete information:** Financial statements provide only quantitative

information. Qualitative information is completely avoided in financial statements.

2. **Financial Statements are Interim Reports:** The profit shown by the profit and loss account and the financial position shown by the balance sheet are only interim reports. The exact position can be known only when the business is wound up.
3. **Accounting Concepts and Conventions:** Financial statements are prepared on the basis of certain accounting concepts and conventions. Due to this, the financial position disclosed by these statements may not be realistic. For example, fixed assets are shown in the balance sheet at cost price and not at market price or replacement price. Similarly, on account of the “convention of conservatism”, the income statement may not disclose the true income of the business because probable losses are considered while preparing the income statement, whereas probable incomes are ignored.
4. **Influence of Personal Judgements while preparing the financial statements:** While preparing the financial statements, some items are recorded according to the personal judgement of the accountant. For example, methods of charging depreciation, valuation of stock, etc. The true value of such items lies in the soundness of such judgements, which in turn depends on the experience, skill, integrity, and competence of the accountant. The accountant may make improper assumptions, either by mistake or to conceal the actual picture.

Recap

- ◊ Financial statements record, classify, and summarise transactions to assess profitability and financial position.
- ◊ Financial statements are prepared using principles like consistency for comparability.
- ◊ Financial statements are prepared based on the going concern concept.
- ◊ Top management and other stakeholders use financial statements to make financial decisions.
- ◊ Financial statements are primarily used by external stakeholders.
- ◊ Financial statements includes profit and loss account and balance sheet.

Objective Questions

1. Financial statements provide information about?
2. Shareholders use financial statements to gather information about?
3. Financial statements provide _____ information to lenders or creditors.
4. Financial statements provide both qualitative and quantitative information. True or false.
5. State any two users of financial statements.
6. Who are the external stakeholders?

Answers

1. Financial position and performance of an enterprise
2. Efficiency and effectiveness of management
3. Liquidity
4. false
5. Management, creditors, government etc
6. Creditors, government, suppliers etc

Self-Assessment Questions

1. What are financial statements?
2. Explain the importance of financial statements.
3. Explain the objectives of financial statements.
4. Explain the limitations of financial statements.
5. Explain the nature of financial statements.
6. Who are the users of financial statements?

Assignments

1. Study the nature of financial statements.
2. Prepare a note on the importance of financial statements to various users.
3. Write a note on the limitations of financial statements.
4. Study the objectives of financial statements.
5. Study about the uses of financial statements.

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Financial Statement Analysis and Interpretation

Learning Outcomes

After completing this unit, the learner will be able to;

- ◊ Understand what financial statement analysis is.
- ◊ Understand the need for financial statement analysis.
- ◊ Understand the limitations of financial statement analysis.

Prerequisites

In the previous unit, we discussed the need for financial statements. The information communicated through a financial statement becomes useful only when it is properly analysed. The requirements of each stakeholder may be different. An investor may be interested in the profitability or the dividend payout of a company, whereas a lender will be interested in the debt payout of a company. So the information required by each user varies. There are various tools available to gather user-specific information from the financial statements. The application of such tools and techniques for gathering relevant information from the financial statements is what you call financial statement analysis. In this unit, we will discuss the significance of financial statement analysis.

Keywords

Financial statement analysis, objectives, limitations

Discussion

2.2.1 Meaning of Financial Statement Analysis

The term ‘financial analysis’ is also known as the analysis and interpretation of financial statements. Financial statement analysis refers to the process of determining the financial strengths and weaknesses of the firm by establishing strategic relationships between the items of the balance sheet, profit and loss account, and other useful financial data.

Financial analysis is the process of identifying the strengths and weaknesses of the company with the help of accounting information provided by the Profit and Loss Account and Balance Sheet. It is the process of evaluating the relationship between component parts of financial statements to obtain a better understanding of the firm’s position and performance.

Metcalf and Titard have defined financial statement analysis as “a process of evaluating the relationship between component parts of a financial statement to obtain a better understanding of a firm’s position and performance.”

Similarly, Myers has defined financial statement analysis as “a study of the relationship among the various financial factors in a business as disclosed by a single set of statements and a study of the trend of these factors as shown in a series of statements.”

2.2.2 Objectives of Financial Statement Analysis

The primary objective of financial statement analysis is to understand and diagnose the information contained in financial statements with a view to judging the profitability and financial soundness of the firm, and to make forecasts about the future prospects of the firm. The purpose of analysis depends upon the persons interested in financial statement analysis and the objectives expected from the exercise. The following are the main objectives of financial statement analysis, though they change based on the need, purpose, time, duration, etc. of the parties or persons conducting it.

1. To assess the earning capacity or profitability of the firm.
2. To assess the operational efficiency and managerial effectiveness of the business firm.
3. To assess the short-term as well as long-term solvency position of the firm.
4. To identify the reasons for changes in profitability and financial position of the firm.
5. To make inter-firm comparisons.
6. To make forecasts about future prospects of the firm.
7. To assess the progress of the firm over a period of time.
8. To help in decision-making and control.

9. To guide or determine the dividend policy.
10. To provide important information for granting credit.
11. To provide information for intra-firm comparison.
12. To provide information for planning future business operations, whether for expansion, diversification, or disinvestment.

2.2.3 Types of Financial Analysis

The classification of financial analysis can be made either on the basis of material used or according to the modus operandi of the analysis.

On the basis of *material used*, financial analysis can be of two types:

1. External Analysis: This type of analysis is done by those who are outsiders to the business. The outsiders are investors, creditors, government, etc. These persons mainly depend upon the published financial statements.
2. Internal Analysis: This analysis is done by those who have access to the books of accounts and other information relating to the business concern. This type of analysis is meant for managerial purposes. This is conducted by executives or employees of the firm as well as government agencies that have statutory control over such firms.

On the basis of *modus operandi*, financial analysis can be of two types:

1. Horizontal Analysis: Analysis of changes in different components of the financial statements over a certain number of years is known as horizontal analysis. E.g. study of profitability trends for a period of five or ten years. It is also known as dynamic analysis because it shows the changes that have taken place.
2. Vertical Analysis: This refers to the analysis of the quantitative relationship of the various items in the statements at a particular date. E.g. comparison of current assets to current liabilities for one point in time or one accounting period. Vertical analysis is also known as static analysis.

2.2.4 Limitations of Financial Statement Analysis

Financial analysis is a powerful mechanism for determining the financial strengths and weaknesses of a firm. But the analysis is based on the information available in the financial statements. Thus, financial analysis suffers from serious inherent limitations of financial statements.

The main limitation of financial statement analysis is that the impact of price level changes, window-dressing of financial statements, changes in the accounting policies of a firm, accounting concepts and conventions, and personal judgement, etc. are not considered while conducting the financial statement analysis.

Some of the major limitations of financial analysis are listed below:

1. Financial statement analysis is only a study of interim .

2. Financial analysis is based upon only monetary information and non-monetary factors are ignored.
3. It does not consider changes in price levels.
4. As the financial statements are prepared on the basis of a going concern, they do not provide an exact position. Thus, accounting concepts and conventions cause a serious limitation to financial analysis.
5. Changes in accounting procedures by a firm may often make financial analysis misleading.
6. Analysis is only a means and not an end in itself. The analyst has to make interpretations and draw his or her own conclusions. Different people may interpret the same analysis in different ways.

Recap

- ◊ Financial statement analysis comprises assessing financial strength and weakness.
- ◊ Financial statement analysis assesses the earning capacity.
- ◊ Operational efficiency and managerial efficiency can be evaluated through financial statement analysis.
- ◊ The reasons for changes in profitability and financial position can be identified.
- ◊ Changes in accounting procedures can mislead analysis.

Objective Questions

1. Financial statement analysis is also known as?
2. Financial statement analysis provides information for inter-company analysis. True or false.
3. The process of identifying financial strengths and weaknesses is known as?
4. Vertical analysis is also known as?
5. Horizontal analysis is also known as?

Answers

1. Analysis and interpretation of financial statements
2. True
3. Financial statement analysis
4. Static analysis
5. Dynamic analysis

Self-Assessment Questions

1. Define financial statement analysis.
2. Explain the need for financial statement analysis.
3. Explain the objectives of financial statement analysis.
4. Explain the limitations of financial statement analysis.
5. What are the types of financial analysis.

Assignments

1. Describe types of financial analysis.
2. Write a note on limitations of financial statement analysis.
3. Write a note on objectives of financial analysis.

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3
BLOCK

Techniques of Financial Statement Analysis



SREENARAYANA GURU
OPEN UNIVERSITY

Techniques of Financial Statement Analysis I

Learning Outcomes

After completing this unit, the learner will be able to;

- ◊ get an idea of the purpose and importance of financial statement analysis.
- ◊ interpret comparative financial statements effectively.
- ◊ conduct trend analysis to identify financial patterns.
- ◊ develop analytical skills for business decision-making.

Prerequisites

When Meera started her boutique clothing store, "StyleNest," in 2021, she was excited to grow her business and attract more customers. By the end of the first year, she was happy - sales were good, and she made a decent profit. But in 2022, even though her sales increased, her profit stayed almost the same. This confused her. Worried about what was going wrong, Meera met with her accountant to review her business records. They looked at the numbers from 2021 and 2022 side by side. Meera saw that while she had bought a lot more stock, her sales didn't grow as much. This made her wonder if she was buying too much and not selling enough.

As they looked deeper, Meera found that her expenses were slowly cutting into her profits. She was spending more on storage and marketing than before. When they looked at her costs as a percentage of her sales, it became clearer - too much of her money was going into stock and promotions. With this

information, Meera made some smart changes. She bought stock more carefully, talked to her suppliers about better prices, and reduced extra marketing costs. This experience showed her that numbers can tell a business story - if you know how to read them. That's why financial statement analysis is so important. It helps business owners see problems, understand changes, and make better decisions. For those getting ready to join the business world, learning financial analysis isn't just useful - it's an essential skill for success.

Keywords

Comparative balance sheet, Comparative Income Statement, Common-size balance sheet, Trend Analysis.

Discussion

3.1.1 Tools/ Techniques of Financial Analysis

A number of techniques or devices are used to undertake financial analysis. The fundamental objective of any analytical method is to simplify the data into more understandable terms. The following are the important tools of financial analysis:

1. Comparative Financial Statements
2. Trend Analysis
3. Common-size Statements
4. Ratio Analysis
5. Fund Flow Analysis
6. Cash Flow Analysis

1. Comparative Financial Statements

Comparative financial statements are a tool of financial analysis used to study the magnitude and direction of changes in the financial position and performance of a firm over a period of time. They present financial data for multiple periods side by side, allowing users to analyse trends, changes, and financial performance over time. These statements help in comparing the financial position, profitability, and operational efficiency across different periods. The preparation of comparative statements is based on the premise that a statement covering a period of a number of years is more meaningful and significant than for a single year only. The comparative financial statements are statements of the financial position at different periods of time. The elements of financial position are shown in a comparative form so as to give an idea

of financial position at two or more periods. Any statement prepared in a comparative form will be covered in comparative statements. Generally, two financial statements (balance sheet and income statement) are prepared in comparative form for financial analysis purposes. Not only the comparison of the figures of two periods but also the relationship between the balance sheet and income statement enables an in-depth study of financial position and operative results.

The comparative statement may show:

- ◊ Absolute figures (rupee amounts).
- ◊ Changes in absolute figures, i.e., increase or decrease in absolute figures.
- ◊ Absolute data in terms of percentages.
- ◊ Increase or decrease in terms of percentages.
- ◊ Comparisons expressed in terms of ratios.
- ◊ Percentage of totals

3.1.2 Objectives of Comparative Financial Statements are

1. To indicate the trend and direction of financial position and operating results.
2. To judge the strengths and weaknesses of a firm in terms of liquidity, solvency, and profitability.
3. To help management in planning and forecasting.
4. To indicate the magnitude and direction of changes in various elements of financial statements.
5. To enhance the usefulness of financial reports.

The financial data will be comparative only when the same accounting principles are used in preparing these statements. In the case of any deviation in the use of accounting principles, this fact must be mentioned at the foot of financial statements, and the analyst should be careful in using these statements.

The two comparative statements are:

- ◊ Comparative balance sheet
- ◊ Comparative income statement

3.1.3 Comparative Balance Sheet

A comparative balance sheet of a business shows its assets, liabilities, and capital on two or more dates so that any changes in absolute amounts and percentages can be compared and understood. Comparative balance sheet analysis is "the study of the trend of the same items, groups of items, and computed items in two or more balance sheets of the same business on different dates." Changes in the items on the balance sheet show how a business is running. You can see the changes by comparing the balance sheets at the start and end of a time period. These changes can help to figure out how an enterprise is doing.

3.1.3.1 Advantages of Comparative Balance Sheet

1. The comparative balance sheet is more useful than a simple balance sheet as it shows data that may be used to study the trend of a business enterprise.
2. It helps in forming an opinion about the progress of an enterprise.
3. The emphasis in a single balance sheet is on status, whereas in a comparative balance sheet, the emphasis is on change. Thus, it is a dynamic statement.
4. It can be used as a tool in analysing and evaluating the financial position of a firm over a period of a number of years.

3.1.3.2 Procedure of Preparing a Comparative Balance Sheet

A comparative balance sheet contains the following columns:

- ◊ Particulars column.
- ◊ Data of previous period/year's balance sheet.
- ◊ Data of the current year's balance sheet.
- ◊ Increase or decrease in the absolute data.
- ◊ Percentage change of increase or decrease in data.

Format of comparative balance sheet

Comparative Balance Sheet as at						
Particulars (1)	Note No (2)	Data of Previous year's balance sheet (3)	Data of the current year's balance sheet (4)	Absolute Change (Increase or Decrease) (5)	Percentage Change (Increase or Decrease) (6)	
		A	B	C=B-A	D=C/A \times 100%	
1. Equity And Liabilities						
(1) Shareholder's Funds						
(a) Share Capital						
(b) Reserve and Surplus						
(2) Non-Current Liabilities:						



(a)Long term Borrowings				
(b)Long term -Provisions				
(3) Current Liabilities:				
(a)Short-term Borrowings				
(b) Trade Payable				
(c) Other Current Liabilities				
(d) Short-term Provisions				
Total				
(II) Assets				
(1) Non-Current Assets				
(a) Fixed Assets				
(1) Tangible Assets				
(2) Intangible Assets				
(b)Non-Current Investment				
(c)Long-term loans and advances				
(2) Current Assets				
(a) Current investment				
(b) Inventories				
(c) Trade Receivables				
(d)Cash and Cash Equivalents				
(e)Short-term loans and advances				
(f) Other Current Assets				
TOTAL				

While interpreting comparative balance sheet the interpreter is expected to study the following aspects.

- (1) Current financial position and liquidity position
- (2) Long term financial position
- (3) Profitability of the concern

Illustration 3.1.1

Following are the Balance Sheets of ABC Ltd. as at 31st March, 2023 and 2024

Particulars	31st March, 2023	31st Dec, 2015
	(₹)	(₹)
Equity and Liabilities		
Shareholder's Funds		
Share Capital	150000	100000
Reserve and Surplus	100000	100000
Non-Current Liabilities:		
Long term Borrowings (Loans)	80000	20000
Current Liabilities (Trade payables)		
	50000	30000
	380000	250000
 II. Assets		
Non-Current Assets		
Fixed Assets (Tangible)	300000	200000
Current Assets (Trade receivables)		
	80000	50000
	380000	250000

Prepare a comparative balance sheet

Solution

Comparative balance sheet of ABC Ltd. As at 31 st march ,2023 and 2024					
Particulars	Note no.(2)	31-3-2023	31-3-2024	Absolute change (increase or decrease)	Percentage change (increase or decrease)
		A	B	C=B-A	D=C/A× 100%
(I).Equity and liabilities					
(1) Shareholders' funds					
(a) Share capital		100000	150000	50000	50
(b) Reserve and surplus		100000	100000	-	
2.Non-current liabilities					
Long term borrowings		20000	80000	60000	300
3.Current liabilities					
Trade payables		30000	50000	20000	66.67
Total		250000	380000	130000	52
(II) Assets					
(1) Noncurrent assets					
Fixed assets (tangible)		200000	300000	100000	50
(2) Current assets					
Trade Receivables		50000	80000	30000	60
Total		250000	380000	130000	52

Illustration 3.1.2

From the following summarised balance sheet of A ltd. Prepare comparative balance sheet

Particulars	Note no	31-03-2023 (in lakhs)	31-03-2022 (in lakhs)
(I)Equity and Liabilities			
Shareholders' Funds			
1. Share Capital			
Preference Share Capital		50.00	50.00
Equity Share Capital		20.00	20.00
2. Reserves and Surplus		25.00	20.00
3. Non-current Liabilities			
Long-term Borrowings			
Secured Loans		25.00	30.00
Unsecured Loans		20.00	15.00
4. Current Liabilities			
Short term borrowings			
Current liabilities		14.50	13.00
Provisions		4.50	4.00
		159.00	152.00
(II)Assets			
1. Noncurrent assets			
Fixed assets			
Tangible assets		110.00	95.00
Non-current investment.		10.00	10.00
2. Current assets			
		39.00	47.00
		159	152

Solution

Comparative balance sheet of ABC ltd. As at 31st march ,2022 and 2023

	31-03-2022	31-03-2023	Absolute change	Percentage change increase or decrease %
(I)Equity and Liabilities				
Shareholders' Funds				
1. Share Capital				
Equity Share Capital	20.00	20.00	-	-
Preference Share Capital	50.00	50.00	-	-
2. Reserves and Surplus	20.00	25.00	5.00	25.00
3. Non-current Liabilities				
Long-term Borrowings				
Secured Loans	30.00	25.00	(5.00)	(16.67)
Unsecured Loans	15.00	20.00	5.00	33.33
4.Current Liabilities				
Short term borrowings				
Current liabilities	13.00	14.50	1.50	11.54
Provisions	4.00	4.50	0.50	12.50
Total	152.00	159.00	7.00	4.60
(II)Assets				
1. Noncurrent assets				
Fixed assets				
Tangible assets	95.00	110.00	15.00	15.79
Non-current investment.	10.00	10.00	-	-
2. Current assets	47.00	39.00	(8.00)	(17.02)
Total	152.00	159.00	7.00	4.60

Illustration 3.1.3

From the following information, prepare a Comparative Balance sheet of Sun Ltd.

Particulars	31-3-2021	31-3-2020
Share Capital	5000000	5000000
Trade Payables	1300000	1000000
Reserves and Surplus	1200000	1000000
Investments (Non-Current)	1000000	1000000
Long-term Borrowings (Loans)	2000000	2500000
Current Assets	2500000	3000000
Land and Buildings	3000000	1500000
Plant and Machinery	2500000	3000000
Goodwill	500000	1000000

Solution

Comparative Balance Sheet of Enova Ltd. as at 31st March, 2020 and 2021					
	Note no	31-3-2020	31-3-2021	Absolute change	Percentage change
1. Equity and liabilities					
(1) Shareholders fund					
(a) Share capital		5000000	5000000	-	-
(b) Reserve and surplus		1000000	1200000	200000	20
(2) Non-current liabilities					
Long-term borrowings (loans)					
(3) Current liabilities					
Trade payable		1000000	1300000	300000	30
Total		9500000	9500000	-	-
(II) Assets					

(1) Non-current assets					
(a) Fixed assets					
Tangible assets	4500000	5500000	1000000	22.22	
Intangible assets	1000000	500000	(500000)	(50)	
Investments	1000000	1000000	-	-	
2. Current assets	3000000	2500000	(500000)	(16.67)	
Total	9500000	9500000	-	-	

3.1.4 Comparative Income Statement

The income statement gives the results of the operations of a business. It shows the net profit or net loss on account of business operations. The comparative income statement gives an idea of the progress of a business over a period of time. The changes in absolute data in money values and percentages can be determined to analyse the profitability of the business

3.1.4.1 Objectives of Comparative Income Statement

The important objectives of preparing a comparative income statement are as follows:

1. To analyse and evaluate the operating results of a business.
2. To indicate the trend and direction of incomes and expenditures in terms of absolute money values and percentages.
3. To enhance the usefulness of an income statement
4. To help the management in planning and forecasting the profits.

3.1.4.2 Procedure for Preparing a Comparative Income Statement

A comparative income statement, like a comparative balance sheet contains the following Columns.

- (a) Particulars column
- (b) Data of previous period/year's statement of profit and loss.
- (c) Data of current period/year's statement of profit and loss.
- (d) Percentage change of increase or decrease.

Format of Comparative Statement of Profit and Loss

Comparative Statement Of Profit And Loss For The Years Ended					
Particulars	Note No.			Absolute Change (Increase or Decrease)	Absolute Change (Increase or Decrease)
	2	3	4		5
		A	S	C=A-B	D=C/A× 100
I. Revenue from Operations.					
II. Add: Other Incomes					
III. Total Revenue I+II					
IV. Less: Expenses					
Cost of Materials Consumed					
Purchase of Stock-in Trade					
Changes in Inventories of Finished Goods					
Work-in-Progress and Stock-in-Trade					
Employee Benefit Expenses					
Finance Costs					
Depreciation and Amortization Expenses					
Other Expenses					
Total Expenses					
V. Profit before Tax (III-IV)					
VI. Less: Tax					
VII Profit after Tax (V-VI)					

3.1.4.3 Guidelines for Interpretation of Income Statements

The analysis and interpretation of income statement will involve the following steps

1. The increase or decrease in sales should be compared with the increase or decrease in cost of goods sold. An increase in sales will not always mean an increase in profit. The profitability will improve if increase in sales is more than the increase in cost of goods sold. The amount of gross profit should be studied in the first step.
2. The second step of analysis should be the study of operational profits. The operating expenses such as office and administrative expenses, selling and distribution expenses should be deducted from gross profit to find out operating profits. An increase in operating profit will result from the increase in sales position and control of operating expenses. A decrease in operating profit may be due to an increase in operating expenses or decrease in sales. The change in individual expenses should also be studied. Some expenses may increase due to the expansion of business activities while others may go up due to managerial inefficiency.
3. The increase or decrease in net profit will give an idea about the overall profitability of the concern. Non-operating expenses such as interest paid, losses from sale of assets, writing off of deferred expenses, payment of tax, etc. decrease the figure of operating profit. When all non-operating expenses are deducted from operational profit, we get a figure of net profit. Some non-operating incomes may also be there which will increase net profit. An increase in net profit will give us an idea about the progress of the concern.
4. An opinion should be formed about profitability of the concern and it should be given at the end. It should be mentioned whether the overall profitability is good or not.

Illustration 3.1.4

From the following data, prepare a comparative Statement of Profit and Loss:

Particulars	31.3.2020	31.3.2019
Revenue from Operations	2000000	1500000
Cost of Material Consumed (% of Revenue from Operations)	60%	70%
Employee Benefit Expenses	250000	100000
Income Tax Rate	40%	40%

Solution

Comparative Statement of Profit and Loss for the years ended 31st March 2020 and 2021

Particulars	31-3-2020	31-3-2021	Absolute Change (Increase Decrease)	Percentage Change (Increase Decrease)
Revenue From Operations	1500000	2000000	500000	33.33
II. Expenses				
(a) Cost of Material Consumed	1050000	1200000	150000	14.29
(b) Employee Benefit Expenses	100000	250000	150000	150.00
Total Expenses	1150000	1450000	300000	26.09
III. Profit Before Tax (I-II)	350000	550000	200000	57.14
Less: Income Tax	140000	220000	80000	57.14
IV. Profit After Tax	210000	330000	120000	57.14

Illustration 3.1.5

Prepare comparative statement from the following data

Income statement	2020	2021
In lakhs		
Net sales	600	750
Cost of goods sold	400	600
Administrative Expenses	20	20
Selling expenses	10	10
Net profit	170	120
Balance sheet	2020	2021
in lakhs		
Equity capital	400	400



6% preference share capital	300	300
Reserve	200	245
6% debentures	100	150
Bills payable	100	245
Creditors	100	30
Tax payable	100	150
	1300	1520
Land	100	100
Buildings	300	270
Plant	300	270
Furniture	100	140
stock	200	300
Cash	?	?
	1300	1520

Solution

Comparative income statement for the years ended 2020 and 2021				
	2020	2021	Increase/ Decrease (lakhs)	Increase Decrease (Percentages)
Net Sales	600	750	+150	+25
Less Cost of goods sold	400	600	+200	+50
Gross Profit	200	150	-50	-25
Operating Expenses				
Administration Expenses	20	20	-	-
Selling Expenses	10	10	-	-
Total Operating Expenses	30	30	-	-
Operating Profit (a-b)	170	120	-50	-29.41
Less Other Expenses	-	-	-	-
Net Profit	170	120	-50	-29.41

Comparative Balance Sheet for the years ended 2020 and 2021

	2020	2021	Increase/ Decrease (lakhs)	Increase Decrease (Percentages)
ASSETS				
Current Assets				
Cash	300	440	+140	+46.67
stock	200	300	+100	+50
Total current assets	500	740	+240	+48
Fixed Assets				
Land	100	100	-	-
Building	300	270	-30	-10
Plant	300	270	-30	-10
Furniture	100	140	+40	+40
Total fixed asset	800	780	-20	-2.5
Total assets	1300	1520	+220	+16.92
Liabilities and capital				
Current liabilities				
Bills payable	100	245	+145	+145
Creditors	100	30	-70	-70
Tax payable	100	150	+50	+50
Total current liabilities	300	425	+125	+41.67
Debentures	100	150	50	50.00
Total liabilities				

Equity share capital	400	400	0	—
6% preference shares	300	300	0	—
Reserves	200	245	+45	22.50
Total	1300	1520	+220	+16.92

3.1.5 Common-size balance sheet

A common-size balance sheet is a type of financial statement in which each item is shown as a percentage of total assets. This helps in analysing the financial position of a company in a standardized way, making it easier to compare with other companies or across time periods. A common-size balance sheet is a financial statement where each line item is expressed as a percentage of total assets. This format allows for easy comparison between companies of different sizes or tracking changes within the same company over time. It is a useful tool for financial analysis, helping analysts and investors evaluate the structure and trends of a company's financial position.

In a typical balance sheet, assets are listed on one side and liabilities and shareholders' equity on the other. In the common-size version, each asset is shown as a percentage of total assets, while each liability and equity item is shown as a percentage of total liabilities and equity - which also equals total assets. This transformation helps in analysing how a company allocates its resources and finances its operations.

For example, if current assets are ₹5,00,000 and total assets are ₹10,00,000, the common-size percentage for current assets would be 50%. Similarly, if long-term liabilities are

₹3,00,000, and total liabilities and equity are ₹10,00,000, then long-term liabilities would represent 30% of the total.

The main advantages of a common-size balance sheet include

- Comparability:** It allows comparison across companies regardless of size. For instance, two companies in the same industry can be compared more effectively based on how much they invest in fixed assets or how heavily they rely on debt.
- Trend Analysis:** It helps in identifying trends over multiple periods. If, for example, the proportion of current liabilities is increasing each year, it may indicate growing short-term financial risk.
- Better Understanding of Financial Structure:** Stakeholders can see the proportion of assets financed by debt versus equity, the level of liquidity, and the asset mix (current vs. non-current).

Illustration 3.1.6

Balance Sheets of Company A and Company B

As on 31st March 2024

Particulars	Company A (₹)	Company B (₹)
Assets		
Cash	50,000	30,000
Accounts Receivable	1,00,000	1,20,000
Inventory	1,50,000	90,000
Fixed Assets	2,00,000	1,60,000
Liabilities & Equity		
Total Assets	5,00,000	4,00,000
Liabilities & Equity		
Equity Share Capital	2,50,000	1,80,000
Reserves and Surplus	50,000	40,000
Long-term Debt	1,50,000	1,20,000
Accounts Payable	50,000	60,000
Total Liabilities & Equity	5,00,000	4,00,000

Solution

Common-Size Balance Sheet of A and B As on 31st March 2024

Particulars	Amount	% of	Amount	% of
	A ltd (₹)	B/S Total	B ltd (₹)	B/S total
Assets				
Cash	50,000	10	30,000	7.5
Accounts Receivable	1,00,000	20	1,20,000	30
Inventory	1,50,000	30	90,000	22.5
Fixed Assets	2,00,000	40	1,60,000	40

Particulars	Amount	% of B/S Total	Amount	% of B/S total
	A ltd (₹)		B ltd (₹)	
Total Assets	5,00,000	100	4,00,000	100
Liabilities & Equity				
Equity Share Capital	2,50,000	50	1,80,000	45
Reserves and Surplus	50,000	10	40,000	10
Long-term Debt	1,50,000	30	1,20,000	30
Accounts Payable	50,000	10	60,000	15
Total Liabilities & Equity	5,00,000	100	4,00,000	100

- ◊ Both companies invest 40% in fixed assets, but Company B has higher receivables (30%) compared to Company A (20%), which could affect liquidity.
- ◊ Company B has more short-term liabilities (Accounts Payable = 15%) than Company A (10%).
- ◊ Equity funding is slightly higher in Company A (60%) compared to Company B (55%).

Illustration 3.1.7

Balance Sheets of Company X and Company Y

As on 31st March 2024

Particulars	Company X (₹)	Company Y (₹)
Assets:		
Cash	80,000	40,000
Accounts Receivable	90,000	1,00,000
Inventory	1,30,000	1,20,000
Fixed Assets	2,00,000	1,40,000
Total Assets	5,00,000	4,00,000

Particulars	Company X (₹)	Company Y (₹)
Liabilities & Equity:		
Equity Share Capital	2,00,000	1,50,000
Reserves and Surplus	50,000	30,000
Long-term Debt	1,80,000	1,20,000
Accounts Payable	70,000	1,00,000
Total Liabilities & Equity	5,00,000	4,00,000

Common-Size Balance Sheet of Company X and Y
As on 31st March 2024

Particulars	Amount X Ltd (₹)	% of B/S Total	Amount Y Ltd (₹)	% of B/S Total
Assets				
Cash	80,000	16	40,000	10
Accounts Receivable	90,000	18	1,00,000	25
Inventory	1,30,000	26	1,20,000	30
Fixed Assets	2,00,000	40	1,40,000	35
Total Assets	5,00,000	100	4,00,000	100
Liabilities & Equity				
Equity Share Capital	2,00,000	40	1,50,000	37.5
Reserves and Surplus	50,000	10	30,000	7.5
Long-term Debt	1,80,000	36	1,20,000	30
Accounts Payable	70,000	14	1,00,000	25
Total Liabilities & Equity	5,00,000	100	4,00,000	100

- ◊ **Company X** has more liquidity with 16% in cash, while **Company Y** holds only 10%.
- ◊ **Company Y** has a higher **Accounts Payable (25%)**, indicating more reliance on short-term credit than **Company X (14%)**.
- ◊ **Fixed Assets** are slightly higher in **Company X (40%)** compared to **Company Y (35%)**.
- ◊ **Equity + Reserves** in **Company X (50%)** is higher than **Company Y (45%)**, suggesting stronger owner funding in Company X.

3.1.5 A common-size income statement

A common-size income statement is a financial statement where each item is presented as a percentage of net sales (or total revenue). This format provides a clear, comparable view of how a company utilizes its revenues and where the expenses are incurred. Instead of focusing on absolute figures, the emphasis is on proportions, which is particularly helpful when comparing companies of different sizes or analyzing the same company over multiple years.

In a standard income statement, values like revenue, cost of goods sold (COGS), gross profit, operating expenses, and net profit are shown as actual currency amounts. The common-size income statement converts each of these into a percentage of total sales, making it easier to assess the relative significance of each item.

Illustration 3.1.8 Income Statements of Company A and Company B

For the Year Ended 31st March 2024

Particulars	Company A (₹)	Company B (₹)
Net Sales	10,00,000	8,00,000
Cost of Goods Sold	6,00,000	5,20,000
Gross Profit	4,00,000	2,80,000
Operating Expenses	2,00,000	1,60,000
Operating Profit	2,00,000	1,20,000
Other Income	50,000	40,000
Profit Before Tax	2,50,000	1,60,000
Tax	75,000	48,000
Net Profit	1,75,000	1,12,000

Solution

Common-Size Income Statement of Company A and B

For the Year Ended 31st March 2024

Particulars	Company A (%)	Company B (%)
Net Sales	100.0	100.0
Cost of Goods Sold	60.0	65.0
Gross Profit	40.0	35.0
Operating Expenses	20.0	20.0
Operating Profit	20.0	15.0
Other Income	5.0	5.0
Profit Before Tax	25.0	20.0
Tax	7.5	6.0
Net Profit	17.5	14.0

- ◊ Company A has a higher gross profit margin (40%) compared to Company B (35%), indicating better cost control over production.
- ◊ Both companies spend 20% of sales on operating expenses.
- ◊ Company A's net profit margin (17.5%) is also better than Company B (14%), reflecting stronger overall profitability.
- ◊ Other income contributes equally (5%) to both companies' revenue.

3.1.6 Trend Analysis

Trend Analysis is a financial analysis technique used to study changes in the values of financial items over a period of time. It helps identify patterns and direction of business performance, such as whether sales, profits, or expenses are increasing, decreasing, or remaining stable over multiple years. This method is most commonly used in analysing income statements and balance sheets. It helps businesses understand how key financial elements are moving and supports decision-making and future planning.

3.1.6.1 Objectives of Trend Analysis

Trend Analysis is a technique used to observe and study changes in financial and

business data over a period of time. The main objective is to understand the direction in which a business is moving. It is widely used by accountants, managers, investors, and financial analysts.

Below are the key objectives of trend analysis:

1. To Identify Growth or Decline

The most basic objective is to see whether a business is growing, shrinking, or staying the same. For example, rising sales and profits over several years indicate positive growth, while falling figures may signal trouble.

2. To Forecast the Future

By studying past trends, businesses can predict future performance. For instance, if profits have been increasing by 10% every year, the company can estimate future profits using this trend.

3. To Assist in Planning and Decision-Making

Trend analysis provides a basis for decision-making. Managers use it to plan production, set budgets, control costs, and manage resources more effectively.

4. To Compare Past and Present Performance

It helps in comparing the company's performance year by year. This comparison can show whether improvements have been made or if there are areas that need attention.

5. To Detect Problems Early

If a company notices a negative trend, such as increasing expenses or declining sales, it can take early corrective action before the situation worsens.

6. To Evaluate Business Policies

Trend analysis helps measure the impact of business strategies. If a new marketing plan was introduced, trend analysis can show whether it helped increase revenue.

3.1.6.2 Steps in Trend Analysis

Trend Analysis is a technique used in accounting and financial management to observe how certain financial figures such as sales, profits, expenses, assets, or liabilities have changed over time. It helps in identifying whether these items are increasing, decreasing, or remaining stable across different years. By analysing these trends, businesses can make informed decisions, detect problems early, and plan effectively for the future. To perform trend analysis accurately, a step-by-step approach is followed. Below are the key steps involved in preparing and analysing trend data:

1. Collection of Financial Data

The first step in trend analysis is to collect the financial data for several years. This data usually comes from financial statements such as the income statement and balance

sheet. It is important to gather data for at least three to five years to observe a meaningful trend.

The commonly analysed items include:

- ◊ Sales Revenue
- ◊ Cost of Goods Sold (COGS)
- ◊ Net Profit
- ◊ Total Assets
- ◊ Fixed Assets
- ◊ Current Liabilities
- ◊ Shareholders' Equity

This data must be accurate and consistently recorded, otherwise the trend results may be misleading.

2. Choose the Base Year

The next step is to select a base year. This is the year against which all other years' data will be compared. Usually, the first year in the analysis period is taken as the base year.

In trend analysis, the values of the base year are always taken as 100%. All other years' values are expressed as a percentage of this base year. Choosing a stable and normal year as the base year is important for reliable comparisons.

3. List the Financial Figures for All Years

Once the base year is decided, you must create a table that shows the actual financial values for each item across all the years under consideration. This table will be used to calculate the trend percentages.

4. Apply the Trend Percentage Formula

To convert the actual values into trend percentages, use the following formula for each year (except the base year):

$$\text{Trend \%} = \frac{\text{Current Year Amount}}{\text{Base year amount}} \times 100$$

5. Create a Trend Percentage Table

Now that all the trend percentages are calculated, organize them into a clean table. This makes the analysis easier to understand and helps in identifying patterns over time.

6. Analyse and Interpret the Results

Once the trend percentages have been calculated and organized into a table, the next step is to carefully analyze and interpret the results. This involves studying the percentage changes over the years to understand how each financial item has behaved.

For instance, if sales have shown a steady increase year after year, it indicates business growth. However, if net profit is not increasing at the same rate as sales, it might suggest rising expenses or lower profit margins. Similarly, if assets are growing but liabilities are increasing at a faster rate, it could be a warning sign of financial stress. The purpose of this step is to draw meaningful insights from the trend data and to identify areas of strength as well as areas that need improvement. It helps users understand whether the business is financially healthy, stable, or facing challenges that need to be addressed.

7. Make Decisions and Take Action

After interpreting the results, the final step is to use the information for making informed decisions and taking appropriate actions. The goal is to apply the insights gained from the trend analysis to improve the company's performance and strategic planning. For example, if the analysis shows a consistent rise in sales and profits, the company might decide to expand its operations or invest in new products. On the other hand, if the trend shows increasing costs and falling profits, management may consider cutting unnecessary expenses or reviewing pricing strategies. If asset growth is slow, the business may look into improving operational efficiency. Ultimately, trend analysis helps managers, investors, and decision-makers respond to financial trends in a timely manner and make smart choices that support long-term success.

3.1.6.3 Advantages of Trend Analysis

1. Shows Direction of Change

Trend analysis helps in identifying whether a business is moving forward or backward by showing the direction of changes in financial data over a period of time. By analysing trends in sales, profits, expenses, or assets, businesses can clearly see whether these figures are increasing, decreasing, or staying the same. This helps in evaluating whether the business is improving or facing issues, giving management a better understanding of overall performance.

2. Easy to Understand

One of the best features of trend analysis is its simplicity. It converts actual numbers into percentages with a base year set at 100%, making it easy to compare different years. This format helps both financial experts and beginners understand trends without confusion. Since the analysis focuses on percentage changes, even a non-accounting person can interpret the results clearly.

3. Helps in Planning and Forecasting

Trend analysis is a valuable tool for making future business plans. When businesses notice consistent patterns, like steady growth in profits or sales, they can use that information to set future goals, make budgets, or plan for expansion. Forecasting becomes more accurate when past trends are reliable, helping managers make confident decisions based on data.

4. Early Detection of Problems

Another big advantage is that trend analysis can serve as an early warning system. If a business sees that its expenses are growing faster than revenue or that profits are falling each year, it can take steps to fix the issues before they become serious. This timely identification of problems allows the company to act quickly and prevent larger financial troubles.

5. Useful for Performance Evaluation

Trend analysis also helps in measuring the performance of the business over time. Management can assess whether past strategies have worked by comparing current results to previous years. For example, if the company launched a new product, trend analysis can help check if that product has increased sales or profits over the years

6. Allows Comparison between Companies

Since trend analysis uses percentages, it allows comparison between companies of different sizes. Two companies may have different total sales amounts, but trend percentages help show which one is growing faster. This is especially useful for investors who want to compare performance across various businesses before making investment decisions.

7. Enhances Decision-Making

By showing trends in important financial data, the analysis helps business owners and managers make better decisions. Whether it's about investing in new equipment, hiring more staff, or opening a new branch, trend analysis provides the background data needed to make informed and smart choices.

8. Increases Financial Awareness

Trend analysis helps in building a financial mind-set within the organization. When different departments regularly track their financial performance, it creates a sense of responsibility and awareness. Everyone becomes more focused on results, and teamwork improves as all areas work toward improving financial outcomes.

3.1.6.4 Limitations of Trend Analysis

1. Depends on Historical Data

One major limitation of trend analysis is that it relies entirely on past data. It assumes that past trends will continue into the future, which may not always be true. Business environments often change due to competition, technology, or economic factors, which can make past trends unreliable as a guide for future decisions.

2. Ignores Non-Financial Factors

Trend analysis focuses only on financial numbers and does not consider non-financial elements like employee satisfaction, customer loyalty, market changes, or brand value. These factors can significantly impact business success but are not shown in financial trends, making the analysis incomplete in some cases.

3. Base Year Selection Matters

If the base year chosen for comparison is unusual - such as a year with very high or very low performance - it can distort the overall trend results. This can lead to misleading conclusions and poor decision-making. It is important to select a base year that represents normal business conditions.

4. Does Not Explain Reasons for Change

While trend analysis shows whether a number has increased or decreased, it does not explain why that change occurred. For example, if profit is falling, the analysis won't tell you whether it's due to higher costs, lower sales, or other reasons. Additional investigation is needed to understand the causes behind the trend.

5. Affected by Accounting Changes

If a company changes its accounting methods during the period of analysis, the trend results may become less reliable. Different accounting policies can affect the reported figures and make it difficult to compare performance accurately from one year to another.

6. Possibility of Errors in Data

Trend analysis depends on the accuracy of financial statements. If there are mistakes or inconsistencies in the data, the analysis will also be flawed. Wrong conclusions may be drawn if the data is not verified or adjusted properly before analysis.

7. Not Suitable for Rapidly Changing Industries

In industries that change quickly, like fashion or technology, trend analysis may not be helpful. Trends from past years may no longer apply because customer preferences or market conditions shift too rapidly. In such cases, real-time or short-term analysis might be more useful.

8. Cannot be used Alone

Trend analysis should not be the only method used to evaluate business performance. It should be used along with other tools such as ratio analysis, cash flow analysis, and industry comparison. Relying only on trends can lead to incomplete understanding and poor decisions.

Recap

- ◊ Financial Statement Analysis -assess a company's financial performance over time
- ◊ Comparative Financial Statements - comparison of financial data for two or more periods
- ◊ Comparative Statements - analysing performance, evaluating growth, and detecting weaknesses in operations or financial position.
- ◊ Comparative Income Statement-helps to evaluate profitability and cost control.
- ◊ Common-Size Statements - convert each item into a percentage of a base figure
- ◊ A Common-Size Balance Sheet- expresses each asset, liability, and equity item as a percentage of total assets.
- ◊ A Common-Size Income Statement - expresses each income and expense item as a percentage of total sales or revenue.
- ◊ Trend Analysis - used to observe changes over a longer period

Objective Questions

1. What do comparative financial statements help with?
2. What does a comparative balance sheet show data for?
3. What is calculated in a comparative statement?
4. What do common-size statements show values as a percentage of?
5. In a common-size balance sheet, what are all items expressed as a percentage of?
6. In a common-size income statement, what are items expressed as a percentage of?
7. What is trend analysis mostly used to observe?
8. What is the main objective of comparative financial statements?

Answers

1. Comparing data over periods
2. Two or more periods
3. Absolute and percentage change
4. A base amount
5. Total assets
6. Revenue
7. Performance over time
8. To identify changes in performance

Self-Assessment Questions

1. What are the main objectives of preparing comparative financial statements?
2. How does a comparative balance sheet help in analyzing a company's financial position?
3. What is the significance of analyzing absolute and percentage changes in comparative financial statements?
4. How is a comparative income statement useful in understanding a company's profitability?
5. What are the steps involved in preparing a comparative balance sheet?
6. How does the procedure for preparing a comparative income statement differ from that of a balance sheet?
7. What does a common-size balance sheet represent, and how is it calculated?
8. Why is the common-size income statement important for comparing companies of different sizes?
9. How can trend analysis help in understanding a company's financial performance over time?

Assignments

1. Prepare a comparative balance sheet for a company using financial data for two consecutive years, and calculate the absolute and percentage changes in each item.
2. Create a comparative income statement based on two years of financial data, highlighting changes in revenue, cost of goods sold, and profit margins.
3. Using a company's financial statements, prepare a common-size balance sheet and interpret the results.
4. Prepare a common-size income statement for a company, and identify the proportion of major expenses in relation to total sales.
5. Select a company and perform trend analysis on its revenue and expenses over the past five years. Present the trends and analyze the company's performance.
6. Choose a company and perform a comparative analysis of its financial statements over

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Unit

Techniques of Financial Statement Analysis II

Learning Outcomes

After completing this unit, the learner should be able to;

- ◊ get an idea on the techniques of financial statement analysis
- ◊ explain the concept and objectives of ratio analysis
- ◊ evaluate the importance and functions of ratio analysis
- ◊ analyse financial statements using ratios

Prerequisites

When Anoop's uncle fell ill, he had to step in and manage the family's spice wholesale business in Idukki. Though Anoop had studied agriculture, managing accounts and finances wasn't his strong suit. At first, he concentrated on sourcing quality spices and building relationships with local farmers. Orders were coming in steadily, and customers were happy. But despite increasing sales, he began noticing troubling signs - payments to suppliers were getting delayed, salaries were hard to manage on time, and unsold stock was piling up in the warehouse. Anoop felt overwhelmed. "Why is there no money when the business is doing well?" he wondered.

His friend offered to help him understand what was happening behind the scenes. They sat together, going through sales records, expenses, and past performance. By comparing trends over time and looking at each item as part of a larger financial picture, Anoop saw where things were going wrong. He discovered that too much money was locked up in inventory, that some of his operating costs had quietly increased, and that payment cycles were mismatched. These simple observations

changed everything. With better planning and small corrections - like offering discounts to clear old stock and renegotiating payment terms - Anoop saw steady improvement. That's when it hit him: understanding the financial side of a business is not just about handling money; it's about making informed decisions. Tools like financial statement analysis and ratio analysis had turned scattered numbers into a clear story - one that helped him take control and steer the business toward real growth.

Keywords

Ratio Analysis, Liquidity Ratios, Solvency ratios, Activity Ratios, Profitability ratio

Discussion

3.2.1 Meaning

Ratio analysis is the process of examining and interpreting financial information by using numerical relationships between various items in the financial statements such as the balance sheet and income statement. It helps to assess a company's performance, financial health, and efficiency. In simple terms, ratio analysis means comparing two related financial figures to understand how a business is performing. For example, comparing net profit to sales helps to find out how much profit a company makes from its sales. These comparisons are called "ratios." Ratios are usually expressed in the form of percentages, fractions, or times (like 2:1 or 3 times). They make it easier to understand financial data and draw conclusions from it. By using ratios, we can compare the performance of the same company over different years or compare different companies in the same industry.

3.2.2 Objectives of Ratio Analysis

1. To Assess Financial Performance

One of the main objectives of ratio analysis is to evaluate the overall financial performance of a business. It helps in understanding whether the company is doing well or facing difficulties. For example, profitability ratios like the net profit ratio or return on capital employed give a clear idea about how efficiently the company is earning profits. By reviewing these ratios regularly, businesses can track improvements or declines in performance over time.

2. To Measure Liquidity Position

Liquidity refers to a company's ability to meet its short-term obligations, such as

paying bills and suppliers. Ratio analysis helps in measuring this through ratios like the current ratio and quick ratio. These ratios show whether a business has enough short-term assets to cover its short-term liabilities. This is important for maintaining good relationships with creditors and ensuring smooth day-to-day operations.

3. To Evaluate Solvency and Financial Stability

Another important objective is to evaluate the long-term financial strength or solvency of the business. Solvency ratios such as the debt-equity ratio or interest coverage ratio help determine whether the business can repay its long-term debts. This is essential for banks, investors, and lenders who want to know whether the company is financially stable over the long run.

4. To Analyze Operational Efficiency

Efficiency ratios, such as inventory turnover and receivables turnover, help measure how well the company uses its resources. These ratios show whether the company is managing its stock, collecting money from customers, and using assets effectively. High efficiency often leads to higher profitability and better cash flow.

5. To Support Decision-Making

Ratio analysis is a powerful tool that supports managerial decision-making. Managers can use ratio results to decide whether to expand the business, reduce costs, or improve product pricing. For example, if the profit margin is falling, management might review the cost structure or find ways to boost sales. Data-driven decisions lead to better business outcomes.

6. To Facilitate Financial Comparison

Ratio analysis allows businesses to compare their performance with other firms in the same industry or with industry standards. This is known as inter-firm comparison. It helps identify strengths and weaknesses and shows whether the business is performing better, worse, or at the same level as competitors.

7. To Monitor Trends Over Time

Another key objective of ratio analysis is to track changes and trends in financial performance over time. This is done by comparing ratios over several years (trend analysis). It helps in identifying consistent growth, decline, or fluctuations in key areas like sales, profits, or expenses. Understanding these trends helps in setting future business goals.

8. To Provide Information to Stakeholders

Ratio analysis serves the purpose of informing various stakeholders such as shareholders, creditors, investors, and management. Each stakeholder has different interests - shareholders want to know about profits, creditors about liquidity, and investors about returns. Ratio analysis provides the financial clarity needed to meet their concerns.

3.2.3 Importance of Ratio Analysis

1. Simplifies Financial Information

Ratio analysis helps in simplifying large volumes of financial data. Instead of going through entire financial statements, users can look at specific ratios to understand key aspects of the company's performance. It turns complex numbers into easy-to-understand comparisons and percentages, making analysis quicker and more effective.

2. Helps in Evaluating Performance

It is an important tool for measuring how well a business is performing. Profitability ratios like net profit ratio and return on capital employed help in assessing if the company is generating enough income. Management can use this information to improve operations and boost performance.

3. Assists in Decision-Making

Ratio analysis supports decision-making for both internal and external users. Managers can decide whether to cut costs, increase investments, or expand operations based on the insights gained from ratios. Similarly, investors and lenders use ratios to decide whether to invest in or lend money to a company.

4. Assesses Liquidity and Solvency

One of the key areas of importance is checking the company's ability to pay its short-term and long-term debts. Liquidity ratios like the current ratio help in understanding whether the company can meet its short-term obligations. Solvency ratios like the debt-equity ratio show the long-term financial strength of the company.

5. Helps in Comparing with Other Companies

Ratio analysis allows for easy comparison between companies of different sizes within the same industry. Since ratios are expressed in percentages or times, they can be used to compare how well one company is doing against another, regardless of their size.

6. Aids in Tracking Business Trends

By analyzing ratios over a period of time, businesses can identify trends in sales, profits, expenses, or asset usage. This trend analysis helps companies to prepare for the future by recognizing growth patterns or potential problems early.

7. Builds Investor Confidence

Investors want to be sure that their money is safe and that the business is profitable. Ratio analysis provides them with clear indicators about profitability, risk, and returns, which helps in building trust and confidence in the company.

3.2.4 Functions of Ratio Analysis

1. Measuring Financial Performance



One of the primary functions of ratio analysis is to measure a company's overall financial performance. It shows how well the company is doing in terms of generating profit, managing costs, and utilizing its resources. Ratios like the net profit ratio, return on investment (ROI), and return on capital employed (ROCE) help assess whether the business is financially healthy and performing efficiently.

2. Assessing Liquidity Position

Ratio analysis helps in understanding whether a company can meet its short-term obligations. Liquidity ratios such as the current ratio and quick ratio show whether the business has enough current assets (like cash, inventory, and receivables) to pay off its current liabilities. This function is especially important for creditors and suppliers.

3. Evaluating Solvency and Financial Stability

Another key function of ratio analysis is to evaluate the long-term financial stability of a business. Solvency ratios like the debt-equity ratio and interest coverage ratio help assess how much debt the company has and whether it can repay its long-term obligations. A good solvency position makes the company more secure and less risky for lenders and investors.

4. Analyzing Operational Efficiency

Ratio analysis helps in measuring how efficiently a business uses its resources. Efficiency ratios like inventory turnover and debtor turnover show how well the company is managing its stock and collecting payments from customers. High efficiency often leads to better cash flow and higher profits.

5. Supporting Business Decisions

Ratio analysis provides useful data that supports management in making sound business decisions. Whether it's about pricing products, controlling costs, expanding operations, or investing in new projects, ratios help managers understand where the company stands and what action needs to be taken.

6. Comparing Performance

One of the important functions of ratio analysis is to make performance comparisons. It allows a company to compare its current performance with previous years (intra-firm comparison) and with other businesses in the same industry (inter-firm comparison). This helps identify areas of improvement and competitive strengths or weaknesses.

7. Communicating Financial Health to Stakeholders

Ratio analysis also helps communicate the financial position of the business to stakeholders like shareholders, investors, banks, and employees. It provides a clear, summarized view of performance that can help build confidence and trust in the company.

3.2.5 Limitations of Ratio Analysis

1. Based on Historical Data

Ratio analysis depends on past financial statements. Since these are historical records, they may not reflect the current or future performance of the company. For example, a company's ratios might have been strong last year, but changes in the market could make those figures less relevant now.

2. Ignores Non-Financial Factors

Ratio analysis only focuses on financial data and ignores important non-financial aspects like employee performance, customer satisfaction, market trends, and competition. These non-financial elements can have a significant impact on a company's success but are not captured through ratios.

3. Affected by Window Dressing

Some companies may manipulate their financial statements to make their performance look better than it actually is. This is called window dressing. If the data used in ratio analysis is not accurate or honest, the ratios will give a misleading picture of the company's health.

4. Different Accounting Policies

Companies may use different accounting policies, such as depreciation methods or inventory valuation methods. This makes it difficult to compare ratios between two companies accurately. A company's financial position might look stronger or weaker depending on the accounting methods used.

5. Lack of Industry Benchmarks

For ratio analysis to be meaningful, comparisons must be made with industry standards or other similar companies. However, in some cases, suitable benchmarks or competitors may not be available, making the analysis less useful or accurate.

6. Does Not Consider Inflation

Financial statements usually record values at historical cost and do not adjust for inflation. This can distort ratio analysis, especially when comparing figures from different years. As a result, long-term trend analysis might not reflect the true financial position.

7. Limited Use in Isolation

A single ratio cannot give a complete picture of a company's performance. Relying too much on just one or two ratios can be misleading. A full analysis requires studying a combination of several ratios and understanding the context behind them.

8. Interpretation Can Vary

The interpretation of ratios may vary depending on the person analyzing them. Two analysts may reach different conclusions based on the same data. Therefore, experience and judgment are needed to interpret ratios correctly.

3.2.6 Liquidity Ratios

Liquidity ratios measure a company's ability to pay its short-term obligations using its short-term assets. In other words, they show whether the company has enough cash or assets that can quickly be converted into cash to pay off bills, salaries, and other current liabilities. These ratios are important for creditors, suppliers, and investors because they help assess the financial health and risk of a business.

To measure the liquidity of the firm, the following ratios can be calculated

1. Current Ratio

The Current Ratio measures a company's ability to pay its short-term liabilities (like bills and salaries) using its short-term assets (like cash, inventory, and receivables). It tells whether the business can cover its obligations due within a year.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Illustration 3.2.1

Suppose a company has:

- ◊ Current Assets = ₹1,50,000
- ◊ Current Liabilities = ₹75,000

Find out the current ratio

Solution

$$\text{Current Ratio} = \frac{1,50,000}{75,000} = 2.0$$

The company has ₹2 in current assets for every ₹1 of liability. This shows a strong short-term financial position.

2. Quick Ratio (Acid-Test Ratio)

The Quick Ratio tests a firm's immediate ability to pay its current liabilities without relying on the sale of inventory. It focuses on the most liquid assets like cash, receivables, and marketable securities.

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory} - \text{Prepaid Expenses}}{\text{Current Liabilities}}$$

Illustration 3.2.2

- ◊ Current Assets = ₹1,00,000
- ◊ Inventory = ₹25,000
- ◊ Prepaid Expenses = ₹5,000
- ◊ Current Liabilities = ₹50,000

- ◊ Calculate quick ratio

Solution

Quick Assets=1,00,000–25,000–5,000=70,000

$$\text{Quick Ratio} = \frac{700000}{50000} = 1.4$$

The company has ₹1.40 in quick assets for every ₹1 of liabilities. This shows good immediate liquidity.

3. Absolute Liquid Ratio (Cash Position Ratio)

The Absolute Liquid Ratio is the most strict test of liquidity. It only considers cash and cash equivalents, excluding receivables and inventory. It checks if the business can pay its liabilities using just cash or near-cash items.

$$\text{Absolute Liquid Ratio} = \frac{\text{Cash} + \text{Marketable Securities}}{\text{Current Liabilities}}$$

Illustration 3.2.3

Cash = ₹15,000

Marketable Securities = ₹5,000

Current Liabilities = ₹50,000

Calculate absolute liquidity ratio

Solution:

$$\text{Absolute Liquid Ratio} = \frac{15,000 + 5,000}{50,000} = \frac{20,000}{50,000} = 0.4$$

The company has ₹0.40 in highly liquid assets for every ₹1 of liabilities. This is lower than ideal but gives a conservative view of liquidity.

4. Interval Measure Ratio (Defensive Interval Ratio)

The Defensive Interval Ratio shows how many days a company can continue to operate using only its most liquid assets (cash, marketable securities, and receivables) - without any new income.

$$\text{Defensive Interval Ratio} = \frac{\text{Cash} + \text{Marketable Securities} + \text{Accounts Receivable}}{\text{Average Daily Operating Expenses}}$$

Illustration 3.2.4

- ◊ Cash = ₹20,000
- ◊ Marketable Securities = ₹10,000
- ◊ Accounts Receivable = ₹40,000
- ◊ Average Daily Operating Expenses = ₹2,000

Calculate Defensive Interval Ratio

Solution

Total Liquid Assets = 20,000+10,000+40,000=70,000

Defensive Interval Ratio = $\frac{70,000}{2,000} = 35$ days

The company can run for 35 days without needing more income. This helps in assessing how long the business can survive in a cash crisis.

3.2.7 Solvency ratios

Solvency ratios are financial metrics used to evaluate a company's ability to meet its long-term financial obligations and continue its operations in the future. These ratios help determine whether a business has enough assets to cover its total liabilities, providing insight into its overall financial stability and risk level.. A strong solvency position indicates that a company can sustain its operations and growth without facing financial distress, making these ratios important tools for investors, creditors, and financial analysts.

1. Debt-equity ratio

The debt equity ratio is a financial metric that compares a company's total debt to its shareholders' equity, indicating the balance between funds borrowed from creditors and funds invested by owners. It is calculated using the formula

$$\text{Debt Equity Ratio} = \frac{\text{Outsiders fund}}{\text{Shareholders' fund}}$$

This ratio helps investors and creditors assess a company's financial leverage and long-term stability. A high debt-to-equity ratio means the company is using more debt financing, which may lead to higher financial risk, especially during downturns. Conversely, a low ratio suggests the company relies more on equity and has a conservative capital structure. While some debt can support growth and expansion, too much can lead to solvency issues. The ideal ratio varies by industry, as capital-intensive industries may naturally carry higher ratios. Overall, the debt-to-equity ratio is a key indicator of how responsibly a company manages its capital and risk.

Illustration 3.2.5

XYZ Pvt. Ltd. has provided the following financial information from its balance sheet for the year ending March 31, 2024:

Long-term Loans: ₹10,00,000

Short-term Loans: ₹2,00,000

Debentures: ₹3,00,000

Share Capital: ₹6,00,000

Reserves & Surplus: ₹2,00,000

Calculate the Debt Equity Ratio

Solution

Outsiders fund = Long-term Loans + Short-term Loans + Debentures

Outsiders fund = $10,00,000 + 2,00,000 + 3,00,000 = 15,00,000$

Shareholders' fund = Share Capital + Reserves and Surplus Shareholders' Equity

Shareholders' fund = $6,00,000 + 2,00,000 = 8,00,000$

$$\text{Debt Equity Ratio} = \frac{\text{Outsiders fund}}{\text{Shareholders' fund}}$$

$$\text{Debt Equity Ratio} = \frac{1500000}{800000} = 1.875:1$$

2. Debt-to-Capital Ratio

The Debt-to-Capital Ratio is a financial leverage ratio that shows the proportion of a company's capital that comes from debt. It's used to assess a company's financial risk and how it's funding its operations - whether more through debt or equity.

$$\text{Debt-to-Capital Ratio} = \frac{\text{Funded debt}}{\text{Total capitalisation}}$$

Illustration 3.2.6

ABC Ltd. has the following balances as on March 31, 2024:

Long-term Debt: ₹6,00,000

Short-term Debt: ₹2,00,000

Equity Share Capital: ₹5,00,000

Reserves and Surplus: ₹3,00,000

Calculate the Debt-to-Capital Ratio.

Solution

Funded debt = Long-term Debt + Short-term Debt

Funded debt = $6,00,000 + 2,00,000 = 8,00,000$

Total capitalisation = total debt + shareholders' equity

Total capitalisation = $8,00,000 + 8,00,000$

$$\text{Debt-to-Capital Ratio} = \frac{\text{Funded debt}}{\text{Total capitalisation}} = \frac{800000}{1600000} = 0.5$$

3. Interest coverage ratio

The interest coverage ratio is a financial metric that shows how easily a company

can pay the interest on its outstanding debt. It's a way to measure a company's financial health, especially how safe it is for lenders.

$$\text{Interest Coverage Ratio} = \frac{\text{Earnings Before Interest and Taxes (EBIT)}}{\text{Interest Expense}}$$

Illustration 3.2.7

A ltd has the following financial information for the year 2024

Earnings Before Interest and Taxes (EBIT): 6,00,000

Interest Expense: 1,20,000

Calculate the Interest Coverage Ratio

$$\text{Interest Coverage Ratio} = \frac{\text{Earnings Before Interest and Taxes (EBIT)}}{\text{Interest Expense}}$$

$$\text{Interest Coverage Ratio} = \frac{6,00,000}{1,20,000} = 5$$

3.2.8 Activity Ratios

Activity Ratios measure how efficiently a company uses its assets to generate sales or revenue. They show how well the business is managing things like inventory, accounts receivable, and fixed assets.

1. Inventory Turnover Ratio

Inventory Turnover Ratio (ITR) also known as stock turnover ratio establishes the relationship between cost of goods sold and average inventory. The Inventory Turnover Ratio measures how many times a company's inventory is sold and replaced during a given period (usually a year). It shows how well the business is managing its stock - whether it is selling products quickly or stock is getting stuck. A higher ratio means faster sales and efficient inventory management. A lower ratio may indicate overstocking or poor sales performance.

$$\text{Inventory Turnover Ratio} = \frac{\text{COGS}}{\text{Average Inventory}}$$

Illustration 3.2.8 (a)

Cost of Goods Sold (COGS) = ₹5,00,000

Opening Inventory = ₹1,00,000

Closing Inventory = ₹1,50,000

Calculate inventory turnover ratio

Solution

$$\text{Average Inventory} = \frac{\text{₹1,00,000} + \text{₹1,50,000}}{2} = \text{₹1,25,000}$$

$$\text{Inventory Turnover Ratio} = \frac{\text{COGS}}{\text{Average Inventory}} = \frac{5,00,000}{1,25,000} = 4$$

Illustration 3.2.8(b)

Reliance Ltd. Has sold goods worth Rs.2,50,000/- with a gross profit margin of 20%. The stock at the beginning and at the end of the year was Rs.35,000 and Rs.45,000 respectively. Calculate the stock turn over ratio.

Stock Turnover Ratio = Cost of goods sold / Average Stock

$$\begin{aligned}\text{Cost of Goods Sold} &= \text{Sales} - \text{Gross Profit} \\ &= \text{Rs. } 2,50,000 - 20\% \\ &= \text{Rs. } 2,00,000\end{aligned}$$

$$\begin{aligned}\text{Average Stock} &= \text{Opening stock} + \text{Closing stock} / 2 \\ &= 35,000 + 45,000 / 2 = 40,000\end{aligned}$$

$$\text{Stock Turnover ratio} = \text{Rs. } 2,00,000 / \text{Rs. } 40,000 = \underline{5 \text{ times}}$$

$$\text{Inventory holding period} = 365/5 = \underline{73 \text{ days.}}$$

2. Debtors Turnover Ratio (Receivables Turnover Ratio)

Debtors Turnover Ratio is also called receivables turnover ratio. It relates net credit sales to sundry debtors. The Debtors Turnover Ratio tells how quickly a company collects cash from its credit customers (debtors).

It reflects the efficiency of the credit policy and cash collection process.

A higher ratio means customers are paying faster, while a lower ratio may signal delays in receiving payments and possible credit risk.

Debtors Turnover Ratio = $\frac{\text{Credit Sales}}{\text{Average Debtors}}$ or DTR = Net Credit Sales / Debtors including Bills receivables

Average Collection Period = Debtors including B/R / Credit Sales per day

Credit Sales Per Day = Credit Sales / 360 or 365

Thus, average Collection Period = Debtors including B/R / Credit Sales * 365

Illustration 3.2.9 (a)

Net Credit Sales = ₹8,00,000

Opening Debtors = ₹1,20,000

Closing Debtors = ₹80,000

Average Debtors = $1,20,000 + 80,000 / 2 = 1,00,000$

Debtors Turnover Ratio = $\frac{\text{Credit Sales}}{\text{Average Debtors}} = \frac{8,00,000}{1,00,000} = 8$

Illustration 3.2.9 (b)

The net credit sales of Reliance Ltd. For 1996 were Rs.3,00,000 and the amount of debtors at the end of the year was Rs.32,000 and bills receivable Rs.8,000. Calculate DTR

DTR = Net Credit Sales / debtors including BR

$$= \text{Rs.3,00,000/Rs.40,000} = 7.5 \text{ times}$$

Average Collection Period = Rs.40,000 / Rs.3,00,000 *360 = **48 days**

2(a) Creditors Turnover Ratio

Creditors turnover ratio is the ratio between net credit purchase and the amount of sundry creditors. It implies the credit period enjoyed by the firm in paying creditors. It is computed as follows :-

Creditors turnover Ratio = Net Credit Purchase / Sundry Creditors including BP

Net Credit Purchase = Credit Purchase – Purchase Return

The creditors turnover ratio may also be expressed in days. Then it is known as creditors payment period or Creditors Velocity.

Creditors Velocity = Creditors including BP / Net credit Purchase * 365

Illustration 3.2.9 (c)

The net credit purchase of Reliance Ltd. For 1996 were Rs.2,40,000 and the amount of creditors at the end of the year was Rs.60,000 and bills payable Rs.10,000. Calculate creditors turnover ratio

$$\text{CTR} = \text{Rs.2,40,000} / \text{Rs.60,000} = 4 \text{ times}$$

Creditors Payment Period = Rs.60,000 / Rs.2,40,000 * 360 = 90 days.

3. Fixed Assets Turnover Ratio

The Fixed Assets Turnover Ratio shows the relationship between sales and fixed assets. It shows how efficiently a business is using its fixed assets like machinery, equipment, and buildings to generate sales. It is important for manufacturing companies where large investments are made in fixed assets. A higher ratio means that the company is using its fixed assets very efficiently to produce sales.

Fixed Assets Turnover Ratio =
$$\frac{\text{Net Sales}}{\text{Fixed Assets}}$$

Illustration 3.2.10

Net Sales = ₹12,00,000 Net Sales

Net Fixed Assets = ₹4,00,000

Solution

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Fixed Assets}} = \frac{12,00,000}{4,00,000} = 3$$

4. Total Assets Turnover Ratio

The Total Assets Turnover Ratio measures how efficiently a company is using all its assets (both fixed and current) to produce sales. It provides a general view of how well the management is utilizing the company's entire resources. A higher ratio indicates better use of assets to create more revenue, while a lower ratio shows inefficient use.

$$\text{Total Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

Illustration 3.2.11

Net Sales = ₹20,00,000

Total Assets = ₹10,00,000

Solution

$$\text{Total Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Total Assets}} = \frac{20,00,000}{10,00,000} = 2$$

3.2.9 Profitability ratio

Profitability ratios are financial metrics used to assess a company's ability to generate earnings compared to its expenses and other costs. They help measure how efficiently a company uses its resources to produce profit. Common profitability ratios include the Net Profit Ratio, Gross Profit Ratio, and Return on Assets. Higher profitability ratios generally indicate a company's strong financial health and effective management. These ratios are important for investors, creditors, and management to evaluate performance and future growth potential.

1. Gross Profit Ratio

Gross Profit Ratio shows the relationship between gross profit and net sales. It tells how much money is left from sales after covering the cost of goods sold (COGS). A higher gross profit ratio means a company is able to cover its production costs well and still retain a good margin for operating expenses and profits. It mainly measures the core production and pricing efficiency of a business.

Illustration 3.2.12(a)

Net Sales = ₹6,00,000

Sales Returns = ₹50,000

Gross Sales = ₹6,50,000 (this is given, or could be found before returns)

Cost of Goods Sold (COGS) = ₹3,60,000

Find Gross Profit Ratio.

Solution



Net Sales = Gross Sales – Sales Returns

$$6,50,000 - 50,000 = 6,00,000$$

Gross Profit = Net Sales – Cost of goods sold

$$= 6,00,000 - 3,60,000 = 2,40,000$$

$$\text{Gross Profit Ratio} = \frac{\text{Gross Sales}}{\text{Net sales}} \times 100$$

$$\text{Gross Profit Ratio} = \frac{240000}{600000} \times 100 = 40\%$$

Illustration 3.2.12(b)

Compute G/P ratio from the following :

Sales	Rs.5,12,000	Sales Return	Rs. 10,000
Opening Stock	Rs.82,000	Closing Stock	Rs. 64,400
Purchase	Rs.3,92,000	Purchase Return	Rs.8,000

$$\text{Gross Profit Ratio} = \text{Gross Profit} / \text{Net Sales} * 100$$

Gross Profit = Net sales - Cost of goods sold

COGS = Opening Stock + Net Purchase - Closing Stock

$$\begin{aligned} &= \text{Rs.82,000} + \text{Rs.3,84,000} - \text{Rs.64,000} \\ &= \text{Rs. } \underline{\underline{4,01,600}} \end{aligned}$$

Net sales = Sales – sales Return

$$\text{Rs.5,12,000} - 10,000 = \text{Rs.5,02,000}$$

G/P Ratio = Net sales - COGS

$$\begin{aligned} &= \text{Rs.5,02,000} - \text{Rs.4,01,600} \\ &= \text{Rs. } \underline{\underline{1,00,400}} \end{aligned}$$

2. Net Profit Ratio

Net Profit Ratio is the ratio of net profit to net sales. It expresses the relationship between net profit and net sales. It shows how much profit remains after covering all expenses, including operating expenses, interest, and taxes. This ratio tells about the overall profitability and efficiency in cost control. A higher net profit ratio indicates better business performance and better returns for owners.

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Revenue}} \times 100$$

Illustration 3.2.13

Net Sales: ₹950,000 (from previous example)

Other Incomes (like interest received): ₹20,000

Other Expenses (like interest paid, taxes): ₹50,000

Net Profit before tax: ₹250,000 (Operating Profit + Other Incomes – Other Expenses)

Tax Paid: ₹40,000

Calculate net profit ratio

Solution

Net Profit after tax = Net Profit before tax – Tax Paid

$$= 250,000 - 40,000 = 210,000$$

Net Profit Ratio = (Net Profit after tax ÷ Net Sales) × 100

$$\text{Net Profit Ratio} = \frac{210,000}{95000} \times 100$$

$$\text{Net Profit Ratio} = 22.11\%$$

3. Operating Profit Ratio

The Operating Profit Ratio indicates the percentage of profit earned from a company's core business operations before interest and taxes. It focuses only on operational efficiency and ignores other incomes or expenses like investments or financing costs. A higher operating profit ratio means the company's core activities are very profitable. It is crucial for understanding the profitability of the company's main business without external factors.

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net sales}} \times 100$$

Operating Profit = Gross Profit – Operating Expenses

Illustration 3.2.14

Sales Revenue: ₹1,000,000

Sales Returns: ₹50,000

Cost of Goods Sold (COGS): ₹600,000

Administrative Expenses: ₹70,000

Selling and Distribution Expenses: ₹30,000

Calculate Operating Profit Ratio

Solution

Net Sales = Sales Revenue – Sales Returns

$$1,000,000 - 50,000 = 950,000$$

Gross Profit = Net Sales – Cost of Goods Sold



$$950,000 - 600,000 = 350,000$$

Operating Expenses = Administrative Expenses + Selling and Distribution Expenses

$$70,000 + 30,000 = 100,000$$

Operating Profit = Gross Profit – Operating Expenses

$$350,000 - 100,000 = 250,000$$

Operating Profit Ratio = (Operating Profit ÷ Net Sales) × 100

$$\text{Operating Profit Ratio} = \frac{250000}{950000} \times 100$$

Operating Profit Ratio = 26.32%

4. Return on Investment (ROI)

ROI measures the profitability of an investment relative to its cost. It tells you how much profit you have made for every dollar (or peso, rupee, etc.) invested. A higher ROI shows that the investment gains compare favourably to its cost. It is a key indicator used to assess the efficiency of various investments or business projects.

$$\text{Return on Investment} = \frac{\text{Net Profit}}{\text{Investment Cost}} \times 100$$

or ROI = Operating Net Profit / Capital Employed * 100

Illustration 3.2.15

- ◊ Initial Investment: ₹500,000
- ◊ Net Profit after one year: ₹75,000

Solution

$$\text{ROI} = \frac{75000}{500000} \times 100 = 15\%$$

$$\text{ROI} = 15\%$$

3.2.10 Market Test Ratios

Market Test Ratios, also called Market Value Ratios, measure the relationship between a company's current market price and its financial performance. They help investors assess the attractiveness of a company's stock in terms of profitability, growth potential, and value. These ratios show how the market is valuing the company compared to its earnings, book value, and dividends. High or low values of these ratios can indicate if a company's stock is undervalued or overvalued. Market Test Ratios are important for investment decisions, comparing companies, and analysing market perceptions.

1. Earnings per Share (EPS)

This ratio indicates the profits available to equity shareholders per share basis. EPS shows how much profit is earned for each share of common stock. It helps investors

understand the company's profitability on a per-share basis. Higher EPS generally indicates better profitability and financial health. EPS is important for comparing the profitability of different companies.

$$\text{Earnings per Share} = \frac{\text{Net income} - \text{Preferred dividend}}{\text{Number of ordinary shares}}$$

Illustration 3.2.16 (a)

- ◊ Net Income: ₹400,000
- ◊ Preferred Dividends: ₹20,000
- ◊ Number of Ordinary Shares: 95,000

Solution

$$\text{Earnings Per Share} = \frac{\text{Net income} - \text{Preferred dividend}}{\text{Number of ordinary shares}}$$

$$\text{Earnings Per Share} = \frac{400000 - 20000}{95000} = 4$$

EPS = ₹4 per share

Illustration 3.2.16 (b)

Calculate EPS from the following information

Equity Share Capital (Rs.10 each) Rs.5,00,000

10% preference share capital (Rs.50 each) Rs.4,00,000

Rate of Tax : 50% of net profit

Net profit before tax : Rs.1,80,000

Solution:

EPS = Net Profit available to equity shareholders / Number of equity shares

Net Profit available to equity shareholders = Net profit – tax and preference dividend

$$= \text{Rs. } 1,80,000 - 50\% - 40,000$$

$$= \text{Rs. } 50,000$$

$$\text{EPS} = 50,000 / 50,000 = \text{Re.1}$$

$$* \text{Preference Dividend} = \text{Rs. } 4,00,000 * 10/100 = \text{Rs. } 40,000$$

$$* \text{Number of equity share} = \text{Rs. } 5,00,000 / 10 = 50,000$$

2. Price to Earnings (P/E) Ratio

P/E Ratio shows how much investors are willing to pay for ₹1 of the company's earnings. A high P/E suggests that the market expects future growth; a low P/E may show undervaluation. It helps in comparing the value of companies in the same industry.

Investors use P/E to judge if a stock is overvalued or undervalued.

$$\text{Price to Earnings (P/E) Ratio} = \frac{\text{Market Price per Share}}{\text{Earning per share}}$$

Illustration 3.2.17

- ◊ Market Price per Share: ₹80
- ◊ EPS: ₹4 (from previous example)

Solution

$$\begin{aligned} \text{P/E Ratio} &= \frac{\text{Market Price per Share}}{\text{Earning per share}} \\ &= \frac{80}{4} \end{aligned}$$

P/E Ratio = 20 times

3. Price-to-Book Ratio (P/B Ratio)

The P/B ratio compares a company's market value (what investors are willing to pay) to its book value (what the company is actually worth on paper). Book value refers to the net asset value of a company (assets - liabilities) recorded on its balance sheet. P/B ratio below 1 may indicate that the stock is undervalued, while a ratio above 1 can suggest it is overvalued or has strong investor confidence.

$$\text{P/B Ratio} = \frac{\text{Market Price per Share}}{\text{Book Value per Share}}$$

$$\text{Book Value per Share} = \frac{\text{Total Equity} - \text{Preferred Equity}}{\text{Number of Outstanding Shares}}$$

Illustration 3.2.18

- ◊ Market Price per Share = ₹100
- ◊ Total Equity = ₹10,00,000
- ◊ Preferred Equity = ₹0
- ◊ Outstanding Shares = 50,000

$$\text{Book Value per Share} = \frac{\text{Total Equity} - \text{Preferred Equity}}{\text{Number of Outstanding Shares}}$$

$$\text{Book Value per Share} = \frac{10,00,000 - 0}{50000} = ₹20$$

$$\text{P/B Ratio} = \frac{₹100}{₹20}$$

The company is trading at **5 times** its book value.

4. Price-to-Sales Ratio (P/S Ratio)

The P/S ratio shows how much investors are paying for each rupee/dollar of a company's revenue. It is especially useful for evaluating companies that do not yet

make a profit, such as startups. A lower P/S ratio may indicate undervaluation, while a higher ratio might mean overvaluation or high future growth expectations.

$$\text{P/S Ratio} = \frac{\text{Market Capitalization}}{\text{Total Annual Sales}}$$

$$\text{Sales per Share} = \frac{\text{Total revenue}}{\text{Outstanding shares}}$$

Illustration

- ◊ Market Price per Share = ₹150
- ◊ Annual Revenue = ₹15,00,000
- ◊ Outstanding Shares = 50,000

Solution

$$\text{Sales per Share} = \frac{1500000}{50000}$$

$$\text{P/S Ratio} = \frac{150}{30} = 5$$

Investors are paying ₹5 for every ₹1 of sales.

Recap

- ◊ Financial Statement Analysis- helps in understanding a company's financial performance
- ◊ Financial statement analysis include horizontal analysis, vertical analysis, and comparative analysis.
- ◊ Horizontal analysis- compares financial data over a period of time to identify trends and growth patterns.
- ◊ Vertical analysis expresses each item in a financial statement as a percentage of a base figure, such as total sales or total assets.
- ◊ Ratio Analysis - calculating and interpreting financial ratios
- ◊ Ratio analysis include performance evaluation, decision-making support, comparison with competitors, and trend analysis.
- ◊ Liquidity ratios measure a firm's ability to meet its short-term obligations
- ◊ Solvency ratios assess a firm's long-term financial stability and debt levels
- ◊ Activity ratios indicate how efficiently a company is using its assets
- ◊ Profitability ratios measure how well a company generates profits
- ◊ Market test ratios help investors assess the market value of a company's shares

Objective Questions

1. What is the purpose of horizontal analysis in financial statement analysis?
2. Which technique shows each item as a percentage of a base figure in a financial statement?
3. What is the main objective of ratio analysis?
4. Which ratio measures a company's ability to pay its short-term obligations?
5. What does the current ratio indicate?
6. Which ratio is used to assess long-term financial stability?
7. Which ratios measure how efficiently a firm uses its resources?
8. Which ratio helps measure the profitability of a company?

Answers

1. To compare financial data over multiple periods and identify trends.
2. Vertical analysis.
3. To evaluate a company's performance and financial position.
4. Liquidity ratio.
5. The ability of a company to pay current liabilities using current assets.
6. Solvency ratio.
7. Activity ratios.
8. Profitability ratio.

Self-Assessment Questions

1. What are the different techniques used in financial statement analysis?
2. How does horizontal analysis differ from vertical analysis?
3. What are the main objectives of conducting ratio analysis?
4. What financial decisions can be supported using liquidity ratios?
5. How can solvency ratios indicate long-term financial health?
6. What are the uses of activity ratios in evaluating operational efficiency?

7. How does the gross profit margin help assess profitability?
8. What is the significance of market test ratios in stock market analysis?
9. What limitations should be considered when relying on ratio analysis?

Assignments

1. Prepare a comparative analysis of a company's financial statements for two consecutive years using horizontal analysis.
2. Choose a listed company and calculate at least five key financial ratios from its latest annual report.
3. Identify and explain three limitations of ratio analysis with real-world examples.
4. Compare liquidity and solvency ratios of two companies in the same industry and analyze which is financially stronger.

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Suggested Readings

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Unit 3

Techniques of Financial Statement Analysis III

Learning Outcomes

After completing this unit, the learner will be able to;

- ◊ Get an idea on the objective of cash flow statement
- ◊ Recognize the Importance of Cash Flow Statements
- ◊ Explain the Concept and Objectives of Fund Flow Statements
- ◊ Prepare a Fund Flow Statement

Prerequisites

Arjun, an ambitious entrepreneur, launched his eco-friendly furniture business, "GreenCraft." With increasing orders and a growing customer base, Arjun was thrilled. However, despite impressive sales figures, he found himself struggling to pay suppliers and manage daily expenses. Confused, he consulted his friend Meera.

Meera explained that while sales and profits are vital indicators of business performance, they don't always reflect the actual movement of funds within a company. A business might show profits on paper but still face cash shortages due to delayed receivables or high inventory levels. To gain a clearer picture,

According to Meera, it is necessary to track the real inflow and outflow of cash within a company over a given time frame. It is also necessary to examine how the financial position has changed between two dates on the balance sheet. For this purpose, cash flow and fund flow statements might be

utilised. The first tool gives information about a company's liquidity, which aids in determining its capacity to pay short-term debts and make growth-oriented investments. The second provides a more comprehensive picture of long-term stability and financial health by concentrating on the sources and uses of funds.

By understanding these tools, Arjun could pinpoint periods when cash inflows were insufficient to cover outflows, despite profitable sales, and identify how funds were sourced and utilised over time. Armed with these insights, he optimised inventory, negotiated better payment terms with suppliers, and implemented stricter credit policies for customers. These strategic decisions improved cash flow, ensuring smoother operations and the ability to seize growth opportunities.

Keywords

Cash flow statement, Fund flow statement

Discussion

3.3.1 Meaning and Concepts

A cash flow statement is a vital financial report that summarises the actual movement of cash and cash equivalents into and out of a business over a specific period. Unlike the income statement, which shows profitability based on accrual accounting, the cash flow statement focuses purely on cash transactions. This means it records only those transactions that affect the company's cash balance directly, offering a clear picture of the company's liquidity and cash management. It helps in understanding whether a business has enough cash to meet its short-term obligations and continue operating smoothly. The terms cash, cash equivalents, and cash flow are used in this statement in the following meaning:

1. Cash

Cash refers to the physical money a business has on hand, as well as demand deposits in banks that are available for immediate use. It includes currency, coins, and balances in checking accounts. This is the most liquid asset and is used to settle short-term obligations.

2. Cash Equivalents

Cash equivalents are short-term, highly liquid investments that can be easily converted into a known amount of cash and are subject to an insignificant risk of changes in value. Examples include Treasury bills, commercial paper, and short-term government bonds.

These are investments that typically mature within three months or less from the date of acquisition. Together, cash and cash equivalents represent the most liquid assets of a company - those that are readily available for use in operations.

3. Cash Flow

The term "cash flow" refers to the movement of cash and cash equivalents into and out of a business during a specific period. In other words, it tracks how cash is generated (inflows) and how it is spent (outflows). The cash flow statement is specifically designed to show these movements in three areas: operating, investing, and financing activities.

3.3.2 Objectives of Preparing Cash Flow Statements

The preparation of cash flow statements serves several important objectives that contribute to a comprehensive understanding of a company's financial health and operations.

1. To Assess Liquidity and Cash Position

The primary objective of a cash flow statement is to provide an accurate picture of the company's liquidity. By focusing on actual cash flows, it helps stakeholders assess whether the company has sufficient cash to meet its short-term obligations and operational needs. This is particularly crucial for businesses that rely heavily on cash for daily operations and for ensuring that there is enough cash flow to cover unexpected expenses.

2. To Analyse Operating Performance

A key aspect of the cash flow statement is its ability to highlight how much cash is generated from core business operations. This enables stakeholders, including investors and managers, to evaluate whether the company's core activities are financially sustainable. It shows whether the business is generating enough cash from its operations to cover its expenses or if it needs external financing.

3. To Understand Cash Movements

The cash flow statement categorises cash flows into operating, investing, and financing activities, helping users understand the reasons behind changes in cash balances. This breakdown enables investors, managers, and analysts to trace the origins of cash inflows and outflows, providing insight into the business's financial activities.

4. To Support Financial Planning and Decision-Making

With a clear understanding of cash flows, management can make informed decisions related to budgeting, investments, and financing. The statement shows how much cash is available for future activities and whether the company can fund expansion, pay dividends, or handle future obligations.

5. To Evaluate Financial Flexibility

The cash flow statement also helps assess the financial flexibility of a company. It

shows whether the company has enough liquidity to seize new opportunities or handle unexpected challenges, such as economic downturns or changes in the market.

6. To Ensure Transparency for Investors and Creditors

The cash flow statement provides transparency by showing actual cash inflows and outflows, which enhances the company's credibility with investors and creditors. It allows them to assess the company's ability to repay debts and generate returns on investments.

7. To Complement Other Financial Statements

Finally, the cash flow statement complements the income statement and balance sheet by focusing on cash rather than accounting adjustments, such as depreciation and accruals. This gives a more accurate representation of a company's liquidity and financial health.

3.3.3 Importance of Cash Flow Statement

The cash flow statement plays a crucial role in providing a detailed overview of a company's financial health, with specific emphasis on cash movement. It is one of the most important financial statements, serving several key functions.

1. Assesses Liquidity Position

One of the primary purposes of a cash flow statement is to assess a company's liquidity position. It helps determine if the business is generating enough cash to meet its short-term obligations, such as paying salaries, covering rent, and settling supplier payments. By focusing on actual cash availability, rather than profits, it gives a clearer picture of the company's ability to maintain its operations without facing liquidity issues.

2. Monitors Operational Efficiency

The cash flow statement highlights whether the company's core business operations are generating sufficient cash. A consistent positive cash flow from operating activities suggests that the company is financially healthy and able to fund its day-to-day operations without relying heavily on external financing. It serves as an indicator of operational efficiency and sustainability.

3. Highlights Cash Inflows and Outflows

This financial statement categorises all cash transactions into three activities: operating, investing, and financing. This classification helps to identify the sources and uses of cash in different areas of the business. By breaking down the flow of cash into these categories, businesses can easily identify areas of strength and weakness in cash management.

4. Supports Financial Decision-Making

Cash flow statements are vital tools for managers when making financial decisions, including budgeting and planning. The insights provided help management determine

when to invest in new projects, when to reduce expenses, or when additional capital is needed. The statement acts as a guide for determining the timing and extent of various financial actions based on cash availability.

5. Aids Investors and Creditors

Investors and creditors rely on the cash flow statement to assess the company's financial stability and its ability to repay debts. A strong and consistent cash flow indicates lower risk and greater financial stability, which builds trust with potential investors or lenders. This transparency gives confidence that the company can fulfil its financial obligations and deliver returns.

6. Complements Other Financial Statements

Unlike the income statement, which includes non-cash items such as depreciation or accruals, the cash flow statement only accounts for actual cash transactions. This distinction allows for a more realistic and accurate view of the company's financial standing, especially in terms of liquidity. It complements the balance sheet and income statement by focusing on cash movements rather than accounting adjustments.

7. Helps in Forecasting Future Cash Needs

By analysing historical cash flow data, businesses can forecast future cash requirements. This helps in proactive planning, ensuring that the company can avoid cash shortages or have excess cash sitting idle. Predicting cash needs allows businesses to make adjustments before financial issues arise, improving their ability to stay financially stable.

8. Evaluates Financial Flexibility

A company with strong and consistent cash flow has greater financial flexibility. It can more easily seize new opportunities, such as acquiring assets or expanding operations. It is better positioned to manage unexpected financial difficulties, like economic downturns or sudden market changes. Strong cash flow ensures that a company is prepared for both planned and unforeseen events.

9. Enhances Transparency and Accountability

The cash flow statement enhances transparency by clearly showing actual cash activity, which increases accountability within the company. This openness allows shareholders, investors, and other stakeholders to have a clearer understanding of the company's financial operations. It also builds trust, as stakeholders can see how management is handling the company's cash resources.

The cash flow statement is a critical financial tool that not only helps companies maintain financial health but also supports informed decision-making, enhances transparency, and ensures long-term sustainability by providing insights into liquidity, operational efficiency, and financial flexibility.

3.3.4 Limitations of Cash Flow Statement

While the cash flow statement is an essential financial tool, it has several limitations that should be considered when evaluating a company's overall financial health. These limitations highlight the need to interpret the cash flow statement alongside other financial statements for a more comprehensive understanding.

1. Does Not Reflect Profitability

The cash flow statement primarily focuses on actual cash movements, and while it shows how cash is flowing into or out of a business, it does not account for profitability. A company may show strong cash inflows, but this doesn't necessarily mean it is profitable. For instance, a business might receive large cash payments but still operate at a loss if its expenses exceed revenues over the long term. Thus, the cash flow statement cannot replace the income statement when assessing a company's overall profitability.

2. Ignores Non-Cash Transactions

The cash flow statement does not include non-cash transactions, such as depreciation, amortisation, or credit sales and purchases. These non-cash items can significantly impact a company's financial performance and valuation. Depreciation, for example, reduces the value of assets over time, and although it doesn't directly impact cash flow, it is crucial for understanding long-term asset management and operating costs.

3. Lacks Detail on Income and Expenses

While the cash flow statement categorises cash movements into operating, investing, and financing activities, it doesn't provide detailed insights into the nature of a company's income or expenses. It does not break down sales revenue, cost of goods sold, or operating margins. For a detailed analysis of business operations, including profit margins and cost structures, the income statement is required in conjunction with the cash flow statement.

4. Historical in Nature

The cash flow statement is a historical document that reflects past cash activities over a specified period. While this provides valuable information about how the business has managed cash in the past, it does not offer forecasts, projections, or forward-looking insights. This limits its use for long-term financial planning on its own, as it cannot predict future cash flows or business performance.

5. Can Be Manipulated by Timing

Companies may time their cash receipts and payments in such a way as to improve their cash position at the end of a reporting period. For example, a company might delay payments to suppliers or accelerate collections from customers to present a healthier cash flow than what is actually indicative of its ongoing operational performance. Such strategic timing can mislead stakeholders into thinking that the company is in a stronger cash position than it truly is.

6. Not a Standalone Tool

The cash flow statement does not provide a complete picture of a company's financial

health on its own. It must be analysed in conjunction with the income statement and balance sheet to get a full understanding of the company's performance. While the cash flow statement reveals cash movements, it does not provide sufficient detail about profitability, asset values, liabilities, or equity. For comprehensive financial analysis, all financial statements should be considered together.

7. Method of Preparation May Vary

There are two main methods for preparing the operating activities section of the cash flow statement: the direct method and the indirect method. The indirect method adjusts net income by changes in non-cash items like depreciation, working capital changes, and others, while the direct method directly lists cash receipts and payments. Depending on which method is used, the presentation of cash flows can vary, potentially making it harder for users unfamiliar with the specific method to compare results across companies.

8. Does Not Show Working Capital Changes Clearly

While the cash flow statement reflects overall cash movements, it does not always clearly explain changes in current assets (like accounts receivable) and current liabilities (like accounts payable), which are essential for assessing a company's liquidity. Working capital changes are key indicators of whether a company is efficiently managing its short-term assets and liabilities, and a lack of clarity in this area can hinder users' ability to assess the company's operational efficiency.

9. Does Not Address Solvency in the Long Run

The cash flow statement is an excellent tool for assessing a company's short-term liquidity position, but it does not provide a complete picture of its long-term solvency. Solvency is the ability of a company to meet its long-term financial obligations, and while cash flow is important for meeting short-term liabilities, it doesn't necessarily reflect a company's ability to survive long-term economic downturns, structural changes, or shifts in market conditions. A company may have good cash flow in the short term but still face solvency issues due to long-term debt obligations, weak profit margins, or declining revenues.

3.3.5 Classification of Cash Flows

According to Ind AS-7 (formerly AS-3), cash flow statements should categorise cash flows based on three primary activities: operating, investing, and financing activities.

1. Cash Flows from Operating Activities

Operating activities include the primary revenue-generating activities of the business, as well as other activities that are neither investing nor financing. The cash flows from operating activities are a critical indicator of how well the company's operations generate sufficient cash to maintain operations, pay dividends, repay debts, and make new investments without external financing. Understanding these flows is essential for forecasting future cash needs.

For non-financial companies, examples of operating cash flows include

- ◊ Cash receipts from the sale of goods and services.
- ◊ Cash receipts from royalties, fees, and commissions.
- ◊ Cash payments to suppliers and employees.
- ◊ Cash receipts and payments related to premiums and claims in insurance enterprises.
- ◊ Payments and refunds of income taxes (unless linked to investing or financing activities).
- ◊ Cash flows related to futures, forward, option contracts, and swap contracts used for trading or dealing purposes.

For financial companies, examples of operating cash flows include

- ◊ Receipts from interest, commission, and recoveries of loans.
- ◊ Payments for loans, securities, and employee-related expenses.
- ◊ Dividends received on securities.
- ◊ Cash payments for interest on loans and deposits.

2. Cash Flows from Investing Activities

Investing activities involve the acquisition and disposal of long-term assets and investments that are not classified as cash equivalents. These cash flows reflect how much capital is being spent to acquire resources expected to generate future income.

Examples of investing cash flows include

- ◊ Cash payments to acquire fixed assets or intangible assets, including capitalized research and development costs.
- ◊ Cash receipts from the sale of fixed or intangible assets.
- ◊ Cash payments to acquire shares, bonds, or debt instruments of other companies or joint ventures (excluding those considered cash equivalents or held for trading purposes).
- ◊ Cash receipts from selling shares, bonds, or debt instruments of other companies.
- ◊ Advances or loans given to third parties (excluding those given by financial enterprises).
- ◊ Repayments of advances or loans from third parties.
- ◊ Payments and receipts related to futures, options, or swap contracts (except when used for trading or dealing purposes).

3. Cash Flows from Financing Activities

Financing activities are those that lead to changes in the size and composition of a company's capital structure, including both equity and debt. These cash flows are crucial

as they show how the company raises and repays capital and borrowings, providing insight into the company's ability to meet future financial obligations.

Examples of financing cash flows include

- ◊ Cash receipts from issuing shares or borrowing funds.
- ◊ Cash payments for repaying loans or repurchasing company shares.
- ◊ Transactions related to changes in ownership, such as issuing or redeeming preference shares.

3.3.6 Methods of calculating Cash Flows from Operating Activities

Operating activities refer to the core business activities of a company - such as buying and selling goods or providing services. To determine how much actual cash a company has generated or used in these activities, we prepare the Cash Flow from Operating Activities section of the Cash Flow Statement.

There are two methods for reporting cash flows from operating activities

1. Direct Method

In the Direct Method, we calculate cash flows by directly listing all cash receipts and payments related to operations.

Cash inflows (receipts) include

- ◊ Cash received from selling goods or providing services
- ◊ Cash received as royalties, fees, commissions, etc.
- ◊ Cash received from insurance operations (e.g., premiums)

Cash outflows (payments) include:

- ◊ Payments to suppliers for goods and services
- ◊ Payments to employees
- ◊ Insurance-related payments (e.g., claims, annuities)
- ◊ Income taxes (unless clearly related to investing or financing)
- ◊ Payments and receipts from trading contracts (futures, options, etc.)

2. Indirect Method

The Indirect Method starts with the net profit or loss as shown in the Profit and Loss Account. Then, adjustments are made to convert this figure into the actual cash flow from operating activities.

This involves

Adding back non-cash expenses (which reduced profit but did not involve cash outflow), such as:

- ◊ Depreciation
- ◊ Provisions
- ◊ Deferred taxes
- ◊ Unrealised foreign exchange losses

Removing non-operating income or gains, like:

- ◊ Profit on sale of assets
- ◊ Investment income (if not related to core operations)

Adjusting for changes in working capital, such as:

- ◊ Increase or decrease in inventories
- ◊ Increase or decrease in trade receivables and payables

Format of cash flow statement (Direct Method) is given below

Cash Flow Statement

(for the year ended....)

<p>Cash Flows From Operating Activities</p> <p>Either</p> <p>Cash receipts from customers</p> <p>Cash paid to suppliers and employees</p> <p>Cash generated from operations</p> <p>Income-tax paid</p> <p>Cash flow before extraordinary items</p> <p>Extraordinary items</p> <p>Net cash from (used in) Operating activities</p> <p>OR</p> <p>Net profit before tax and extraordinary items</p> <p>Adjustments for non-cash and non-operating items</p> <p>Operating profit before working capital changes</p> <p>Adjustments for changes in current assets and current liabilities (List of individual items)</p> <p>Cash generated from (used in) operations before tax</p>		
--	--	--

Income tax paid
 Cash flow before extraordinary items
 Extraordinary items (such as refund of tax)
 Net cash from (used in) operating activities

Cash Flows From Investing Activities

Individual items of cash inflows and outflows from investing activities

such as purchase/sale of fixed assets, purchase or sale of investments, interest received, dividend received etc

Net Cash from (used in) investing activities

Cash Flows From Financing Activities

Individual terms of cash inflows and outflows from financing activities(such as proceeds from issue of shares, long-term borrowings, repayments of long-term borrowings, repayment of long-term borrowings, interest paid, dividend paid etc.)

Net Increase (Decrease) in cash and cash equivalents

Cash and equivalents at the beginning of the period

Cash and cash equivalents at the end of the period

Format of cash flow statement (indirect Method) is given below:

Cash Flow Statement

(for the year ended.....)

A. Cash Flows from Operating Activities

Net Profit Before Tax and Extraordinary items (As per Working Note 1)

Adjustments for Non-Cash and Non-Operating Items

Add items to be added such as:

Depreciation

Interest on Debentures, Loans and Borrowings

Loss on Sale of Fixed Assets

Loss on Sale of Investments
Provision for Doubtful Debts
Provision for Discount on Debtors
Preliminary Expenses Written Off
Amortisation of Assets
Intangible Assets such as Goodwill, Patents, Trade Marks etc.
written off

Less items to be deducted such as:

Interest Income
Dividend Income
Rental Income
Gain / Profit on Sale of Fixed Assets
Gain/Profit on Sale of Investments
Appreciation of Fixed Assets
Operating Profit Before Working Capital Changes
Adjustment for Changes in Working Capital:

Add Decrease in Current Assets (except cash and cash equivalents) such as:

Decrease in Inventories/Stock
Decrease in Trade Receivables (Debtors and Bills Receivables)
Decrease in Prepaid Expenses
Decrease in Accrued Income
Add Increase in Current Liabilities, such as:

Increase in Trade Payables (Creditors and Bills Payables)
Increase in Outstanding Expenses
Increase in Income Received in Advance
Less Increase in Current Assets (As stated above)
Less: Decrease in Current Liabilities (As stated above)
Cash Generated from Operations

Less: Income Tax Paid (Net of Tax Refund Received)

Cash Flow Before Extraordinary items)

Add/Less: Extraordinary items

Net Cash Flow From (Or Used In) Operating Activities

B. Cash Flows From Investing Activities

Proceeds from Sale of Fixed (Tangible) Assets

Proceeds from Sale of Fixed (Intangible) Assets such as Goodwill, Patents etc.

Proceeds from Sale of Non-Current Investments

Interest Received

Dividend Received

Rent Received

Purchase of Fixed (Tangible) Assets

Purchase of Fixed (Intangible) Assets like Goodwill

Purchase of Non-Current Investments

Net Cash Flow From (or used in) Investing Activities

C. Cash Flows Financing Activities

Proceed from Issue of Shares and Debentures

Proceeds from Other Long-term Borrowings and Loans

Raising of Bank Overdraft and Cash Credit

Repayment of Loans and Other Long-term Borrowings

Payment of Dividend (Final and Interim Dividend)

Interest on Debentures and Loans

Redemption of Preference Shares and Debentures

Payment on Buy-back of shares

Net Cash Flow (Or Used in) Financing Activities

Net Increase (Or Decrease) in Cash and Cash Equivalents

Add: Cash and Cash Equivalents in the beginning of the year

Cash and Cash Equivalents at the end of the year

Illustration 3.3.1

Prince ltd .made a profit of 1800000 for the year ended 31st march 2016 after considering the following.

Depreciation on building	52000
Depreciation on plant and machinery	35000
Transfer to general reserve	10000
Goodwill written off	8000
Plant and machinery having book value of 14000 was sold for	1000
profit on sale of investment	7000

The following was the position of current assets and current liabilities of the company as on 31st March 2020 and 31st March 2021

Item	31st March 2015	31st March 2016
Debtors	45,000	38,000
Stock	72,000	80,000
Cash	12,000	21,000
Creditors	56,000	62,000
Outstanding Expenses	7,000	5,000
Prepaid Expenses	4,000	5,000
Bills Payable	11,000	15,000

Calculate cash flows from operating activity

Solution

CASH FLOW FROM OPERATING ACTIVITIES	
Net Profit for the year	18,00,000
Add: Non-cash and Non-operating Items	
Depreciation on Building	52,000
Depreciation on Plant and Machinery	35,000
Transfer to General Reserve	10,000
Goodwill written off	8,000
Loss on Sale of Plant and Machinery	4,000

Less: Profit on Sale of Investments	(7,000)
Operating Profit before Working Capital Changes	19,02,000
Adjustments for Working Capital Changes	
Decrease in Debtors	7,000
Increase in Stock	(8,000)
Increase in Creditors	6,000
Decrease in Outstanding Expenses	(2,000)
Increase in Prepaid Expenses	(1,000)
Increase in Bills Payable	+4,000
Net Cash Flow from Operating Activities	19,08,000

Illustration 3.3.2

Ameer ltd had the following figures on 1st April 2021

Fixed assets	300000
Less depreciation	105000
	195000
Bank balance	17500
Other current assets	125000
Capital (Shares of ₹10 each)	150000
Current Liabilities	50000

Estimates for the year 2021-22

- Profit after depreciation = ₹ 27,500 (Depreciation = ₹ 30,000)
- Dividend to be paid = ₹ 20,000
- the company will acquire fixed assets costing 50000 after selling one machine for 10000 costing 25000 and on which depreciation provided amounts to 17500
- the current asset and current liabilities other than bank balance expected to be 147500 and 115000 respectively.

Prepare cash flow statement

Solution

Cash flow statement(for the year ended 31st march 2021)		
Cash Flows from Operating Activities		
Net Profit for the year	27500	
Adjustments for non-cash and non-operating items		
Depreciation	30000	
Less: Profit on Sale of Machine	(2500)	
Operating Profit before Working Capital Changes	55000	
Changes in Working Capital		
Increase in Current Assets	(22500)	
Increase in Current Liabilities	65000	
Net Cash Flows from Operating Activities		97500
Cash Flows from Investing Activities		
Sale of Machine	10000	
Purchase of Fixed Assets	(50000)	40000
Net Cash Used in Investing Activities		
Cash Flows from Financing Activities		
Payment of Dividend	(20000)	
Net Cash Used in Financing Activities		(20000)
Net Increase in Cash and cash equivalents (bank balance)		37500
Cash and Cash Equivalents as on 1-4-2015		17500
Cash and Cash Equivalents as on 31-3-2016		55000

3.3.7 Difference between Funds Flow Statement and Cash Flow Statement

Basis of Difference	Funds Flow Statement	Cash Flow Statement
1. Concept	Based on a broader concept of funds, i.e., working capital.	Based on a narrower concept of funds, i.e., cash.
2. Accounting Basis	Follows the accrual basis of accounting.	Follows the cash basis of accounting.
3. Schedule of Changes in Working Capital	A schedule showing changes in current assets and current liabilities is prepared.	No schedule of changes in working capital is prepared.
4. Method of Preparation	Shows sources and applications of funds. The net result shows an increase or decrease in working capital.	Classifies cash inflows and outflows under operating, investing, and financing activities. The net result shows an increase or decrease in cash and cash equivalents.
5. Usefulness	Useful for planning intermediate and long-term financing.	More useful for short-term analysis and cash planning.
6. Improvement Basis	Improvement in working capital does not necessarily improve the cash position.	Improvement in cash position automatically improves the working capital position.
7. Cash and Cash Equivalents	Opening and closing balances of cash are included in the schedule of changes in working capital.	Opening and closing balances of cash and cash equivalents are directly shown in the cash flow statement

3.3.8 Funds Flow Statement

Meaning and Concept

The Funds Flow Statement shows the movement of funds and serves as a report on the financial operations of a business during a specific period. It explains how funds were obtained and used over time. Simply put, it is a statement of sources and applications of funds.

The term "funds" has been interpreted in different ways

a) Narrow Sense

(In its narrowest meaning, "funds" refer to cash only. A funds flow statement prepared under this definition is essentially a cash flow statement, which records the net impact of all business transactions on cash by tracking cash receipts and payments.

(b) Broad Sense

In a broader view, "funds" represent all financial resources used in the business, including money, materials, machinery, and other assets—essentially, any monetary value in any form.

(c) Popular Sense

Commonly, "funds" mean working capital, defined as the excess of current assets over current liabilities. This concept arises because a firm's total resources are partly tied up in fixed assets (fixed capital) and partly kept available in liquid or near-liquid form as working capital.

The narrower meanings of funds - whether just cash or working capital - do not fully capture the changes in a business's total financial resources. For example, significant non-cash transactions like purchasing a building by issuing shares or paying bonuses through shares wouldn't be reflected under a pure cash or working capital basis. However, the working capital approach is the most widely used, and "funds" will generally refer to working capital, and a funds flow statement will be treated as a statement of sources and uses of funds.

The word "flow" means movement, which includes both inflow and outflow. The term "flow of funds" refers to the transfer of economic value from one asset or equity to another. A flow of funds occurs when a transaction changes the amount of funds available compared to before the transaction.

- ◊ If a transaction increases funds, it is called a source of funds (inflow).
- ◊ If a transaction decreases funds, it is considered an application of funds (outflow).

If a transaction does not change the amount of funds, it is said that no flow of funds has occurred. Using the working capital concept, the flow of funds means any movement that increases or decreases working capital

- ◊ An increase in working capital = source or inflow of funds.
- ◊ A decrease in working capital = application or outflow of funds.

3.3.9 Objectives of Fund Flow Statement

1. To Show the Sources and Applications of Funds

The primary objective of the fund flow statement is to show where the funds came from and how they were utilized during a specific period. It lists out all the sources like share capital raised, loans taken, or profits earned. At the same time, it shows the applications, such as repayment of loans, purchase of fixed assets, or payment of dividends. This helps in understanding the exact movement of funds within the business.

2. To Analyse Changes in Financial Position

The fund flow statement helps in analysing how the financial position of the business has changed between two balance sheet dates. It focuses particularly on the changes in working capital. By studying these changes, management can better understand the

causes of improvement or deterioration in financial health. This analysis is important for evaluating the operational efficiency of the firm.

3. To Reveal the Reasons for Changes in Working Capital

One of the main purposes of the fund flow statement is to identify why the working capital has increased or decreased. It shows the individual factors responsible, such as an increase in inventory, payment of liabilities, or collection from debtors. By breaking down these reasons, the business can take corrective steps if needed. This also helps in better management of short-term financial needs.

4. To Help in Financial Planning

The statement provides valuable information for planning future financial strategies. By understanding how funds were raised and used in the past, management can forecast future financial needs more accurately. It helps in setting policies for raising capital, investing in projects, or controlling expenses. Thus, it plays a crucial role in effective financial planning and decision-making.

5. To Assist in Evaluating Financial Policies

The fund flow statement allows management to evaluate the success or failure of past financial policies. It shows whether funds were raised and used efficiently. If there were any wrong investment decisions or funding mistakes, they can be spotted through this statement. This feedback is important for improving future financial policies and maintaining financial discipline.

6. To Highlight Non-Current Financial Activities

The fund flow statement brings attention to important non-cash transactions that may not be visible in the cash flow statement. These include activities like purchasing assets by issuing shares or converting loans into equity. Such transactions, although they don't involve immediate cash movements, significantly affect the financial structure. Highlighting them gives a clearer picture of the company's overall financial activities.

7. To Facilitate Loan Decisions

Banks and other financial institutions use the fund flow statement to assess a company's financial strength before granting loans. It helps them judge how well the company is managing its funds and whether it is capable of repaying borrowed money. If the statement shows efficient use of funds and healthy working capital, the chances of getting loans improve. Thus, it acts as a supporting document for securing external financing.

8. To Provide Supplementary Information to Financial Statements

While the Balance Sheet and Profit & Loss Account show a company's financial status at a point in time, the fund flow statement explains the changes between two periods. It provides a dynamic view of how the business operations have affected financial resources. This supplementary information is crucial for a complete understanding of

the business's financial activities. It adds depth and clarity to the traditional financial reports.

3.3.10 Importance of Funds Flow Statement

A funds flow statement is a crucial tool for financial analysis and plays a key role in financial management. This statement is particularly helpful in assessing the firm's growth, its financial requirements, and in determining the best way to finance those needs. By using projected funds flow statements, management can foresee the adequacy or insufficiency of working capital in advance, allowing for better planning of intermediate and long-term financing, debt repayments, business expansion, and resource allocation.

The significance of the funds flow statement is evident from its various uses, which are outlined below

1. Helps in Analysing Financial Operations

The funds flow statement aids in understanding the net effect of various transactions on a company's operational and financial position. The balance sheet provides a static view of a company's resources and how they are utilized at a specific point in time. However, it doesn't reveal the reasons behind the changes in assets and liabilities over time. The funds flow statement fills this gap by explaining these changes and their impact on the company's liquidity. For instance, a business may be profitable, but its cash position could deteriorate, and the funds flow statement can clarify what has happened to the profits.

2. Helps in Formulating a Realistic Dividend Policy

A funds flow statement can be useful when a firm has sufficient profits for dividend distribution, but lacks the necessary liquid resources. In such cases, the statement helps in creating a more realistic and feasible dividend policy by highlighting the firm's cash position.

3. Aids in the Proper Allocation of Resources:

As resources are always limited, businesses must use them efficiently. A projected funds flow statement allows managers to make informed decisions on resource allocation. By forecasting future fund movements, the firm can better plan how to deploy its resources across various applications, ensuring optimal usage.

4. Serves as a Future Guide

A projected funds flow statement acts as a guide for the future, allowing the management to anticipate potential problems due to a lack of funds. It enables the firm to project its future financial needs and plan for their timing and financing well in advance. This proactive approach helps the firm secure the required funds in a timely manner and avoid future financial difficulties.

5. Helps in Appraising the Use of Working Capital

The statement provides insights into how effectively the management has used its working capital. It also suggests potential improvements in managing the company's working capital position, helping the firm to optimize its liquidity and operational efficiency.

6. Assists in Determining Creditworthiness

Financial institutions, such as state financial institutions, industrial development corporations, and other lending bodies, require funds flow statements to assess the creditworthiness of a firm. These institutions review funds flow statements from multiple years before granting loans to evaluate the firm's ability to repay its debts. Therefore, firms seeking financial assistance must prepare funds flow statements as part of their loan application process.

3.3.11 Limitations of Funds Flow Statement

While the funds flow statement offers valuable insights, it does have several limitations, which are outlined below:

1. Not a Substitute for Income Statement or Balance Sheet

A funds flow statement is not a replacement for an income statement or balance sheet. It serves as an additional tool that provides information specifically related to changes in working capital, but does not capture the full scope of financial performance or position.

2. Inability to Reflect Continuous Changes

The funds flow statement does not account for continuous or real-time changes in financial data. It only highlights the changes in working capital between specific periods, offering a snapshot rather than an ongoing view.

3. Based on Existing Financial Statements

The funds flow statement is not an original statement. It is derived from the rearrangement of data already provided in the income statement and balance sheet. Therefore, it doesn't offer new, independent information but rather reorganizes existing data for analysis.

4. Historically Oriented and Inaccurate Projections

The funds flow statement is inherently historical, reflecting past financial data. Due to its reliance on historical information, a projected funds flow statement cannot always be prepared with high accuracy, as future predictions can be uncertain and influenced by variables not accounted for in the past data.

3.3.12 Procedure for Preparing a Funds Flow Statement

The funds flow statement is a tool used to analyze changes in the financial position

of a business between the beginning and ending balance sheet dates. It is prepared by comparing two balance sheets and using other relevant information derived from the accounts. Broadly, the preparation of a funds flow statement involves two main parts

1. Statement or Schedule of Changes in Working Capital
2. Statement of Sources and Application of Funds

3.3.12.1 Statement or Schedule of Changes in Working Capital

Working Capital is the difference between current assets and current liabilities. The statement of changes in working capital is prepared to show how the working capital has changed between two balance sheet dates. This statement is derived from the current assets and current liabilities shown in the balance sheets.

The formula for Working Capital is:

Working Capital = Current Assets - Current Liabilities

Here's how changes in working capital occur:

1. An increase in current assets increases working capital.
2. A decrease in current assets decreases working capital.
3. An increase in current liabilities decreases working capital.
4. A decrease in current liabilities increases working capital.

Each change in the value of current assets or current liabilities between two periods results in either an increase or decrease in working capital. The difference is recorded for each individual current asset and liability. If a current asset has increased compared to the previous period, it results in an increase in working capital, and it will be recorded in the increase column. Similarly, if a current liability has increased compared to the previous period, it results in a decrease in working capital, and it will be recorded in the decrease column, and vice versa.

Once the increase and decrease in working capital are calculated, the net change is determined by comparing the total increase and total decrease. The difference between the two will indicate the net increase or net decrease in working capital.

It's important to note that the schedule of changes in working capital is prepared exclusively using current assets and current liabilities. Information related to non-current assets or liabilities is not considered in this statement.

Form of the Statement of Changes in Working Capital

Statement of schedule of changes in working capital				
			Effect on Working Capital	
Particulars	Previous Year	Current Year	Increase	Decrease
Current Assets				
Cash in Hand				
Cash at Bank				
Bills Receivable				
Sundry Debtors				
Temporary Investments				
Stocks/Inventories				
Prepaid Expenses				
Accrued Incomes				
Total Current Assets				
Current Liabilities				
Bills Payable				
Sundry Creditors				
Outstanding Expenses				
Bank Overdraft				
Short-term Advances				
Dividends Payable				
Proposed Dividends				
Provision for Taxation				
Total Current Liabilities				
Working Capital (CA - CL)				
Net Increase or Decrease in Working Capital				

Illustration 3.3.3

Prepare a statement of changes in working capital from the following balance sheet of Karan and company limited.

Balance sheets as at march31

Particulars	2020	2021
1. equity and liability		
Shareholders fund		
Equity Share Capital	500000	500000
Non-current Liabilities:		
Debentures	450000	450000
Current Liabilities:		
Accounts Payable	192000	96000
Tax Payable	43000	77000
Interest Payable	45000	37000
Dividend Payable	35000	50000
Total	1265000	1130000
2. Assets		
Non-current Assets:		
Fixed Assets	700000	600000
Long-term Investments	100000	200000
Current Assets:		
Stock-in-Trade	225000	150000
Accounts Receivable	140000	70000
Work-in-Progress	90000	80000
Cash	10000	30000
Total	1265000	1130000

Solutions

Statement of change in working capital				
			Effect on working capital	
Particulars	2020	2021	Increase	Decrease
Current asset				
Cash	30000	10000		20000
Accounts receivable	70000	140000	70000	
Stock in trade	150000	225000	75000	
Work in progress	80000	90000	10000	
	330000	465000		
Current liabilities				
Tax payable	77000	43000	34000	
Accounts payable	96000	192000		96000
Interest payable	37000	45000		8000
Dividend payable	50000	35000	15000	
	260000	3150000		
Working capital (CA-CL)	70000	150000		
Net increase in working capital	80000			80000
	150000	150000	204000	204000

3.3.12.2 Statement of Sources and Application of Funds

Statement of Sources and Application of Funds (also called a Funds Flow Statement) shows how a business obtained and used its financial resources during a specific period. It explains the changes in the company's financial position by identifying the sources (inflows) and applications (outflows) of funds, focusing mainly on working capital movements. This statement helps stakeholders understand how the company finances its activities and where its money is spent. It also highlights whether the company is using its funds effectively for growth or facing liquidity issues.

Specimen of report from funds flow statement	
Sources of Funds:	
Funds from Operations	

Issue of Share Capital	
Raising of Long-term Loans	
Receipts from Partly Paid Shares Called Up	
Sale of Non-current (Fixed) Assets	
Non-trading Receipts (e.g., Dividends Received)	
Sale of Long-term Investments	
Decrease in Working Capital (as per schedule)	
Total	
Applications (Uses) of Funds:	
Funds Lost in Operations	
Redemption of Preference Share Capital	
Redemption of Debentures	
Repayment of Long-term Loans	
Purchase of Non-current (Fixed) Assets	
Purchase of Long-term Investments	
Non-trading Payments	
Payment of Dividends	
Payment of Taxes	
Increase in Working Capital (as per schedule)	
Total	

a. Sources of fund

In a fund flow statement, "Sources of Funds" represent the various avenues through which a company acquires financial resources during a specific period. These sources are crucial for financing operations, investing in assets, and meeting other financial obligations. Understanding these sources provides insights into a company's financial strategies and stability.

1. Funds from Operations

This is the primary source, representing the net funds generated from the company's core business activities. It is calculated by adjusting the net profit for non-cash expenses (like depreciation and amortization) and non-operating incomes or losses. This figure indicates the company's ability to generate funds internally without relying on external financing.

2. Issue of Share Capital

When a company raises funds by issuing new shares, it brings in fresh capital. This source reflects investor confidence and is often used for expansion or reducing debt.

3. Raising of Long-term Loans

Obtaining funds through long-term borrowings, such as debentures or bank loans, provides capital for significant investments or restructuring. These loans are liabilities but offer immediate funds for various needs.

4. Sale of Non-current Assets

Selling fixed assets like machinery or property generates funds. This source indicates asset reallocation or divestment strategies.

5. Sale of Long-term Investments

Disposing of long-term investments, such as shares in other companies, provides liquidity. This action might be taken to reallocate resources or respond to market conditions.

6. Receipts from Partly Paid Shares Called Up

When shareholders pay the remaining amount on partly paid shares, the company receives additional funds. This source strengthens the equity base.

7. Non-trading Receipts

Income from non-operational activities, like dividends received from investments, contributes to the funds. These are ancillary sources that supplement the main revenue streams.

8. Decrease in Working Capital

A reduction in working capital, achieved by decreasing current assets or increasing current liabilities, releases funds. This internal adjustment provides liquidity without external financing.

b. Application or uses of funds

1. Funds Lost in Operations

Sometimes, the trading activities of a business during a particular year may result in a loss. This loss represents an outflow of funds and is therefore considered an application of funds.

2. Redemption of Preference Share Capital

When preference shares are redeemed during the year, it results in an outflow of funds and is treated as an application of funds. If the shares are redeemed at a premium or a discount, the net amount paid (including the premium or excluding the discount) is considered. However, if shares are redeemed by issuing other shares or debentures in

exchange, no actual outflow of funds occurs, and hence it is not treated as an application of funds.

3. Repayment of Loans or Redemption of Debentures

Similar to the redemption of preference shares, the repayment of loans or the redemption of debentures also leads to an outflow of funds and is treated as an application of funds.

4. Purchase of Non-Current or Fixed Assets

The purchase of fixed or non-current assets like land, buildings, plant and machinery, furniture, or long-term investments results in the outflow of funds and is an application of funds. However, if such assets are acquired through the issue of shares, debentures, or by exchanging one fixed asset for another, it does not involve an outflow of funds and therefore is not treated as an application of funds.

5. Payment of Dividends and Taxes

The actual payment of dividends (including interim dividends) and taxes constitutes an outflow of funds and is considered an application of funds. Mere declaration of dividends or creation of provisions for tax is not regarded as an outflow of funds.

6. Any Other Non-Trading Payment

Any payment or expense not directly related to the trading activities of the business, such as drawings by the owner in the case of sole proprietorships or partnerships, or the loss of cash, is considered an application of funds.

Illustration 3.3.4

From the following balance sheets of the company as at 31st march 2020, prepare schedule of changes in working capital and statement showing sources and application of funds.

Particulars	31-3-2020	31-3-2019
Equity and liabilities		
Shareholder's fund		
Share capital	400000	300000
Reserves and surplus		
P& L balance	30000	15000
Non –current liabilities		
Current liabilities		
Sundry creditors	70000	100000
Total	500000	415000

Assets		
Non- current asset		
Plant and machinery	60000	50000
Furniture and fixtures	15000	10000
Current asset		
Stock in trade	105000	85000
Debtors	150000	160000
Cash	170000	110000
Total	500000	415000

Solution

	31-3-2019	31-3-2020	Effect on working capital	
Current assets				
Cash	110000	170000	60000	--
Debtors	160000	150000	--	10000
Stock in trade	85000	105000	20000	--
	355000	425000		
Current liabilities				
Sundry creditors	100000	70000	30000	
	100000	70000		
Working capital	255000	355000		
Net increase in working capital	100000			
	355000	355000	110000	110000

statement of source and application of funds			
For the year ended 31-3-2020			
Sources		Applications	
Issue of share capital	100000	Purchase of plant and machinery (60000-50000)	10000

Funds from operations	15000	Purchase of furniture and fixtures (15000-10000) Net increase in working capital	5000 100000
	115000		115000

Funds from operations

Balance of P/L at the end of the year	30000
less balance of P/L in the beginning of the year	15000
funds from operations	15000

Illustration 3.3.5

Balance sheet of X and Y as on 1st January 2020 and 31st December 2020 were as follows

BALANCE SHEET

Liabilities	1-1-2020	31-12-2020	Assets	1-1-2020	31-10-2020
Creditors	40000	44000	Cash	10000	7000
X's loan account	25000	-	Debtors	30000	50000
Loan from Indian bank	40000	50000	Stock	35000	25000
Capital	125000	153000	Machinery	80000	55000
			Land	40000	50000
			Building	35000	60000
	230000	247000		230000	247000

During the year machine costing rs 10000 (Accumulated depreciation rs 3000) was sold for rs 5000. The provision for depreciation against machinery as on 1st January 2020 was rs 25000 and on 31st December , 2020 rs 40000. Net profit for the year 2020 was amounted to rs 45000.

You are required to prepare Fund Flow Statement

Solution

Funds flow statement

For the year ended 31st December , 2020

Source	rs	Application	rs
Funds from operation (4)	65000	Purchase of building	25000
Loan from Indian bank	10000	Purchase of land	10000
Sale of machinery	5000	Drawings made during the year (5)	17000
		X 's loan paid	25000
		Increase in working capital (1)	3000
	80000		80000

Working notes

(1) Schedule Of Change In Working Capital

	1-1-2020	31-12-2020	Change in Working Capital	
			Increase	Decrease
Current assets				
Cash	10000	7000	-	3000
Debtors	30000	50000	20000	-
Stock	35000	25000	-	10000
Current liabilities				
Creditors	40000	44000	-	4000
			20000	17000
Increase in working capital				3000
			20000	20000

(2) Provision For Depreciation (On Machinery Account)

to Machinery a/c	3000	by Balance b/d	25000
to Balance c/d	40000	by Adjusted profit and loss account (4) (New provision)	18000
	43000		43000

(3) Machinery Account

to Balance b/d	105000	by Bank(sale)	5000
(80000+25000)		by Provision for dep account	3000
		by Adjusted P and L account	2000
		by Balance c/d (55000+ 40000)	95000
	105000		105000

(4) Adjusted Profit And Loss Account

to Provision for depreciation (2)	18000	by Fund from operations	65000
to Machinery a/c loss on sale (3)	2000	(Bal. figure)	
To Net profit	45000		
	65000		65000

(5) Capital Account

to Bank (Drawings) ((bal .fig)	17000	by Balance b/d	125000
to balance c/d	153000	by Adjusted profit and loss account (net profit)	45000
	170000		170000

Recap

- ◊ Cash Flow Statement - provides a summary of cash inflows and outflows
- ◊ Cash Flow Statements include assessing cash-generating capabilities, ensuring liquidity, and planning for future cash needs.
- ◊ Operating Activities- are core business activities such as cash received from customers and cash paid to suppliers and employees.
- ◊ Investing Activities - involve cash flows related to the acquisition and disposal of long-term assets such as equipment or investments.
- ◊ Financing Activities- reflect transactions related to equity, debt, and dividend payments like issuing shares or repaying loans.
- ◊ Cash Flows from Operating Activities can be calculated using two methods-the Direct Method and the Indirect Method.
- ◊ The Direct Method- reports actual cash receipts and payments,
- ◊ Indirect Method -adjusts net income for non-cash transactions.
- ◊ Funds Flow Statement - shows changes in the financial position of a business
- ◊ Statement of Sources and Application of Funds - a key component of the fund flow statement that shows where funds came from and how they were used.

Objective Questions

1. What is the primary purpose of preparing a cash flow statement?
2. Which activities are classified under operating activities in a cash flow statement?
3. What type of activities are included under investing activities in a cash flow statement?
4. What does a funds flow statement primarily analyze?
5. How is working capital calculated in the context of a funds flow statement?
6. Which statement is also known as the statement of sources and application of funds?
7. What is the purpose of creating a funds flow statement for a company?
8. What is the impact of higher inventory levels on a company's working capital?

Answers

1. Provide information about the cash inflows and outflows during a specific period.
2. Activities related to the primary revenue-generating operations of the business.
3. Related to the acquisition and disposal of long-term assets and investments.
4. Changes in the financial position of a company
5. Current assets minus current liabilities.
6. The funds flow statement.
7. Understand the financial changes and plan for future funding needs.
8. It increases working capital, as inventory is a current asset.

Self-Assessment Questions

1. What are the primary objectives of preparing a cash flow statement?
2. How does a cash flow statement assist in evaluating a company's liquidity and solvency?
3. How do investing activities differ from financing activities in a cash flow statement?
4. What is the significance of cash flow from operating activities for a business?
5. How can a company have positive net income but negative cash flow from operating activities?
6. What insights can be gained by analysing the cash flows from financing activities?
7. How does a funds flow statement help in understanding changes in working capital?
8. How is the statement of sources and application of funds structured?
9. How can a funds flow statement aid in long-term financial planning?

Assignments

1. Prepare a cash flow statement for a hypothetical company using both the direct and indirect methods. Analyze the differences in the outcomes.
2. Analyze a real company's cash flow statement and identify the major sources and uses of cash in operating, investing, and financing activities.
3. Compare and contrast the cash flow and funds flow statements of a company, discussing the insights each provides.
4. Evaluate the impact of non-cash transactions on the financial statements and discuss how they are treated in cash and funds flow statements.
5. Conduct a financial analysis of a company using its cash flow statement to assess its ability to meet short-term obligations.

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Suggested Readings

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4
BLOCK

Marginal Costing

Unit 1

Concept

Learning Outcomes

After completing this unit, the learner will be able to;

- ◊ comprehend the concept of marginal cost and marginal costing
- ◊ explain the meaning of absorption costing and differential costing
- ◊ identify the differences between Marginal and Absorption Costing
- ◊ differentiate between Marginal and Differential Costing

Prerequisites

Mr. Sharma is the finance manager of Star Pvt. Ltd., manufacturing industrial machine parts. He analysed the company's rising costs with his teammates Neha and Arjun. The aim of the management of Star Pvt. Ltd. is to refine pricing strategies to improve profitability. For this, the team first examined the marginal cost, which is the additional cost of producing one more unit. Marginal costing refers to a technique of costing focusing solely on variable costs like raw materials and labour. This helped to provide insight into short-term pricing decisions. However, traditionally the company relied on absorption costing, which is a technique that allocates both fixed and variable costs to each unit. Absorption costing had various limitations despite its utility for financial reporting. Following absorption costing made the products appear more expensive by spreading fixed costs across all units. To explore alternative strategies, the team considered differential costing, a costing technique that examines changes in the total cost and revenue by analysing proposed alternatives. These changes comprise

an increase or decrease in the cost of crucial elements affecting decision-making and total cost variations between decision alternatives. However, unlike marginal costing, which assesses per-unit costs, differential costing evaluates the broader financial impact of different choices. By analysing these alternatives, the team identified key advantages and limitations of each approach. Marginal costing aided in short-term decision-making, absorption costing ensured full-cost coverage, and differential costing provided a comparative perspective for strategic choices. This unit discusses the concepts of marginal cost, marginal costing, absorption costing, and differential costing in detail.

Keywords

Marginal cost, Marginal Costing, Absorption Costing, Differential Costing

Discussion

Marginal costing is an important technique of costing that is highly useful to management in decision-making. An analytical study of the behaviour of cost in relation to the volume of output reveals that there are some items of cost that tend to vary directly with the volume of output, for example, wages paid to the employees, cost of raw materials, packing charges, etc. Whereas there are other items of cost that remain unaffected to a certain extent by the variations in the volume of output, for example, rent, salaries, insurance, etc. The former class of costs, which vary with the volume of output, represents variable costs. The latter costs, which are more or less constant with the volume of output, are fixed costs. Fixed costs are period costs and are uncontrollable. In marginal costing, fixed costs are excluded. This means that only variable costs are charged to products.

In marginal costing, all elements of costs such as production, administration, and selling and distribution costs are segregated into fixed and variable components. Only the variable costs are treated as product costs and are charged to the cost units. Meanwhile, fixed costs are written off in full by charging them to the costing Profit and Loss Account.

4.1.1 Meaning and Definition of Marginal Cost

Before learning about marginal costing, it is necessary to have an idea about marginal cost. Suppose Aman produced 100 units of toilet soap. The total cost incurred for production is ₹4000. This includes a fixed cost of ₹1000 and a variable cost of ₹3000. He also produced an additional unit of soap. Then his total cost becomes ₹4030. Here,

the additional cost incurred for producing one unit is ₹30. This additional cost of ₹30 incurred for producing an additional unit of output is the marginal cost. It means that marginal cost is the additional cost incurred for producing an additional unit of output.

Marginal cost is also known as variable cost because an increase of one unit in production will cause an increase in variable costs only. The marginal cost includes direct material cost, direct labour cost, direct expenses, and variable overheads. In short, marginal cost is equal to prime cost plus variable overheads.

The Institute of Cost and Management Accountants, London (CIMA) defines marginal cost 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.”

4.1.2 Meaning and Definition of Marginal Costing

Marginal costing is a technique of costing whereby marginal costs are ascertained. In this technique of costing, only variable costs are charged to cost units, while fixed costs are written off against the profits in the period in which they arise.

According to CIMA, London, marginal costing is “the ascertainment of marginal cost and of the effect on profit of changes in volume or type of output by differentiating between fixed costs and variable costs.” Thus, marginal costing is the technique of presenting cost data wherein variable costs and fixed costs are shown separately for managerial decision-making. Marginal costing is also known as variable costing.

Under Marginal costing, it is assumed that all costs can be classified into fixed costs and variable costs. Fixed costs remain constant irrespective of the volume of output, but fixed cost per unit changes in direct proportion with the volume of output. Variable costs change in direct proportion with the volume of output, but variable cost per unit remains constant at all levels of output.

In the above example of Aman, Fixed cost is ₹1000 and variable cost is ₹ 3000 for 100 units. Here total fixed cost for 100 units and 101 units remains constant. i.e., ₹1000. But the fixed cost per unit for 100 units is $1000/100 = ₹10$ and for 101 unit it is $1000/101 = ₹9.90$. So the cost per unit is changed. Similarly in the case of variable cost, total cost for 100 unit is ₹ 3000 and 101 units is ₹3030 (₹3000 + additional cost ₹30). Here total cost for 100 unit and 101 units changed. But the variable cost per unit for 100 units and 101 units is same. i.e., $3000/100 = ₹30$ and $3030/101 = ₹30$.

In short, marginal costing is a technique of costing which differentiates between fixed costs and variable costs, and only variable costs are charged to products.

4.1.2.1 Characteristics of Marginal costing

The technique of marginal costing is based on the distinction between product costs and period costs. Only the variable costs are regarded as the cost of the products while the fixed costs are treated as period costs which will be incurred during the period regardless of the volume of output. The main characteristics of marginal costing are as follows:

1. It is a technique of analysis and presentation of costs which helps the management in taking many managerial decisions and is not an independent system of costing such as process costing or job costing.
2. All the cost elements namely production, administration, and selling and distribution costs are classified into fixed and variable elements.
3. Fixed costs are treated as period costs and are charged to profit and loss account for the period for which they are incurred.
4. Only variable costs (marginal costs) are regarded as the cost of the product.
5. The stock of finished goods and work-in process are valued at marginal costs only.
6. Prices are determined on the basis of marginal cost by adding contribution. Contribution is the excess of sales or selling price over marginal cost of sales.

4.1.2.2 Assumptions of Marginal Costing

1. All cost elements namely-production, administration and selling and distribution costs can be bifurcated into fixed and variable components.
2. Variable cost remains constant per unit of output irrespective of the level of output. However, it fluctuates directly in proportion to changes in the volume of output.
3. The selling price per unit remains constant at all levels of activity.
4. Fixed costs remains constant for the entire volume of production.
5. The volume of production or output is the only factor which influences the costs.

4.1.3 Absorption Costing

Absorption costing is a conventional technique of costing. In absorption costing, we consider total cost for decision making, that is, both the fixed and variable costs are taken to account. No distinction is made between fixed costs and variable costs. According to CIMA, London, “Absorption costing is a technique whereby fixed cost as well as variable costs are allotted to cost units”.

We have already learned that in marginal costing, we consider only the variable costs for decision making and variable costs are treated as product costs and are used to value the inventory and cost of goods sold. But in absorption costing, both fixed and variable cost are considered for valuing inventory and cost of goods sold. Thus, the amount of profit and loss may be different under the two systems if there are opening or closing stocks. This point of difference can be well understood with the help of following example:

Cost of production (10000 units)

Variable cost (₹ 4 per unit) = ₹ 40,000

Fixed cost (₹ 0.20 per unit) = ₹ 2,000

Sales (8,000 units @ ₹ 6 per unit) = ₹ 48,000



Closing stock 2,000 units.

Calculation of profit as per Absorption costing:

Particulars	Amount (₹)
Sales	48,000
Add: Closing stock (2000 unit \times 4.20 per unit i.e., Fixed cost ₹ 0.20 + Variable cost ₹ 4)	<u>8,400</u>
Less: cost of production (10,000 unit \times 4.20 per unit)	56,400
	<u>42,000</u>
Profit	14,400

Calculation of profit as per Marginal Costing

Particulars	Amount
Sales	48,000
Add: Closing stock (2000 unit \times ₹4 per unit i.e., only variable cost is considered.)	<u>8,000</u>
	56,000
Less: Variable cost	<u>40,000</u>
Contribution	16,000
Less fixed cost	<u>2,000</u>
Profit	14,000

From the above example, it is clear that the amount of profit is different under the two system of costing, if there are opening and/or closing stock.

4.1.4 Limitations of Absorption Costing

(i) Misleading Profitability

Since fixed costs are allocated across all produced units, fluctuations in production levels can distort reported profits. Increasing production lowers per-unit costs, potentially inflating profits even when sales remain unchanged.

(ii) Leads to Overproduction

To spread fixed costs over more units and reduce unit costs, managers may be incentivized to produce more than necessary. This can result in excessive inventory and operational inefficiencies.

(iii) Less Useful for Decision-Making

Absorption costing does not clearly separate fixed and variable costs. This makes it less useful for short-term decision-making, such as pricing, product mix selection, or cost control.

(iv) Does Not Align with Cost-Volume-Profit (CVP) Analysis

CVP analysis requires distinguishing between variable and fixed costs. However, absorption costing merges these, which complicates break-even analysis and contribution margin calculations.

(v) Impact on Financial Statements

Inventory valuation under absorption costing includes fixed overheads, which can inflate asset values. This might misrepresent the financial position if large inventories remain unsold.

(vi) Complexity in Cost Allocation

Assigning fixed costs to products can be arbitrary, leading to inaccuracies in product costing and potential mispricing.

4.1.5 Distinction between Marginal Costing and Absorption Costing

In the light of the above example, it is clear that there are some differences between marginal costing and absorption costing. The basic difference between these two techniques is, in absorption costing all costs whether variable or fixed costs are treated as product costs even though fixed cost are period cost and have no relevance to current operations. In marginal costing only variable costs are treated as product costs. Here, fixed costs are treated as period cost. Hence, they are excluded from the product cost. The other differences are as follows:

Table 4.1.1 Distinction between Marginal Costing and Absorption Costing

Basis of Difference	Absorption Costing	Marginal Costing
Product Costs	Product costs includes all variable manufacturing costs and fixed production overheads and they are charged to product, processes or operations.	Product costs includes only variable manufacturing costs and are charged to products, processes or operations.
Period Costs	Here, only administration, selling and distribution overheads are treated as period costs and hence, are written off against the profits in the period in which they arise.	All fixed costs such as Production/ Administration/Selling and Distribution Overheads are treated as period costs and hence are written off against profits in the period in which they arise.

Value of Closing Stock	Value of closing stock generally includes fixed production overheads.	Value of closing stock includes only variable costs.
Basis of Managerial Decisions	Managerial Decisions are based on total profit which is the excess of total sales revenue over total costs.	Managerial Decisions are based on contribution which is the excess of sales revenue over variable costs.
Under/over Recovery	The problem of under/over recovery of fixed overheads generally arises.	There is no issue of under/over recovery of fixed overheads does not arise.

4.1.6 Differential costing

Before we explore differential costing, let us learn what differential cost is. The following example makes it clear. Suppose the cost of sale at the present level of activity (60% capacity) is ₹ 6,00,000 and expected cost of sale at 80% capacity is ₹ 7,50,000, then differential cost will be ₹150,000 i.e., 7,50,000— 6,00,000. To take another example, you produce 1000 units per year at a cost of ₹ 5,00,000 by fully automated process, or produce the same number of products manually for ₹ 6,00,000, then the differential cost between the two alternatives is ₹ 1,00,000. In the first example, we increase our production capacity, then a differential cost of ₹1,50,000 incurred. In the second example, we take an alternative decision, then a differential cost of ₹1,00,000 incurred. So, differential cost is the increase or decrease in total costs that result from producing additional or fewer units or from the adoption of an alternative course of action. The alternative course of action may arise due to change in sales volume, alternative method of production, change in product mix, make or buy, decision to drop a product line, etc.

Differential cost may be either incremental cost or decremental cost. When there is an increase in the cost due to increase in the level of production, it is called incremental cost. When there is a decrease in the cost due to decrease in the level of production, it is called decremental cost.

4.1.7 Differences between Marginal Costing and Differential Costing

From the above paragraphs, we get a clear picture of marginal costing and differential costing. Most often, they are used synonymously. Both the techniques are used by the management in formulating policies and making decisions. But the two are not exactly the same in all aspects. The following table summarises the points of differences between the two:

Table 4.1.2 Differences between Marginal costing and differential costing

Basis of Difference	Marginal Costing	Differential Costing
Cost of Production	Fixed cost is not included in cost of production and it is charged to the Profit and Loss Account.	Fixed cost is also included in the cost of production.
Change in Fixed Cost	Does not consider change in fixed cost due to change in output	Considers change in fixed cost due to change in output
Suitability in Decision – making	Is suitable for short - term decision making.	Is suitable for both short term and long-term decision making.
Criterion for Decision -making	Contribution is the criterion for decision making.	Comparison of differential costs with differential revenue is the criterion for decision making.
Scope	Is a narrow concept while comparing the differential costing	Is a broader concept.

4.1.8 Advantages of Marginal costing

The following are the main advantages of Marginal costing:

1. Effective cost control

Marginal cost divides cost into fixed and variable components. Here fixed cost is excluded from product cost. As such, management can control marginal cost effectively.

2. Uniform and realistic valuation

In marginal costing, fixed costs are excluded from the product cost. So, the valuation of work-in - progress and finished goods become more realistic.

3. Treatment of overheads simplified

As fixed cost is fully charged to the profit and loss account of the period, it does not result into carry forward of fixed cost to the next period. It simplifies the treatment of overheads.

4. Helpful to the management

It helps the management in fixing selling prices or to start a new line of production

which is advantageous. It enables them in determining which is profitable, i.e, whether to buy or make a product.

5. Helps in profits and production planning

Cost -volume -Profit analysis shows the amount of profit at every level of output. It helps the management in profit and production planning.

6. Helpful in budgetary control

The classification of cost into fixed and variable helps in the preparation of flexible budgets for different levels of output.

7. Better presentation

Under marginal costing, break-even analysis presents the behaviour of cost, sales, contribution, etc. in the form of charts and graphs. So, the results are easily grasped by the management executives.

4.1.9 Disadvantages of Marginal Costing

In spite of the above advantages, marginal costing suffers from its own limitations as well. They are as follows:

1. Difficulty in analysis: - It is very difficult in practice to segregate all costs into fixed and variable cost. Moreover, certain expenses are purely caused by managerial decisions and cannot be strictly classified as fixed or variable, e.g., amenities to staff, bonus to workers, etc.

2. Time element ignored

Distinction of cost into fixed and variable is applicable in the short run only. In the long run all costs are variable.

3. Difficulty in the fixation of price

Under marginal costing, selling price is fixed on the basis of contribution. In case of cost-plus contract, it is very difficult to fix price.

4. Unrealistic stock valuation

Under marginal costing, finished stock and stock of work- in- progress are valued at variable cost only. No portion of fixed cost is added to the value of stock. So, profit is depressed.

5. Little/No Significance

Under capital-intensive industries, fixed costs occupy major portions in the total cost. But marginal costs cover only variable costs. As such, it loses its significance in capital intensive industries.

6. Automation

Increased automation led to increase in fixed costs. If such increasing fixed costs are ignored, the costing system cannot be effective and dependable.

Recap

- ◊ Marginal cost is the additional cost incurred for producing an additional unit of output.
- ◊ Marginal costing is a technique of costing which differentiates total cost into fixed costs and variable costs, and charging only variable costs to products.
- ◊ Under absorption costing, we consider both fixed cost and variable cost for decision - making.
- ◊ The basic difference between marginal costing and absorption costing is that, in absorption costing all costs whether variable or fixed costs are treated as product cost. In marginal costing only variable costs are treated as product costs
- ◊ Differential cost is the increase or decrease in total cost that result from any variation in operations
- ◊ In marginal costing fixed cost is not included in cost of production but under differential costing, fixed cost is included in cost of production

Objective Questions

1. What is the additional cost incurred for producing an additional unit of output called?
2. Under marginal costing what cost is treated as product cost?
3. Under absorption costing what cost is considered for decision making?
4. What costing is used to determine the profitability of alternative courses of action?
5. What costing is suitable for internal reporting?

Answers

1. Marginal cost
2. Variable cost
3. Total cost
4. Differential costing
5. Marginal costing

Self-Assessment Questions

1. What is marginal cost?
2. Define Marginal costing?
3. What is absorption costing?
4. Explain the concept of marginal costing?
5. What are the features and assumptions of marginal costing?
6. Differentiate between absorption costing and marginal costing.

Assignments

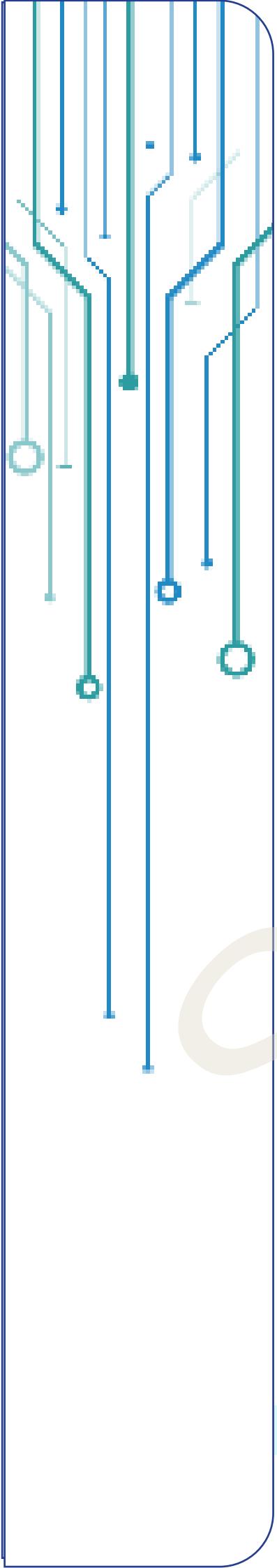
1. The “technique of marginal costing is a valuable aid to Management”. Discuss.
2. Briefly explain the concept of marginal costing, its assumptions, advantages and limitations.
3. Explain the limitations of absorption costing.
4. Explain the concept of differential costing.
5. Differentiate between differential costing and Marginal costing?

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Unit

CVP Analysis

Learning Outcomes

After completing this unit, the Learner will be able to;

- ◊ comprehend the meaning of contribution
- ◊ gain insight into the concept of Break –Even Analysis
- ◊ understand the preparation of Break Even Chart

Prerequisites

Rahul, is an aspiring entrepreneur. He has always dreamed of starting his own business. After months of research, he finally launched his own coffee shop. Rahul wanted to find out when he would be able to cover the cost and his business would start making profit. Rahul sought advice from a financial expert, Ram. Ram introduced Rahul to a crucial business tool known as Break-Even Analysis. Rahul carefully analysed his fixed and variable costs and identified the point at which his coffee shop would start make profit. This knowledge helped him to price his products wisely, control expenses, and make strategic decisions for growth. Rahul's story highlights the importance of conducting Break – even Analysis. Understanding Break-Even Analysis enables businesses to operate efficiently, make informed financial decisions, and ensure long-term profitability. Just like Rahul, every entrepreneur can benefit from this strategic tool to steer their business towards success. This unit deals with various concepts such as determination of contribution, break – even analysis and preparation of break even chart.

Keywords

Break – even analysis, Break – even chart , Profit, Sales

Discussion

4.2.1 Meaning of Cost –Volume Profit Analysis

Profit of an enterprise depends upon a large number of factors. The most important of these factors are the cost of manufacture, volume of sales and the selling prices of the products. For analysing the impact of these factors on profit, the management applies some techniques. One of the important techniques is Cost -Volume - Profit analysis.

Cost -Volume - Profit Analysis (CVP) is a technique of studying the relationship between the cost, volume and profit. These three factors are interconnected and dependent on one another. For example, the profit depends upon sales, selling price depends upon cost and cost depends upon volume of production. In CVP analysis we evaluate how cost and profit are affected by changes in the volume of production.

In CVP Analysis, we examine the relationship among costs, volume and profits. It measures variations of costs and volumes and their impact on profit. According to CVP analysis, there is direct relationship between volume and profit and indirect relationship between cost and volume.

4.2.2 Objectives of Cost –Volume – Profit (CVP) Analysis

CVP Analysis is a financial tool used to determine the impact of different levels of costs and sales volume on a company's profit. The key objectives of CVP analysis include:

- i. **Determine the Break-Even Point (BEP)** : CVP Analysis helps in identifying the sales volume at which total revenue equals total costs, resulting in zero profit or loss.
- ii. **Profit Planning** – It enables the business firms in estimating how changes in sales volume, costs, and prices affect profitability. This helps in setting realistic profit targets.
- iii. **Assessing Margin of Safety** : CVP Analysis aids the management in measuring how much sales can drop before a company starts incurring losses, helping in risk assessment.
- iv. **Analyzing Cost Behaviour** : It helps to understand how fixed, variable, and total costs respond to changes in production and sales volume.
- v. **Decision-Making for Pricing and Cost Control** : It assist the management in setting the right selling price and cost control strategies to maximize profits
- vi. **Product Mix and Sales Mix Decisions** – It helps to determine the best combination of products to sell for optimal profitability.

4.2.3 Uses of CVP Analysis

CVP analysis is a powerful tool that helps managers to understand the relationship between cost, volume and profit. The important uses of CVP analysis are as follows:

1. Determination of pricing policies

CVP Analysis helps management in determining the pricing policies by projecting the effect of different price structure on cost.

2. Preparation of flexible budget

CVP analysis facilitates the preparation of flexible budgets showing cost at different levels of production.

3. Forecasting profit

CVP analysis help the management to forecast the profit accurately, while making a change in selling price.

4. Decision Making

It also helps the management in decision making, such as, pricing decisions, make or buy decision, determining optimum level of activity, selection of profitable sales mix and so on.

5. Evaluation of performance

Management can use CVP Analysis to see how many units they need to sell to break even (cover all costs) or reach a certain minimum profit margin.

6. Cost control and cost reduction

CVP analysis is a way to find out how changes in variable and fixed cost affect a firm's profit. This helps the management for cost control and cost reduction.

4.2.4 Components of CVP analysis

We know that CVP analysis is a powerful tool that evaluates the effect of changes in cost and volume of output on profit. In order to know the CVP relationship, a detailed study of the following components is necessary:

1. Contribution
2. Marginal Cost equation.
3. Profit volume ratio (P/V ratio)
4. Break Even Analysis.
5. Margin of safety.
6. Angle of incidence.

4.2.5 Contribution

Contribution is a very important component in marginal costing. It is the difference

between sales and variable cost. Contribution is also known as “contribution margin” or gross margin. It covers fixed cost and profit. If contribution is more than the fixed cost, there is a profit. If contribution is less than the fixed cost, there is a loss.

Contribution can be expressed either ‘per unit’ or ‘total’. Contribution per unit is the difference between selling price per unit and the variable cost per unit. Total contribution is the difference between total sales and total variable cost.

The following example will make the concept of contribution clear

The selling price of a product is ₹ 20 per unit and the variable cost is ₹ 14 per unit. So, the contribution per unit is ₹ 6 (₹20 - ₹14), that is, (sales – variable cost). Further, suppose that the fixed costs are ₹60,000 and the total number of units sold is 7,000. Then, the total contribution is $7,000 \times 6$ or ₹ 42,000 which is not sufficient to meet the fixed expenses and the result is a loss of ₹18,000. In case, the output is 10,000 unit, then total contribution of ₹ 60,000 equals the fixed cost, and here, there is no profit or loss. The profit can be earned only when the amount of contribution exceeds the fixed costs. Hence, any output beyond 10,000 units, will give some profit, for instance, at an output of 13,000 units, the total contribution is $13,000 \times 6 = ₹78,000$ while the fixed costs remain ₹ 60,000, thus making a profit of ₹ 18,000.

So, we can represent the contribution as:

$$\text{Contribution} = \text{Sales} - \text{Variable (Marginal) cost.}$$

$$\text{Contribution per unit} = \text{Selling price per unit} - \text{Variable cost per unit.}$$

$$\text{Contribution} = \text{Fixed cost} + \text{Profit (-Loss)}$$

Uses of Contribution

i. Determining Profitability

Contribution helps to assess how much revenue contributes to covering fixed costs and generating profit.

ii. Break-Even Analysis

Contribution is a crucial factor which is used to calculate the break-even point (BEP), where total contribution equals total fixed costs.

iii. Pricing Decisions

It assists in setting selling prices by ensuring that each unit sold contributes adequately in covering costs and profit targets.

iv. Product Mix Decisions

Contribution helps the businesses choose the products to be focussed by comparing their contribution margins.

v. Cost Control

Contribution helps to identify the areas where variable costs can be reduced to improve overall profitability.

vi. Make or Buy Decisions

It aids the management to decide whether to manufacture a component in-house or outsource it based on its contribution margin.

vii. Shut Down or Continue Operations

Contribution also helps to evaluate whether a business unit should continue operating or shut down if its contribution margin is negative.

4.2.5 Marginal cost equation

In order to properly implement CVP analysis, we must need a brief idea about marginal cost equation.

We know that $\text{Sales} - \text{Variable Cost} = \text{Contribution}$ and Contribution

$= \text{Fixed Cost} \pm \text{Profit/Loss}$

This implies that $\text{Sales} - \text{Variable Cost} = \text{Fixed Cost} \pm \text{Profit / Loss}$

Thus, marginal cost equation = $S - VC = FC \pm P$

Where S denotes Sales, VC denotes – Variable Cost, FC denotes Fixed Cost and P denotes Profit

From these equations, the following equations are derived:

1. Contribution = Sales - Variable Cost
2. Contribution = Fixed Cost \pm Profit/Loss
3. Sales = Variable Cost + Contribution.
4. Sales = Variable Cost + Fixed Cost \pm Profit/Loss
5. Sales - Variable cost = Fixed Cost \pm Profit/Loss
6. Fixed cost = Contribution - Profit.
7. Profit = Contribution - Fixed Cost.
8. Variable Cost = Sales - Contribution.

4.2.6 Profit Volume Ratio (P/V ratio)

As already stated, contribution is the difference between sales and variable cost. So, contribution varies in direct proportion with sales. The relationship between

contribution and sales is expressed as a percentage in the form of P/V ratio. It is also called contribution ratio or marginal ratio. It can be expressed as under.

$$P/V \text{ ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

Since Contribution = Sales - Variable Cost = Fixed cost + Profit , P/V ratio can also be expressed as:

$$P/V \text{ Ratio} = \frac{\text{Sales} - \text{Variable cost}}{\text{Sales}} \times 100$$

$$\text{Or P/V ratio} = \frac{\text{Fixed cost} + \text{Profit}}{\text{Sales}} \times 100$$

$$\text{Or P/V Ratio} = \frac{\text{Changes in profit or contribution}}{\text{Change in sales.}} \times 100$$

Importance of P/V ratio

P/V ratio is an aid to the management. It is an indicator of the rate at which profit is being earned. A high P/V ratio indicates high profitability and a low ratio indicates low profitability in the business. The profitability of different sections of the business, for example, different sales areas, different classes of customers, different product lines etc. may also be compared with the help of P/V ratio. It is also used in making the following type of calculations:

1. Calculation of break-even point.
2. Calculation of profit at a given level of sales.
3. Calculation of the volume of sales required to earn a given profit.
4. Calculation of profit when margin of safety is given.
5. To fix the selling prices.
6. To determine the variable cost for any volume of sales.

Following examples illustrates the calculation of P/V ratio:

Illustration 4.2.1

Sales - ₹ 200,000

Variable cost - ₹ 120,000

Fixed cost - ₹ 60,000

Find out 1) P/V ratio, 2) Sales required to earn a profit of ₹ 40,000

Solution

$$1) P/V \text{ ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

Contribution = Sales - Variable cost

$$= ₹200,000 - ₹120,000 = ₹80,000$$

$$\begin{aligned} \text{P/V ratio} &= \frac{\text{₹80,000}}{\text{₹200,000}} \times 100 \\ &= 40\% \end{aligned}$$

2) Sales required to earn a profit of ₹ 40,000

$$\begin{aligned} &= \frac{\text{Fixed cost} + \text{Profit}}{\text{P/v ratio}} \\ &= \frac{\text{₹60,000} + \text{₹40,000}}{\frac{40}{100}} \\ &= \frac{\text{₹100,000}}{40} \times 100 \\ &= ₹ 250,000 \end{aligned}$$

Illustration 4.2.2

Sales - ₹ 2,00,000

Variable cost = 70%

Profit = ₹20,000

Find out 1) P/V ratio. 2) Fixed cost, 3) Sales volume to earn a profit of ₹ 80,000

Solution

Sales = ₹ 2,00,000

Variable cost = 70%

$$\begin{aligned} &= 70/100 \times ₹200,000 \\ &= ₹1,40,000 \end{aligned}$$

$$1) \text{P/V ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

Contribution = Sales - variable cost

$$= ₹200,000 - ₹140,000 = ₹60,000$$

$$\begin{aligned} \text{P/V ratio} &= \frac{\text{₹ 60,000}}{\text{₹ 200,000}} \times 100 \\ &= 30\% \end{aligned}$$

2) Fixed cost = Contribution - Profit.

$$\begin{aligned} &= ₹60,000 - ₹20,000 \\ &= ₹40,000 \end{aligned}$$

3) Sale to earn a profit of ₹ 80,000

$$\text{Sales} = \frac{\text{Fixed cost} + \text{Profit}}{p/v \text{ ratio}}$$

$$= \frac{\text{₹}40,000 + \text{₹}80,000}{30\%}$$

$$= \frac{\text{₹}1,20,000}{30} \times 100$$

= ₹400,000

P/V ratio when Sales and profits for two periods are given.

When sales and profit for two periods are given, we use the following formula for calculating the P/V ratio:

$$P/V \text{ Ratio} = \frac{\text{Changes in profit or contribution}}{\text{Change in sales.}}$$

Note: If total costs for the two periods are given instead of profit, the difference between sales and total cost will be the profit.

Illustration 4.2.3

The sales turnover and profit during the two periods were as follows:

2nd Period – Sales ₹ 15 Lakhs Profit ₹ 2 Lakhs

Calculate a) P/V ratio b) Sales required to earn a profit of ₹ 2.5 Lakhs

Solution:

$$\begin{aligned}
 1. \text{ P/V ratio} &= \frac{\text{Changes in profit or contribution}}{\text{Change in sales.}} \times 100 \\
 &= \frac{\text{₹}200,000 - \text{₹}100,000}{\text{₹}15,00,000 - \text{₹}10,00,000} \times 100 \\
 &= \frac{\text{₹}100,000}{\text{₹}500,000} \times 100 \\
 &= 20\%.
 \end{aligned}$$

2. Sales required to earn a profit of 2.5 Lakhs.

$$\text{Sales} = \frac{\text{Fixed cost} + \text{Profit}}{p/v \text{ ratio}}$$

In the above formula fixed expense is unknown (Profit is given), it is to be found out,



Fixed cost = Contribution - Profit

In order to find fixed expenses, contribution is to be ascertained.

Contribution can be found by applying P/V ratio to the sales for which profit is to be ascertained.

P/V ratio 20% means contribution is 20% on sales.

Fixed cost can be found either from period 1 or from period 2.

Contribution at a sale of ₹ 10 Lakhs

$$\begin{aligned} &= ₹1,000,000 \times 20\% \\ &= ₹ 2,00,000 \end{aligned}$$

Now we can find fixed expenses because we get contribution and profit.

Fixed cost = Contribution — Profit

$$₹200,000 - ₹100,000 = ₹ 100,000.$$

Now the sales required to earn a profit of ₹ 2.5 Lakh

$$\begin{aligned} &= \frac{100,000 + 250,000}{20\%} \\ &= \frac{350,000}{20} \times 100 \\ &= ₹ 17,50,000 \end{aligned}$$

Note: In period 2 also fixed expense will be the same.

4.2.7 Break Even Analysis

Break-even analysis is the most widely used method to study the cost-volume profit analysis. This analysis establishes a relationship between revenue and costs with respect to volume.

The term “break-even analysis” is used in two senses. In its narrow sense, it is concerned with finding out the break-even point (the point of no profit no loss). In its broad sense, it is concerned with the study of relationship between costs, volume and profit at different levels of sales or production.

Thus, break even analysis may be defined as a method of studying the relationship amongst sales volume, fixed cost and variable cost to determine the level of activity at which costs are equal to sales revenue.

Assumptions of Break- even analysis.

Break even analysis is based on certain assumptions. They are as follows:

1. All elements of cost can be separated into fixed and variable components.

2. Variable cost varies in direct proportion to volume of output.
3. Fixed cost remains constant at all levels of output.
4. Selling price per unit remains constant at all levels of output.
5. Volume of production is the only factor that influence cost.
6. There will be no change in the general price-level.
7. Productivity per worker and efficiency of plant, etc. remain unchanged.

4.2.8 Break -even point

The break- even point is the point at which total revenue is equal to total cost. It is a point of no profit, no loss. A business is said to break-even when its total sales are equal to its total costs. At this point, contribution equals to the fixed cost and hence this point is often called as ‘critical point’ or ‘equilibrium point’ or ‘balancing point’. If production or sales increased beyond this level, there shall be profit to the organisation and if it is decrease from this level, there shall be loss to the organisation.

Calculation or Break-even point (BEP)

There are two methods for calculating B.E.P. They are

- a) Algebraic method
- b) Graphic method.

A. Algebraic Method

Under this method,

B.E.P is ascertained in terms of units or in terms of Rupee value or as a percentage of installed capacity.

1. B.E.P in units: - B.E.P in units can be calculated with the help of following formula:

$$\text{B.E.P} = \frac{\text{Fixed cost}}{\text{Contribution per unit}}$$

2. B.E.P in Rupees: - B.E.P in unit can be calculated with the help of following formula:

$$\text{B.E.P Sales (Rupees)} = \frac{\text{Fixed cost} \times \text{Sales}}{\text{Contribution}}$$

Illustration 4.2.4

ABC Ltd. manufacturing a single product, incur variable cost of ₹ 450 per unit and fixed costs of ₹ 300,000 per month. If the product sells for ₹750 per unit, the breakeven point shall be calculated as follows:

Solution:



$$\text{Break-even point in units} = \frac{\text{Fixed cost}}{\text{Contribution per unit}}$$

Contribution per unit = Sales per unit - variable cost per unit.

$$= ₹750 - ₹450$$

$$= ₹300$$

$$\text{B.E.P} = \frac{₹300,000}{₹300}$$

$$= 1,000 \text{ units}$$

Note: If ABC Ltd produced 1,000 units, there will be no profit and no loss as shown below:

Sales 1000 unit × 750	= 750,000
Less: variable cost 1000 unit × 450	= <u>450,000</u>
Contribution	= 300,000
Less: Fixed cost	= <u>300,000</u>
Profit/Loss	Nil

Illustration 4.2.5

Fixed cost for the year is ₹ 90,000. The sales for the period are ₹ 600,000 and variable cost are amounted to ₹ 450,000. Calculate BEP Sales.

Solution:

$$\text{B.E.P Sales (Rupees)} = \frac{\text{Fixed cost} \times \text{Sales}}{\text{Contribution}}$$

Contribution = Sales - Variable cost

$$= ₹600,000 - ₹450,000$$

$$= ₹150,000$$

$$\text{BEP Sales} = \frac{90,000 \times 600,000}{150,000}$$

$$= ₹360,000$$

Illustration 4.2.6

Calculate BEP in unit and sales value.

Fixed cost ₹ 200,000, Selling price per unit ₹ 20. Variable cost per unit ₹10

Solution:

$$\text{B.E.P in units} = \frac{\text{Fixed cost}}{\text{Contribution per unit}}$$

$$\text{Contribution per unit} = ₹20 - ₹10$$

$$= ₹10$$

$$\text{B.E.P in units} = \frac{₹200,000}{₹10}$$

$$= 20,000 \text{ units}$$

$$\text{B.E.P in sales value} = 20,000 \text{ unit} \times 20$$

$$= ₹400,000$$

Illustration 4.2.7

Calculate P/V ratio and BEP.

Sale ₹ 8,00,000, Variable cost ₹ 5,60,000 Fixed cost ₹ 1,20,000

Solution:

$$\text{P/v ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

$$\text{Contribution} = ₹800,000 - ₹560,000$$

$$= ₹240,000$$

$$\text{P/v ratio} = \frac{240,000}{800,000} \times 100 = 30\%$$

$$\text{BEP Sales (Rupees)} = \frac{\text{Fixed cost} \times \text{Sales}}{\text{Contribution}}$$

$$= \frac{120,000 \times 800,000}{240,000}$$

$$= ₹400,000.$$

Note: BEP Sales can also be calculated with the help of P/V ratio by using following formula.

$$\text{BEP Sales (Rupees)} = \frac{\text{Fixed cost}}{\text{P/v ratio}}$$

This can be applied in above example

$$\text{BEP Sales (Rupees)} = \frac{\text{Fixed cost}}{\text{P/v ratio}}$$

$$= \frac{120,000}{30\%}$$

$$= \frac{120,000}{30} \times 100$$

$$= ₹4,00,000$$

Illustration 4.2.8

From the following information calculate BEP.

Fixed cost ₹40,000, Sales ₹150,000,

Direct material cost ₹ 55,000, Direct wages ₹35,000, Direct expenses ₹ 10,000

Solution:

Total Variable Cost = Direct material + Direct Wages + Direct expenses.

$$\begin{aligned} &= ₹55,000 + ₹35,000 + ₹10,000 \\ &= ₹100,000 \end{aligned}$$

Contribution = Sales - Variable cost

$$\begin{aligned} &= ₹150,000 - ₹100,000 \\ &= ₹50,000 \end{aligned}$$

$$\begin{aligned} \text{BEP Sales (Rupees)} &= \frac{\text{Fixed cost} \times \text{Sales}}{\text{Contribution}} \\ &= \frac{40,000 \times 150,000}{50,000} \\ &= ₹120,000 \end{aligned}$$

Illustration 4.2.9

Fixed cost for the year are Rs.60,000. The sales for the period are Rs.4,00,000 and variable cost are amounted to Rs.3,00,000. Calculate BEP Sales

Solution :

$$\begin{aligned} \text{BEP Sales (Rupees)} &= \frac{\text{Fixed cost} \times \text{Sales}}{\text{Contribution}} \\ &= \frac{60,000 \times 4,00,000}{1,00,000} \\ &= ₹2,40,000 \end{aligned}$$

At sales revenue ₹ 2,40,000, there will be no profit no loss as shown below :

Sales	₹ 2,40,000
Less : Variable Cost (3,00,000 * 2,40,000 / 4,00,000)	₹ 1,80,000
Contribution	₹ 60,000
Less : Fixed Cost	₹ 60,000
Profit or Loss	0

Illustration 4.2.10

Calculate (i) P/V ratio (ii) Profit when sales are ₹ 20,000

Additional Information

Fixed Cost ₹ 4,000

Break even point - ₹10,000

Solution :

$$(i) \text{Break - even point} = \frac{\text{Fixed cost}}{\text{P / v ratio}}$$

$$\text{P/V ratio} = \frac{\text{Fixed Cost}}{\text{Break - even point}}$$

$$\text{P/v ratio} = \frac{4,000}{10,000} \times 100 = 40 \%$$

$$(ii) \text{P/V ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

Contribution = P/V ratio × Sales

$$= 40 / 100 \times 20,000$$

$$= ₹8,000$$

Profit = Contribution – Fixed Cost

$$= ₹8,000 - ₹4,000$$

$$= ₹4,000$$

Calculation of Output to earn a desired amount of profit.

In order to calculate the output to earn a desired amount of profit, the following formula may be used:

Output to be sold to earn desired amount of profit =

$$\frac{\text{Fixed cost} + \text{desired amount of profit}}{\text{Contribution per unit}}$$

Illustration 4.2.11

Selling price per unit ₹ 100

Variable cost per unit ₹ 80

Fixed costs ₹ 160,000.

Calculate the number of units to be sold to earn a profit of ₹ 240,000

Solution:

Output to be sold to earn desired amount of profit =

$$\frac{\text{Fixed cost} + \text{desired amount of profit}}{\text{Contribution per unit}}$$

$$\text{Contribution per unit} = ₹100 - ₹80$$

$$= ₹20$$

$$\begin{aligned}\text{Output to be sold to earn desired amount of profit} &= \frac{160,000 + 240,000}{20} \\ &= 20,000 \text{ units.}\end{aligned}$$

Sales of 20,000 units will give a profit of ₹ 240,000 as shown below:

$$\text{Sales } 20000 \times 100 = 20,00,000$$

$$\begin{aligned}\text{Less: Variable cost } 20000 \times 80 &= \underline{16,00,000} \\ \text{Contribution} &= 4,00,000 \\ \text{Less: Fixed expenses} &= \underline{1,60,000} \\ \text{Profit} &= ₹ 2,40,000\end{aligned}$$

Calculation of Sales Value (Rupees) to earn a desired profit.

In order to calculate Sales Value to earn a desired amount of profit the following formula may be used:

Sales Value to earn desired amount of profit =

$$\frac{\text{Fixed cost} + \text{desired amount of profit}}{\frac{P}{V} \text{ ratio}} \times \text{Sales}$$

Illustration 4.2.12

$$\text{Sales} = ₹400,000$$

$$\text{Variable cost} = ₹ 280,000$$

$$\text{Fixed cost} = ₹ 80,000$$

Calculate the sales value required to earn a profit of ₹100,000

Solution:

$$\text{Contribution} = 400,000 - 280,000 = 120,000$$

Sales Value to earn a profit of ₹ 80,000 =

$$\frac{\text{Fixed cost} + \text{desired amount of profit}}{\text{Contribution}} \times \text{Sales}$$

$$= \frac{\text{₹}80,000 + \text{₹}1,00,000}{\text{₹}120,000} \times 4,00,000 \\ = \text{₹} 6,00,000$$

Note: Students can verify it by preparing a marginal cost statement:

Sale of ₹600,000 will give a profit of ₹ 100,000 as shown below.

Sales = 600,000

Less: Variable cost $\frac{280,000}{400,000} \times 600,000 = 420,000$

Contribution = 1,80,000

Less: Fixed expenses = 80,000

Profit = ₹ 1,00,000

Margin of safety

The excess of actual or present sales over the Break even Sales is known as Margin of safety.

It is the difference between Actual Sales and Break even sales. It is the volume of sales beyond the breakeven sales. A large margin of safety indicates the soundness of the business. Margin of safety may be expressed in sales revenue or as a percentage of sales. The following formula is used for calculation:

As a sales revenue:

Margin of safety = Total sales - Break even sales

As a Percentage of sales:

Margin of safety = $\frac{\text{Total sales} - \text{Break even sales}}{\text{Total sales}} \times 100$

Or

Margin of safety = $\frac{\text{Profit}}{\text{Total Contribution}} \times 100$

Illustration 4.2.13

Calculate Margin of Safety

Total Sales – ₹ 5,00,000 Sales at Break even Point = ₹ 2,00,000

Solution :

Margin of Safety = Total Sales – Break – even Sales

= ₹ 5,00,000 - ₹ 2,00,000

= ₹ 3,00,000

B. Graphic method of Break-even analysis /Break even Chart

Break even chart shows the break-even point, the amount of fixed cost and variable costs and the sales revenue at different volume of operations. The break-even point is the point at which the total cost line and the total sales line intersect.

Assumptions of break- even chart.

1. All costs are classified into fixed and variable costs.
2. Fixed cost remains constant at all levels of production.
3. Variable cost will change in direct proportion to the level of production.
4. Selling price remains constant.
5. The number of units of production is equal to sales, i.e., there is no opening or closing stock.
6. Management policy and level of efficiency do not change.

Break even chart is a graphical presentation of break- even analysis. Break-even point can be calculated by drawing a graph showing how fixed costs, variable costs, total costs and total revenue changes with the level of output.

Steps to be taken to construct the break-even chart

1. Sales volume is plotted on X-axis. (Sales may be expressed in terms of rupees, units or as a percentage of capacity.)
2. Cost and revenue are plotted on Y -axis.
3. Draw fixed cost line parallel to X-axis.
4. Draw total cost line starting from the point on the Y-axis which represent fixed cost.
5. Draw the sales line starting from the point of zero.
6. The point at which total cost line intersect total sales line is the break-even point.
7. Draw a perpendicular line to X-axis from break-even point. This represents the number units produced at break-even point.
8. Draw a perpendicular line to Y-axis from break-even point. This represents break-even sales.
9. The area between total cost line and total sales line below the BEP, represents loss and above the point represents profit.

The following illustrations explains the construction of break-even chart:

Illustration 4.2.14

Sales - 700 units

Selling price per unit - Rs. 10

Variable cost per unit - Rs. 8

Fixed cost - Rs. 1000

Solution:

Following statement is prepared before preparing the Break-even chart

Sales (units)	Variable cost in ₹ (unit × Variable cost per unit)	Fixed cost In ₹	Total cost In ₹	Total sales In ₹ (unit × Selling price per unit)
100	800	1000	1800	1000
200	1600	1000	2600	2000
300	2400	1000	3400	3000
400	3200	1000	4200	4000
500	4000	1000	5000	5000
600	4800	1000	5800	6000
700	5600	1000	6600	7000

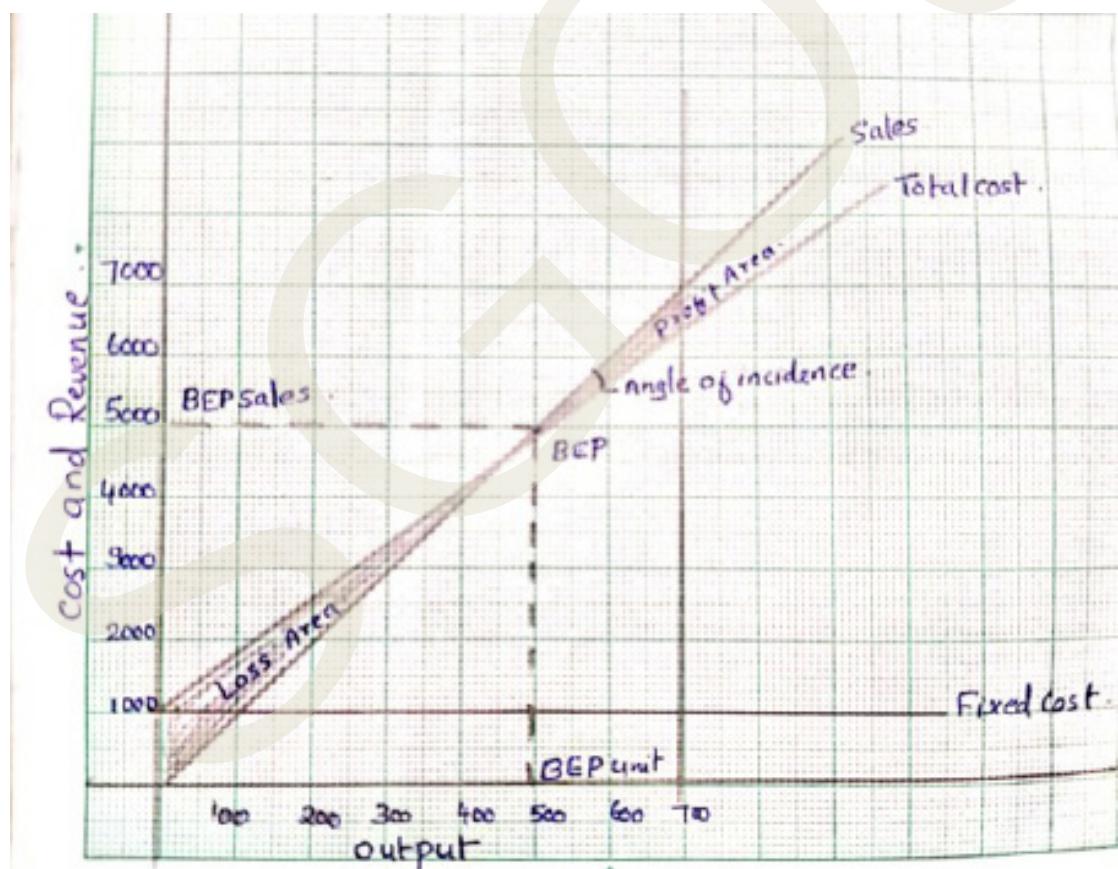


Fig 4.2.1 Break – even chart

Here, B.E.P in units is 500 units and B.E.P sales is ₹ 5000.

Angle of Incidence

Angle of incidence is the angle formed at Break-even point. It is the angle between sales line and total cost line at the B.E.P. It indicates the rate at which profits are being made. A large angle of incidence means the company is making profit at a higher rate. Similarly, a small angle suggests the profit is being earned at a lower rate.

Illustration 4.2.15

From the following data construct a break-even chart. Point out B.E.P, Angle of incidence, and Margin of safety.

Sales 7000 unit of ₹ 10 each,

Fixed costs ₹ 20,000,

Variable cost ₹ 6 per unit.

Solution:

Following statement is prepared before preparing the Break-even chart

Sales (units)	Variable cost In ₹ (unit × Variable cost per unit)	Fixed cost In ₹	Total cost In ₹	Total sales In ₹ (unit × Selling price per unit)
1000	6000	20000	26000	10000
2000	12000	20000	32000	20000
3000	18000	20000	38000	30000
4000	24000	20000	44000	40000
5000	30000	20000	50000	50000
6000	36000	20000	56000	60000
7000	42000	20000	62000	70000

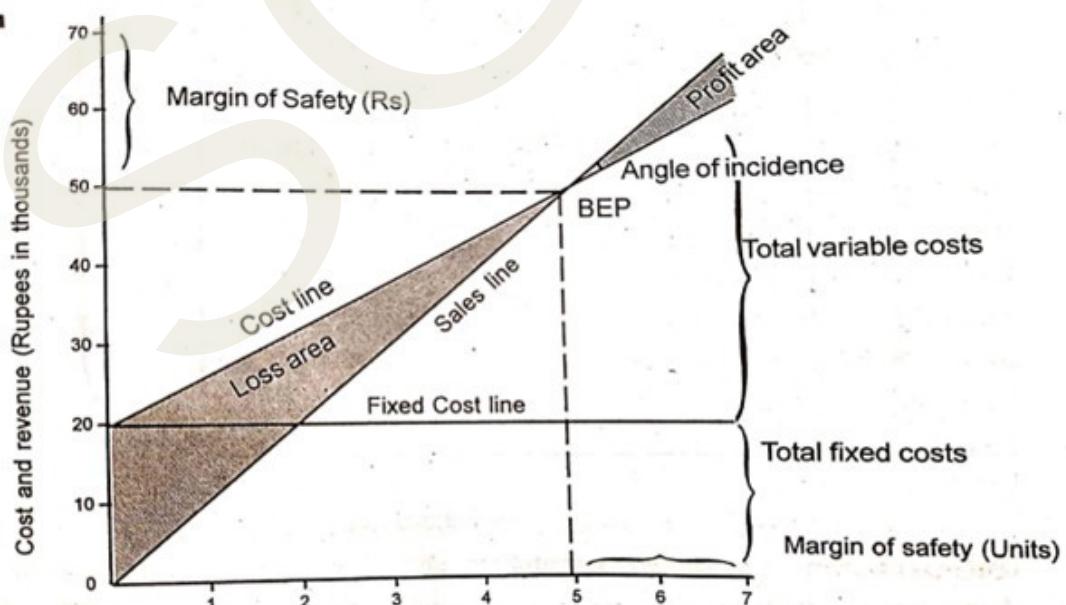


Fig 4.2.2 Output (units in thousands)

Advantages of break-even chart

Computation of cost, volume and profit relationship by way of break-even chart have the following advantages:

1. Information provided by the break-even chart is simple and clear to understand.
2. It is very useful for managerial decision making, because chart studies the relationship of cost, volume and profit at various levels of output.
3. It is very helpful for forecasting the costs and profits.
4. It serves as a tool of cost control.
5. It is a managerial tool for control of costs as it shows the relative importance of fixed cost in the total cost of a product
6. Besides determining the break-even point, it shows the profit at various levels of output.

Disadvantages of break - even chart

Despite many advantages, a break - even chart suffers from the following disadvantages:

1. Assumptions of break-even chart may not hold well under all circumstances. For example, fixed costs do not remain constant after a certain level of activity. Variable cost does not always vary in direct proportion to changes in the volume of output. Similarly selling prices do not remain same forever for all levels of output because of competition and change in the general price level etc.
2. Break – even chart provide only a limited information. For example, it provides information relating to fixed cost, variable cost, and sales.
3. Break-even chart ignores other important considerations such as the amount of capital investment, marketing conditions, government policy etc. These are important factors for measuring profitability.
4. Break-even chart present only a static view of the problem. In real life, business operations are changing.

Recap

- ◊ Cost volume profit analysis measures variations of costs and volumes and their impact on profit
- ◊ Contribution is an important component in marginal costing. It is the difference between sales and variable cost.
- ◊ Contribution varies in direct proportion with sales.
- ◊ P/V ratio is the relationship between contribution and sales expressed as a percentage.
- ◊ Under break even analysis, we study the relationship between sales volume, fixed cost and variable cost and determine the level of activity at which costs are equals to sales revenue.
- ◊ Break- even point is a point at which there is no profit, no loss and here total revenue is equal to total cost.
- ◊ Margin of safety is the volume of sales beyond the break-even sales.
- ◊ Break even chart is a graphical presentation of break- even analysis.
- ◊ Break-even chart shows break-even point, amount of fixed cost and variable costs and sales revenue at different volume of operation
- ◊ Angle of incidence is the angle between sales line and total cost line at the B.E.P and indicates the rate at which profits are being made.

Objective Questions

1. Under cost volume profit analysis what type of relationship lies in between cost and volume?
2. What is the difference between sales and variable cost?
3. Under Marginal costing what is the difference between contribution and profit?
4. Under Marginal costing what is the sum total of variable cost and contribution?
5. The ratio which shows the relationship between contribution and sales is called?
6. Under break- even analysis what is the only factor that influence cost?
7. What is the point at which there is no profit and no loss?
8. In break-even point what cost is equal to contribution?
9. What is the excess of actual sales over B.E.P sales?
10. What indicate the rate at which profit is being made?

Answers

1. Indirect relationship,
2. Contribution
3. Fixed cost
4. Sales
5. P/V ratio
6. Volume of production.
7. Break-even point
8. Fixed cost
9. Margin of safety
10. Angle of incidence

Self-Assessment Questions

1. What is Break –even point?
2. What is P/V ratio?
3. What is Angle of incidence?
4. What is contribution?
5. What is Margin of safety?
6. What is CVP analysis?
7. What do you mean by Break –even analysis?
8. Explain the uses of contribution.
9. What are the assumptions of break –even analysis?

Assignments

1. Discuss the concept of Break –even analysis, its assumptions, advantages and disadvantages
2. ABC Ltd present the following information
Fixed cost ₹ 100,000



Selling price per unit ₹30

Variable cost per unit ₹ 22

Calculate 1. BEP in units

2. No. of units to be sold to earn a profit of ₹ 12,000

3. Profit when sales are 15,000 units.

3. Following information are obtained from the costing record of PK Ltd.

	2020 amount (in ₹)	2021 amount (in ₹)
Sales	450,000	600,000
Profit	50,000	87,500

Calculate (a) P/V ratio, (b) Fixed cost, (c) BEP, (d) Profit when sales are ₹ 550,000, (e) Sales required to earn a profit of ₹ 100,000

4. Following information are obtained from the costing record of JR groups.

	2020 amount in ₹	2021 amount in ₹
Sales	250,000	270,000
Profit	200,000	214,000

Calculate: 1. BEP sales

2. Profit when sales are ₹ 300,000

3. Sales required to earn a profit of ₹ 65,000

4. Margin of safety for the two periods

5. From the following information, calculate (i) P/V ratio (ii) Break –even point

(iii) Margin of Safety

Total Sales - Calculate Margin of Safety

Total Sales – ₹ 7,20,000

Selling Price per unit - ₹ 200

Variable Cost per unit - ₹ 100

Fixed Cost - ₹ 2,00,000

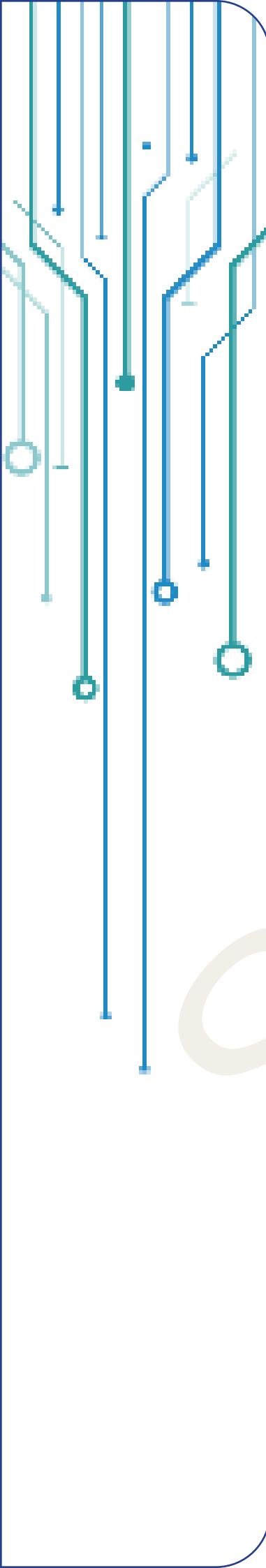
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5
BLOCK

Budgetary control



Unit 1

Overview of Budgetary Control

Learning Outcomes

After completing this unit, the learner will be able to;

- ◊ comprehend the concept of a budget.
- ◊ interpret the concept of budgeting.
- ◊ gain knowledge about the concept of budgetary control.
- ◊ identify the steps to take for budgetary control.

Prerequisites

Every year, our finance minister presents the budget for the country to the parliament. Similarly, all organisations prepare a budget for their plans. If we take the basic unit of the society, that is, the family, the housewife also prepares a budget for her family. She identifies the family's sources of income and plans how this income will be spent wisely on various expenses. In the same way, whenever we plan any activity involving income and expenditure, we use it to make a budget. For example, when we decide to construct a house, we make a detailed plan for its construction and create a budget which shows the source of our income and the expected expenses to be incurred for its construction. So, we can say that a budget is an action plan which shows the various sources of funds and their expenses.

We all know that planning and controlling are two important functions of management. These functions help an organization to achieve its goals. Planning states the way through which the objectives are going to be achieved. The function

of planning identifies the activities and the process of controlling regulates the activities. The success or failure of planning depends upon the result of the success or failure of controlling. All business enterprises use various control techniques to survive the highly competitive economic world. The budgetary control system is one of the important control techniques used by organisations for this purpose. This module presents a general view of budgeting and budgetary control systems.

Keywords

Budget, Budgeting, Budgetary control

Discussion

While we planning a birthday party with limited money in your pocket. First, you decide how much you can spend in total this is like setting a **budget**. Then you list what you need balloons, cake, gifts and decide how much to spend on each this is **budgeting**. As the day comes closer, you check if you are sticking to this plan and not overspending on any item this is **budgetary control**. In the same way, businesses plan, allocate and control their money to achieve financial goals. Let us study the each term in detail.

5.1.1 Budget

The word ‘budget’ has been derived from the French word ‘Bouquette’, which means a leather briefcase. Traditionally, budget documents, which include the papers related to revenue receipts and expenditure as well as the speech of the finance minister were carried in this briefcase. These budget documents are future financial plans expressed in terms of money for a definite period of one year. So, a budget is a financial plan expressed in terms of money. It is a detailed plan of action for a definite period. In business, the term budget may be defined as a statement which shows the expected income and expenditure for a definite future period.

According to CIMA, “A budget is a financial and/or quantitative statement prepared before a defined period, of the policy to be pursued during that period to attain a given objective.”

A budget is a detailed plan of operations for some specific future period. It is an estimate prepared in advance of the period to which it applies. It acts as a business barometer as it is a complete programme of activities of the business for the period covered.

According to Gordon and Shillinglaw, a budget may be defined as "a predetermined detailed plan of action developed and distributed as a guide to current operations and as a partial basis for the subsequent evaluation of performance."

- a. It is prepared in advance and is based on a plan of action.
- b. It relates to a future period and is based on objectives to be attained.
- c. It is a statement expressed in monetary and/or physical units prepared for the implementation of policy formulated by the management. For example, a budget may provide for a sale of Rs. 1,00,000 (i.e., monetary units) or for a sale of 10,000 units (i.e., physical units) or a sale of 10,000 units of R... 1,00,000 (i.e., both).

Different types of budgets are prepared by an industrial concern for different purposes. A Sales Budget is prepared for forecasting sales for a future period. A Manufacturing Cost Budget is prepared for forecasting the manufacturing costs. The Master Budget embodies forecasts for the sales and other incomes, for manufacturing, marketing and other expenses, for cash and capital requirements besides forecasting the figure of profit.

5.1.2 Budgeting

Budgeting simply means balancing our expenses with our income. If we don't balance and spend more than we make, we may have a financial problem. Many people don't realize that they spend more than they earn and slowly sink deeper into the debt trap every year. So, budgeting is a process of preparation, implementation, and operation of budgets. Thus, budgeting involves budget and budgetary control.

Budgeting is the process of planning, estimating, and allocating financial resources for a specific period to achieve organizational or personal financial goals. It involves forecasting income, setting expenditure limits, and monitoring financial performance to ensure efficient resource utilization.

In the words of Rowland and Harr, "Budgeting is the process of building budgets".

5.1.3 Meaning and definition of budgetary control

As we have stated earlier, budgeting includes budget and budgetary control. A budget is a planning function, and budgetary control is a controlling system. As a controlling system, budgetary control compares actual performance with budgeted figures. The comparison of actual performance with the budgeted figures enables management to find out the differences and take remedial measures at the proper time. Thus, budgetary control is a continuous process that includes the preparation of budgets, coordinating the departments, comparing actual performance with budgeted figures, and acting upon it to achieve maximum profitability.

According to Rowland and Harr, "budgetary control is a tool of management used to plan, carry out and control the operations of a business."

In short, budgetary control is the process of preparation and use of a budget to control a firm's activities. It is a system of controlling costs through budgeting.

The Chartered Institute of Management Accountants, London, defines budgetary control as "the establishment of budgets relating to the responsibilities of executives to the requirements of a policy, and the continuous comparison of actual with budgeted results, either to secure by individual action the objective of that policy or to provide a basis for its revision."

According to J.A. Scott, "It is the system of management control and accounting in which all operations are forecasted and, so far as possible, planned, and the actual results compared with the forecasted and planned ones."

It should be noted that a budget or a system of budgetary control is not something rigid. There is enough flexibility to provide initiative and drive but also caution against undue negligence.

5.1.3.1 Essentials of Effective Budgetary Control System. (Pre-requisites of a good budgetary control system)

The following are the essential conditions required for a sound budgetary control system:

1. Support of all employees

Budgeting is done for every segment of the business. So full support and wholehearted cooperation of every member of the organization is essential for an effective budgetary control system.

2. Clear and realistic objectives

Budgets are prepared to realise the objectives of the business. So, the objectives are to be clearly defined. In the absence of clear objectives, the budgets will also be unrealistic.

3. Budget Education

For successful budgeting, the employees must be given continuous budget education and orientation. They should be educated about their role in the success of this system.

4. Proper communication system

For budget education and orientation, the flow of information regarding the budget is essential. Similarly, the performance report of various levels will help the top management in budgetary control. So, an effective system of communication is required for successful budgetary control.

5. Proper delegation of authority and responsibility

The involvement of every person from all levels of management is essential for the success of a budget. Budgeting is not an individual activity, instead, it is a group effort. So proper delegation of authority and responsibility is needed.

6. Motivation

As budgets are implemented by human beings, proper motivation is needed to improve their interest. So, all persons should be motivated to participate and positively contribute towards the successful implementation of the budgeting process.

7. Flexibility

Budgets are prepared for the future, which is always uncertain. So, flexibility is required to make them suitable under changed circumstances.

8. Timely reporting

A timely reporting system enables management to identify the areas of failure and take remedial measures in time. So, a successful budgetary control system requires a prompt and timely reporting system.

5.1.3.2 Objectives of Budgetary Control

The basic objective of the budgetary control system is to achieve the goals of the organisation. The subsidiary objectives are given below:

1. To plan and control income and expenses to attain maximum profitability.

Budget is a planning device. As a planning device, budgets plan the incomes and expenses of an enterprise and express them in numerical terms. Planning generates the need for control. So, the implementation of the budget in itself is a control function.

2. To co-ordinate the activities of various departments of an organisation.

Subdivision of concern into various departments may lead to conflict between the decisions of various Managers. One of the objectives of budgeting is to avoid these conflicting decisions and guide every manager towards the common goal. Thus, budgeting coordinates the activities of various departments.

3. To eliminate waste of all kinds and increase profitability.

Budgeting aims at setting the targets and achieving these targets by putting the maximum effort and utilizing the available resources more productively. Thus, it eliminates waste of all kinds and increases profitability.

4. To fix the responsibility of all employees and various departments in the organisation.

Budgeting aims at fixing the responsibilities of every one of the executives and other personnel so that everyone knows what is expected of him and how he will be evaluated. Budgetary control is one of the few ways in which an objective assessment of personnel and departments is possible.

5. To improve the operational efficiency of various departments and cost centres.

Budgeting ensures the best use of all available resources to maximise profit or

production subject to the limiting factors. It improves the operational efficiency of various departments and cost centres.

6. To ensure that sufficient working capital is available for the efficient operations of the business.

Budgetary control anticipates future income and expenses. Anticipating future income and expenses ensures adequacy of cash availability and the presence of sufficient working capital.

5.1.3.3 Advantages of Budgetary Control

1. Maximise profit

Under a budgetary control system, all resources are put to the best use. Similarly, proper planning and coordination of different functions is undertaken. There is proper control over various capital and revenue expenditures. All these lead to the maximisation of profit.

2. Co-ordination

Co-ordination of executives and subordinates is enabled through the planning of an efficient budgeting system which will lead to the achievement of budgeted targets. So, the implementation of a budgeting practice will ensure the coordinated working of different departments and sectors.

3. Measure performance

By providing targets to different departments or divisions, the budgetary control system provides tools for measuring performance. This system compares the actual result with budgeted targets and deviations are determined. The performance of each department is reported to the top management.

4. Economy

It minimises wastage of all kinds and promotes efficiency. It also ensures optimum utilisation of resources. So, the national resources will be used economically and wastage will be eliminated.

5. Determining weakness

In budgetary control, we compare budgeted performance with the actual performance. This will enable the organisation to identify the weak areas and take remedial measures for the future.

6. Corrective action

Under budgetary control, system deviations will be regularly reported. This helps the management to take corrective actions whenever there are deviations in the performance.

7. Responsible

Under a budgetary control system, targets are fixed for every employee. Everybody knows what he is expected to do. By fixing targets, employees are conscious of their responsibility.

8. Introduction of Incentive schemes

Implementation of an incentive scheme is a very effective method of boosting the performance of employees in an organisation. The comparison of budgeted and actual performance enables the management to identify the areas where incentive schemes are to be introduced and thus ensure an efficient budgetary control system.

5.1.3.4 Limitations of Budgetary Control

Although the budgetary control system has many advantages, it is not free from limitations. The following are some of the limitations:

1. Uncertain future

The budgets are prepared for the future. The future is always uncertain. The change in future conditions upset the budgets which are prepared based on certain assumptions.

2. Budgetary revision required

Budgets are usually prepared based on certain assumptions. Because of future uncertainties, the prevailing assumptions may change. This necessitates the revision of budgetary targets. The frequent revisions will reduce the significance of targets.

3. Discourage efficient persons

Under this system, targets are fixed for every person. The common tendency of people is to achieve the target only. There may be some efficient people who can exceed the targets. They will feel contented by reaching the targets. So, the budget may discourage efficient people.

4. Conflict among different departments

Every departmental head worries about his department's goals ignoring the organisational goal. This may lead to a conflict of interest among the functional departments.

5. Expensive techniques

A budgetary control system requires the employment of specialised and expert staff. This will be expensive and the small concerns cannot afford it.

6. Requires continuous evaluation

A budgetary control system requires continuous evaluation of the actual performance which is not an easy affair. Continuous evaluation requires both time and cost. In the absence of continuous evaluation, the system will fail.

7. Employees' resistance

There is every chance for resistance from the part of the employees when a budgetary control system is implemented. Under the system, the performance of employees is continuously evaluated. The inefficient workers and executives may oppose the introduction of this system.

5.1.4 Budget, Budgeting and Budgetary Control

The following table shows a clear picture of the differences between budget, budgeting and budgetary control.

Table 5.1 Difference between budget, budgeting and budgetary control

Budget	Budgeting	Budgetary control.
◊ Is a blueprint of a plan expressed in quantitative terms.	◊ Is a technique for formulating budgets.	1. Refers to the principles, procedures and practices of achieving a given objective through budgets.
◊ budget is a plan	◊ It is a wide term and includes budgetary control, budget preparation, and using of budget reports.	2. It involves the preparation of a budget and comparison of actual performance and taking corrective action to improve efficiency.
	◊ Is done mainly by top management	3. Is done by the middle management.
	◊ It is the art of planning	4. It is the art of executing the plan.

5.1.5 Steps of budgetary control

The following steps are necessary for the installation of a budgetary control system:

1. A sound organisation

A sound and efficient organisation is essential for the successful preparation, maintenance and administration of budgets. For this, a budgetary committee is formed which comprises the various departmental heads. All the departmental heads are entrusted with the responsibility of ensuring proper implementation of their respective departmental budgets. An organizational chart of budgetary control is given below:



Figure 5.1.1 organizational chart

This chart shows the line of authority and responsibility in the organisation. The chief executive will have the overall charge of the budgetary system. He constitutes a budget committee for preparing realistic budgets. The budget officer is the convenor of the budget committee. He coordinates the budgets of different departments. The managers of different departments are responsible for their departmental budgets.

2. Establishment of a Budget centre

The budget centre is that part of the organisation for which the budget is prepared. It may be a department, a section of a department or any part of the department. For example, a sales budget is prepared for the sales department in which the sales department is a budget centre.

3. Establishment of budget manual

A budget manual is a document which spells out the routines and procedures for the preparation of budgets. It lays down the duties and responsibilities of various executives concerned with the preparation of budgets. A budget manual covers the following matters:

- ◊ Objectives of the budgetary control system. Also covers the benefits and principles of this system.
- ◊ Duties and responsibilities of various executives involved with the preparation and execution of budgets.
- ◊ Information about the sanctioning authorities of various budgets.

- ◊ A proper table for the budget including the sending of performance reports.
- ◊ The specimen forms and several copies are to be used for preparing the budget report.
- ◊ The length of various budget periods.
- ◊ The procedure to be followed in the entire budgeting system.
- ◊ The method of accounting to be adopted.

4. Appointment of budget officer

The Chief Executive Officer of the organisation appoints a person as the budget officer. The budget officer scrutinises the budget prepared by different functional heads and makes changes to it if the situation demands. The actual performance of different departments is communicated to the budget officer. He determines the deviations in the budgets and takes the necessary steps to rectify the deficiencies.

5. Formulation of the budget committee

In large-scale concerns, a committee known as the budget committee is formed. The heads of all important departments are members of this committee. The committee is responsible for the preparation and execution of budgets. The budget officer acts as the coordinator of this committee.

6. Determination of budget period

The budget period is the length of the period for which a budget is prepared. It may be different for different industries or even different within the same industry or business. There may be short-term budgets, medium-term budgets, or long-term budgets. The length of the budget depends on the requirements of each type of budget.

7. Determination of Budget factor or Key factor

The budgets are prepared for all functional areas. These budgets are interrelated. Proper coordination among different functional budgets is necessary for making budgetary control a success. The constraints on some budgets may affect other budgets too. A factor that influences all other budgets is known as a key factor or budget factor. For example, if the raw material supply is limited, then the production, sales, and cash budgets will be decided according to the raw materials budget. Similarly, plant capacity may be a key factor if the supply of other factors is easily available.

The key factor may not necessarily remain the same. It may be different for different departments or different at different points in time. This factor highlights the limitations of the enterprise. This will enable the management to improve the working of those departments where the scope for improvement exists. Thus, the determination of key factors is necessary for the implementation of a budgetary control system.

Recap

- ◊ Budget is a statement which shows the expected income and expenditure for a definite future period.
- ◊ Budgeting is the process of preparing budgets.
- ◊ Budgetary control is the process of preparation and use of a budget to control a firm's activities.
- ◊ Support of all employees, clear and realistic objectives, budget education, Proper delegation of authority and responsibility, motivation and timely reporting are the essential conditions required for an effective budgetary control system.
- ◊ Clear organization chart, budget center, budget manual, budget officer, budget committee, budget period, and determination of budget factor are needed for the installation of the budgetary control system in an organisation.

Objective Questions

1. What is a detailed plan of action for a definite future period called?
2. Name the part of the organisation for which separate budgets are prepared.
3. Name the document which spells out the routines and procedures for the preparation of budgets.
4. Which document lays down the duties and responsibilities of various executives concerned with the budgets?
5. Who scrutinises the budget prepared by different functional heads?
6. Who is responsible for the preparation and execution of budgets?
7. Who acts as the co-ordinator of the budget committee?
8. A factor which influences all other budgets is known as what?

Answers

1. Budget
2. Budget center
3. Budget manual



4. Budget manual
5. Budget officer
6. Budget committee
7. Budget officer
8. Key factor or budget factor)

Assignments

1. Discuss how effective budgeting can lead to better resource allocation in an organization.
2. Differentiate between Budget and Budgeting in terms of purpose and application.
3. Provide an example of a company using budgetary control and explain its benefits.
4. Apply the steps of budgetary control to a hypothetical business scenario and analyze the outcome.
5. Provide a case study of an organization where poor budgeting led to financial issues.

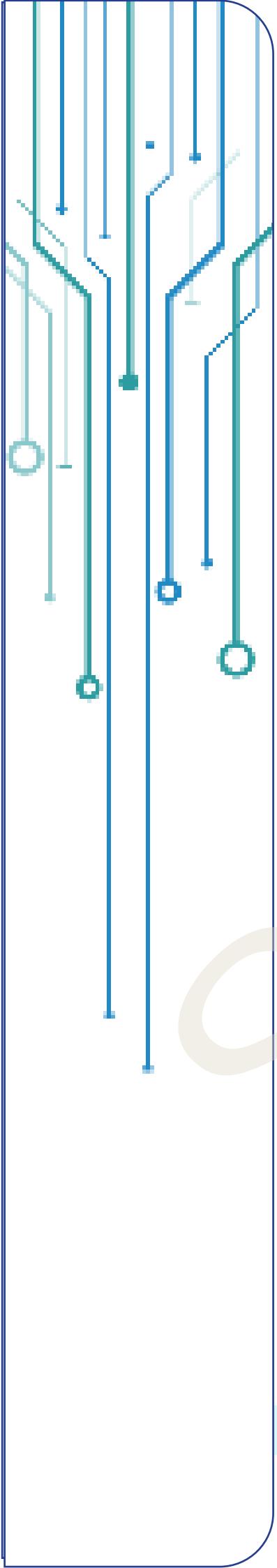
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Unit

Types of Budgets

Learning Outcomes

After completing this unit, the Learner will be able to;

- ◊ Gain knowledge different types of budgets
- ◊ Identify the basis of classification of budget.
- ◊ Recognize the concept of master budget
- ◊ Get an experience of preparation of various budget.

Prerequisites

Karthika runs a small but growing bakery in her town. To manage her business properly, she starts by preparing different budgets, a sales budget to forecast the number of cakes she expects to sell, a production budget to decide how many cakes to bake, a purchase budget for buying ingredients like flour, sugar, and butter, and a labour budget to plan staff wages. These individual budgets are then combined into a master budget, which gives her a complete overview of her expected costs, revenues, and profits for the month. This organised approach not only helps her avoid waste and overspending but also prepares her to meet customer demand, showing why budgeting is an essential part of running any successful business.

Prerequisites

Master budget, flexible budget, fixed budget, cash budget, purchase budget, sales budget

Discussion

A local garment factory is getting ready for the festive season when customer demand usually rises sharply. To plan effectively, the factory owner prepares a sales budget to estimate how many shirts and trousers will be sold. Based on this, a production budget is made to decide how many garments need to be stitched. Next comes the materials budget for buying cloth, thread, and buttons, along with a labour budget to allocate wages for tailors and helpers. All these detailed plans are finally brought together in a master budget, giving a clear picture of the factory's overall costs, income, and expected profit. This step-by-step budgeting process ensures the factory runs efficiently, meets customer demand on time, and avoids unnecessary expenses, highlighting the importance of preparing different types of budgets in any business. Let us study the different types of budgets in detail.

5.2.1 Budget classification

Budgets are generally classified according to their nature. The following chart gives a clear picture about the different types of budgets:

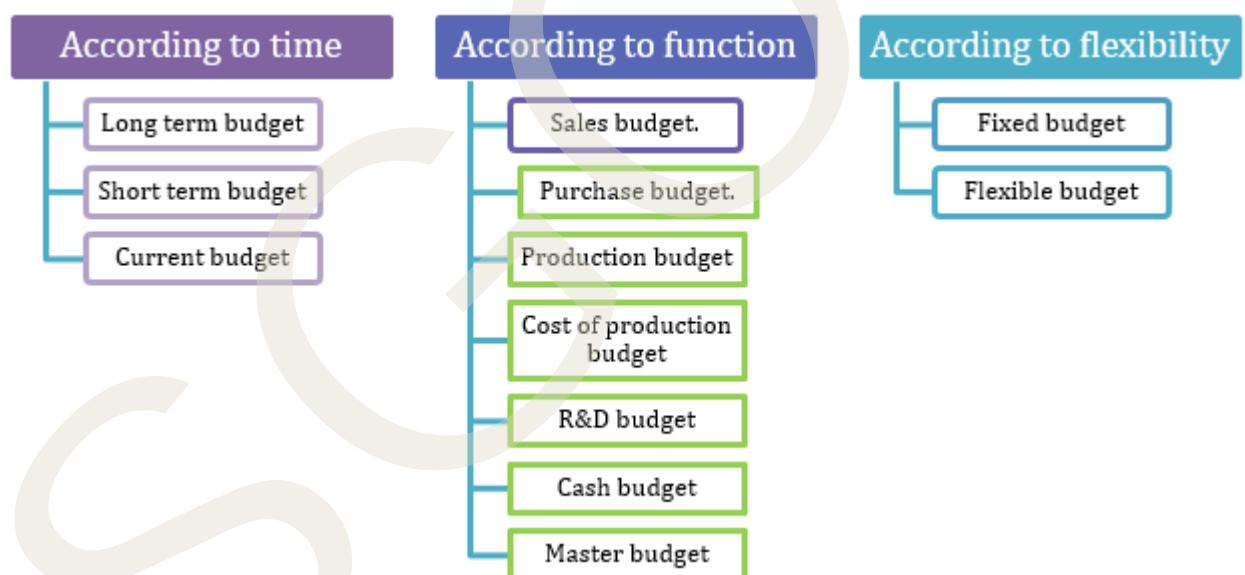


Fig 5.2.1 Types of budgets

A. Classification according to time

- Long term budget:** Long term budgets are prepared for the long-term planning of the business. The period of this budget varies from 5 to 10 years. Capital expenditure budget, long term finance budget, Research and development budget, etc. are examples for long term budget. The industries which have long gestation period, e.g., electricity industries, engineering industries, etc. adopt this type of budget.

2. **Short term budget:** - Short term budgets are prepared for a period of one year or less than one year. Cash budget, material budget, etc. are examples for this budget. Industries like cotton, sugar, textiles, etc. use this type of budget.
3. **Current budget:** - Current budgets are prepared for the current period and related to current conditions. It is prepared for a very short period of time say, a month or a week.

B. Classification according to Functions

1. Sales budget

Sales budget is concerned with the estimation of expected sales during a budgeted period. This budget is the nerve centre or back bone of the enterprise. Sales budget is the starting on which all other budgets are prepared. The preparation of sales budget is the responsibility of sales manager. He considers the following factors while preparing the sales budget:

- a. Past sales figures - Past sales figures enable the determination of trends of sales.
- b. Assessment and reports by salesmen - Salesmen are in touch with the market and customers. So, they are the appropriate persons for estimating the demand.
- c. Availability of raw materials - In some cases, raw material is a key factor. In such cases the availability of raw material enables the sales manager to anticipate the sales figures.
- d. Availability of finance - In some cases, finance is a key factor. In such cases financial aspect should be considered while preparing the sales budget.
- e. Plant capacity - The goods will be sold only when they are produced. So, the plant capacity should also be considered while preparing the sales budget.
- f. Seasonal fluctuations: - Sometimes the demand for goods may be more while they may be less in other times. So, seasonal fluctuations are also considered while preparing the sales budget.

2. Purchase budget

A purchases budget is concerned with the amount of inventory that a company must purchase during each budget period. These budgets are commonly used by retailers or wholesalers, who do not manufacture their own goods. The factors to be taken in to account while preparing the purchase budget are:

- a. Opening balance - If there is already be sufficient units on hand at the beginning of the budget period, the number of units to be purchased can be reduced.
- b. Service level - If the management wants to keep more units on hand to meet short-term customer needs, it may be necessary to increase the number of units purchased.
- c. Product termination – The factor of product termination is also considered while preparing purchase budget. Purchase budget shows the number of units needed through the termination date. If new products are to be bought in place of terminated products, the purchase budget should indicate the timing of those

purchases, which should correspond to the roll-out dates of the new products.

- d. Availability of cash usage – The availability of cash is also considered while preparing the purchase budget.

3. Production budget

Production budget is concerned with the number of units to be produced and also for the cost to be incurred on material, labour and factory overheads. Two important considerations involved in the preparation of production budget are:

- a. What is to be produced?
- b. When it is to be produced?

Preparation of production budget involves:

- i. Production planning - Number of units to be produced are decided. The optimum plant capacity, avoidance of bottlenecks due to shortage of material and labour, etc. are considered while preparing the production plan.
- ii. Consideration of plant capacity – While preparing a production plan, consideration need to be given for the maximum capacity of the plant. The determination of the plant capacity should be realistic, otherwise it may lead to production of wrong volume of output.
- iii. Consideration of sales budget – Production budget depends to a very great extent on sales budget. When the products produced could not be sold out in the market, the whole process of budgeting will fail.
- iv. Stock quantity to be held: - While fixing production target, the required closing stock figures will be added to the estimated sales figures and opening stock figures will be deducted from it.

4. Cost of production budget

Cost of production budget is prepared on the basis of production budget. When the units of production budgets are converted in to monetary terms, it become a cost of production budget. The physical units are broken into various elements, i.e., material, labour and overheads. The material cost, labour cost and overheads required for production are totalled together to make it a cost of production budget.

5. Research and development budget

Research and development budget is concerned with the estimation of all costs including material, labour, and overhead associated with discovering new knowledge and translating research findings into plans or designs for new products. This budget helps the companies to decide what percentage of their revenue is to be allocated for their research and development programmes.

6. Cash budget

Cash budget is concerned with the estimation of cash receipts and disbursements during a future period of time. This budget analyses the inflow and outflow of cash in a

business over a future period of time. Preparation of cash budget have many advantages. They are as follows:

- a. It ensures that sufficient cash is available in the business to meet various business expenses.
- b. As it gives advance information of cash shortage, advance financial arrangement is possible.
- c. It helps the concern to get bank loans more easily.
- d. It enables profitable investment of surplus cash.
- e. It helps the concerns to have a proper control over cash.

7. Master budget

Master budget is an integration of all other functional budgets. It is prepared after all functional budgets have been prepared. This is prepared by the budget officer and requires the approval of the budget committee before it is put into operation. This budget is used to co-ordinate the activities of various functional departments.

According to CIMA Master Budget is “the summary budget incorporating its component functional budgets and which is finally approved, adapted and employed”

C. Classification according to flexibility

1. Fixed budget

Budgets which remain unchanged irrespective of the volume of output or level of activity is called fixed budget. These budgets are prepared for a definite level of activity and not adjusted according to the level of activity attained. Fixed budgets are suitable under static conditions and has the following limitations:

- a. It cannot be used as an effective tool for cost control.
- b. It cannot be used for comparing actual cost with budgeted cost.
- c. It cannot be used for cost ascertainment and cost control.
- d. It does not involve a detailed analysis of cost into fixed, variable and semi variable elements.

2. Flexible budget

Budgets which consist of a series of budgets for different level of activity are called flexible budgets. It is designed to change in accordance with the level of activity attained. Flexible budget involves a detailed analysis of cost into fixed, variable and semi variable elements. It is also called ‘variable budget’ or ‘sliding scale budget’.

Flexible budget is more suited in the following situations:

- i. Where the level of activity changes from time to time.
- ii. When the forecasting of demand is uncertain.
- iii. Where the undertaking operated under conditions of shortage of materials, labour etc.

iv. Where the output is affected by the seasonal nature of the industry.

The features of flexible budget are given below:

- It facilitates comparison of actual performance with budgeted level of output.
- It is prepared for different level of activities.
- It involves a detailed analysis of cost.

Advantages of flexible budget:

- It facilitates comparison of actual performance with budgeted level of output.
- It is a useful device for cost control.
- It is useful for fixing price and preparing quotations.
- It facilitates product planning and profit planning.
- It is useful for unpredictable conditions.

From the above discussions it is clear that flexible budgets are more realistic, useful and practical.

Table 5.2.1 Difference between fixed budget and flexible budget

Fixed budget	Flexible budget
◊ It is prepared on the assumption that business conditions do not change	◊ It is prepared on the assumption that business conditions change.
◊ It remains the same even if the volume of output is changed	◊ Suitable adjustments are made if the situation so demand.
◊ Cost is not classified according to their behaviour	◊ Cost is classified according to their behaviour.
◊ Comparison between actual result and budgeted figures is not possible.	◊ It facilitates comparison of actual results with budgeted figures.
◊ Forecasting of accurate result is difficult	◊ Forecasting of accurate result is possible, because it clearly shows the impact of expenses on operation.
◊ Not used for cost control	◊ Used for cost control.
◊ Not used for price fixation	◊ Used for price fixation.
◊ Prepared for single level of activity.	◊ Prepared for different level of activities.

5.2.2 Preparation of Various budgets

In the above session we had learned about different types of budgets. Now let

us discuss about their preparations. However, we limit our discussion only on the preparation of the following important types of budgets:

1. Flexible budget,
2. Purchase budget,
3. Sales budget and
4. Cash budget

5.2.2.1 Preparation of Flexible budget

Preparation of flexible budget involves the following steps:

1. First of all, decide on the range of activity for which the budgets are prepared,
2. Prepare budget for the normal level of activity,
3. Decide fixed, variable and semi-variable costs,
4. Segregate semi-variable cost into fixed and variable,
5. Take fixed cost at the same figure as in the normal level of activity,
6. Calculate variable cost for each level of activity by multiplying the quantity of output with the variable cost per unit, and
7. Prepare budget for each level by adding fixed cost and variable cost.

Illustration 1

The following information at 50% capacity is given. Prepare a flexible budget and forecast the profit or loss at 60%, 70% and 90% capacity.

	Expenses at 50% capacity
Fixed expenses:	
Salaries.	100,000
Rent and Taxes	80,000
Depreciation	120,000
Administrative expenses.	140,000
Variable expenses:	
Materials.	400,000
Labour.	500,000
Others.	80,000
Semi- Variable expenses:	
Repairs	200,000
Indirect labour	300,000
Others	180,000

It is estimated that fixed expenses will remain constant at all capacities. Semi-variable expenses will not change between 45% and 60% capacity, will rise by 10% between 60% and 75% capacity, a further increase of 5% when capacity crosses 75%.

Estimated sales at various levels of capacity are:

Capacity	Sales
60%	2,200,000
70%	2,600,000
90%	3,000,000

Solution

Flexible budget (showing profit and Loss at various capacities.)

Particulars	50% capacity Rs.	60% capacity Rs.	70% capacity Rs.	90% capacity Rs.
Fixed expenses:				
Salaries.	100,000	100,000	100,000	100,000
Rent and Taxes	80,000	80,000	80,000	80,000
Depreciation	120,000	120,000	120,000	120,000
Administrative expenses.	140,000	140,000	140,000	140,000
Variable expenses:				
Materials.	400,000	480,000	560,000	720,000
Labour.	500,000	600,000	700,000	900,000
Others.	80,000	96,000	112,000	144,000
Semi- Variable expenses:				
Repairs	200,000	200,000	220,000	230,000
Indirect labour	300,000	300,000	330,000	345,000
Others	180,000	180,000	198,000	207,000
Profit (+) or Loss (—)	2,100,000	2,296,000	2,560,000	2,986,000
Profit / Loss		— 96,000	+ 40,000	+ 14,000
Estimate Sales		2,200,000	2,600,000	3,000,000

Working notes:

Fixed expenses remain constant at all capacities.

Variable expense calculation



	60%	70%	90%
Material	$400,000 \times \frac{60}{50} = 480,000$	$400,000 \times \frac{70}{50} = 560,000$	$400,000 \times \frac{90}{50} = 720,000$
Labour	$500,000 \times \frac{60}{50} = 600,000$	$500,000 \times \frac{70}{50} = 700,000$	$500,000 \times \frac{90}{50} = 900,000$
Others	$80,000 \times \frac{60}{50} = 96,000$	$80,000 \times \frac{70}{50} = 112,000$	$80,000 \times \frac{90}{50} = 144,000$

3. Calculation of semi variable expenses.

	60%	70%	90%
	Semi variable expenses will not change	10% increased	15% increase
Material	200,000	$200,000 + 10\% = 220,000$	$200,000 + 15\% = 230,000$
Labour	300,000	$300,000 + 10\% = 330,000$	$300,000 + 15\% = 345,000$
Others	180,000	$180,000 + 10\% = 198,000$	$180,000 + 15\% = 207,000$

Illustration 2

Passion Ltd produced an article at a capacity level of 5000 units is given below. For a variation of 25% in capacity above or below this level, the individual expenses vary as given below:

	Amount	% Varying
Material cost	75,000	100%
Labour	45,000	100%
Power	3,750	80%
Repairs and Maintenance	6,000	75%
Stores	3,000	100%
Inspection	1,500	20%
Depreciation	30,000	100%
Administrative overhead	15,000	25%
Selling overhead.	9,000	50%

Cost per unit Rs. 37.65

Find the unit cost of the products under each individual expenses at production levels of 4,000 units and 6000 units.

Solution:

Expenses	4,000 units		5,000 units		6,000 units	
	Per unit	Total	Per unit	Total	Per unit	Total
Material cost	15.00	60,000	15.00	75,000	15.00	90,000
Labour	9.00	36,000	9.00	45,000	9.00	54,000
Prime cost	24.00	96,000	24.00	120,000	24.00	1,44000
Power	0.79	3150	0.75	3,750	0.73	4,350
Repairs & Maintenance.	1.28	5100	1.20	6,000	1.15	6,900
Stores	0.60	2400	0.60	3,000	0.60	3,600
Inspection	0.36	1440	0.30	1,500	0.26	1560
Depreciation	7.5	30,000	6.00	30,000	5.00	30,000
Works cost	34.53	138,090	32.85	164,250	31.74	190,410
Administrative O/h	3.56	14,250	3.00	15,000	2.63	15,750
Cost of production	38.09	152,340	35.85	179,250	34.37	206,160
Selling overhead.	2.02	8,100	1.8	9,000	1.65	9,900
Total cost	40.11	160,440	37.65	188,250	36.02	216,060

Working notes:

1. Material and labour cost varying 100%.

So, material cost for 4000 units = $15 \times 4000 = 60,000$,

For 6000 units = $15 \times 6000 = 90,000$

Labour cost per for 4000 units = $9 \times 4000 = 36,000$,

For 6000 units = $9 \times 6000 = 54,000$



2. 80% of 3750 of power is varying, i.e., ₹ 3,000. The remaining 20% i.e., 750 will be fixed. For 4000-unit variable expenses will be $\frac{3000}{5000} \times 4000 = 2400$

Total power charge for 4000 units will be $750 + 2400 = 3150$

for 6000-unit variable expenses will be $\frac{3000}{5000} \times 6000 = 3600$

Total power charge for 6000 units will be $750 + 3600 = ₹ 4350$

(Note: Above calculation will be repeated in case of Repairs & Maintenance, Stores, Inspection, Administration o/h and selling overhead also)

3. In case of depreciation 100% is fixed. So, for 4000 units and in 6000 units, Total cost is ₹30,000

Illustration 3

From the following data prepare a flexible budget for overhead expenses on the basis of the following data and determine the overhead rates at 70%, 80% and 90% plant capacity:

	At 70% ₹	At 80% ₹	At 90% ₹
Variable overhead:			
Indirect labour.	--	36,000	--
Stores including spares.	--	12,000	--
Semi-variable overheads:			
Power 30% fixed	--	60,000	--
Repairs and maintenance 60% fixed	--	6000	--
Fixed overheads:			
Depreciation	--	33,000	--
Insurance	--	9,000	--
Salaries	--	30,000	--
Total overhead	---	62,000	--
Estimated direct labour hours.	--	130,000 hours	--

Solution

	70% capacity	80% capacity	90% capacity
Variable overhead:			
Indirect labour.	31,500	36,000	40,500
Stores including spares.	10,500	12,000	13,500
Semi-variable overheads:			
Power 30% fixed	18,000	18,000	18,000
70% variable	36,750	42,000	47,250
Repairs and maintenance 60% fixed	3,600	3,600	3,600
40% variable	2,100	2,400	2,700
Fixed overheads:			
Depreciation	33,000	33,000	33,000
Insurance	9,000	9,000	9,000
Salaries	30,000	30,000	30,000
Total overhead	174,450	186,000	197,550
Estimated direct labour hours.	113,750hrs	130,000hours	146,250hrs
Overhead rate per hour = $\frac{\text{Total overhead}}{\text{Labour hours}}$	₹1.53	₹1.43	₹1.35

Working notes:

Semi-variable overhead:	80% capacity	70% capacity	90% capacity
Power 30% fixed	$= 60000 \times 30\% = 18,000$	18,000	18,000
70% variable	$= 60000 \times 70\% = 42,000$	$42000 \times 70/80 = 36,750$	$42000 \times 90/80 = 47250$

Note: Above calculation will be repeated in case of repairs and maintenance.

5.2.2.2 Preparation of Purchase budget

While preparing purchase budget it is to be kept in mind that:

Quantity to be purchased

= Quantity required for consumption + Closing stock — opening stock

Illustration 4

Two kinds of material X and Y are required for producing a product. Estimated consumption of these materials during a period are: X- 55,000 Kg and Y -70,000 kg.

Estimated opening stock are:

X- 7000 Kg Y- 7500 Kg

Desired closing stock are:

X- 5000 Kg Y- 10000 Kg

Cost per Kg. of material X is ₹ 5 and Y is ₹ 3. Prepare material purchase budget.

Solution:

	Material X Kg	Material Y Kg
Estimated consumption	55,000	70,000
Add desired closing stock	5,000	10,000
	60,000	80,000
Less: Opening stock	7000	7500
Quantity to be purchased	53,000	72,500
Price per kg	₹ 5	₹ 3
Cost of purchase= Quantity× Price	₹ 265,000	₹ 217,500

5.2.2.3 Preparation of Sales budget

While preparing Sales budget we consider past sales figures, assessment and reports by salesmen, availability of raw materials, seasonal fluctuations, availability of finance and plant capacity.

Illustration 5

Following figures are submitted by ABC Ltd for the product of 'X 'for the second quarter of 2020:

Sales:

April 40,000 units

May 50,000 units

June 60,000 units

Selling price per unit - ₹ 100

Target for the second quarter of 2021

Sales quantity will increase by 15%.

Selling price will increase by 10%

Prepare sales budget for the 2nd quarter of 2021

Solution:

Sales budget for the 2nd quarter of 2021

(Selling price per unit: $100 + 10\% = ₹110$)

Month	Units		Amount
April	46,000	(40000 + 15%)	5,060,000
May	57,500	(50000 + 15%)	6,325,000
June	69,000	(60000 + 15%)	7,590,000
Total	172,500		18,975,000

Illustration 6

Mr. Anand Manufactures two types of products 'A' and 'B' and sell them in Calicut and Ernakulum markets. The following information is made available for the current year:

Market	Product	Budgeted sales	Actual sales.
Calicut.	A	400 at ₹ 9 each.	500 at ₹ 9 each.
	B	300 at ₹ 21 each	200 at ₹ 21 each
Ernakulum	A	600 at ₹ 9 each	700 at ₹ 9 each
	B	500 at ₹ 21 each	400 at ₹ 21 each

Market studies reveals that product 'A' is popular as it is under-priced. It is observed that if its price is increased by ₹ 1 it will find a ready-made market. On the other hand, product 'B' is overpriced and market could absorb more sales if its selling price is reduced to ₹ 20. The management has agreed to give effect to the above price changes.

On the above basis, the following estimates have been prepared by sales Manager:

	% Increase in sales	Over current budget
Product 'A'	Calicut	Ernakulum
	+10%	+5%
Product 'B'	+20%	+10%

With the help of an intensive advertisement campaign, the following additional sales above the estimated sales of sales manager are possible:

	Calicut	Ernakulum
Product 'A'	60 units	70 units
Product 'B'	40 units	50 units

You are required to prepare a sales budget incorporating the above estimates.

Solution:

Place	Product	Budget for the current year			Actual sales			Budget for the future period		
		units	Price	Value	units	price	value	units	price	value
Calicut	A	400	9	3,600	500	9	4,500	500	10*	5000
	B	300	21	6,300	200	21	4,200	400	20*	8000
	Total	700		9,900	700		8,700	900		13,000
	A	600	9	5,400	700	9	6,300	700	10*	7000
	B	500	21	10,500	400	21	8,400	600	20*	12,000
	Total	1,100		15,900	1,100		14,700	1,300		19,000
Ernakulum	A	1000		9,000	1,200		14,800	1200		12,000
	B	800		16,800	600		12,600	1000		20,000
	Total sales	1,800		25,800	1,800		27,400	2,200		32,000

Working Notes

Computation of Budgeted sale for Calicut

	Product A	Product B
Budgeted	400	300
Add increase	10% = <u>40</u>	20% = <u>60</u>
	440	360

Add: increase due to

Advertisement	<u>60</u>	<u>40</u>
	500 units	400 units

Computation of Budgeted sale for Ernakulum

	Product A	Product B
Budgeted unit	600	500
Add increase	$5\% = 30$	$10\% = 50$
	630	550
Add: increase due to		
Advertisement	<u>70</u>	<u>50</u>
	700 units	600 units

* Budgeted selling price per unit is given in the question.

5.2.2.4 Preparation of Cash budget

We have already seen that cash budget analyses the inflow and outflow of cash in a business over a future period of time. It is prepared only after all the other functional budgets are prepared.

There are 3 ways of preparing cash budget:

1. The receipt and payment method.
2. The adjusted profit and loss method.
3. The balance sheet method.

Receipt and payment method is the most widely used method. So, we limit our discussion only to this method. Under this method, all actual possible cash receipt and payments for the budgeted period are considered.

Illustration 7

From the following information prepare a cash budget for the quarter ending 30th June 2021:

Month	Sales	Purchases	Wages	Expenses
January	40,000	22,500	10,000	2,500
February.	40,000	20,000	9,000	3,000
March.	40,000	21,000	11,000	3,000
April.	45,000	25,000	12,000	3,500
May.	42,500	22,500	10,000	3,000
June.	40,000	17,500	9,000	2,500

Additional information

1. Advance payment of income tax in May ₹ 2,000. Purchase of plant in April ₹ 5,000
2. Rent ₹ 150 payable each month not included in the expenses.
3. 10% of purchase and sales are in cash terms.
4. Credit purchases are paid after one month and credit sales are collected after 2 months.
5. Time lag in wages and expenses $\frac{1}{2}$ month
6. Cash and bank balances on April 1, ₹ 6,500.

Solution:

Cash budget for the quarter ended 30th June 2021

	April ₹	May ₹	June ₹
Receipts:			
Opening balance	6,500	5,700	4800
Cash sales.	4,500	4,250	4000
Receipts from debtors	36,000	36,000	40,500
	47,000	45,950	49,300
Payments:			
Cash purchases	2,500	2250	1750
Payment to creditors	18,900	22,500	20,250
Wages	11,500	11,000	9,500
Expenses	3250	3250	2750
Advance tax.	---	2000	---
Rent.	150	150	150
Purchases of plant.	5,000	--	--
Closing balance (Total receipt — Total purchases)	41,300	41,150	34,400
	5,700	4,800	14,900

Working notes:

1. Cash sales: - Since 10% of sales are in cash terms, in April, cash sale = $45,000 \times 10\% = 4,500$. Cash sale for May and June can be calculated in the same manner.
2. Receipt from debtors: - Since credit sales are collected after 2 months; in April 90% (credit) of sale of February ₹ 40,000, i.e., ₹ 36,000 will be collected. The receipts from debtors for May and June can be collected in the same manner.

3. Cash purchases: - Since 10% of purchases are in cash terms, in April,

$$\text{Cash purchase} = 25,000 \times 10\% = 2,500.$$

Cash purchases for May and June can be calculated in the same manner.

4. Payment to creditors: - Since credit purchase are paid after one month, in April 90% (credit) of purchases of March ₹ 21,000, i.e., ₹ 18,900 will be paid. The payment to creditors for May and June can be calculated in the similar way.

5. Payment of wages and expenses: - Since the time lag in the payment of wages and expenses is $\frac{1}{2}$ month

$$\frac{1}{2} \text{ month of wage in March } 11,000 \div 2 = 5,500$$

$$\text{Add: } \frac{1}{2} \text{ month of wage in April } 12,000 \div 2 = 6,000$$

Total 11,500 will be paid in April

Payment of wage for the remaining months can be calculated on the similar basis. The payment of expenses can also be calculated in the similar manner.

Illustration 8

From the following information prepare cash budget for the three months starting on 1st October 2021 when there was a cash balance of ₹ 33,000.

Month	Sales	Purchase	Wages	Overheads
August	480,000	270,000	90,000	96,000
September	540,000	390,000	99,000	102,000
October	510,000	330,000	84,000	114,000
November	690,000	510,000	105,000	120,000
December	750,000	480,000	108,000	132,000

Additional information:

- ◊ A new plant costing ₹ 150,000 is to be installed in August, 20% is payable on delivery.
- ◊ Tax amounting to ₹ 75,000 is to be paid on 1st September 2021.
- ◊ Dividend from investments amounting to ₹ 45,000 is expected on 1st December.
- ◊ 50% of the sales are on credit, the period of credit being 1 month.
- ◊ Period of credit allowed by suppliers is 2 months.
- ◊ 25% of overheads can be settled in the month following their incidence.
- ◊ Wages are disbursed on the first working day of the following month.

Solution

Cash Budget for 3 months from October to December



	October	November	December
Receipt:			
Opening balance.	33,000	78,000	55,500
Cash sales.	255,000	345,000	375,000
Receipts from debtors.	270,000	255,000	345,000
Dividend from investments	--	--	45,000
	558,000	678,000	820,500
Payments:			
Payments to creditors			
Purchase of plant	270,000	390,000	330,000
Wages	--	30,000	--
Overheads	99,000	84,000	105,000
Tax.	111,000	118,500	129,000
	----	--	75,000
	480,000	622,500	639,000
Closing balance	78,000	55,500	181,500

Working notes: -

1. Wages

Wages are disbursed on the first working day of the following month. So Wages in the month of September i.e. ₹ 99,000 is paid in the month of October. Similarly wage of October is paid in November and so on.

2. Overheads

Since 25% of the overhead are settled in the next month, 75% are paid in the month itself.

So overhead of October = 25% of overhead of September + 75% of overhead of October

$$\begin{aligned}
 &= 102,000 \times 25\% + 114,000 \times 75\% \\
 &= 25,500 + 85,500 = 111,000
 \end{aligned}$$

Overhead for the month of November and December can be calculated in the same manner.

Recap

- ◊ Budgets are classified based on time, flexibility, and functions.
- ◊ Master Budget is a comprehensive financial plan that combines all individual budgets.
- ◊ Sales Budget forecasts the expected sales revenue for a specific period.
- ◊ Flexible Budget adjusts costs according to different levels of production activity.
- ◊ Cash Budget estimates cash inflows and outflows to help manage liquidity.
- ◊ Purchase Budget plans the quantity and cost of materials required for production.

Objective Questions

1. The _____ budget is a comprehensive financial plan that combines all other budgets.
2. A _____ budget estimates expected revenue based on projected sales.
3. The _____ budget adjusts costs according to different levels of production.
4. The _____ budget helps in managing cash inflows and outflows.
5. A _____ budget plans the cost and quantity of materials required for production.
6. A sales budget is primarily based on _____ forecasts.
7. A flexible budget is useful for businesses with _____ levels of activity.
8. The cash budget helps in ensuring that the company has enough _____ to meet short-term obligations.
9. The purchase budget is closely linked with the _____ and production budgets.

Answers

1. Master Budget
2. Sales Budget
3. Flexible Budget
4. Cash Budget
5. Purchase Budget
6. demand/sales
7. Variable/fluctuating
8. Liquidity/cash
9. Sales

Assignments

1. Select a real-world company or industry (e.g., manufacturing, retail, healthcare, or technology). Identify and analyze at least three types of budgets used in that sector. Discuss how these budgets help in decision-making and financial control.
2. Consider a hypothetical scenario where a company experiences a sudden 20% increase in demand for its products. As a financial manager, propose how the company should adjust its sales, production, and cash budgets to meet the increased demand while maintaining financial stability.
3. A company expects to sell 50,000 units of a particular product in the next year. Two types of raw material X and Y are required for manufacturing the product. Each unit of the product requires 3 units of X and 4 units of Y.

Estimated opening balances at the beginning of the next year are:

Finished product 10,000 units

Material A 15,000 units.

Material B 16,000 units.

The desirable closing balances at the end of the next year are:

Finished product 14,000 units

Material A 16,000 units

Material B 18,000 units

Draw up a material purchase budget for the next year.

(Ans: A= 163,000 units: B = 218,000 units)

4. According to the sales forecast of your company, the sales of the company's product is slacking and the budgeted sales of 1,50,000 units per year can only be met if the trade discount is raised from 25% to 30%. If the discount is raised to 35%, the sales will increase by 20% over the budget for which the production capacity exists. Indicate which of the two alternatives is more profitable. The retail price of the product is ₹ 20 each. The cost of production is ₹ 12 of which ₹ 8 is variable. (*Hint. Prepare sales budget*)

(Ans: Profit ₹ 300,000 under both the alternatives)

5. XYZ Ltd wishes to prepare cash budget from July to September 2021. Prepare a cash budget for the above period from the following information:

	Sales	Purchase	Wages
June	2,40,000	1,80,000	26,000
July	2,60,000	1,90,000	27,500
August	2,00,000	1,44,000	22,500
September	1,80,000	1,50,000	23,000

(1) 50% of the sales are for cash and 50% for credit. The credit sales are realised in the month following sale.

(2) Creditors are paid in the month following the month of purchase.

(3) Plant costing 20,000 is to be purchased in July, 50% of the same is paid in the month and remaining 50% in the next month.

(4) Cash balance on 1st July is 8,000.

(Ans: Closing balance July-40,500, August-48,000, September-71,000)

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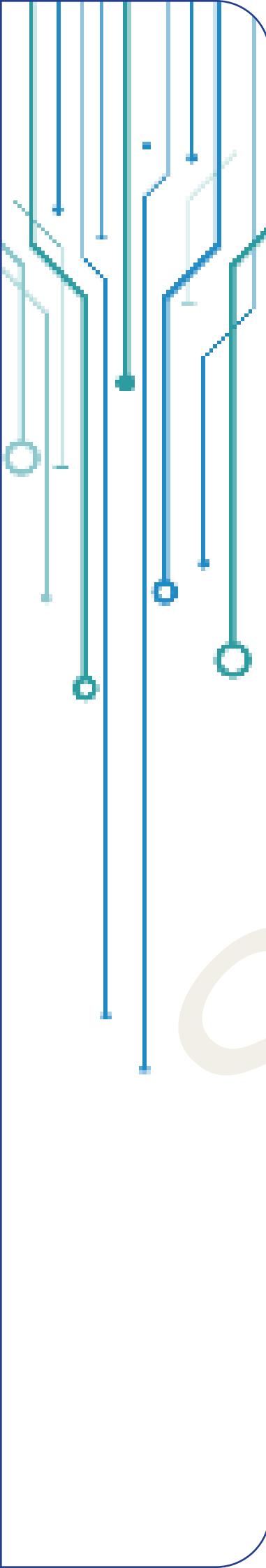
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6
BLOCK

Management Reporting



Unit 1

Reports

Learning Outcomes

After completing this unit, the learner will be able to;

- ◊ Able to explain the meaning and definition of a report
- ◊ To identify and differentiate between various types of reports, including oral and written reports.
- ◊ To classify reports into formal and informal categories based on structure, purpose, and audience.

Prerequisites

Dhruvin is the manager of a small retail store. One day, he notices that sales have dropped, and customers seem less interested in the products. He is unsure of what's causing the problem. To find out, he asks his staff to prepare a sales report. His team collects data on daily sales, customer feedback, and competitor prices. The report reveals that a nearby store is offering better discounts, and customers prefer shopping there. Based on this report, Rahul decides to introduce special offers and improve customer service. Within a few months, sales started increasing again. This story shows how reports help businesses understand problems, analyze situations, and make better decisions. Whether it's a financial report, an investigative report, or a routine report, each type plays a crucial role in business success.

Businesses now operate in a more complicated, competitive, and challenging environment than they did in the past. At different levels of management, authority delegation and labor division were required due to the company base's complexity. Decision-making has grown increasingly difficult since management involves a variety of control, coordination, and communication-related difficulties. Before making decisions,

the decision-makers need to have access to a sufficient amount of information. Reports are used to provide the management with the information they need. They are distinct, even if reporting is a type of communication. Both upward and downward directions of communication are possible.

Keywords

Report, Oral and Written, Formal and Informal, Enterprise, Control, Investigative, Interpretive, Informative, Routine, Special, Functional, Financial

Discussion

6.1.1 Management Reporting – Meaning and Definition

The word report can be split into two parts. RE+PORT. The word RE means ‘again’ or ‘back,’ and PORT means to ‘carry. Thus, REPORT means ‘to carry the information again. From this explanation, it is clear that reports are always written for any event which has already occurred. So, the report is a written document which carries the information again.

The term reporting has different meanings in different situations. In general terms, it means supplying facts and figures. Suppose a committee is appointed to study a problem. The report is a review of certain matters with their pros and cons and offers suggestions. On the other hand, a management report is a means of communication in written form, and it is useful to the management for decision-making and controlling. Management reporting is a part of the management control system. It provides business information to various levels of management in the form of statements and reports at regular intervals.

Thus, the term report refers to a formal communication by a lower level to a higher level of authority. Management Report is a vehicle to carry information. According to Himstreet and Batty, ‘It is a written communication conveying information about research or status from one area of business to another to assist the decision-making function of management.’ A management report can be defined as a statement prepared to present facts relating to planning, co-ordinating, performance and general state of business in an organization.

According to Kohler, Management reporting means “A body of information organized for presentation or transmission to others. It often includes interpretations, recommendations and findings with supporting evidence in the form of other reports”

According to S.N. Maheshwari, “Reporting to Management can be defined as an

organized method of providing each manager with all the data and only those data which he needs for his decisions, when he needs them and in a form which aids his understanding and stimulates his action”.

In short, Management reporting is a process of providing information to the management in the form of a report. These reports are regularly sent to various levels of management to enable them to judge the effectiveness of their responsibility centers.

6.1.2 Objectives of reporting

A good report shall have the following objectives:

1. Means of communication: A report is prepared and communicated to the top management. So, it is used as a means of upward communication.
2. Serve as a record: As information is recorded with utmost care, reports serve as a record for future reference.
3. Basis to measure performance: A report is used as a basis to measure the performance of each employee.
4. Satisfy interested parties: Different types of management reports are prepared to satisfy the interested parties, such as top management, executives, government agencies, shareholders, creditors, etc.
5. Legal requirement: Some reports satisfy the legal requirement, e.g. Annual reports, Financial reports, etc.

6.1.3 Methods of Reporting

The method of reporting may depend upon the volume of data, information to be given or conveyed or the availability of media for communication. The following are the common forms of reporting:

1. **Written Reporting:** These reports are in written form, and this may include:
 - a. Formal Financial statements: Such statements may deal with actual figures against the budgeted ones and comparative accounting statements giving information at different periods.
 - b. Tabulated information: Such statements include analysis according to products, time, territories, etc. For example, sales information may be tabulated as per different periods, products, areas, etc.
 - c. Accounting ratios: such statements include ratio as a part of formal financial statements. The ratios may be current ratios, efficiency ratios, profitability ratios, etc.

2. **Graphic Reporting**

Such reports are presented in the form of charts, diagrams and pictures. These reports allow a quick grasp of the trends of information presented. For example, a trend analysis graph for the past five years was submitted by the sales manager to the Board

of Directors.

3. Oral Reporting

Such reporting may be in the form of group meetings or conversations with individuals. These reports cannot form a part of important managerial decision-making.

In all organizations, a combination of written, graphic and oral reporting is commonly followed. The criteria for deciding the method of reporting depends simply on the nature of each matter and the occasion.

6.1.4 Requirements of a good reporting system

A report is a written document which carries information to those who need it. The usefulness of a report will depend upon its quality, the time, and how it has been communicated. Therefore, a good report should have the following requisites:

- 1. Good form and content:** The following points shall be considered while preparing a report:
 - ◊ A good report should have a suggestive title, headings, sub-headings and paragraph divisions.
 - ◊ It should contain facts and not opinion.
 - ◊ It must contain the date of its preparation and date of submission.
 - ◊ It should follow a logical sequence.
 - ◊ Prepare separate reports for different subjects.
 - ◊ If statistical figures are used, then only significant figures and totals should be given in the report.
- 2. Promptness:** The report should be prepared and presented on time. Reports are meant for action. Delay in reporting will defeat the purpose of reporting. Information delayed is information denied. The quick supply of the report will enable the management to take corrective measures at the earliest.
- 3. Simplicity:** The report should be in simple, unambiguous and clear language. The language should be non-technical and be presented in a simple style. The reader should be able to understand the report without any difficulty. The figures should be rounded so as to make them easily understandable. If possible, charts, graphs and diagrams should be used for presenting the information.
- 4. Consistency:** It is important to present the information in a consistent manner. Consistency enables the comparability of the report. For consistency, the report should be prepared from the same type of information as between different reporting periods. The same accounting principles and concepts are used for collecting, classifying, tabulating and presenting information. Consistency in reporting enhances their utility.
- 5. Relevancy:** People do not give much attention to reports coming routinely. Sometimes, reports are routinely sent to various departments, which will involve unnecessary expenditure, and the report will not remain a secret. So, the report

should be presented only to the persons who need them.

6. **Controllability:** The report should be presented only the relevant factors that demanded by the concerned parties. It will help them to take remedial action according to the need.
7. **Cost consideration:** Cost and benefit of a report is a significant aspect which has to be considered while maintaining a reporting system. The cost should be reasonable and should not be an unnecessary burden on the resources of the enterprise.
8. **Accuracy:** The report should be accurate. It means that the report should be correct within the margin of error allowed. For example, a statistical report may sometimes be approximated to make it easily understandable. The approximation should not be done up to the level where information loses its form and utility. The degree of accuracy depends upon the nature of the information and the purpose of its collection.
9. **Comparability:** Reports are also meant for comparison. The comparative information can be about a previous period, current standards, or budgets. This information helps in finding out deviations or variances. Where performance is below standards or expectations, such variance can be highlighted in the report. The comparative reporting will help the reader reach conclusions about the performance of the responsibility center mentioned in the report.
10. **Frequency of Report:** Frequency of report is also important. Frequency of reporting means that the report should be sent when it is required. The report should be sent regularly when they are required. It should be prepared at the appropriate time and sent to appropriate persons as per their requirements.

6.1.5 Principles of Good Reporting System

We know that a good reporting system is helpful to the management for proper planning and controlling. Every level of management needs information. If there is a good reporting system, the information needs are met, and management can take decisions and corrective actions at the proper time. Hence, some principles have been followed to make the reporting system more effective. They are:

1. Proper flow of information

A good reporting system needs a proper flow of information. Information should flow from the proper place to the right levels of management. The information should be sent in the right form and at a proper time so that it helps in planning and coordination. The flow of reports should be such that it does not cause any delay in taking decisions. The report should flow at regular intervals so that the information needs of different managerial levels are met at the proper time.

The flow of information is a continuous activity and affects all levels of the organization. Information may flow upward, downward or sideways within an organization. Reports of orders and instructions may flow from top to bottom. Reports of grievances

and suggestions may flow from bottom to top. Notifications, settlements, and complaints may flow from outside.

2. Proper timing

Since reports are the basis of the control process, they should be prepared and presented at the required time by all means. The time required for the preparation of reports should be reduced to the minimum. It will be a waste of time and effort to prepare a report which is too late to be of any use.

3. Accurate Information

The information included in the report must be accurate. If the information supplied is inaccurate, it will result in wrong decision making. The supply of accurate information helps the management to understand the situation very clearly. Accuracy should not involve excessive cost of preparation and should not result in the delay in the presentation of the report.

4. Basis of comparison

The information supplied through reports will be helpful when it carries provision for comparison. We can compare information with past figures, standards set or objectives laid down. Comparison enables us to find out the trends of deviations or variations. Corrective measures can also be taken with the help of comparative information.

5. The report should be clear and simple

The very purpose of preparing a report can be achieved only when the reports are easily understood by the readers. The information should be presented clearly by avoiding extraneous data. Only relevant information should become part of a report. If supporting information cannot be avoided, then it should either be given in the appendix, or a separate chart should be attached for it.

While presenting information in a report, it should be attractive to the eyes and enable the reader to form an opinion about it. The graphic presentation of information enables the reader to find out the trends and helps to determine the deviations more quickly than in other methods. So, the arrangement of presentation in a report should be brief, clear, simple and complete.

6. Cost

The cost and benefit derived from a report shall also be considered while maintaining a reporting system. The benefit derived from reporting system must commensurate with the cost involved in it. The cost should be reasonable and may not be an unnecessary burden on the resources of the enterprise.

7. Evaluation of responsibility

The reporting system should be installed in such a manner as to evaluate managerial responsibility. The standards are fixed for each functional department. The record of actual performance is monitored along with the standards. This enables the management

to assess the performance of different individuals. So, management reporting can be used as a device for evaluating the performance of various persons.

6.1.6 Kinds of reports

Reports may be classified into the following categories:

6.1.6.1 Classification According to objects and purpose

1. External report

External reports are prepared for meeting the requirements of persons outside the business, such as shareholders, creditors, bankers, stock exchange, government, and so on. These reports are brief in size as compared to internal report and they are prepared as per the statutory requirements. Income statements and Balance sheet prepared at the end of the financial year is an example for external report.

2. Internal Report

Internal reports are prepared to meet the requirements of persons inside the business. That is, these reports are meant for different levels of management. This can be classified into three types: (a) Report meant for top level management, (b) Report meant for middle level management and (c) Report meant for lower-level management.

- a. **Report meant for top-level management:** Top-level management consists of a board of directors. They are the policymakers. So, the work of executing the policies is left to the top-level management. The report submitted to top-level management includes:
 - i. Periodic report about profit and loss account and balance sheet.
 - ii. Fund flow and cash flow statement at regular intervals.
 - iii. Cost of production report.
 - iv. Report on production trends and utilisation of capacity.
 - v. Research and development expenditure statements.
 - vi. Periodic reports on sales, credit collection period, selling and distribution expenses, etc.
- b. **Report meant for middle level management:** - The objective set by the top levels are executed by the middle level management. Therefore, the reports submitted to middle-level management are more detailed. The reports submitted to this level are classified as follows:
 - i. Report to production manager: - It include:
 - a. Report on actual production figures along with budgeted production figures for a particular period.
 - b. Capacity utilisation reports.
 - c. Absenteeism and labour turnover Reports.

- d. Material usage reports.
- e. Scrap reports, etc.

ii. Report to sales manager: - It include:

- a. Reports on actual and budgeted sales.
- b. Weekly reports on orders booked, orders executed, and orders still to be executed.
- c. Reports on credit collection and bad debts, etc.
- d. Report on stock position.
- e. Reports on customer's complaints, etc.

iii. Report to purchase Manager: - It include:

- a. Reports on material purchased, actual material received and orders pending.
- b. Report on the use of raw materials for production.
- c. Report on raw material balances,
- d. Report on analysis of purchase expenses, etc.

iv. Report to Finance Manager: - It include:

- a. Cash and bank position report
- b. Periodic cash flow and fund flow statements.
- c. Debtors' collection period reports, etc.

c. Report meant for Lower-level management: - Lower levels consist of foremen or section in charge. They are in touch with the day-to-day performance of their sections. They get daily reports from their subordinates. Report for foremen may include:

- a. Labour utilisation report and cost of lost time.
- b. Worker's efficiency report.
- c. Maintenance cost report, etc.

It is to be noted that internal report need not conform to any standard form as it is not statutorily required to be prepared.

6.1.6.2 Classification based on nature

They include:

1. Enterprise Report

Enterprise reports are prepared for the concern as a whole. These reports serve as a channel of communication with outsiders. These reports contain standardised information and are beneficial to outsiders. It may include income tax returns, balance sheet, income statement, employment report, and chairman's report and so on. These reports are important from financial analysis point of view.



2. Control Report

Control Report deals with two aspects. The first one relates to the personal performance and other deals with economic performance. Personal performance reports are reported to judge the performance of managers. Economic performance report shows how well the responsibility centre has fared as an economic entity.

3. Investigative Reports

Investigative reports are linked with control reports. These reports are based on the outcome of special solution studies. They are prepared when some serious problems arise for investigating and analysing the situation.

6.1.6.3 Classification According to period

1. Routine reports

Routine reports are prepared about the day-to-day working of the concern. These reports are periodically sent to various levels of management. They may differ according to the nature of the information and the details to be reported. Routine reports may relate to sales information, production figures, capital expenditures, purchase of raw materials, labour situations, market trends, etc.

2. Special reports

Sometimes routine reports may not give sufficient information to tackle a difficult situation. Under such situations, special reports are prepared. Special reports are prepared according to the needs of the situation. While preparing these reports, the available information may not be sufficient, and therefore, data may have to be specially collected. So, there may be a need to put extra staff for preparing these reports. Reports on trade association matters, reports on information about market analysis, the method of distribution adopted by the competitors, etc., are examples of special reports.

6.1.6.4 Classification according to function

1. Operating reports

Operating reports provide information about the day-to-day operations of the concern. These reports consist of:

- a. Control reports - These reports are prepared to exercise managerial control over various operations of the business. They are also used for assessing the performance of individuals.
- b. Information report - These are prepared for facilitating planning and policy formulation in a business. They are prepared in the form of trend report and analytical report.
- c. Venture measurement report - These reports are prepared to show the result of a specific venture undertaken. For example, a report prepared at the time of introducing a new product line.

2. Financial Reports

Financial reports provide information about the financial position of the concern on specific dates. For example, the balance sheet provides information about the financial position of the concern on a particular date. The report can be either static or dynamic. Balance sheets and other subsidiary reports are examples of static reports. Cash flow and fund flow reports are examples of dynamic report.

6.1.6.5 Classification based on presentation mode

Reports can be broadly classified into oral reports and written reports based on the mode of communication. Each type serves a different purpose in business, academics, and various professional settings. While oral reports are direct and interactive, written reports provide a detailed and permanent record of information.

a. Oral Reports

Oral reports are delivered verbally and are often used in meetings, presentations, or briefings. They allow for immediate interaction and feedback, making them suitable for quick decision-making or brainstorming sessions. Oral reports can range from informal updates to structured presentations with supporting materials like slides, charts, or graphs. For example, a sales manager may present a monthly sales performance report during a team meeting, summarizing key figures and trends without a written document. Another example is a project leader giving an oral project status update to stakeholders, allowing them to ask questions and discuss concerns in real time. While oral reports are efficient and time-saving, they lack a permanent record and may be subject to misinterpretation.

b. Written Reports

In contrast, written reports are documented and structured, providing a formal and permanent record of information. They are used when details, analysis, and reference material are required for decision-making, compliance, or record-keeping. Written reports are more comprehensive than oral reports as they allow for deeper insights, research, and structured formatting. Examples include financial reports, such as balance sheets and profit & loss statements, which summarize a company's financial position in a clear and standardized manner. Similarly, audit reports are written documents that evaluate financial or operational integrity and are used for regulatory compliance. Written reports ensure clarity, accuracy, and accountability, but they require more time and effort to prepare and review.

6.1.6.6 Formal and informal reports

Reports can be broadly classified into **formal** and **informal** based on their structure, purpose, and audience. Both types serve different functions in business, academia, and organizations.

1. Formal Reports

A formal report is a structured document used for official or professional communication. It follows a standard format and is often backed by research, data, and



analysis. Formal reports are used for decision-making, compliance, and record-keeping.

Characteristics of Formal Reports:

- ◊ Highly structured with sections like title page, abstract, introduction, findings, conclusion, and recommendations.
- ◊ Professional and objective tone, avoiding personal opinions.
- ◊ Detailed and research-based, often requiring supporting data, references, and citations.
- ◊ Intended for senior management, stakeholders, or external authorities (e.g., government agencies, regulatory bodies).
- ◊ Used in large organizations or corporate settings for strategic decision-making.

Examples of Formal Reports:

- ◊ Annual Report – A company's financial and operational summary for a year.
- ◊ Feasibility Report – Analyzes whether a project is viable or not.
- ◊ Research Report – Presents findings from academic or market research.
- ◊ Audit Report – A financial or compliance assessment prepared by auditors.
- ◊ Business Proposal – A structured document outlining a business plan or project proposal.

2. Informal Reports

An informal report is used for quick internal communication and does not follow a strict format. These reports are typically shorter, less detailed, and often written in a conversational tone. They are used within organizations for updates, progress tracking, and decision-making at the departmental level.

Characteristics of Informal Reports:

- ◊ Less structured and may be written in email, memo, or short document format.
- ◊ Conversational or direct tone, sometimes including personal opinions.
- ◊ Brief and to the point, focusing only on key information.
- ◊ Used for internal communication among teams or colleagues.
- ◊ Does not require extensive research or supporting documents.

Examples of Informal Reports:

- ◊ Progress Report – A brief update on project status.
- ◊ Meeting Summary – Key takeaways from a team discussion.
- ◊ Sales Update Report – Quick overview of sales performance.
- ◊ Incident Report – A short report on an issue or event in the workplace.
- ◊ Employee Performance Report – A casual assessment of an employee's work.

Recap

- ◊ Based on objects and purpose, reports are classified into internal reports and External reports.
- ◊ External reports are prepared to meet the requirements of persons outside the business.
- ◊ Internal reports are prepared for meeting the requirements of persons inside the business.
- ◊ Based on nature, reports are classified into Enterprise reports, Control reports and Investigative reports.
- ◊ Enterprise reports are prepared for the concern as a whole.
- ◊ The control report shows personal performance and economic performance.
- ◊ Investigative reports are the outcome of special solution studies.
- ◊ Based on the period, there are routine reports and special reports.
- ◊ Based on Functions, there are operating reports, information reports and financial reports.
- ◊ A formal report is a structured, detailed, and research-based document used for official or professional communication, such as annual reports, audit reports, and feasibility studies.
- ◊ An informal report is a brief, less structured document used for internal communication, such as memos, progress updates, and meeting summaries

Objective Questions

1. Which report is meant for outsiders?
2. Which report deals with personal performance and economic performance?
3. Which report is prepared for the concern as a whole?
4. Which reports are prepared when routine reports do not serve the purpose?
5. Which report is linked with a control report?
6. A brief less structured report is?
7. What is a report for official communications known as?
8. A report not written only in verbal is known as?

Answers

1. External report
2. Control report
3. Enterprise report
4. Special report
5. Investigative report
6. Informal report
7. Formal report
8. Oral report

Assignments

1. Explain the purpose and significance of reports meant for outsiders. Provide examples.
2. Discuss how reports dealing with personal and economic performance help in decision-making.
3. Why are special reports prepared when routine reports do not serve the purpose? Explain with suitable cases.
4. How is a control report linked to other types of reports in an organization? Discuss its role in management.

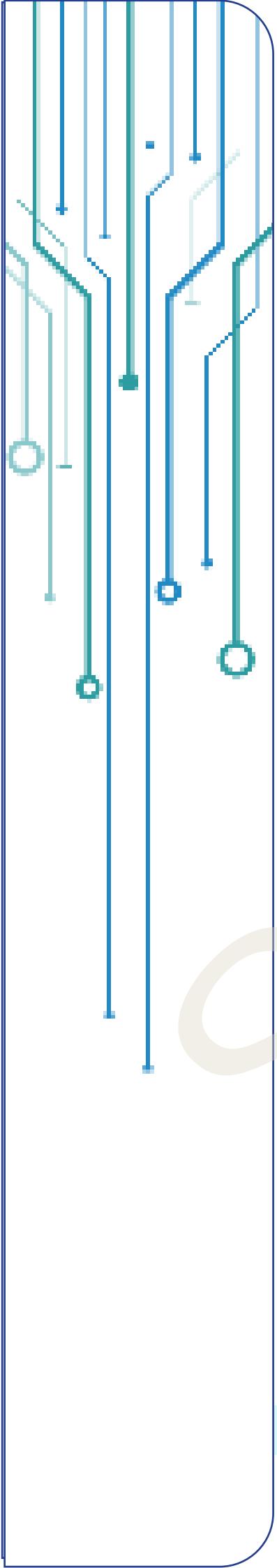
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Unit 2

Report Drafting

Learning Outcomes

After completing this unit, the learner will be able to;

- ◊ understand the meaning of report drafting
- ◊ explain the components of a report
- ◊ gain insight into drafting different types of report

Prerequisites

Making decisions in the business sector depends on the quality of the information at hand. This is the point at which management accounting reports are essential. These reports give managers the essential financial and non-financial information they need to plan, keep expenses under control, and make strategic decisions. However, how are these reports made? In management accounting, report drafting entails providing financial information, performance evaluations, and suggestions in an organised manner. Key components of a well-written report are objectives, data analysis, findings, and conclusions. Reports of many kinds, such as cost control summaries, variance analysis reports, and budget reports, have various managerial uses. Gaining proficiency in report writing guarantees that financial insights are conveyed clearly, allowing companies to maintain their profitability and competitiveness. This unit deals with the concept of Report Drafting, Contents of Report and discusses the drafting of different types of reports.

Keywords

Report Drafting, Report

Discussion

6.2.1 Meaning of Report Drafting

Report drafting is the process of systematically preparing a structured document that communicates facts, findings, analysis, and recommendations. These documents are called reports. Reports are essential tools for decision-making, providing financial and operational insights to managers. Drafting of reports is highly important because they are written for specific readers. Therefore, all reports need to be clear, concise, and well-structured. The key to drafting a report is to allocate time for its planning and preparation. With careful planning, the process of writing a report will be made much easier.

6.2.2 Key Features of Report Drafting

1. Objective - oriented

Drafting of report is objective oriented as every report is drafted with a specific purpose such as financial analysis, budgeting or performance evaluation.

2. Fact-Based

Drafting of reports rely on data, statistics, and financial records rather than assumptions or guesses.

3. Clear and Concise

The reports presents information in a structured and easy-to-understand manner.

4. Logical and Systematic

While drafting reports, a standard format for consistency and clarity is followed.

5. Formal Tone and Language

Professional language is used while drafting of reports.

6.2.3 Stages of Report Writing

The process of designing and writing a report consists of three stages. They are

1. Deciding the nature and purpose of the report.
2. Planning the structure of report.
3. Drafting of a report.
4. Writing of Report
5. Presentation of report

1. Deciding the type and purpose of the report

At first, we should decide the type of report, whether the report is statutory or non-statutory. The purpose of the report is also important. It is because preparation of report without having a clear idea about the purpose is not possible.

2. Planning the structure of the report

Once the purpose is clear, the next step is to plan the structure of the report. This

includes determining the major sections or contents to be included in the report and logically organising the content to ensure smooth flow of information. A structured outline acts as a blueprint for drafting the report.

3. Drafting the report

Various defects may occur while writing the research report. For example, the language used in writing the report and the ideas that are tried to be conveyed may not be clear. In certain cases, crucial data and statistics may be negligently or accidentally omitted. So, in order to make the report free from mistakes and also to make it attractive, the report writer shall give careful attention to certain aspects. These considerations include:

- a. Collection of data and its analysis – The data may be collected from either secondary or primary sources or from both. The data collected data has to be classified, tabulated, edited and analysed. For this purpose, various mathematical or statistical techniques may be used.
- b. Format of a report - Format means the structure of a report. It is concerned with the layout of report and the arrangement of data.
- c. Writing of Report

Reports are written for others and therefore, the needs and the style preferred by the reader should be kept in mind while writing the report. The general principles of a good reporting system which have been explained earlier will help in writing the report. Sometimes the writing process itself may go through many stages, such as, draft writing, second writing, final writing, etc.

4. Presentation of report

General layout of the report should be pleasing to the eye. Report may be typewritten, printed or handwritten. Sufficient space and margin should be kept on the left-hand side of the page. Use of diagrams, illustrations, charts, tables may be made and these should be numbered.

6.2.4 Contents of a report

The following are the major contents of a report

a. Heading

Heading indicate the subject matter of the report. So, it should be short, clear, meaningful, attractive and self-explanatory.

b. Address

Every report must be addressed to some person or body of persons. Therefore, it is essential to write the address of the recipient of the report.

c. Content page

The content page contains a list of chapters of the report. So, it should be listed in the serial order along with the concerned page number on which such contents are to be found.

d. Introduction or terms of reference

In terms of reference, a brief description of the problem is stated. It gives the scope of writing a report.

e. Body of the report

Body of the report is for presenting the facts and data collected by the writer. In this part each and every information is analysed in sufficient detail and subjected to statistical testing, if required. Tables, graphs, diagrams and analysis of data is shown in this part.

f. Recommendations

This is the summary of the report and consist of various findings and the recommendations based on the findings.

g. Reference and appendices

List of reference and appendices indicates the sources from where the writer has taken material for writing the report.

h. Signature

Every report should be signed by the person responsible for its preparation.

6.2.5 Drafting Different Types of Reports

The following illustrations will give you an idea about the drafting of report under different situations.

Illustrations 4.2.1

The following table shows the performance budget of ABC Ltd. You are required to submit a summary report on profit plan to the Managing director of ABC Ltd, Calicut.

Performance Budget For the month of June 2025						
	Budget			Actual		
	Unit	Amount per unit	Total amount	Unit	Amount per unit	Total amount
Sales	10,000	10.00	1,00,000	8,000	12.00	96,000
Less: variable cost	10,000	<u>5.00</u>	<u>50,000</u>	8,000	<u>6.00</u>	<u>48,000</u>
Contribution		5.00	50,000		6.00	48,000
Less: Fixed cost			30,000			32,000
Profit			20,000			16,000

Additional information:

1. Because of raw material shortage the plant produced only 8,000 units. Consequently, the selling price was raised by Rs. 2.00 per unit.
2. To modify the production process and in order to meet material shortage, the company incurred an expenditure of 2,000 in research and development.

Solution

Summary Report on profit plan

To

The Managing Director,
ABC Ltd,
Calicut.

Sir,

Sub: Report on profit plan

I have analyzed the performance of the company for the month of June 2025, and the summary report on the same is submitted as below:

	₹
Planned profit	20,000
Sales variance (due to increase in selling price $8000 \times ₹ 2$)	16,000
Variable cost variance (due to increase in the cost of production, 8000×1)	8,000
Activity variance (Loss of contribution on account of raw material shortage (2000×5))	10,000
Fixed cost variance (due to Research and development)	2000
Actual income	16,000

Your kind attention is drawn to the raw material shortage, modification in the production process and increase in selling price.

Thanking you.

Yours Sincerely

----- (Sd/)

-----Designation

Date-----

Illustration 4.2.2

Vinayak private Ltd, Calicut is producing to specific orders. Their factory capacity is limited by one major machine forming a critical cost center through which all product passes. The factory normally works 250 days in a year on 24 hours, 3 shift a day and 5- day week basis. The maximum achievable capacity is 80% corresponding to the average level of activity in the critical cost center. The operating results summarized for management, for the year ended 31st December, 2024 are as follows:

	Amount in Lakhs	
Sales		96.00
Less: Materials	36.00	
Labour (variable)	11.50	
Variable factory overheads	12.50	
Fixed factory overheads	6.00	
Selling and distribution overhead	<u>20.00</u>	<u>86.00</u>
Profit		10.00

The average profitability experienced during 2024 is expected to be maintained during the next year also. The company has an opportunity of taking one of the two large contracts, either of which will substitute for a large amount of current production without affecting the hourly variable production costs. Details of the above contracts are:

	Contract A	Contract B
Material cost per unit	750	3500
Machine hours per unit	2	3
Contract price per unit	3000	7500
Extra selling expenses per unit	50	100

Prepare a report for the managing Director making your recommendations as to which of the two contracts is to be preferred.

Solution

Date 5th Jan 2025

To

The Managing Director,
Vinayak Private Ltd,
Calicut.

Sir,

Sub: Recommendations on the proposed contracts.

As desired by you, we have studied the relative profitability of the present production and the proposed contracts. As the variable as well as fixed cost are the same under the three alternatives, the relative profitability could be analyzed by calculating the contribution on differential cost basis per critical machine hour for the three alternatives as below:

Statement of Relative Profitability

	Present order ₹	Contract A ₹	Contract B ₹
Sales	96,00,000	3,000	7,500
Less: Differential cost			
Materials	36,00,000	750	3,500
Extra selling Exp.	--	50	100
Total Differential cost	36,00,000	800	3,600
Contribution on variable cost basis	60,00,000	2,200	3,900
Number of machine hours required	4,800 ($250 \times 24 \times 80\%$)	2	3
Contribution per critical machine hour	<u>60,00,000</u> <u>4,800</u> =1250	<u>2,200</u> <u>2</u> =1,100	<u>3,900</u> <u>3</u> = 1300

The above analysis clearly shows that contract B is the most profitable one as it gives maximum contribution per machine hour. Hence, we recommend to prefer contract B in place of Contract A. We will further advise to use the spare capacity if any, for manufacturing the present production lines.

Thanking you.

Yours faithfully

S/d

Designation

Recap

- ◊ Report drafting is the process of systematically preparing a structured document that communicates facts, findings, analysis, and recommendations.
- ◊ Writing of report involves various stages like Deciding the nature and purpose of the report, Planning the structure of report, Drafting of a report, and Presentation of report
- ◊ The major contents of a report are Heading , Address , Content page , Introduction or terms of reference , Body of the report, Recommendations, Reference, appendices, Signature

Objective Questions

1. The process of systematically preparing a structured document that communicates facts, findings, analysis, and recommendations is known as
2. Which are the different stages in report writing?
3. Mention any one feature of report drafting.

Answers

1. Report Drafting
2. Deciding the nature and purpose of the report, Planning the structure of report, Drafting of a report, and Presentation of report
3. Objective based

Self-Assessment Questions

1. What is Report Drafting?
2. What are the contents of a report?
3. Elaborate the different stages in report writing?
4. Explain the key features of report drafting.

Assignments

1. PK steels is interested in controlling its labour cost. It was suggested at a management committee meeting that the Management information system to control the labour cost should be introduced. Write a report to the management.
2. The managing Director of a textile mill is concerned about the trends in the levels of inventories in his mill. You are asked to study the problems and submit your report to the managing director.
3. The Management of Alpha Electronics Ltd. is concerned about the increasing overhead costs in the manufacturing department. You have been assigned to investigate the causes and submit a detailed report to the Managing Director with your findings and recommendations.
4. The management of Vrinda Textiles Ltd. is concerned about increasing material wastage in the production department. During a recent strategy meeting, it was proposed that a Management Information System (MIS) be implemented to monitor and control material usage. Draft a formal report to the management recommending the introduction of such a system and outlining its potential benefits for minimizing material wastage.

Suggested Readings

1. Gupta, S K., & Sharma, R.K. (2018). Management Accounting (5th ed). Kalyani Publishers.
2. Maheshwari, S.N., (2013) Cost and Management Accounting. Sulthan Chand & Sons



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Name :

Model Question Paper- set-I

FOURTH SEMESTER BACHELOR OF COMMERCE (B.COM)
EXAMINATION

DISCIPLINE CORE --B21CM08DC – MANAGEMENT ACCOUNTING

(CBCS - UG)

2024-25 - Admission Onwards

Section A

(Answer any 10, each carry 1 mark) (10×1= 10)

1. Define management accounting?
2. What is financial statements?
3. Define financial statement analysis
4. What is the main objective of comparative financial statements?
5. What does the current ratio indicate?
6. What is the main objective of ratio analysis?
7. What do you mean by fund?
8. Which activities are classified under operating activities in a cash flow statement?
9. What is absorption costing?
10. What is the additional cost incurred for producing an additional unit of output called?
11. What is contribution?
12. What is breakeven point?
13. What is P/V ratio?

14. What is budget?

15. Who acts as the co-ordinator of the budget committee?

Section B

(Answer any 5 each carry 2 marks)

(5×2=10)

16. What is long term budget?

17. What is budgetary control?

18. What is margin of safety?

19. What is fund flow statement?

20. What is fixed turnover ratio?

21. What cash flow analysis?

22. What is horizontal analysis?

23. What is standard costing?

24. List the nature of financial statements?

25. What is ROI?

Section C

(Answer any 4 each carry 5 marks)

(4 x 5 = 20)

26. Explain the need for financial statement analysis

27. Explain the differences between financial accounting and Management Accounting.

28. Discuss the nature of financial management.

29. ABC Ltd. has provided the following financial information from its balance sheet for the year ending March 31, 2024:

Long-term Loans: ₹12, 00,000

Short-term Loans: ₹4, 00,000

Debentures: ₹5, 00,000

Share Capital: ₹7, 50,000

Reserves & Surplus: ₹3, 50,000

Calculate the Debt-Equity Ratio

30. Given the following information:

Sales: ₹300,000

Variable Cost: ₹180,000

Fixed Cost: ₹90,000

1. Calculate the P/V ratio (Profit/Volume ratio).
2. Find the Sales required to earn a profit of ₹60,000.

31. Explain the differences between fund flow and cash flow statements?

32. From the following information, prepare a **Cash Budget** for the quarter ending **30th September 2023**:

Month	Sales	Purchases	Wages	Expenses
July	₹ 50,000	₹ 30,000	₹ 12,000	₹ 4,000
August	₹ 60,000	₹ 35,000	₹ 15,000	₹ 5,000
September	₹ 55,000	₹ 32,000	₹ 14,000	₹ 4,500

Additional Information:

1. Advance payment of income tax in August ₹3,000.
2. Purchase of equipment in September ₹7,000.
3. Rent ₹200 payable each month, not included in the expenses.
4. 10% of purchases and sales are in cash terms.
5. Credit purchases are paid after one month, and credit sales are collected after 2 months.
6. Time lag in wages and expenses is $\frac{1}{2}$ month.
7. Cash and bank balances on July 1st ₹8,000.

33. Elaborate the different stages in report writing?

Section D

(Answer any 2 each carry 15 marks) (2 x 15 = 30)

34. From the following balance sheets of the company as at 31st march 2020, prepare schedule of changes in working capital and statement showing sources and application of funds

Particulars	31-3-2020	31-3-2019
Equity and liabilities		
Shareholder's fund		
Share capital	800000	600000
Reserves and surplus		
P& L balance	60000	30000
Non –current liabilities		
Current liabilities		
Sundry creditors	140000	200000
Total	1000000	830000
Assets		
Non- current asset		
Plant and machinery	120000	100000
Furniture and fixtures	30000	20000
Current asset		
Stock in trade	210000	170000
Debtors	300000	320000
Cash	340000	220000
Total	1000000	830000

35. The following information is obtained from the costing record of **LMN Ltd.**:

Particulars	2020 Amount (₹)	2021 Amount (₹)
Sales	₹500,000	₹700,000
Profit	₹60,000	₹100,000

Calculate the following:

1. **P/V Ratio** (Profit/Volume Ratio)
2. **Fixed Cost**
3. **Break-even Point (BEP)**
4. **Profit when Sales are ₹650,000**
5. **Sales required to earn a Profit of ₹120,000**

36. The expenses for the production of 500 units in a factory are given below:

	Per unit
Materials	80
Labour	60
Variable overhead (factory)	15
Fixed factory overhead (5000)	10
Administrative expense (20% variable)	10
Selling and distribution expenses (50% fixed)	10
Total per unit cost	185

You are required to prepare a budget for 800 units

37. Explain different types of budgets? from their network.



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Model Question Paper- set-II

FOURTH SEMESTER BACHELOR OF COMMERCE (B.COM)
EXAMINATION

DISCIPLINE CORE --B21CM08DC – MANAGEMENT ACCOUNTING

(CBCS - UG)

2024-25 - Admission Onwards

Time: 3 Hours

Max Marks: 70

Section A

(Answer any 10, each carry 1 mark)

(10 x 1 = 10)

1. What is management accounting?
2. What is current ratio?
3. What is financial analysis?
4. What is master budget
5. What is flexible budget?
6. Why management accounting is needed in an organization?
7. What is forecasting?
8. What are application of funds?
9. What is differential costing
10. What is CVP analysis?
11. What is break even chart?

12. What is production budget?

13. What is oral reporting??

14. What is Report Drafting?

15. What is trend analysis?

Section B

(Answer any 5 each carry 2 marks)

(5 x 2 = 10)

16. List out the objectives of management accounting?

17. Explain the limitations of financial statements?

18. What is external reporting?

19. What is margin of safety?

20. What is comparative income statements?

21. What are the functions of ratio analysis?

22. Suppose a company has:

Current Assets = ₹300000

Current Liabilities = ₹125000

Find out the current ratio

23. Cash = ₹30000

Marketable Securities = ₹10000

Current Liabilities = ₹10000

Calculate absolute liquidity ratio

24. List out the cash flow from investing activities?

25. What are the assumptions of marginal costing?

26. What are the components of CVP analysis?

27. What is sales budget?



Section C

(Answer any 4 each carry 5 marks) (4 x 5 = 20)

28. Calculate BEP in unit and sales value.

Fixed cost ₹ 400,000, Selling price per unit ₹ 20. Variable cost per unit ₹10

29. Explain the importance of budgetary control.

30. Explain the nature of financial statements.

31. From the following data, prepare a comparative Statement of Profit and Loss:

Particulars	31.3.2020	31.3.2019
Revenue from Operations	4000000	3000000
Cost of Material Consumed (% of Revenue from Operations)	60%	70%
Employee Benefit Expenses	500000	200000
Income Tax Rate	40%	40%

32. Calculate Operating Profit Ratio

- Sales Revenue: ₹2,000,000
- Sales Returns: ₹1000000
- Cost of Goods Sold (COGS): ₹1200000
- Administrative Expenses: ₹140000
- Selling and Distribution Expenses: ₹60000

33. Differentiate between differential costing and Marginal costing?

Section D

(Answer any 2 each carry 15 marks) (2 x 15 = 30)

34. Two kinds of material X and Y are required for producing a product.

Estimated consumption of these materials during a period are: X- 65,000 Kg and Y -80,000 kg.

Estimated opening stock are:

X- 7000 Kg Y- 7500 Kg

Desired closing stock are:

X- 5000 Kg Y- 10000 Kg

Cost per Kg. of material X is ₹ 5 and Y is ₹ 3. Prepare material purchase budget.

35. Explain the components of a report?

36. From the following balance sheet of AC Ltd prepare its cash flow statement for the year 2012-2013.

particulars	2012	2013
Equity and liabilities		
1. Share capital	3300000	3200000
2. Reserve and surplus	500000	400000
Non-current liabilities		
Long term borrowings(10% debenture)	1600000	1500000
Current liabilities		
Trade payables	300000	500000
Short term provisions	50000	40000
Total	57,50,000	56,40,000
Assets:		
Non-current assets:		
Plant and machinery	3950000	3460000
Goodwill	50000	4000
Non- current investment	600000	600000
Current assets:		
Inventories	600000	800000
Trade receivables	50000	40000
Cash and bank	500000	700000
Total	57,50,000	56,40,000

Note to account

particulars	2012-13	2011-12
General reserve	350000	280000
Statement of profit and loss account	150000	120000
Proposed dividend	20000	13000
Provision for taxation	30000	27000

Additional information:

1. The debenture was issued on 1.4.2012.
2. Machinery costing 70000(accumulated depreciation on 10000) was sold for 45000.
3. Machinery costing 800000 was purchased during the year.
4. Interim dividend 11000 was paid during the year.

37. Briefly explain steps in budgetary control?



സർവ്വകലാശാലാസീതം

വിദ്യയാൽ സ്വത്രത്രാക്കണം
വിശ്വപ്രസ്താവനയി മാറണം
ഗഹപ്രസാദമായ് വിളങ്ങണം
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Regional Centres

Kozhikode

Govt. Arts and Science College
Meenchantha, Kozhikode,
Kerala, Pin: 673002
Ph: 04952920228
email: rckdirector@sgou.ac.in

Thalassery

Govt. Brennen College
Dharmadam, Thalassery,
Kannur, Pin: 670106
Ph: 04902990494
email: rctdirector@sgou.ac.in

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Tripunithura, Ernakulam,
Kerala, Pin: 682301
Ph: 04842927436
email: rcedirector@sgou.ac.in

Pattambi

Sree Neelakanta Govt. Sanskrit College
Pattambi, Palakkad,
Kerala, Pin: 679303
Ph: 04662912009
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Kollam, Kerala Pin- 691601, email: info@sgou.ac.in, www.sgou.ac.in Ph: +91 474 2966841