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Higher Education for All

ACCOUNTING FOR MANAGERS

COURSE CODE: M26BS02DC

Discipline Core Course
Master of Business Administration
Self Learning Material



SREENARAYANAGURU OPEN UNIVERSITY

SREENARAYANAGURU OPEN UNIVERSITY

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

SREENARAYANAGURU OPEN UNIVERSITY

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Vision

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.

Accounting for Managers

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Semester - I

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(With Model Question Paper Sets)

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ACCOUNTING FOR MANAGERS

Course Code: M26BS02DC
Semester- I
Discipline Core Course
Master of Business Administration

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MESSAGE FROM VICE CHANCELLOR

Dear Learner,

It gives me immense pride and heartfelt satisfaction to welcome you to Sreenarayanaguru Open University—a transformative space where aspirations are nurtured, potential is unlocked, and futures are shaped with purpose.

Established in September 2020 as a pioneering state initiative, the University stands as a symbol of inclusive, accessible, and high-quality higher education. Anchored in our guiding philosophy—"access and quality define equity"—we are committed not merely to expanding educational opportunities, but to ensuring that every learner receives an education that is meaningful, relevant, and transformative.

Our journey is deeply inspired by the timeless vision of Sreenarayana Guru, whose ideals of knowledge, equality, and social empowerment continue to illuminate our path. His philosophy reminds us that education is not just a means to an end, but a powerful instrument for personal growth, societal progress, and human dignity.

In a rapidly evolving and digitally driven world, we recognize that learning must be flexible, dynamic, and future-ready. Our thoughtfully designed blended learning ecosystem—integrating Self-Learning Materials, Classroom Counselling, and Virtual Learning Platforms—ensures that you experience the best of both independence and guided academic engagement. This model empowers you to learn at your own pace while staying meaningfully connected to academic support systems.

The MBA programme at Sreenarayanaguru Open University is not just a degree—it is a gateway to leadership, innovation, and professional excellence. The curriculum is meticulously curated to reflect the realities of the contemporary global business landscape, seamlessly blending foundational management principles with cutting-edge developments in business and technology. You will explore and engage with:

- Strategic management and entrepreneurial thinking
- Digital transformation, FinTech, and emerging technologies
- Logistics, supply chain, and global business ecosystems
- Consumer behaviour and evolving market intelligence
- Human resource management in the age of Artificial Intelligence
- Ethical leadership and sustainable decision-making

Designed with a multidisciplinary and future-oriented perspective, the programme offers diverse specializations, skill enhancement pathways, and exposure to innovative domains that align with industry expectations. It is structured to strengthen your employability, entrepreneurial mindset, and leadership capabilities—equipping you to excel in competitive and complex professional environments.

Our Self-Learning Materials are crafted with exceptional care, combining conceptual clarity with real-world relevance through case studies, contemporary examples, and practical insights. They are designed not only to inform but to inspire critical thinking, problem-solving, and adaptability—skills that are essential in today's disruptive and ever-changing business world.

At the heart of our mission lies an unwavering commitment to learner success. Our comprehensive learner support system is always within your reach, ensuring that your academic journey remains smooth, enriching, and fulfilling. We encourage you to actively engage, explore, question, and grow—because your success is the true measure of our purpose.

As you begin this important journey, I invite you to dream boldly, learn continuously, and lead responsibly. Let this programme be a stepping stone towards achieving your ambitions and making a meaningful impact in the world.

May your journey here be one of discovery, empowerment, and excellence.
With my best wishes for your success and lifelong learning,



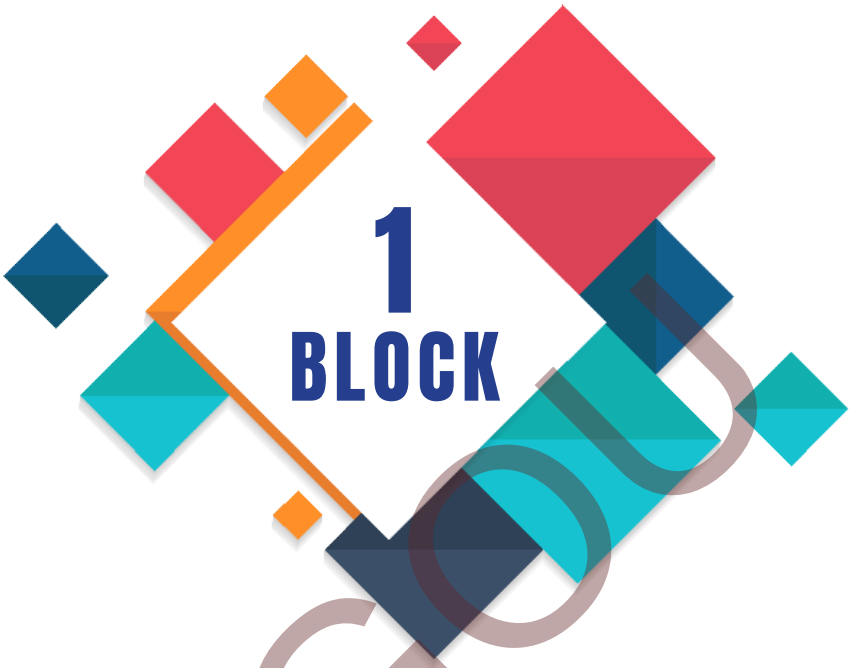
Prof. (Dr.) Jagathy Raj V. P.
Vice Chancellor

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Contents

BLOCK	**1**	**Introduction to Accounting**	**1**
Unit	1	Fundamentals of Accounting	2
Unit	2	Financial Statement	48
BLOCK	**2**	**Financial Statement Analysis**	**67**
Unit	1	Tools for Financial Statement Analysis	68
Unit	2	Cash Flow Statement	89
BLOCK	**3**	**Ratio Analysis**	**131**
Unit	1	Liquidity Ratios, Solvency Ratios and Leverage Ratios	132
Unit	2	Turnover Ratios and Profitability Ratios	158
BLOCK	**4**	**Decision Making Tools**	**187**
Unit	1	Marginal Costing	188
Unit	2	Budgetary Control	226
Model Question paper Sets			**252**

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Introduction to Accounting

Unit 1

Fundamentals of Accounting

Learning Outcomes

On completion of this unit, learners will be able to:

- ◊ understand the fundamental concepts and branches of accounting, including financial accounting, management accounting, and cost accounting
- ◊ explain the functions and importance of financial accounting in business decision-making
- ◊ apply the basic steps of the accounting process, including journal entries, ledger posting, and preparation of trial balance
- ◊ identify and describe the relationship between financial accounting, management accounting, and cost accounting

Background

Imagine you have just been appointed as a junior executive in a growing company. Every day, the business buys raw materials, pays wages, sells goods, borrows money, and plans for expansion. At the end of the month, the owner asks simple but important questions: Did we make a profit? Where did we spend most of our money? Are our costs under control? Can we afford to launch a new product next year?

To answer these questions, the company depends on accounting. Some records are prepared to report performance to owners, investors, banks, and government authorities. Some information is generated only for managers to plan, control, and make decisions. Costs are carefully analysed to find out how much it really takes to produce a product or deliver a service. All this information must follow certain accepted rules and must pass through a systematic process so that it is reliable and meaningful.

In this unit, you will learn how accounting is classified into different branches, how financial accounting records transactions and reports results, and how

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management accounting and cost accounting support internal decision-making. You will also understand the accounting process, beginning with recording transactions in the journal, posting them to the ledger, and finally preparing the trial balance. Along the way, you will be introduced to the basic principles that guide accounting practice and the interrelationship among financial accounting, management accounting and cost accounting.

By the end of this unit, you will be able to see accounting not as isolated records, but as a complete information system that helps a company measure performance, control operations, and plan for the future.



Keywords

Stakeholders, Accounting, Financial Accounting, Management Accounting, Cost Accounting, GAAP, Accounting Concepts, Journal, Ledger, Trial Balance, Bookkeeping, Debit, Credit



Discussion

1.1.1 Accounting – Meaning

Why is accounting called the language of business?

Accounting is called the language of business because it systematically records, classifies, and summarises financial transactions, thereby providing precise and reliable information about a business's financial position and performance. It communicates the results of business operations to various stakeholders, including owners, investors, creditors, and other interested parties, who rely on this information for decision-making and financial planning.

In practice, managers communicate constantly using numbers — revenue growth, margins, returns on investment, cost overruns, cash shortages, and debt obligations. Accounting translates complex business activities into structured financial statements and reports that can be understood and compared.

Consider a regional head of a multinational company reviewing the quarterly performance of two manufacturing plants. Both plants report similar sales volumes, but their reported profits differ significantly. On examining the accounting reports, the manager notices that one plant follows a higher depreciation charge due to newer machinery, while the other uses older, fully depreciated equipment. The revenue figures are similar, but the expense recognition differs because of accounting policies.

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Without accounting information presented through structured income statements and supporting notes, the manager might incorrectly assume that one plant is operationally inefficient. Accounting helps the manager understand that the difference in profit arises from accounting treatment of assets and expense recognition rather than from poor operational performance.

Thus, accounting is not limited to record-keeping. It acts as the organisation's central information system, linking operational activity with strategic decision-making.

In the context of business, accounting is often misunderstood as being limited to merely recording financial transactions. In reality, it has evolved into a vital source of information that supports significant decision-making in both profit-oriented and non-profit entities. Today, accounting is regarded as the *central nervous system* of a business. It gathers, processes, and communicates financial data tailored to the needs of stakeholders, including owners, managers, investors, and regulators, for their decision-making purposes. This ability to collect, analyse, and convey key information has transformed accounting into a complete information system for the organisation.

The American Institute of Certified Public Accountants (AICPA) defines accounting as "the art of recording, classifying and summarising in a significant manner and in terms of money, transactions and events which are, in part at least, of financial character, and interpreting the results thereof".

The American Accounting Association defines Accounting as "the process of identifying, measuring and communicating economic information to permit informed judgements and decisions by the users of accounting".

Accounting can be defined as the process of identifying, measuring, recording, and communicating the required information relating to an organisation's economic events to its interested users.

Accounting is vital for all types of businesses, regardless of size, nature, or complexity. It provides essential data for budgeting, forecasting, and financial planning. The fundamental purpose of accounting is to deliver accurate, timely, and relevant financial information to support sound decision-making in every organisation. It also ensures legal compliance by helping businesses handle taxes, manage loans, and avoid regulatory issues. Whether it is a small shopkeeper maintaining a cashbook or a multinational corporation operating an advanced ERP system, the goal remains the same: to produce reliable financial data for informed decisions.

1.1.2 Functions of Accounting

Accounting Principles Board (APB) of the American Institute of Certified Public Accountants enumerated the function of accounting as follows:

"The function of accounting is to provide quantitative information, primarily of financial nature, about economic entities, that is needed to be useful in making economic decisions".

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As you know, the processes in accounting involve recording, classifying, summarising, analysing and interpreting the financial transactions and communicating the results thereof to the persons interested in such information.

Based on the above definition, the following functions of accounting can be identified:

1. *Recording:* Accounting starts with recording. It is the basic function of accounting. It ensures that a business's financial transactions are accurately and systematically recorded. This task is carried out in a book called Journal, which serves as the primary record. Depending on the nature and volume of transactions, the Journal may be divided into various subsidiary books, such as the cash journal (for recording cash-related transactions), the purchase journal (for credit purchases), and the sales journal (for credit sales), among others.

2. *Classifying:* It is the systematic arrangement of recorded data to group transactions of a similar nature under specific categories. This work is done in the book known as Ledger. It contains separate pages or sections for individual account heads, such as advertising, printing and stationery, purchases, and sales, among others. Transactions once entered in the Journal are then posted in their respective accounts in the ledger. Classifying helps in determining the total amount spent or received under each category during a given period.

3. *Summarising:* Transactions classified into appropriate categories must be presented in a concise and useful manner to both internal and external users of accounting information. This process leads to the preparation of key financial statements, including the trial balance, income statement (also known as the profit and loss account), and balance sheet.

4. *Analysing and Interpreting:* The last and final function of accounting is interpreting. The recorded and summarised financial data is examined and explained to help internal and external users understand the business's financial health and performance. This process facilitates the planning, control, and decision-making functions of a company. Analysis refers to the methodical breakdown and classification of data given in a financial statement—for example, grouping of current assets and current liabilities. Interpretation involves explaining the meaning and implications of the analysed data, enabling users to make informed decisions.

5. *Communication:* Once the accounting information is analysed and interpreted, it must be conveyed in an appropriate format to the stakeholders. Communication is done through the preparation and distribution of accounting reports. In addition to the usual income statement and balance sheet, these reports also include accounting ratios, charts, graphs, fund flow statements, and cash flow statements.

1.1.3 Objectives of Accounting

Every business, whether big or small, runs on money. Owners, managers, investors, and other stakeholders are always keen to know how the business is truly performing.

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Is it earning a profit?

Can it settle its debts on time?

Here, accounting steps in. It's not just about casually writing down daily transactions in a book. Instead, accounting is the systematic process of recording, classifying, summarising, and communicating financial data to present a clear picture of a business's performance over a specific period and its financial position on a given date. From this process, the objectives of accounting become clear.

The main objectives of accounting are as follows:

- ◊ **Systematic recording of financial transactions:** The primary purpose of accounting is to maintain a reliable record of all financial transactions that take place in the business. It is impossible for a human being to remember the numerous daily business activities, such as purchases, sales, and expenses. Therefore, accounting ensures that every transaction is recorded regularly and accurately in the books of accounts.
- ◊ **Determining Profit or Loss:** Business owners and stakeholders need to know whether the business is operating at a profit. Accounting helps determine whether a business has incurred a profit or loss by tracking all income and expenses and compiling them into a profit and loss statement for a specific period.
- ◊ **Assessing financial position:** Evaluating a business's financial position is one of the primary objectives of accounting. This is done by preparing a balance sheet, which displays the organisation's assets and liabilities. Preparation of a balance sheet helps in understanding what the business owns, what it owes, and its overall net worth at a specific point in time.
- ◊ **Supplying accounting information to users:** The accounting process helps to generate various types of accounting information, which are shared with stakeholders in the form of reports, charts, graphs, and financial statements. Internal users, such as managers and department heads, are provided with timely and detailed data on costs, profitability, and financial performance, enabling them to plan, control, and make informed decisions. External users, who have limited authority, must depend on financial statements such as the profit and loss statement and balance sheet.

1.1.4 Branches of Accounting

As explained earlier, Accounting is a broad discipline that has evolved to meet the informational needs of various users. To meet these different requirements, the discipline of accounting is divided into several specialised branches. While accounting as a discipline has various specialised branches, the core of accounting practice is built around three primary branches. They are:

1. Financial Accounting

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2. Management Accounting
3. Cost Accounting



Fig. 1.1.1 Branches of Accounting

Each of the above branches of accounting plays a distinct role in the functioning and decision making processes of a business.

1.1.4.1 Financial Accounting

Here, business transactions are processed scientifically using the principles of accounting, which help to view the trading results of a firm for a particular period and its financial state on a particular date.

Financial accounting is the original form of accounting. It involves the recording and summarising of financial transactions, as well as the preparation of financial statements, including the income statement (also known as the profit and loss statement), balance sheet, and cash flow statement. These reports are primarily prepared for external users, such as investors, creditors, banks and financial institutions. It is historical in nature and follows standard accounting principles, such as Generally Accepted Accounting Principles (GAAP) or Indian Accounting Standards (Ind AS), to ensure consistency and comparability.

Generally Accepted Accounting Principles (GAAP)

Consider two mid-sized food processing companies operating in different regions of India, both seeking external funding from a private equity firm. As part of the due-diligence process, the investor reviews the financial statements of both companies.

Company A reports its production machinery at historical cost, charging depreciation systematically over its useful life, and recognises raw material expenses when they are

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consumed in production, even if the suppliers are yet to be paid. Company B, however, reports similar machinery at estimated current market values and recognises raw material expenses only when cash payments are made to suppliers.

When the investor compares the two sets of financial statements, profitability, asset values, and expense levels appear significantly different. These differences are not due to operational efficiency or business strategy, but due to inconsistent accounting treatments and recognition policies.

This lack of comparability creates confusion and increases investment risk. This is precisely why Generally Accepted Accounting Principles (GAAP) exists. GAAP ensures that companies follow uniform rules for asset valuation, expense recognition, and financial reporting. By enforcing consistency and transparency, GAAP allows investors, lenders, and regulators to compare financial statements meaningfully and make informed economic decisions.

Financial accounts prepared by different companies follow similar guidelines and practices, known as accounting principles and standards. This helps maintain uniformity and allows for comparison. Accounting standards provide authoritative guidelines for preparing and presenting financial statements, ensuring consistency. Accordingly, the Financial Accounting Standards Board (FASB) has introduced a set of commonly accepted accounting principles and standards to regulate accounting policies and procedures, called GAAP.

GAAP, meaning Generally Accepted Accounting Principles, refers to the standards, conventions and rules companies follow to prepare uniform financial statements. They are rules and guidelines for recording business transactions to ensure uniformity in the preparation and presentation of financial statements. By following GAAP principles and standards, companies present financial information in a consistent and standardised way. This allows for easy comparison across businesses and industries. Additionally, adhering to GAAP provides credibility, transparency, and understandability to companies' financial statements, which helps build trust and confidence among stakeholders, including investors, lenders, and regulators.

Often, the terminology used to describe these principles, such as "concepts," "conventions," "postulates," or "assumptions," can be confusing for learners. However, the practical application of these guidelines is far more important than the terminology itself. Therefore, for the sake of clarity and usability, these terms are collectively referred to as Basic Accounting Concepts in this unit.

Basic Accounting Concepts

The basic accounting concepts are the assumptions and guidelines that form the basis for the practice of financial accounting. These concepts serve as operational rules that govern all accounting activities, ensuring uniformity and consistency in financial reporting. The key accounting concepts followed in financial accounting are as follows.

- ◊ Business Entity Concept
- ◊ Money Measurement concept

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- ◊ Going Concern Concept
- ◊ Accounting Period Concept
- ◊ Cost Concept
- ◊ Dual Aspect Concept (Duality)
- ◊ Revenue Recognition Concept (Realisation)
- ◊ Matching Concept
- ◊ Full Disclosure Concept
- ◊ Consistency Concept
- ◊ Conservatism Concept (Prudence)
- ◊ Materiality Concept
- ◊ Objectivity Concept

Business Entity concept:

Consider a promoter-driven company where the founding director also has significant personal investments outside the business. During the year, the director introduces ₹50 lakh from personal funds into the company to finance the purchase of new production equipment. In the same period, the director uses company funds to pay for a personal residential electricity bill amounting to ₹50,000.

If such personal and business transactions are mixed indiscriminately, the company's financial statements would fail to reflect its true operating performance and financial position. Managers, investors, and lenders would be unable to assess whether the business itself is profitable or financially stable.

To prevent this confusion, accounting applies the Business Entity Concept. The company is treated as a separate entity distinct from its owners or promoters. The ₹50 lakh introduced by the director is recorded as capital (or a loan, depending on its nature), representing the company's obligation to the owner. The ₹50,000 withdrawn for personal use is recorded as drawings or adjusted against the owner's equity, not as a business expense.

By maintaining this clear separation, accounting ensures that financial statements reflect only business-related transactions. This allows managers to evaluate performance objectively, investors to assess risk accurately, and regulators to rely on reported figures with confidence.

The business entity concept assumes that a business is a distinct entity, separate and distinct from its owners. In Accounting, the business and its owners are two separate entities. When a person brings funds into their business as capital, it is treated as a liability of the business to the owner. Suppose the owner withdraws money from the business for personal expenses (drawings), it is treated as a reduction of the owner's

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capital and thereby a reduction in the business's liabilities. The owner's personal assets and liabilities are not reflected in the business's balance sheet. All transactions are recorded in the books of accounts from the point of view of the business and not that of the owner.

Money Measurement concept:

This concept states that only transactions that can be expressed in terms of money, such as the purchase of goods, payment of expenses, or receipt of income, are to be recorded in the books of accounts. All transactions must be recorded in monetary units, rather than physical units. For example, when a company purchases five machines at Rs 20,000 each, it should be recorded as machinery worth Rs 1,00,000, rather than as five separate units of machinery.

Going Concern concept:

According to this concept, it is assumed that the business will continue its operations indefinitely. The going concern concept states that a business will carry out its operation for a relatively long period of time and will not be liquidated in the foreseeable future. Based on this concept, accountants value assets based on their historical cost or book value, rather than their forced sale value or liquidation value. Forced sale value refers to the price assets would fetch if the business had to sell them quickly, which is typically lower than their value in everyday operations. Depreciation is also charged based on the expected lives of the assets, rather than their market value, in accordance with the going concern concept.

Accounting Period Concept:

By processing accounting data for a defined period, a business can assess its performance during that time.

According to this concept, the life of a business is divided into specific and equal time intervals, called accounting periods, for the purpose of measuring and reporting financial performance. These time intervals are typically one year, but can also be half-yearly, quarterly, or even monthly, depending on the requirements. At the end of each accounting period, an income statement and a balance sheet are prepared to disclose the profit or loss made by the business during the accounting period and to ascertain the financial position of the business as of the last day of the accounting period. It is essential to calculate the income and analyse the financial position of the business at specific intervals to take corrective steps at the appropriate time. Various stakeholders also require such information at regular intervals for various purposes.

Cost Concept:

This concept in accounting emphasises the need to record assets at the price paid to acquire them. Under the Cost Concept, all assets are recorded in the books of accounts at their original purchase price and not at their current market value. For example if a business buys a plot of land for Rs 20,00,000, it will be recorded in the books of accounts at Rs 20,00,000 even though its market value is Rs 25,00,000 at the time of

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recording. Similarly, after a year, if the market value of the land comes down to, say, Rs 18,00,000, it continues to record it as Rs 20,00,000. The concept of cost is historical in nature, as it represents something that was paid on the date of acquisition and remains unchanged from year to year. One advantage of adopting historical cost is that it brings objectivity to the recording process, as the cost of acquisition is easily verifiable from the purchase documents. A significant limitation of the historical cost basis is that it does not accurately reflect the business's actual value and may result in hidden profits.

Dual Aspect Concept:

Every business transaction affects at least two elements of an organisation's financial position. This is known as the Dual Aspect Concept and forms the foundation of the double-entry system used in accounting.

Consider a company that issues new equity shares and raises ₹25 crore from investors. As a result of this transaction, the company's cash balance increases by ₹25 crore, strengthening its asset base. At the same time, shareholders' equity increases by the same amount, reflecting the company's obligation to its owners. Although the transaction appears as a single event, it has two simultaneous and equal financial effects.

This dual impact exists in all business transactions. When a company purchases machinery, one asset (machinery) increases while another asset (cash) decreases, or a liability (payable) is created. When salaries are paid, cash decreases and an expense (salary) is recognised, reducing profits and retained earnings.

Understanding this dual effect helps managers read financial statements more effectively. It explains why every change in assets is matched by a corresponding change in liabilities or equity and why the balance sheet always balances. For managers, this concept clarifies how operational and financing decisions are reflected simultaneously across different financial reports.

Revenue Recognition (Realisation) Concept:

Revenue refers to the inflow of cash either from the sale of goods or services by the business or from any of the business's resources that yield interest, royalty or dividends. Realisation concept states that revenue is recognised when a sale is made.

A sale is said to be made when the property in goods passes to the buyer and he becomes legally liable to pay. Credit sales are recorded as revenues on the day the sales are made, not when the money is received from the buyer. Rent for March 2025 will be recorded in the P&L account of the year ending March 31, 2025, even if the rent is received in May 2025.

However, there are some exceptions to this general rule of revenue recognition. For example, in the case of construction projects which may have duration of two to three years, revenue is recognised on a proportionate basis. This means the revenue is treated as realised in accordance with the stage of work completed at the end of the accounting period. Similarly, when goods are sold on a hire-purchase basis, revenue is recognised based on the instalments collected over time, rather than at the point of sale.

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Matching Concept:

All expenses incurred during the year must relate to the current accounting period. Any advance payments (prepaid expenses) or amounts still payable (outstanding expenses) must be adjusted by deducting or adding them, respectively. This is the essence of the concept.

For example, suppose you pay ₹1,300 for an expense that covers 13 months (1 year and 1 month). This payment includes one extra month that belongs to the next accounting year. Since the monthly cost is ₹100, the portion for the next year is also ₹100 (₹1,300 - ₹1,200).

To match the expenses with the income of the current year, you should deduct ₹100 and record only ₹1,200 as the expense for the current year.

Similarly, if part of the income received in the current year actually belongs to the following year, you adjust in the same way.

To ascertain the amount of profit earned or the loss incurred during a particular period, revenues of the period must be matched with the costs (expenses) of the period. The term "matching" refers to the appropriate association of related revenues and expenses. The revenue earned during a period is compared with the expenses incurred to earn that revenue, measuring the income of that period.

The matching concept states that all revenues earned during an accounting year, whether received during that year or not, and all costs incurred, whether paid during that year or not, should be taken into account when ascertaining profit or loss for that year. The question regarding when the payment was received or was made is irrelevant. For example, a salesman made sales in December 2024 and as per company policy, he was paid a commission of Rs 10,000 in January 2025 for those sales. Although the commission was paid in January 2025, it is related to sales made in December 2024. According to the matching concept, this commission should be treated as an expense for December 2024, not January 2025. This is because the revenue was earned in December 2024, and the related cost must be matched to the same month to find the correct profit or loss.

Full Disclosure Concept:

This concept states that accounting reports should disclose fully and fairly the information they intend to present. This enables users to make an accurate assessment of the enterprise's profitability and financial soundness, helping them to make informed decisions. These reports should be prepared honestly and disclose sufficient information that is of material interest to various stakeholders. The Companies Act 2013 requires that the financial statements of a company should provide a true and fair view of its state of affairs, and it also prescribes the format in which these statements are to be prepared. Regulatory bodies like SEBI also mandate that companies make full disclosures to provide a true and fair view of their profitability and other financial state of affairs.

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Consistency Concept:

According to this concept, accounting policies and practices followed by businesses should be uniform and consistent over time.

Accounting practices should remain unchanged from one period to another. This is essential for comparing the firm's performance over time, as well as for comparing it with other firms. For example, if the policy adopted for depreciation over two years is different, the profit will not be comparable because the valuation method used is inconsistent. Thus, it is essential to adhere to the concept of consistency in preparing financial statements, ensuring that the accounting results for different periods are comparable.

However, the concept of consistency does not imply inflexibility. Necessary changes can be made, and improved accounting techniques can be adopted. These changes should be fully disclosed by presenting them in the financial statements, along with their potential effects on the business's financial results.

Conservatism Concept:

The concept of conservatism is based on the policy of playing safe. This concept (also called prudence) follows the rule "anticipate no profit but provide for all possible losses".

According to this concept, a conscious approach should be adopted when calculating income to ensure that the enterprise's profits are not overstated. Profits shall not be recorded until realised, but all losses, even those which may have a remote possibility, are to be recorded in the books of account. On the basis of this concept, inventory is valued at cost or market price, whichever is less. Similarly, provisions are made for possible bad and doubtful debts, as well as discounts on debtors, in accordance with the principle of conservatism.

Materiality Concept:

A fact is considered material if there is reason to believe its knowledge would influence the decision of an informed user of financial statements. The materiality concept states that accounting should attach importance to material details and ignore insignificant details. This is done to avoid overburdening accounting with minute details. The materiality of a fact depends on its nature and the amount involved. For example, money spent on expanding the production plant would be a material fact because it helps increase the firm's revenue. Such a material fact should be disclosed through the financial statements. In cases where the amount involved is minimal, accounting principles may not be strictly adhered to. For example, stock of erasers, pencils, scales, etc., is not shown as an asset; instead, the amount of stationery purchased in an accounting period is treated as an expense of that period, whether it is consumed or not.

Objectivity Concept:

According to this concept, accounting transactions should be recorded objectively, free from the bias of accountants and others. For this, each transaction should be

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supported by verifiable documents or vouchers, as well as reliable evidence. All transactions must be supported by documents, such as invoices, bills, receipts, and bank statements. This helps ensure that the information presented is truthful, unbiased, and can be verified by others, including auditors or stakeholders.

Accounting Process

Accounting is a systematic process that ensures accurate, organised and meaningful financial information for business. Accounting is the backbone of financial management in any organisation. Accounting provides stakeholders with essential information for informed decision-making and strategic planning. A well-organised accounting process is crucial for maintaining transparency, consistency, and reliability in financial reporting.

The key steps in the accounting process are as follows:

- ◊ **Recording Transactions:** The first step in accounting is to record every financial transaction of the business. These transactions are recorded in the books of original entry, such as a journal, in a timely and accurate manner.
- ◊ **Classifying Transactions:** The next step after recording transactions is to categorise them. This is done by posting them into the appropriate ledger accounts. Examples of ledger accounts include the sales account, salary account, and purchase account, among others. The process of classification helps to track specific areas of business activity.
- ◊ **Summarising Records:** Once transactions are recorded and classified, periodic summaries are prepared in the form of financial statements, such as the income statement (profit and loss account), balance sheet, and others. These summaries provide an overview of the business's overall health.
- ◊ **Analysing and Interpreting:** Now that we have the financial statements, the next step is to analyse the numbers to make sense of them. This involves using tools such as ratio analysis, trend analysis, and comparative statements to draw conclusions.
- ◊ **Communicating Results:** The final stage involves clearly and effectively communicating the financial information to stakeholders. Stakeholders include business owners, potential investors, creditors, suppliers, and other relevant parties.

Accounting Equation

At any moment, the resources used by a business must have been financed either by the owners or by external parties such as lenders and suppliers. The owners' claim on the business is referred to as capital, while the claims of outsiders are classified as liabilities. Together, these claims must always equal the total value of assets employed in the business.

Each component of the accounting equation corresponds to an element of the balance sheet. The balance sheet is a financial statement that presents a snapshot of a firm's

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assets, liabilities, and capital at a specific point in time. The asset side shows what the business owns or controls, while the liabilities and capital side shows how those assets have been financed. When managers analyse business transactions, they are essentially examining how these transactions affect the accounting equation.

The accounting equation expresses the fundamental principle that a business's resources are always equal to the claims on those resources. In other words, the total assets of a business must be equal to the combined claims of owners and external parties. This relationship is expressed through the accounting equation:

$$A = L + C$$

where

A represents Assets, L represents Liabilities, and C represents Capital (owner's equity).

The equation can also be rearranged to determine missing values, depending on the information available:

$$\text{Capital (C)} = \text{Assets (A)} - \text{Liabilities (L)}$$

$$\text{Liabilities (L)} = \text{Assets (A)} - \text{Capital (C)}$$

The fact that total assets always equal total liabilities plus capital explains why the balance sheet always balances. This equality is not coincidental; it reflects the fundamental logic of accounting and underlines why the accounting equation is central to understanding a firm's financial position.

Consider a newly incorporated company that receives an initial equity investment of ₹5,00,000 from its promoter. From an accounting perspective, the company now controls resources in the form of cash amounting to ₹5,00,000. At the same time, this amount represents the source of financing provided by the owner and is therefore recognised as share capital (or owner's equity) in the company's books.

Thus, the business's resources (cash) and the claims on those resources (owner's equity) are equal. This transaction clearly illustrates the accounting equation, where assets are financed entirely by capital at the initial stage of operations.

Now, assume a company that has already been established and is carrying out routine business activities. The following transactions take place during the period. Each transaction is analysed in terms of its impact on assets, liabilities, and equity.

- ◊ Opening a bank account - The company deposits ₹4,80,000 into its bank account with State Bank of India.

Accounting impact:

Bank balance (asset) increases by ₹4,80,000

Cash in hand (asset) decreases by ₹4,80,000

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This transaction represents a change in the composition of assets only. The total assets of the business remain unchanged, and there is no effect on liabilities or capital.

◊ Purchase of furniture through cheque - The company purchases furniture worth ₹60,000 and makes payment by cheque.

Accounting impact:

Furniture (asset) increases by ₹60,000

Bank balance (asset) decreases by ₹60,000

Here again, one asset is replaced by another. The total value of assets remains the same, and there is no impact on liabilities or equity.

◊ Purchase of plant and machinery with part cash and part credit - The company purchases plant and machinery costing ₹1,25,000. An advance of ₹10,000 is paid in cash, and the balance is payable to the supplier, M/s Georgia.

Accounting impact:

Plant and machinery (asset) increases by ₹1,25,000

Cash (asset) decreases by ₹10,000

Liability (creditor – M/s Georgia) increases by ₹1,15,000

This transaction shows that assets can be financed partly through internal resources (cash) and partly through external claims (liabilities).

◊ Purchase machinery on credit - Machinery worth ₹5,00,000 are purchased from M/s Tojo Traders on credit.

Accounting impact:

Machinery (asset) increases by ₹5,00,000

Liability (creditor – M/s Tojo Traders) increases by ₹5,00,000

This transaction increases both assets and liabilities by the same amount, keeping the accounting equation in balance.

Rules of Debit and Credit

For accounting purposes, all accounts are classified into five broad categories:

Assets, Liabilities, Capital (owner's equity), Expenses or Losses, and Revenues or Gains.

To record the financial impact of business transactions, accounting follows a set of consistent rules that indicate when an account should be debited or credited.

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The basic rules are as follows:

Rules relating to assets and expenses

Assets and expenses represent the use of resources by the business.

- ◊ An increase in an asset is recorded as a debit, while a decrease in an asset is recorded as a credit.
- ◊ Similarly, an increase in an expense or loss is recorded as a debit, while a decrease in an expense or loss is recorded as a credit.

Rules relating to liabilities, capital, and revenues

Liabilities, capital, and revenues represent sources of funds or claims on the business.

- ◊ An increase in a liability is recorded as a credit, while a decrease in a liability is recorded as a debit.
- ◊ An increase in capital (owner's equity) is recorded as a credit, while a decrease in capital is recorded as a debit.
- ◊ An increase in revenue or gain is recorded as a credit, while a decrease in revenue or gain is recorded as a debit.

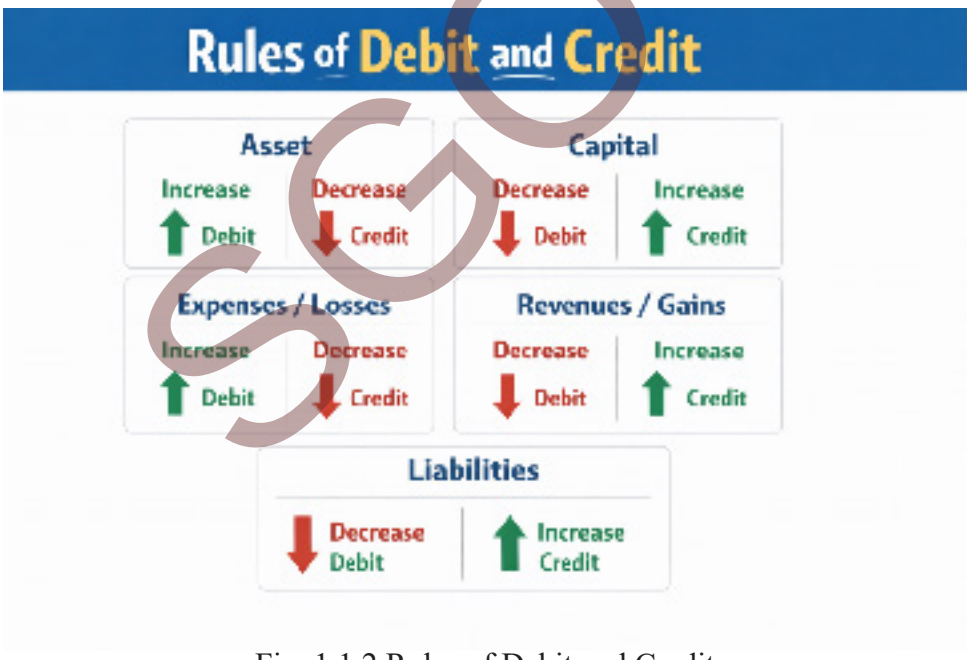


Fig. 1.1.2 Rules of Debit and Credit

Example:

1. The company purchases office supplies for ₹15,000 and pays in cash.

Analysis of the transaction:

- ◊ Office Supplies (expense) increases by ₹15,000 → Debit

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◊ Cash (asset) decreases by ₹15,000 → Credit

Journal entry:

Office Supplies Expense A/c Dr ₹15,000

To Cash A/c ₹15,000

(Being office supplies purchased and paid in cash)

2. The company sells goods for ₹40,000 and receives cash immediately.

Analysis of the transaction:

◊ Cash (asset) increases by ₹40,000 → Debit

◊ Sales Revenue (income) increases by ₹40,000 → Credit

Journal entry:

Cash A/c Dr ₹40,000

To Sales Revenue A/c ₹40,000

(Being goods sold for cash)

3. The company pays monthly office rent of ₹25,000 in cash.

Analysis of the transaction:

◊ Rent Expense (expense) increases by ₹25,000 → Debit

◊ Cash (asset) decreases by ₹25,000 → Credit

Journal entry:

Rent Expense A/c Dr ₹25,000

To Cash A/c ₹25,000

(Being office rent paid)

Journal

To initially record transactions, firms use a record called journal, which is a chronological log of financial entries. Keeping this journal is crucial for further processing, such as classifying and summarising.

Journals are compiled by referring to supporting documentation, such as bills, vouchers, and invoices, which provide the raw data for financial transactions. The process of logging business transactions in the journal is known as journalising. Each recorded transaction in the journal is a journal entry. Under each entry, you add a short

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explanation called the narration. It's like the caption under a photo, giving a quick and precise context so that anyone reading it knows exactly what happened.

Table 1.1.1 Format of a Journal

Date	Particulars	L.F.	Amount (Dr)	Amount (Cr)

Journalising Process

Recording all of a business's financial transactions in a journal as they occur is called journalising. These journal entries are logged in the journal during this process. No transaction is recorded in the accounting system without first being entered in the journal, which is the book of original entry. Nowadays, companies often maintain multiple types of journals, as businesses vary significantly in size and function. Journals are divided into two categories: General and Special. The most common type is the general journal, which records every transaction within a company. The general journal is more common among smaller businesses with fewer transactions. Larger trade or manufacturing companies find this record-keeping cumbersome, so they require separate, specialised journals to log certain routine transactions efficiently. The format and content of specialised journals are not subject to any standards. They are customised based on the needs, activities, and assets of the business.

Preparation of Journal

A journal has five columns: date, particulars, ledger folio, debit amount, and credit amount. The ledger folio column indicates the ledger page number where the journal entry will be later transferred. Therefore, the ledger folio is left blank when the journal entry is initially recorded. Journal entries follow specific rules for debiting and crediting the different types of accounts involved in a transaction.

Significant steps in journalising that you should remember while preparing the journal are:

- ◊ Read the given transaction carefully and identify the accounts related to the transaction.
- ◊ Then identify the type of accounts in the given transaction. The types of accounts include personal accounts, real accounts, and nominal accounts.
- ◊ Identify which account to be debited and which account to be credited based on the rules of accounts.
- ◊ Enter the transaction date in the date column.

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- ◊ In the particulars column, write the debit entry (write Dr. at the end of the debit), and in the next line, write the credit entry (after leaving a little space from the left side and start with 'To'), and give a narration below the entry.
- ◊ Enter the debit amount and credit amount in the respective columns.

Subsidiary Books

In modern business organisations, a large number of transactions occur repeatedly every day. Recording all these transactions in a single journal would be time-consuming, inefficient, and prone to errors. To ensure speed, accuracy, and efficiency in recording transactions, the journal is subdivided into special journals.

Special journals are designed to record transactions of a similar nature in a separate book. Since many business transactions follow a regular pattern, such as cash receipts, cash payments, credit sales, and credit purchases, they can be recorded quickly and systematically in dedicated journals. For example, all cash-related transactions are recorded in one book, all credit sales in another and all credit purchases in a separate book.

These special journals are also known as subsidiary books or daybooks. Any transaction that does not fit into a specific special journal is recorded in a separate book known as the Journal Proper.

In this unit, the following special purpose books are discussed:

- ◊ Cash Book
- ◊ Purchases Book
- ◊ Purchases Return (Returns Outwards) Book
- ◊ Sales Book
- ◊ Sales Return (Returns Inwards) Book
- ◊ Journal Proper

1. Cash Book

The cash book is a record in which all cash and bank transactions of a business are recorded. It begins with the opening cash and bank balances and is usually maintained on a monthly basis. Every organisation, whether large or small, profit-making or not-for-profit maintains a cash book because cash and bank transactions occur frequently.

The cash book serves a dual purpose. It acts both as a book of original entry (journal) and as a ledger account for cash and bank. When a cash book is maintained, cash and bank transactions are not recorded separately in the journal, and no separate cash or bank account is required in the ledger.

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Types of Cash Book

a. Single Column Cash Book

The single column cash book records only cash receipts and cash payments in chronological order. It contains one amount column on each side and is suitable for organisations where transactions are conducted entirely in cash.

Table 1.1.2 Format of a single column cash book

Cash Book

Dr. **Cr.**

Date	Receipts	L.F.	Amount	Date	Payments	L.F.	Amount

b. Double Column Cash Book

The double column cash book contains two amount columns on each side, one for cash and one for bank transactions. Since most organisations prefer to transact through banks, this form is widely used. It allows businesses to track both cash and bank balances in a single book.

When cash is deposited into or withdrawn from the bank, both aspects of the transaction are recorded in the cash book itself. Such entries are known as contra entries and are marked accordingly, as they do not require posting to the ledger. The bank column can show a credit balance in case of bank overdraft.

Table 1.1.3 Format of a Double Column Cash Book

Cash Book

Dr. **Cr.**

Date	Receipts	L.F.	Cash	Bank	Date	Payments	L.F.	Cash	Bank

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c. Petty Cash Book

Organisations incur many small, routine expenses such as conveyance, postage, and minor office expenses. Recording all these payments in the main cash book is inefficient. To simplify the process, a separate petty cash book is maintained by a petty cashier.

The petty cash system usually operates on the imprest system. Under this system, a fixed amount is given to the petty cashier at the beginning of a period. As small expenses are incurred, the amount spent is periodically reimbursed, restoring the imprest to its original level.

The petty cash book is designed with separate columns for common expenses, along with a miscellaneous column and a remarks column. This system reduces workload, improves control over minor expenses, and ensures efficient cash management.

Table 1.1.4 Format of a Petty Cash Book

Petty Cash Book

Amount Received	Date	Particulars	Voucher No.	Amount Paid	Analysis of Payments				
					Postage	Telephone	Conveyance	Stationery	Misc.

2. Purchases (Journal) Book

All credit purchases of goods made by a business are recorded in the Purchases Journal, while cash purchases are recorded in the Cash Book. Purchases of items other than goods such as office equipment, furniture, or buildings are not entered in the Purchases Journal. These transactions are recorded either in the Journal Proper if the purchase is made on credit, or in the Cash Book if payment is made immediately.

The entries in the Purchases Journal are based on source documents such as invoices or bills received from suppliers. Transactions are recorded at the net invoice value. Details such as trade discounts or other adjustments shown on the invoice are not recorded separately in this book.

Table 1.1.5 Format of purchases (journal) book

Purchases (Journal) Book

Date	Invoice No	Name of the supplier (Account to be credited)	L.F.	Amount

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3. Purchases Return (Journal) Book

The Purchases Return Book is used to record the return of goods previously purchased on credit. Goods may be returned to suppliers for various reasons such as poor quality, defects, or failure to meet specifications. Whenever goods are returned, the buyer prepares a debit note, usually in duplicate. The original debit note is sent to the supplier to inform them of the return and to enable them to make the necessary adjustments in their accounts. In response, the supplier may issue a credit note acknowledging the return.

The debit note serves as the primary source document for recording entries in the Purchases Return Book. It contains details such as the name of the supplier, description and value of goods returned, the reason for return, and the date. Debit notes are serially numbered to ensure proper control and systematic recording.

Table 1.1.6 Format of purchases return (journal) book

Purchases return (journal) book

Date	Debit Note No.	Name of the supplier (Account to be debited)	L.F.	Amount

4. Sales (Journal) Book

The Sales Journal is used to record all credit sales of goods made by a business. Cash sales are not entered in this book; they are recorded in the Cash Book. The format of the Sales Journal is similar to that of the Purchases Journal.

Entries in the Sales Journal are based on sales invoices or bills issued by the firm to its customers. Each entry records essential details such as the date of sale, invoice number, name of the customer, and the invoice amount. Other terms and conditions of the sale are contained in the invoice itself. For each credit sale, two or more copies of the sales invoice are prepared, and the bookkeeper records the transaction using one copy.

An additional column may be included in the Sales Journal to record sales tax collected from customers, which is payable to the government within the prescribed time. At the end of each accounting period, usually monthly, the total of the sales amount column is posted to the credit of the Sales Account in the ledger. Individual customer accounts are posted to the debit side, generally on a daily basis.

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Table 1.1.7 Format of sales (journal) book

Sales (journal) book

Date	Invoice No.	Name of the customer (Account to be debited)	L.F.	Amount

5. Sales Return (Journal) Book

The Sales Return Book is used to record goods returned by customers against earlier credit sales. When goods are received back from a customer, the seller prepares a credit note to acknowledge the return and to make the necessary accounting adjustments. A credit note is similar in purpose to a debit note, but it is issued by the seller, whereas a debit note is issued by the buyer. The credit note is generally prepared in duplicate and contains important details such as the name of the customer, description and value of the goods returned, and the date of return. Each credit note is serially numbered to ensure proper control and systematic record-keeping.

The credit note serves as the primary source document for recording entries in the Sales Return Book. This book helps businesses accurately track returns, adjust customer balances, and determine net sales for the accounting period.

Table 1.1.8 Format of sales return (journal) book

Sales return (journal) book

Date	Credit Note No.	Name of the customer (Account to be credited)	L.F.	Amount

6. Journal Proper

Journal Proper (also called the Residual Journal) is maintained to record transactions that cannot be entered in any of the special journals such as the cash book, purchases journal, or sales journal. It acts as a supplementary book to ensure that all accounting transactions are properly recorded.

The following types of transactions are recorded in the Journal Proper:

a. Opening entries

At the beginning of a new accounting year, opening balances of assets, liabilities, and capital are recorded through an opening entry to start a fresh set of books.

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b. Adjustment entries

At the end of an accounting period, adjustment entries are made to comply with the accrual basis of accounting. Examples include outstanding expenses, prepaid expenses, depreciation, and income received in advance.

c. Rectification entries

Entries required to correct errors made in the books of original entry or in ledger posting are recorded in the Journal Proper.

d. Transfer and closing entries

At the end of the accounting year, drawing accounts are transferred to the capital account. Revenue and expense accounts are closed by transferring their balances to the Trading Account and Profit and Loss Account and are recorded as journal entries. These entries are also known as closing entries.

e. Other miscellaneous entries

In addition to the above, the Journal Proper is used to record the following transactions:

- ◊ dishonour of cheques and cancellation of discounts allowed or received
- ◊ credit purchase or sale of items other than goods (such as furniture or machinery)
- ◊ goods withdrawn by the owner for personal use
- ◊ goods distributed as free samples for sales promotion
- ◊ endorsement and dishonour of bills of exchange
- ◊ transactions relating to consignment and joint ventures
- ◊ loss of goods due to fire, theft, or spoilage

Types of Accounts

In accounting, all transactions are classified into three main types of accounts. They are Personal Account, Real Account and Nominal Account.

Personal accounts are accounts associated with individuals, firms, companies, and organisations. It includes natural people, artificial people or representatives depending on the situation. E.g. Anil's account, ABC Company's account, Ramesh's account.

The golden rule of Personal Account is:

Debit the receiver, Credit the giver

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So when the transaction is “cash paid to Ram”, cash account (real account) and Ram account (personal account) is affected. As Ram’s account is a personal account, we can apply the golden rule for personal account and therefore the journal entry will be as:

Ram A/c Dr

To Cash A/c

(Being cash paid to Ram)

Real account includes those accounts that deal with assets, properties or possession. They are accounts in balance sheet which are used for recording assets, liabilities and owner’s equity. e.g. Cash account, Machinery account, Building account.

The golden rule of real account is:

Debit what comes in, Credit what goes out

For e.g. if the transaction is 'purchased furniture for cash' (both furniture and cash are real accounts and we can apply the golden rule of real account), then the journal entry will be as:

Furniture A/c Dr

To Cash A/c

(Being furniture purchased for cash)

Nominal accounts are those accounts which are related to the expenses and incomes of business. Accounts that associate with income, profits and losses are nominal accounts.

The golden rule of nominal count is:

Debit all expenses and losses, Credit all incomes and gains

So, if the transaction is “paid salary”, the affected accounts are salary (nominal account) and cash (real account). By applying the golden rule of nominal account, the journal entry will be as:

Salary A/c Dr

To Cash A/c

(Being salary paid)

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Example of Journal Entry

Qn: 20/03/2020 - Sold goods for cash ₹400.

This is a cash transaction and the two aspects of these transactions are cash and goods (sales). Both these aspects come under the real account. There, cash comes in and goods go out in the form of sales. The accounting rule for the real account is "debit what comes in and credit what goes out." So, the journal entry is:

Date	Particulars	L.F.	Amount (Dr)	Amount (Cr)
20/03/2020	Cash A/c Dr To Sales A/c (Sold goods for cash)		400	400

Illustration 1.1.1

Journalise the following transactions:

01/01/2023 Started business with cash ₹5,00,000

15/01/2023 Purchased goods for ₹55,000

22/01/2023 Purchased furniture for ₹60,000

26/01/2023 Sold goods for cash ₹40,000

30/01/2023 Paid wages for ₹30,000

Hints:

Apply the rules of personal account for capital account (it is a personal account because it is an account of owners who are real persons), rule of real account for cash account, the purchase account, furniture account, sales account and rule of nominal account for wages.

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Solution

Date	Particulars	L.F.	Amount (Dr)	Amount (Cr)
01/01/23	Cash A/c Dr To Capital A/c (Started business with cash)		5,00,000	5,00,000
15/01/23	Purchases A/c Dr To Cash A/c (Purchased goods for cash)		55,000	55,000
22/01/23	Furniture A/c Dr To Cash A/c (Purchased furniture for cash)		60,000	60,000
26/01/23	Cash A/c Dr To Sales A/c (Sold goods for cash)		40,000	40,000
30/01/23	Wages A/c Dr To Cash A/c (Paid wages)		30,000	30,000
	TOTAL		**6,85,000**	**6,85,000**

Illustration 1.1.2

Journalise the following:

01/01/2024 Started business with ₹2,00,000

12/01/2024 Deposit cash to bank ₹30,000

14/01/2024 Purchased goods for cash ₹50,000

16/01/2024 Sold goods for cash ₹10,000

18/01/2024 Paid ₹2,000 for telephone charges

19/01/2024 Paid ₹1,500 for advertisement

24/01/2024 Bought goods from RK Traders for ₹40,000 on credit

26/01/2024 Sold goods to Balakrishnan for ₹20,000 on credit

27/01/2024 Paid rent ₹5,000

28/01/2024 Sold goods worth ₹4,000 to Ravi & Sons for cash

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29/01/2024 Paid salary ₹25,000

30/01/2024 Withdrew ₹15,000 from bank for private use

Solution

Date	Particulars	L.F.	Amount (Dr)	Amount (Cr)
01/01/2024	Cash A/c Dr To Capital A/c (Started business with cash)		2,00,000	2,00,000
12/01/2024	Bank A/c Dr To Cash A/c (Deposited cash into bank)		30,000	30,000
14/01/2024	Purchases A/c Dr To Cash A/c (Purchased goods for cash)		50,000	50,000
16/01/2024	Cash A/c Dr To Sales A/c (Sold goods for cash)		10,000	10,000
18/01/2024	Telephone Charges A/c Dr To Cash A/c (Paid telephone charges)		2,000	2,000
19/01/2024	Advertisement A/c Dr To Cash A/c (Paid cash for advertisement)		1,500	1,500
24/01/2024	Purchases A/c Dr To RK Traders A/c (Purchased goods on credit)		40,000	40,000
26/01/2024	Balakrishnan A/c Dr To Sales A/c (Sold goods on credit)		20,000	20,000

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27/01/2024	Rent A/c Dr To Cash A/c (Paid rent)		5,000	5,000
28/01/2024	Cash A/c Dr To sales A/c (Sold goods for cash)		4,000	4,000
29/01/2024	Salary A/c Dr To Cash A/c (Paid Salary)		25,000	25,000
30/01/2024	Drawings A/c Dr To Bank A/c (Withdrew cash from bank for personal use)		15,000	15,000
	TOTAL		**4,02,500**	**4,02,500**

Ledger

Ledger is a book that comprises of various accounts. It includes all the accounts of the business enterprise, whether personal, real or nominal. A ledger is all about grouping and summarising similar types of transactions into an account. For example, all cash transactions go into the Cash account. This process of transferring the journal entries into the appropriate ledger accounts is called Posting. The exact name of accounts used in the journal should be used in the ledger. Posting should be completed before the preparation of financial statements. The main goal of a ledger is to categorise transactions based on their similarity. This makes it easier to locate and understand data. It allows an organised classification of each transaction.

Preparation of Ledger Account

- ◊ A ledger account has two sides: one is a debit, which is visible on the left side of the account, and the other is a credit, which is visible on the right side of the account.
- ◊ Every financial transaction has a corresponding debit and credit entry. The debit entry is recorded on the debit side of the corresponding ledger account, with a reference to the credited account from the journal entry. Likewise, the credit entry is posted on the credit side of the respective ledger account, referencing the account debited in the journal.
- ◊ The balance of a ledger account is determined by the difference between the debit and credit sides. If the debit side total exceeds the credit side, the account

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shows a debit balance. Conversely, if the credit side total is greater, it results in a credit balance.

◊ The closing balance at the end of the accounting period is brought down to the succeeding year as the opening balance.

Table 1.1.9 Format of a Ledger

Dr. Name of the account Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount

The ledger format includes a debit side (Dr.) and a credit side (Cr.). Each side involves date, particulars, J.F. (journal folio), and amount. Journal folio indicates the page number of journal where the entry is recorded. Enter data from the journals into the relevant accounts. For instance, in the case of cash account, money paid out is recorded on the credit side, while money received is recorded on the debit side. Similarly, the rules about different items should be applied while creating entries for the transaction.

Rules for posting transactions in ledger accounts

◊ Separate accounts should be opened in the ledger for posting transactions related to different items recorded in the journal. For example, individual ledger accounts may be maintained for Sales, Purchases, Sales Returns, Salaries, Rent, and other such items to ensure proper classification and tracking of financial transactions.

◊ The entries recorded in the journal are posted to the corresponding ledger accounts.

◊ In the "Particulars" column on the debit side of a ledger account, the word "To" is used before mentioning the corresponding credit account involved in the transaction.

◊ In the "Particulars" column on the credit side of a ledger account, the word "By" is used before mentioning the corresponding debit account involved in the transaction.

◊ The account that is debited in the journal must also be debited in the ledger, with a reference to the corresponding credited account. Similarly, the account that is credited in the journal must be credited in the ledger, with a reference to the corresponding debited account.

Ledger accounts are prepared based on the journal entries recorded earlier. Each transaction in the journal involves at least two accounts. One account is debited and the other one is credited. When posting these entries in the ledger, each account involved must be opened separately in the ledger book.

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Now, let's see how we can prepare ledger accounts from journal. For this we can consider the previous journal entry that we have discussed:

Date	Particulars	L.F.	Amount (Dr)	Amount (Cr)
20/03/2020	Cash A/c Dr To Sales A/c (Sold goods for cash)		400	400

In the above transaction, the accounts involved are cash account (debit) and sales account (credit). So while preparing the ledger for Cash A/c, first, the date on the journal is mentioned on the date column on the debit side of the ledger A/c (Cash A/c). Next, the particular column on the debit side of the Cash A/c is recorded as "To Sales A/c", the journal folio number (if available) and the amount column on debit side is recorded as 400.

Dr. Cash A/c Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
20/03/2020	To Sales A/c		400				

Similarly for Sales A/c, the credit side is recorded with the "particular" column recorded as "By Cash A/c".

Dr. Sales A/c Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
				20/3/2020	By Cash A/c		400

Entries are posted in the ledger in the chronological order of their appearance in the journal. Each transaction is posted twice in the ledger, once on the debit side of one account and once on the credit side of the other. This helps to ensure that the double entry system is correctly followed.

Balancing and Closing the Ledger Account

After posting all transactions into respective ledger accounts, the next step is to balance each account. This helps in determining whether an account has a debit balance or a credit balance. Balancing refers to the process of calculating the difference between the debit and the credit sides of a ledger account to determine the closing balance of that account. If the debit side total exceeds the credit side total, then the account has a debit balance. Conversely, if the credit side total exceeds the debit side total, then the

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account has a credit balance. If both sides are equal, the account is balanced off with zero balance.

When the debit side is greater, the difference is posted on the credit side as "By Balance c/d". If the credit side is greater, the difference is posted on the debit side as "To Balance c/d".

In the next accounting period, this balance is carried forward on the opposite side as "To balance b/d" (if brought down on the debit side) or "By balance b/d" (if brought down on the credit side).

Dr. Cash A/c Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
20/03/2020	To Sales A/c		400	31/03/2020	By balance c/d		400
			400				400
1/04/2020	To balance b/d		400				

Dr. Sales A/c Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
31/03/2020	To balance c/d		400	20/3/2020	By Cash A/c		400
			400				400
				1/04/2020	By balance b/d		400

Balancing ledger accounts is essential for preparing the trial balance, which forms the basis for preparation of final accounts like the Trading, profit and Loss Account and the Balance Sheet.

Illustration 1.1.3

From the following particulars, prepare a journal and post them in the ledger

05/03/2021 Started business with cash ₹2,50,000

12/03/2021 Purchased goods for ₹40,000

29/03/2021 Sold goods for cash ₹35,000

30/03/2021 Paid wages for ₹10,000

31/03/2021 Paid rent ₹4,000

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Solution

Journal

Date	Particulars	L.F.	Amount (Dr)	Amount (Cr)
05/03/2021	Cash A/c Dr To Capital A/c (Started business with cash)		2,50,000	2,50,000
12/03/2021	Purchases A/c Dr To Cash A/c (Purchased goods for cash)		40,000	40,000
29/03/2021	Cash A/c Dr To Sales A/c (Sold goods for cash)		35,000	35,000
30/03/2021	Wages A/c Dr To Cash A/c (Paid wages)		10,000	10,000
31/03/2021	Rent A/c Dr To Cash A/c (Paid rent)		4,000	4,000
	TOTAL		**3,39,000**	**3,39,000**

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Ledger

Dr. **Cash A/c** Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
05/03/2021	To Capital A/c		2,50,000	12/03/2021	By Purchases A/c		40,000
29/03/2021	To Sales A/c		35,000	30/03/2021	By Wages A/c		10,000
				31/03/2021	By Rent A/c		4,000
				31/03/2021	By balance c/d		2,31,000
			2,85,000				**2,85,000**
1/04/2021	To balance b/d		2,31,000				

Dr. **Capital A/c** Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
31/03/2021	To balance c/d		2,50,000	05/03/2021	By Cash A/c		2,50,000
			2,50,000				2,50,000
				01/04/2021	By balance b/d		2,50,000

Dr. **Purchases A/c** Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
12/03/2021	To Cash A/c		40,000	31/03/2021	By balance c/d		40,000
			40,000				40,000
1/04/2021	To balance b/d		40,000				

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Dr. **Sales A/c** Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
31/03/2021	To balance c/d		35,000	29/03/2021	By Cash A/c		35,000
			35,000				35,000
				1/04/2021	By balance b/d		35,000

Dr. **Wages A/c** Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
30/03/2021	To Cash A/c		10,000	31/03/2021	By balance c/d		10,000
			10,000				10,000
01/04/2021	By balance b/d		10,000				

Dr. **Rent A/c** Cr.

Date	Particulars	J.F.	Amount	Date	Particulars	J.F.	Amount
31/03/2021	To Cash A/c		4,000	31/03/2021	By balance c/d		4,000
			4,000				4,000
01/04/2021	To balance b/d		4,000				

Note: Assets and liabilities account are balanced whereas accounts related to expenses and income are closed to trading or Profit and Loss Account.

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Trial Balance

In bookkeeping, a trial balance is used to list all the balances in the general ledger of the business. A Trial Balance is an accounting report that shows the total of debits and credits from the various ledger accounts in one place. It is used to check the accuracy of various debit and credit transactions recorded in the ledgers.

The primary purpose of preparing a trial balance is to ensure the mathematical accuracy of the entries in a company's bookkeeping system. A trial balance helps to detect any mathematical errors that have occurred in the double-entry system. Trial balance helps in the preparation of final accounts. It also helps to identify errors in journalising or posting. A trial balance provides a summary of all ledger balances at a glance.

Objectives of preparing a Trial Balance

- ◊ **Checking Arithmetical Accuracy:** The primary objective of preparing a trial balance is to verify the arithmetical accuracy of accounting records. According to the dual aspect concept, every debit must have a corresponding credit entry. Balances of all ledger accounts are listed in the trial balance, and if the debit and credit totals match, it indicates that the entries have been recorded correctly. However, this does not guarantee that the accounts are error-free.
- ◊ **Basis for Preparing Financial Statements:** The trial balance serves as the foundation for preparing financial statements such as the Income Statement (Profit and Loss Account) and the Balance Sheet. Without a well prepared trial balance, it would be very difficult to prepare accurate financial statements.
- ◊ **Summary of Ledger:** The trial balance provides a condensed view of the entire ledger on a particular date. This helps users quickly understand the status of various accounts without having to review detailed ledger entries.

Table 1.1.10 Format of a Trial Balance

Trial Balance

as on .....

Particulars	Debit	Credit

Steps in the Preparation of a Trial Balance

- ◊ Find the net balance at the end of the period in each ledger account. If the total debits exceed the total credits in the account, it's a debit balance, and if the total credits exceed the total debits, it's a credit balance.
- ◊ Transfer each debit balance to the debit column of the trial balance.
- ◊ Transfer each credit balance to the credit column of the trial balance.
- ◊ Sum up the debit and credit columns. If they match (tally), it indicates the entries are arithmetically correct.

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Illustration 1.1.4

Prepare trial balance based on the transactions given in Illustration 1.1.3

Solution

Trial Balance

as on 31st March, 2021

Particulars	Debit	Credit
Cash	2,31,000	
Capital		2,50,000
Purchases	40,000	
Sales		35,000
Wages	10,000	
Rent	4,000	
Total	**2,85,000**	**2,85,000**

Illustration 1.1.5

The following balances are extracted from the books of Mr. Arjun on 31st March 2025:

Capital	80,000
Cash in Hand	15,000
Furniture	20,000
Purchases	50,000
Sales	20,000
Rent Paid	5,000
Salaries	10,000
Commission Received	3,000
Creditors	10,000
Debtors	25,000
Bank Loan	20,000
Drawings	8,000

(**Hint:** Assets, expenses, and losses usually have debit balances, while liabilities, incomes, gains, and capital usually have credit balances. Drawings, a reduction in capital, have a debit balance).

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Solution

Trial Balance

as on 31st March, 2025

Particulars	Debit	Credit
Capital		80,000
Cash in Hand	15,000	
Furniture	20,000	
Purchases	50,000	
Sales		20,000
Rent Paid	5,000	
Salaries	10,000	
Commission Received		3,000
Creditors		10,000
Debtors	25,000	
Bank Loan		20,000
Drawings	8,000	
Total	**1,33,000**	**1,33,000**

1.1.4.2 Management Accounting

Accounting information is used by those who are directly or indirectly related to the business. A company's management also requires accounting information. However, the accounting information needs of management differ significantly from those of other stakeholders. The term management broadly covers all activities involved in directing and controlling an organisation.

While the type and extent of financial information required at different levels of management (low, middle, and top) may vary, the core purpose remains the same to support decision-making. Among these, top-level management plays a vital role in making strategic decisions that directly affect the organisation's profitability and market position.

Management accounting is a form of accounting designed for managers, focusing on utilising financial information to aid in planning, controlling, and making informed decisions. It emphasises how accounting information can be structured and applied

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to support key managerial activities such as planning, decision-making, and control, thereby integrating accounting within the broader framework of management.

Management accounting focuses on supplying relevant accounting information to internal users. The primary objective of management accounting is to assist these users in making informed decisions and enhancing the efficiency and effectiveness of operations. Management accounting helps management make informed decisions that improve the business's performance.

According to the Chartered Institute of Management Accountants, London, "Management accounting is the application of professional information in such a way as to assist the management in the formation of policies and in the planning and control of the operations of the undertaking.

J. Batty defines management accounting as "the term used to describe the accounting methods, systems, and techniques which, coupled with special knowledge and ability, assist management in its task of maximising profits or minimising losses".

Scope of Management Accounting

The scope of management accounting is broad, encompassing various areas of an organisation's accounting and decision-making systems:

1. **Financial Accounting:** It forms the foundation, providing historical data that management accounting uses to help management make decisions regarding planning and control. A sound financial accounting system is essential for effective management accounting.

2. **Cost Accounting:** Most of the Cost Accounting techniques, such as standard costing, Budgetary Control, Marginal Costing, Cost–Volume–Profit (CVP) Analysis, Differential Cost Analysis, and Inventory Control, are used by Management Accounting in its process of planning, controlling, and decision-making. Management Accounting uses the principles and practices of Cost Accounting.

3. **Forecasting and Budgeting:** Forecasting aids in preparing budgets, while budgeting facilitates the application of budgetary control techniques for managing future projects. Both tools are widely and effectively employed in management accounting to support planning and decision-making processes.

4. **Statistical Tools:** Tools such as graphs, charts, regression analysis, and index numbers are used in management accounting to present data clearly, facilitating better managerial decisions.

5. **Operational Research:** Techniques such as linear programming, game theory, and simulation methods are used in management accounting to solve complex decision-making problems.

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6. **Financial Analysis:** Methods such as ratio analysis, cash flow, and trend analysis are used to analyse and interpret financial data, making it easily understandable and usable to management.

7. **Tax Accounting and Planning:** Determining taxable income and tax liability is a crucial aspect of management accounting. In decision-making, it also involves analysing the impact of tax provisions on future projects, ensuring that tax implications are appropriately considered in planning and strategic choices.

1.1.4.3 Cost Accounting

Financial statements provide information about activities that have already occurred. In contrast, cost accounting is not limited to the past. It considers the past, present, and anticipated future costs of products or services.

Cost accounting is a system of determining the costs of products or services. It is a formal system of accounting used to record and track the costs of producing goods or services. It helps to ascertain and control the cost of a product.

The primary aim of cost accounting is to help managers find out the cost of running a business. Decision-making in modern management requires more information than that supplied by financial statements. Cost accounting provides cost-related information to various levels of management, enabling them to make better and more effective decisions. This information helps management make optimal use of scarce resources and thereby increase the business's profitability by avoiding unnecessary expenditure across various heads.

According to CIMA, London, 'Cost accounting is the process of accounting for costs from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centres and cost units. In its widest usage, it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of the profitability of activities carried out or planned."

According to L C Cropper, 'Cost accounting means a specialised application of the general principles of accounting, to ascertain the cost of producing and marketing any unit of manufacture or of carrying out any particular job or contract.

The application of cost accounting is not just limited to manufacturing concerns. Manufacturing and non-manufacturing activities that involve monetary value should consider the use of cost accounting. Banking and insurance companies, railways, airlines, shipping and road transport companies, hotels, wholesale and retail businesses, etc., may employ cost accounting techniques to operate efficiently. The management of these organisations needs to understand and recognise how cost accounting techniques can enhance their operations and decision-making.

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Objectives of Cost Accounting

◊ **Determine the cost of production:**

The primary goal of cost accounting is to determine the cost associated with producing each unit, job, process, or department. It calculates both actual costs and estimated costs for planning and control. Depending on the situation, various methods and techniques are employed to determine the cost.

◊ **Control and reduce cost:**

Cost accounting helps improve profitability by keeping costs under control and identifying areas where costs can be controlled. Various techniques, including standard costing, budgetary control, inventory management, and value analysis, are employed for this purpose. Due to growing competition, cost control and reduction have become primary objectives for many firms.

◊ **Support business decision-making:**

Cost accounting plays a crucial role in enabling management to make informed and effective business decisions. It provides valid cost data for decisions such as whether to make or buy a product, sell below cost, use idle plant capacity or launch a new product.

◊ **Determining the selling price:**

Cost accounting offers reliable cost information that helps determine the selling price of products or services. During tough times, such as a market downturn, it helps businesses determine how much they can afford to lower prices while remaining sustainable.

1.1.4.4 Relationship between Financial Accounting, Management Accounting and Cost Accounting

Financial accounting, management accounting, and cost accounting are all distinct yet interconnected branches within the broader field of accounting. Each serves a unique purpose and caters to different stakeholders within and outside an organisation. The primary purpose of financial accounting is to create standardised financial statements (balance sheet, income statement, and cash flow statement) for external stakeholders, including investors, creditors, and regulatory bodies. Management accounting focuses on providing tailored financial and non-financial information to internal stakeholders (managers and executives) to assist in decision-making, planning, and control within the organisation. It is more flexible in format and future-oriented in approach. At the same time, cost accounting focuses specifically on tracking and analysing the costs associated with producing goods or delivering services.

Cost accounting's detailed analysis of production costs informs management accounting's broader scope of planning and decision-making. The detailed cost information generated by cost accounting helps management in pricing, budgeting, and

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cost control, while also feeding into financial accounting for the accurate valuation of inventory and determination of the cost of goods sold. Management accounting often uses historical data and financial information from financial accounting as a basis for its analysis and future projections. While financial accounting provides an external overview, and cost accounting offers detailed cost insights, management accounting integrates this information to help managers make informed strategic decisions that improve efficiency, profitability, and operational success. In essence, financial accounting serves external reporting needs, management accounting supports internal decision-making, and cost accounting provides detailed cost insights that assist both. Together, they help businesses manage resources efficiently and achieve their objectives.



Summarised Overview

Accounting is the process of identifying, measuring, recording, and communicating financial information accurately and effectively. Its main functions include recording, classifying, summarising, analysing, interpreting, and communicating data, while its objectives are to maintain systematic records, determine profit or loss, assess financial position, and provide information to internal and external users. The major branches of accounting are financial accounting, which focuses on external reporting, management accounting, which supports internal planning and decision-making, and cost accounting, which helps in determining and controlling costs. Financial statements are prepared in accordance with Generally Accepted Accounting Principles (GAAP), which ensure uniformity, consistency, and comparability. Basic accounting concepts include business entity, money measurement, going concern, accounting period, cost, dual aspect, revenue recognition, matching, full disclosure, consistency, conservatism, materiality, and objectivity. The accounting process involves recording transactions in the journal, classifying them in the ledger, preparing the trial balance, and interpreting the results. The journal serves as the book of original entry and follows the rules of personal, real and nominal accounts. The ledger groups similar transactions under account heads and facilitates balancing. The trial balance is used to verify arithmetical accuracy and serves as a base for preparing final accounts. Management accounting utilises data from financial and cost accounting to support planning, control, and strategic decision-making. Cost accounting focuses on the ascertainment, control, and analysis of costs, supporting pricing and operational decisions. Financial, management, and cost accounting are interrelated and together provide a comprehensive accounting framework for effective business management.

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Self-Assessment Question

1. List and explain key functions of accounting.
2. Define accounting and explain its importance for different types of users. How does it help in assessing the financial position of a business?
3. Discuss the relevance and scope of accounting in today's business environment. How is it useful to both small enterprises and large corporations?
4. Explain the concept of Generally Accepted Accounting Principles (GAAP). How do these principles ensure comparability and reliability of financial statements across different organisations?
5. What are the key steps in accounting process?
6. Journalise the following transactions of 2025

   March 1. Paid wages ₹1,200

   March 3. Purchased Land ₹5,000

   March 5. Sold goods ₹20,000

   March 7. Paid to Lal ₹3,000

   March 10. Drew from Bank ₹30,000
7. Prepare Journal entries for X. Ltd for the month of January from the following details

   Jan 2 – Purchased raw material for production for cash ₹ 6,000

   Jan 6 – Paid wages to carpenter for making chair for office ₹1,500

   Jan 10 – Sold goods worth ₹5,000

   Jan 12 – Mr. B purchased goods on credit for ₹1,000

   Jan 20 – Purchased material on credit from C for ₹2,500

   Jan 23 – Paid wages to factory workers ₹5,000
8. Journalise the following transactions and post it in appropriate ledgers.

   March 1: Paid wages ₹1,200

   March 3: Purchased Land ₹5,000

   March 5: Sold goods ₹20,000

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March 7: Paid to Lal ₹3,000

March 10: Drew from Bank ₹30,000

March 12: Received from James ₹50,000

9. What is the purpose of creating a ledger?

10. Prepare ledger based on the following journal transactions.

Date	Particulars	L.F.	Amount (Dr)	Amount (Cr)
07/03/2025	Cash A/c Dr To Capital A/c (Started business with cash)		5,00,000	5,00,000
13/03/2025	Purchases A/c Dr To Cash A/c (Purchased goods for cash)		40,000	40,000
14/03/2025	Cash A/c Dr To Sales A/c (Sold goods for cash)		35,000	35,000
17/03/2025	Wages A/c Dr To Cash A/c (Paid wages)		10,000	10,000
18/03/2025	Rent A/c Dr To Cash A/c (Paid rent)		4,000	4,000
19/03/2025	Salary A/c Dr To Cash A/c (Paid salary)		20,000	20,000
20/03/2025	Furniture A/c Dr To Cash A/c (Purchased furniture for cash)		40,000	40,000
	TOTAL		**6,49,000**	**6,49,000**

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11. Prepare trial balance from the data given below:

Opening Stock	5,000	Sales	1,00,000
Purchases	75,000	Debtors	15,000
Creditors	7,500	Drawings	7,500
Capital	1,00,000	Returns Inward	10,000
Returns Outward	5,000	Carriage Inward	10,000
Carriage Outward	5,000	Discount allowed	2,500
Interest received	10,000	Bad Debts	2,500
Provision for bad debts	5,000	Trade expenses	10,000
Wages	25,000	Goodwill	15,000
Investments	25,000	Plant and Machinery	25,000

12. Define Management Accounting and explain its scope.

13. Describe the relationship between financial accounting, management accounting and cost accounting.

14. Define cost accounting and explain its objectives.



Assignments

1. You have recently joined a manufacturing firm as a junior accountant. Create transactions and prepare journal entries for the transactions in your firm and post them into their respective ledger accounts.

2. You are a shop owner trying to understand how accounting can help you run your business better. Describe how financial accounting, management accounting, and cost accounting would each help you in simple, practical terms." (Tip: Use real-life examples like preparing bills, managing stock, and tracking daily expenses).

3. Select any three basic accounting principles from GAAP and explain how they would apply in a small grocery store or a service-based business like a salon.

4. Your friend runs a small bakery shop and maintains a basic record of daily transactions. She asks you to help check whether her accounts are accurate. Explain how you would use a trial balance in this situation and prepare one using simple imaginary figures for at least six accounts.

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Reference

1. Maheswari, S. N. (2018). *Advanced Accounting*. Vikas Publishing House.
2. Paul, S. Kr. (2011). *Advanced Accounting*. New Central Book Agency (P) Ltd.
3. Miller- Nobles, Tracie L., Mattison, Brenda L., and Matsumura, Ella Mae (2016). *Hongren's Financial and Managerial Accounting: The Financial Chapters*
4. Shukla, M. C., & Grewal, T. S. (2016). *Advanced accounts*. S. Chand & Company Ltd.

Suggested Reading

1. Horngren, C. T., Sundem, G. L., Elliott, J. A., & Philbrick, D. (2017). *Introduction to financial accounting* (11th ed.). Pearson Education.
2. Libby, R., Libby, P. A., & Hodge, F. D. (2020). *Financial accounting* (10th ed.). McGraw-Hill Education.
3. Shukla, M. C., Grewal, T. S., & Gupta, S. C. (2017). *Advanced accounts* (19th ed.). S. Chand & Company Ltd.
4. Tulsian, P. C., & Tulsian, B. (2016). *Financial accounting* (2nd ed.). S. Chand Publishing.

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Unit 2

Financial Statement

Learning Outcomes

On completion of this unit, the learner will be able to:

- ◊ explain the purpose, structure, and key components of financial statements such as the Trading and Profit & Loss Account, and Balance Sheet
- ◊ distinguish between direct and indirect expenses and revenues in the preparation of Trading and Profit & Loss Accounts

Background

Every business activity ultimately aims at answering a few fundamental questions: Has the business earned a profit or incurred a loss during the period? What does the business own and what does it owe at a given point in time? How strong is its financial position and how efficiently are its resources being used? The answers to these questions are not obtained from individual transactions or ledger accounts, but from well-structured financial statements prepared at the end of an accounting period.

In the earlier unit, you have learned how business transactions are recorded, classified, and summarised through journals, ledgers, and trial balance. This unit builds directly on that foundation. It takes you from the stage of recorded data to the final outputs of the accounting process, namely the financial statements. These statements translate accounting records into meaningful information that can be understood and used by managers, owners, investors, creditors, and regulators.

This unit introduces the concept, purpose, and components of financial statements. You will learn how the trading account and profit and loss account are prepared to measure business performance over a period, beginning with core operating results and ending with net profit or loss. You will also study the balance sheet, which presents the financial position of the business on a specific

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date by showing its assets, liabilities, and capital. Special emphasis is given to the classification, grouping, and marshalling of items in the balance sheet.

Keywords

Financial Statements, Trading And Profit And Loss Account, Balance Sheet, Trial Balance, Common-Size Financial Statements, Accounting Period

Discussion

1.2.1 Financial Statement

How do we determine the financial result of a business at the end of the year?

If you think about it, you'll realise that this is possible by preparing certain statements known as financial statements. As the language of business, accounting must communicate a company's financial results and position in a way that is universally understood. Financial statements provide management, owners, and other stakeholders with a concise summary of the business's profitability and overall financial position.

The preparation of financial statements is not the first step in the accounting process; rather, it is the final outcome. As we have already discussed in the previous unit, financial transactions are first recorded in subsidiary books such as the journal and then posted to the appropriate ledger accounts. The trial balance is then compiled and presented in the form of financial statements. Financial statements are also known as final accounts because they are prepared at the end of the accounting period, providing a complete and final view of the financial transactions for that period. Let's now explore the details of the matters we have discussed so far.

What are Financial Statements?

Financial Statements are formal records that show the financial state of a business organisation and its performance in terms of profit or loss for a period. It is prepared at the end of an accounting period to present a clear picture of the business's financial performance and position. Financial statements are essential tools for decision-making. Various stakeholders, including owners, investors, creditors, management, and other regulatory authorities, utilise these financial statements for decision-making purposes.

According to John N. Myer: "The Financial Statements provide a summary of the accounts of a business enterprise, the Balance Sheet reflecting the assets and liabilities and the Income Statement showing the results of operations during a certain period."

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Smith and Ashburne define Financial Statements as "the end product of financial accounting is a set of financial statements that purports to reveal the financial position of the enterprise, the results of its recent activities, and an analysis of what has been done with earnings."

Financial statements are key documents prepared by a business at the end of an accounting year to reflect its financial performance and position. Financial statements mainly include:

- ◊ Trading and Profit and Loss Account (Income Statement)
- ◊ Balance Sheet (Position Statement)
- ◊ Cash Flow Statement

1.2.1.1 Trading and Profit and Loss Account

The trading and profit and loss account is prepared to find out the profit earned or loss sustained by a business enterprise during an accounting period. It is a summary of all revenue and expenses, providing the net result of the business. When total revenue exceeds total expenses, the business earns a profit; when total expenses exceed total revenue, the business incurs a loss.

Trading and profit and loss account reflects the performance of the business over a specific period. It is prepared by transferring the balances of revenue and expense accounts from the trial balance. A trading and profit and loss account has debit and credit sides. All debit balances, which represent expenses and losses, are transferred to the debit side, while all credit balances, representing revenue and gains, are transferred to the credit side.

The trading and profit and loss account is a combination of two separate but related accounts, (i) Trading Account, (ii) Profit and Loss Account. Both serve a distinct purpose in determining the business's profitability during an accounting period.

Trading Account: This account is prepared to determine the results of a business's basic operational activities, such as manufacturing, purchasing, and selling goods. It helps to determine whether the core trading activities have been profitable. The primary revenue item in the trading account is the revenue generated from the sale of goods or services. The main expense items include purchases and direct expenses, such as carriage inwards, freight inwards, wages, factory lighting, coal, water, fuel, and royalty on production, among others.

Gross Profit = Sales + Closing Stock – (Opening Stock + Purchases + Direct Expenses)

The Gross Profit or Loss is transferred to the Profit and Loss Account.

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Table 1.2.1 Format of Trading Account

Dr Cr

Particulars		Amount	Particulars		Amount
Opening stock		xxx	Sales	xxx	
Purchases	xxx		Less: Sales returns	xx	xxx
Less: Purchase returns	xx	xxx	Closing stock		xxx
Direct expenses					
Carriage/Cartage/Freight in inwards		xxx			
Wages/Wages and Salaries		xxx			
Customs/Dock/Octroi		xxx			
Royalty		xxx			
Gas/Electricity/Water/Fuel/Power/ Factory rent		xxx			
To Gross profit c/d		xxx	By Gross loss c/d		xxx
Total		xxxx	Total		xxxx

Profit and Loss Account: The profit and loss account is prepared after the trading account and includes indirect expenses and non-operating incomes to determine the net profit or loss. The debit side of the profit and loss account includes indirect expenses, such as salaries, rent, advertising, bad debts, depreciation, and administrative and office expenses. On the other hand, the credit side includes revenues and gains, excluding sales. They include items such as commission received, interest received, rent received, miscellaneous incomes, etc.

Net Profit = Gross Profit + Other Incomes – Indirect Expenses

So preparing trading account followed by profit and loss account gives a complete picture of business profitability during an accounting period, starting from core trading results to the final net outcome after all expenses and income are accounted for.

Table 1.2.2 Format of Profit and Loss Account

Particulars	**Amount**	**Particulars**	**Amount**
To Gross loss b/d (if any)	xxx	By gross profit b/d (if any)	xxx
Salaries	xxx	Interest Received	xxx
Printing and Stationeries	xxx	Dividend Received	xxx
Rent, rate and Taxes	xxx	Rent Received	xxx
Audit Fees	xxx	Commission Received	xxx
Postage and Telegram	xxx	Discount Received	xxx
Legal charges	xxx	Any other income	xxx
Insurance	xxx	Net Loss (if any)	xxx
Telephone	xxx		
Bank Charges	xxx		

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Advertisement	xxx		
Commission Paid	xxx		
Depreciation	xxx		
Charity	xxx		
Carriage Outwards	xxx		
Travelling Expenses	xxx		
Discount Allowed	xxx		
Bad Debts	xxx		
Provision for Doubtful Debts	xxx		
Any other expense	xxx		
Net Profit (if any)	xxx		
Total	**xxxx**	**Total**	**xxxx**

Illustration 1.2.1

From the following balances obtained from the accounts of Mr. Stalin, prepare the trading and profit and loss accounts.

Particulars	Amount	Particulars	Amount
Stock on April 01,2024	10,000	Bad debts	1,500
Purchases	25,000	Rent	1,200
Sales	40,000	Discount allowed	500
Carriage inwards	2,500	Commission paid	1,100
Salaries and Wages	3,500	Carriage outwards	1,600
Advertisement	1,000	Repairs	600
Commission received	500	Interest received	500

Closing stock on March 31, 2025 is 12,000.

Solution

Books of Stalin

Trading and Profit and Loss Account for the year ended March 31, 2025

Particulars	Amount	Particulars	Amount
Opening Stock	10,000	Sales	40,000
Purchases	25,000	Closing Stock	12,000
Carriage inwards	2,500		
Gross Profit c/d	14,500		
	52,000		52,000
Salaries and Wages	3,500	Gross profit b/d	14,500

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Rent	1,200	Commission received	500
Advertisement	1,000	Interest received	500
Commission paid	1,100		
Discount allowed	500		
Bad debts	1,500		
Carriage outwards	1,600		
Repairs	600		
Net profit (transferred to capital account)	4,500		
	15,500		15,500

Points to remember

"Salaries and Wages" are debited in the Profit and Loss Account whereas "Wages and Salaries" are debited in the Trading Account.

"Carriage Inwards" is debited in Trading Account whereas "Carriage Outwards" is debited in the Profit and Loss Account

Illustration 1.2.2

From the following information on Lawrence's firm, prepare trading and profit and loss account for the year ended on 31st December 2024.

Particulars	Amount	Particulars	Amount
Sales	25,000	Factory Expenses	200
Purchase	4,000	Repairs	190
Capital	6,200	Stock (01-01-2024)	1,600
Salary	750	Rent	250
Machinery	15,000	Drawings	1,700
Furniture	3,600	Advertisement	300
Sundry creditors	4,600	Carriage inwards	300
Wages	100	Cash at bank	2,600
Sundry debtors	8,560	Bills Payable	3,350

The closing stock was valued at 250.

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Solutions

Books of Lawrence

Trading and Profit and Loss Account for the year ended December 31, 2024

Particulars	Amount	Particulars	Amount
Opening Stock	1,600	Sales	25,000
Purchases	4,000	Closing Stock	250
Carriage inwards	300		
Wages	100		
Factory expenses	200		
Gross Profit c/d	19,050		
	25,250		25,250
Salary	750	Gross profit b/d	19,050
Repairs	190		
Rent	250		
Advertisement	300		
Net profit	17,560		
(transferred to capital account)			
	19,050		19,050

1.2.1.2 Balance Sheet

The Balance Sheet depicts the financial position of the business. It is a financial statement that presents the financial position of a business on a specific date. It provides a summary of the business's assets, liabilities and capital (owner's equity). Providing information about the company's financial strength is essential for both existing and potential shareholders.

The information regarding the company's position in terms of assets, liabilities, and capital is provided by the Balance Sheet. Since it reveals the company's financial position, it is also known as the Financial Position Statement. The Balance Sheet is the detailed representation of the accounting equation. It provides a detailed statement of the impact of all transactions on the company's assets, liabilities, and capital at a specific point in time. The company's financial position is constantly evolving, and the Balance Sheet reflects the company's financial position as of the date of its preparation. So, it is a static statement as well.

The assets represent debit balances, while liabilities and capital represent credit balances. The balance sheet is prepared at the end of the accounting period, after the trading account and profit and loss account have been completed. It is called a balance sheet because it shows the balances of those ledger accounts which are not closed by transferring to the trading and profit and loss account. The balance sheet ensures that the accounting equation holds true:

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Assets = Liabilities + Capital

Items to be entered in the Balance Sheet

◊ **Assets**

Assets are mainly classified into two: Fixed assets and Current assets. Fixed assets are acquired by a business for long-term use and are not intended for immediate resale. Some of the common fixed assets include land, building, furniture, plant and machinery.

Current assets are those that can be readily converted into cash within a short period. The business acquires them for a period not more than one year. Current assets include cash in hand, cash at the bank, bills receivable, sundry debtors, short-term investments, closing stock, prepaid expenses, outstanding or accrued income, and other similar items.

Another classification of assets is intangible assets. Intangible assets are those assets that do not have a physical form but bring long-term value to a business. An example of intangible asset is goodwill.

◊ **Liabilities**

Liabilities are classified into two categories: fixed liabilities or long-term liabilities, and current liabilities. Liabilities that are to be repaid after more than one year are known as long - term liabilities. e.g. long-term loans, debentures, public deposits, etc. Whereas debts that are to be repaid by the business within one year are known as current liabilities. Current liabilities include bank overdrafts, bills payable, sundry creditors, and outstanding expenses, among others.

◊ **Capital/ Owner's Equity**

The Balance Sheet is a detailed representation of the Accounting Equation; therefore, apart from assets and liabilities, it also contains information about Owner's Equity or Capital. The investment made by the owner is the Capital of a firm. From the business perspective, this Capital is a liability that must be repaid to the owner at the time of winding up of the firm's operations. The net profit generated from the business's operations is added to the Capital to be paid back to the owner. The owner must bear any net loss incurred; thus, the net loss is deducted from the Capital. Therefore, we can define Capital as the amount of money invested by the owner in the business. It increases with net profit and decreases with net loss.

Grouping or Marshalling of Assets and Liabilities

In the Balance Sheet, all individuals who owe money to the business for purchases they have made are presented together under "Sundry Debtors" instead of being listed individually, which is an example of grouping. Marshalling is the arrangement of assets and liabilities in a specific order. When current assets are listed first, followed by fixed assets and intangible assets and on the liability side, current liabilities come first, followed by fixed liabilities and capital, it is known as the order of liquidity, reflecting the firm's ability to convert assets to cash and settle debts promptly. Sole proprietorships and partnerships typically follow this practice in preparing their balance sheets. Assets

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and liabilities can also be marshalled in order of permanence. The order of permanence arranges assets and liabilities based on their permanence within the business. Intangible assets are listed first, followed by fixed assets and current assets. On the liability side, owner's capital comes first, followed by long-term liabilities and current liabilities. Corporate businesses typically follow the order of permanence in their Balance Sheets.

Table 1.2.3 Balance Sheet in the order of liquidity

Liabilities		Amount	Asset	Amount
Bank Overdraft		Xxx	Cash In Hand	xxx
Sundry Creditors		xxx	Cash At Bank	xxx
Bills Payable		xxx	Short term investments	xxx
Outstanding Expenses		xxx	Bills Receivable	xxx
Loans		xxx	Sundry Debtors	xxx
Capital:	xxx		Closing Stock	xxx
Add: Net profit	xxx		Prepaid Expenses	xxx
Add: Interest on Capital	xxx		Furniture	xxx
	xxx		Machinery	xxx
Less: Drawings	xxx		Land and building	xxx
		xxx	Goodwill	xxx
		Xxxx		Xxxx

Table 1.2.4 Balance Sheet in the order of Permanence

Liabilities		**Amount**	**Assets**	**Amount**
Capital	xxx		Goodwill	xxx
Add: Net Profit	xxx		Land and Building	xxx
Add: Interest on Capital	xxx		Plant and Machinery	xxx
	xxx		Furniture and Fittings	xxx
Less: Drawings	xxx		Prepaid Expenses	xxx
		xxx	Closing Stock	xxx
Loans		xxx	Bills Receivable	xxx
Bills payable		xxx	Sundry Debtors	xxx
Outstanding Expenses		xxx	Short Term Investments	xxx
Sundry Creditors		xxx	Cash at Bank	xxx
Bank Overdraft		xxx	Cash in Hand	xxx
		xxxx		xxxx

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Illustration 1.2.3

From the following information on the books of Mr. Achuthanandan, prepare a balance sheet for the year ended 31st December 2024.

Particulars	Amount	Particulars	Amount
Sales	25,000	Factory Expenses	200
Purchase	4,000	Repairs	190
Capital	6,200	Stock (01-01-2024)	1,600
Salary	750	Rent	250
Machinery	15,000	Drawings	1,700
Furniture	3,600	Advertisement	300
Sundry creditors	4,600	Carriage inwards	300
Wages	100	Cash at bank	2,600
Sundry debtors	8,560	Bills Payable	3,350
Net Profit	17,560	Closing Stock	250

Solution

Balance Sheet as on 31st December, 2024

Liabilities		Amount	Assets	Amount
Bills payable		3,350	Cash at bank	2,600
Sundry creditors		4,600	Closing Stock	250
Capital	6,200		Sundry debtors	8,560
Add: Net Profit	17,560		Furniture	3,600
	23,760		Machinery	15,000
Less: Drawings	1,700	22,060		
		30,010		30,010

Illustration 1.2.4

From the following trial balance, prepare balance sheet for the year ended 31st December, 2024.

Trial Balance as on 31st December, 2024

Particulars	Amount (Dr)	Amount (Cr)
Capital		15,00,000
Drawings	1,30,000	
Machinery	3,00,000	
Land and Building	11,00,000	

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Furniture	1,20,000	
Sundry debtors	2,00,000	
Sundry creditors		2,20,000
Bills receivable and payable	2,20,000	60,000
Bank overdraft		5,20,000
Closing Stock	4,00,000	
Investment	80,000	
Cash in hand	50,000	
Net profit		3,00,000
	26,00,000	26,00,000

Solution

Balance Sheet as on 31st December, 2024

Liabilities		Amount	Assets	Amount
Bank overdraft		5,20,000	Cash in hand	50,000
Bills payable		60,000	Bills receivable	2,20,000
Sundry creditors		2,20,000	Investment	80,000
Capital	15,00,000		Sundry debtors	2,00,000
Add: Net profit	3,00,000		Closing stock	4,00,000
Less: Drawings	(1,30,000)	16,70,000	Furniture	1,20,000
			Machinery	3,00,000
			Land and building	11,00,000
		24,70,000		24,70,000

Compliance with the Accounting Standards

Under Section 129 of the Companies Act, 2013, the financial statements of a company are required to present a true and fair view of its financial position. They must be prepared in compliance with the applicable accounting standards and in the formats prescribed for different classes of companies under Schedule III. Further, all items included in the financial statements are required to be in accordance with the accounting standards.

Section 133 of the Companies Act, 2013 provides that the Accounting Standards recommended by the Institute of Chartered Accountants of India and notified by the Central Government, in consultation with the National Financial Reporting Authority, are compulsory. These standards must be followed by all companies while preparing the Balance Sheet and the Statement of Profit and Loss.

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In addition, Section 129(5) states that if a company's Balance Sheet or Statement of Profit and Loss does not comply with the prescribed accounting standards, the company must disclose in its financial statements the nature of such deviation, the reasons for the deviation, and the financial impact arising from it, if any.

Formats of Financial Statements

Profit and Loss Account

Sub-section (2) of Section 129 of the Companies Act, 2013 provides that the Profit and Loss Account of every company must present a true and fair view of the profit or loss for the relevant financial year and must comply with the requirements of Part II of Schedule III, to the extent applicable. However, this requirement does not apply to insurance companies, banking companies, companies engaged in the generation or supply of electricity, or any other class of companies for which a specific form of Profit and Loss Account has been prescribed under the law governing such companies.

Further, sub-section (6) of Section 129 empowers the Central Government to exempt any class of companies from compliance with any of the requirements of Schedule III, if it considers such exemption to be necessary in the public interest. Such exemptions may be granted either without conditions or subject to conditions specified through a notification.

Table 1.2.5 Format of Statement of Profit and Loss Account

	Particulars	**Note No.**		**Figures for the current reporting period**		**Figures for the previous reporting period**
I.	Revenue from operations			xxx		xxx
II	Other Income			xxx		xxx
III	Total Revenue (I+II)			xxx		xxx
IV	Expenses:					
	Cost of materials consumed			xxx		xxx
	Purchases of Stock in Trade			xxx		xxx
	Changes in inventories of finished goods, work in progress and Stock in Trade			xxx		xxx
	Employee benefits expense					
	Finance costs					
	Depreciation and amortization expense					
	Other expenses					

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	Total expenses			xxx		xxx
V	Profit before exceptional and extraordinary items and tax			xxx		xxx
VI	Exceptional items			xxx		xxx
VII	Profit before extraordinary items and tax (V – VI)			xxx		xxx
VIII	Extraordinary items			xxx		xxx
IX	Profit before tax (VII – VIII)			xxx		xxx
X	Tax expense:					
	(1) Current tax		xxx		xxx	
	(2) Deferred tax		xxx		xxx	
XI	Profit (Loss) for the period from continuing operations (VII – VIII)			xxx		xxx
XII	Profit (loss) from discontinuing operations			xxx		xxx
XIII	Tax expense of discontinuing operations			xxx		xxx
XIV	Profit (loss) from discontinuing operations (after tax) (XII – XIII)			xxx		xxx
XV	Profit (loss) for the period (XI + XIV)			xxx		xxx
XVI	Earnings per equity share:					
	(1) Basic			xxx		xxx
	(2) Diluted			xxx		xxx

Balance Sheet

Section 129 of the Companies Act, 2013 mandates that at every annual general meeting, the Board of Directors shall present before the shareholders a Balance Sheet showing the financial position of the company as at the end of each accounting period. The Balance Sheet must be prepared in the form prescribed in Part I of Schedule III of the Act, or as close to that form as circumstances permit, or in any other form approved by the Central Government either generally or in a specific case. While preparing the Balance Sheet, due consideration must be given, as far as possible, to the general instructions laid down for its preparation. The purpose of prescribing a standard format under Schedule III is to ensure that the Balance Sheet presents a true and fair view of the company's financial position.

The Companies Act, 2013 replaced the earlier Schedule VI with a revised Schedule III, bringing about significant changes in presentation and disclosure requirements. One of the most notable changes is the compulsory adoption of vertical formats for the

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presentation of financial statements, with no option to use horizontal formats. Financial statements must therefore be prepared strictly in the prescribed vertical formats under Schedule III. Only broad and material items are required to be presented on the face of the Balance Sheet and the Statement of Profit and Loss, while detailed information relating to these items should be disclosed through the Notes to Accounts. The determination of which items are broad and significant is guided by the concept of materiality and the need to present a true and fair view of the financial statements.

Table 1.2.6 Format of balance sheet

Balance sheet as on 31st march 20…….

Particulars	**Note No.**	**Figure at the end of current reporting period**	**Figure at the end of previous reporting period**
I. **Equity and Liabilities**			
1. Shareholder's Funds			
a. Share Capital			
b. Reserves and Surplus			
c. Money received against share warrants			
2. Share application money pending allotment			
3. Non-Current Liabilities			
a. Long term borrowings			
b. Deferred tax liabilities (net)			
c. Other long term borrowings			
d. Long term provisions			
4. Current Liabilities			
a. Short term borrowings			
b. Trade Payables			
c. Other current liabilities			
d. Short term provisions			
TOTAL			

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II. ASSETS			
1. Non- Current Assets			
a. Fixed Assets			
i. Tangible Assets			
ii. Intangible Assets			
iii. Capital work in progress			
iv. Intangible assets under development			
b. Non-current investments			
c. Deferred tax assets (net)			
d. Long-term loans and advances			
e. Other non-current assets			
2. Current Assets			
a. Current investments			
b. Inventories			
c. Trade receivables			
d. Cash and cash equivalents			
e. Short term loans and advances			
f. Other current assets			
TOTAL			

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Summarised Overview

Financial statements are the final output of the accounting process and are prepared at the end of an accounting period to determine the profit or loss of a business and to assess its financial position. The main financial statements are Trading and Profit and Loss Account, Balance Sheet, and Cash Flow Statement. The Trading Account is prepared to ascertain gross profit or gross loss from core operating activities, while the Profit and Loss Account determines net profit or net loss after considering indirect expenses and other incomes. The Balance Sheet shows the financial position of a business on a specific date by presenting its assets, liabilities, and capital, and it reflects the accounting equation: Assets = Liabilities + Capital. Assets and liabilities are classified and grouped for clarity, and arranged through marshalling. Non-corporate entities may follow the order of liquidity or permanence, whereas companies must prepare the balance sheet in the standard format prescribed under Schedule III of the Companies Act, 2013, which follows a structured order of permanence. Financial statements help managers, owners, investors, and creditors evaluate business performance, financial strength, and decision-making capability.

Self-Assessment Question

1. What are financial statements and why are they important for stakeholders?
2. Distinguish between the Trading Account and the Profit and Loss Account. What purpose does each serve?
3. Explain the relationship between the Trial Balance and the preparation of financial statements.
4. Define financial statement.
5. What is meant by the Balance Sheet being referred to as a 'Position Statement'?
6. List the major components found on the asset and liability sides of a Balance Sheet.
7. Explain grouping and marshalling of assets and liabilities.
8. What do you mean by analysis of financial statements?

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9. How can financial statement analysis help in managerial decision-making?

10. Prepare trading account and find out the gross profit from the following details:

Purchases	10,000	Opening Stock	4,000
Purchase Return	2,000	Closing Stock	6,000
Carriage inward	2,000	Sales Return	5,000
Sales	20,000	Wages	4,000

(Hint: Gross Profit – 3,000)

11. Prepare trading and profit and loss account from the following particulars.

Purchases	20000	Opening stock	2000
Purchase Return	1000	Closing stock	5000
Carriage inward	1000	Sales Return	2000
Sales	30000	Salaries	2000
Cartage	1000	Rent	1000
Interest	2000	General Expense	1000
Discount Received	500	Insurance	500
Discount Allowed	1000		

(Hint: Gross Profit- 10000, Net Profit – 3000)

12. Make a Balance Sheet for Mr. Vijay as of March 31, 2024, using the information below.

Capital	5,50,000
Personal Drawings	10,000
Accounts Receivable	1,00,000
Accounts Payable	80,000
Long term Loan	20,000
Net Profit	1,60,000
Closing Stock	50,000
Production Plant	1,50,000
Office Building	1,20,000
Land	3,00,000
Goodwill	50,000
Furniture and Fixtures	30,000

(Hint: Balance Sheet Total – 800000)

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13. Using the information below, create Mr. Sharma's Balance Sheet as of March 31, 2023.

Capital	44,000
Investment	20,000
Drawings	8400
Debtors	6400
Creditors	4200
Loan From Sam	20,000
Cash in hand	360
Cash at bank	7200
Furniture	3700
Plant	10,000
Net profit	1660
General reserve	1000
Closing stock	14,800

(Hint: Total of Balance Sheet ₹62460)



Assignments

1. Discuss how the structure and content of the Trading and Profit and Loss Account and Balance Sheet together provide a holistic view of a business's financial performance and position. Support your answer with examples.
2. Discuss the role of the Balance Sheet in assessing the financial position of a business. How does it complement the information provided by the Trading and Profit and Loss Account?
3. Analyse how gross profit and net profit provide different insights into business performance. Why is it important for managers to examine both?
4. Explain how classification and grouping of items in the Balance Sheet improve the usefulness of financial statements for managerial decision-making.

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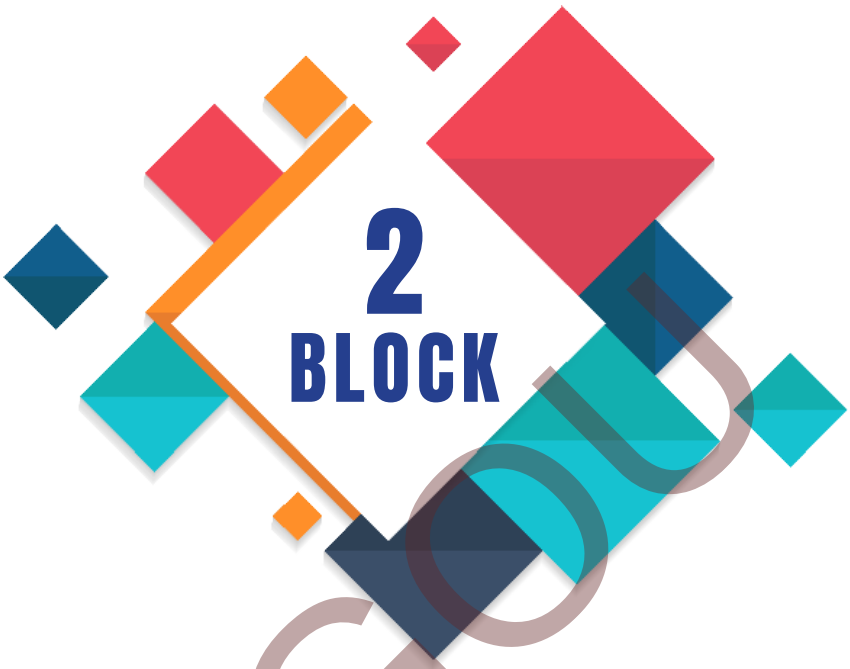
Reference

1. SP Jain, Narang, K. L., Agrawal, S., & Sehgal, M. (2021). *Advanced accountancy* (Vol. 2, 23rd rev. ed.). Kalyani Publishers, New Delhi.
2. Gupta, R. L., Radhaswamy M., (2015) *Advanced Accountancy*, Sultan Chand & Sons, New Delhi.
3. Maheswari, S. N., (2015), *Management Accounting and Financial Control*, Sultan Chand & Sons, New Delhi.
4. Atrill, Peter and McLaney, Eddie (2013). *Financial Accounting for Decision Makers* (seventh edition). Pearson.

Suggested Reading

1. Gupta, R. L., & Radhaswamy, M. (2018). *Advanced accountin*g (Vol. 1). Sultan Chand & Sons.
2. Jain, S. P., & Narang, K. L. (2020). *Financial accounting*. Kalyani Publishers.
3. Shukla, M. C., Grewal, T. S., & Gupta, S. C. (2017). *Advanced accounts* (19th ed.). S. Chand & Company Ltd.
4. Tulsian, P. C., & Tulsian, B. (2016). *Financial accounting* (2nd ed.). S. Chand Publishing.

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Financial Statement Analysis

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Unit 1

Tools for Financial Statement Analysis

Learning Outcomes

On completion of this unit, the learner will be able to:

- ◊ apply the techniques of Comparative Financial Statements, Common Size Statements, and Trend Analysis to interpret financial data over multiple accounting periods
- ◊ interpret key financial indicators derived from financial statements to evaluate the operational efficiency and financial health of a business
- ◊ analyse changes in a firm's financial structure, profitability, and cost behaviour using comparative, common size, and trend analysis to support managerial planning and control
- ◊ evaluate the implications of financial statement analysis for managerial decision-making, including cost control, resource allocation, liquidity management, and long-term strategic planning

Background

In the earlier units, you learned how financial statements such as the Trading and Profit and Loss Account and the Balance Sheet are prepared to present a business's financial performance and position. However, merely preparing these statements does not serve the full purpose of accounting. For managers and decision-makers, the real value lies in interpreting the information contained in these statements and using it to understand how the business is performing, where it stands financially, and how it is likely to perform in the future.

This unit builds on the preparation of financial statements and focuses on their analysis and interpretation. Financial statements contain a large amount of data, but this data becomes meaningful only when it is systematically analysed, compared, and evaluated. Analysis of financial statements helps in identifying

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relationships between various financial figures, detecting trends over time, and assessing strengths and weaknesses in profitability, liquidity, solvency, and operational efficiency.

The unit introduces important tools of financial statement analysis such as Comparative Financial Statements, Common Size Financial Statements, and Trend Percentage Analysis. These tools enable learners to compare performance across accounting periods, examine the internal structure of income statements and balance sheets, and study long-term trends in key financial indicators.



Keywords

Financial Statements, Financial Statement Analysis, Comparative Financial Statements, Common Size Financial Statements, Trend Percentage Analysis, Profitability, Liquidity, Solvency, Operational Efficiency, Financial Performance, Financial Position



Discussion

2.1.1 Introduction

Financial statements by themselves cannot provide the exact information that people need. Although they contain a great deal of data, what really matters is their interpretation. This requires analysing individual items, identifying their interrelationships, and, in some cases, rearranging the data to gain clearer insights. Such interpretation is carried out with the help of various analytical tools and techniques.

Analysing financial statements involves evaluating the relationships between different components of the statements to gain a deeper understanding of the firm's operations, profitability, and financial health. According to Myer, "Financial Statements Analysis is largely 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".

Thus, the analysis of financial statements refers to the methodical classification, comparison and evaluation of the information contained in the statements. This enables a comprehensive diagnosis of the firm's profitability and financial position by comparing the current figures with those of previous periods or similar firms in the industry.

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2.1.2 Objectives of Analysis of Financial Statements

The main objectives of financial statement analysis are as follows:

- ◊ To assess present and future profitability
- ◊ To evaluate operational efficiency
- ◊ To examine both short term and long term solvency, which is of particular interest to debenture holders, lenders and trade creditors.
- ◊ To conduct comparative analysis between different firms in the industry or between different departments.
- ◊ To identify future trends and development possibilities by preparing forecasts and budgets.
- ◊ To assess the overall financial stability of a business concern.
- ◊ To understand the true meaning and implications of the financial figures presented in the statements.
- ◊ To assess the availability and adequacy of funds for meeting long term obligations.

2.1.3 Tools for Financial Statement Analysis

The most commonly used tools for the analysis of financial statement are as follows:

- ◊ Comparative Financial Statements
- ◊ Common- Size Financial Statements
- ◊ Trend Percentage Analysis
- ◊ Ratio Analysis

2.1.3.1 Comparative Financial Statements

Imagine you are tracking your own monthly expenses. If you only look at last month's spending, you know what you spent, but you can't tell whether you're saving more or less than before. To truly understand your habits, you compare this month's expenses with those of previous months.

Businesses do something similar through Comparative Financial Statements. By placing financial data from two or more periods side by side, these statements reveal trends, growth patterns, and changes over time. Such comparisons make financial information more precise and more useful for analysis and decision-making.

Comparative financial statements are designed to present financial data in a manner that provides a time-based perspective on a business's financial position and

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performance. By comparing figures from two or more periods, these statements make it easier to identify trends, growth patterns and financial changes over time. Comparative financial statements display absolute data for two or more years, an increase or decrease in absolute data and a percentage change between periods. The purpose of preparing comparative financial statements is to make financial data more meaningful and informative for analysis and decision-making. Comparative financial statements can be prepared for both the income statements and the balance sheets. These comparisons help stakeholders assess the financial performance, growth trends and stability of a business across different periods.

i. Comparative Income Statement

A comparative income statement presents the operating results of a business over two or more accounting periods. It highlights the net profit or net loss earned during each period and helps in analysing the operational performance over time. A comparative income statement presents absolute figures for key income components, including sales, expenses, and net profit. It displays both absolute changes from one period to another and percentage changes, facilitating easy comparison. By presenting the data in this format, it becomes easier to identify trends and derive meaningful insights into the business's performance. A comparative income statement helps in deriving key insights, such as changes in sales volume, variations in the cost of goods sold, fluctuations in administrative expenses, trends in selling and distribution expenses, and overall changes in net profit or loss. This comparative format enables users to quickly assess whether a company's profitability has improved or deteriorated and identify the factors contributing to the change.

Illustration 2.1.1

From the following income statement of Raghu Ltd, prepare a Comparative Income Statement and interpret the results:

		For the year ended 31st March		
		2023		2024
Net Sales		12,70,000		13,42,000
Cost of goods sold		7,38,000		8,26,000
Gross Profit		5,32,000		5,16,000
Operating expenses:				
Administrative expenses	84,000		82,000	
Selling expenses	1,78,000		1,72,000	
		2,62,000		2,54,000
Operating profit		2,70,000		2,62,000
Add: Dividend		34,000		40,000
		3,04,000		3,02,000

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Less: Interest paid		34,000		34,000
Net profit before tax		2,70,000		2,68,000
Less: Income tax		1,14,000		1,14,000
Net profit after tax		1,56,000		1,54,000

Solution

Raghu ltd

Comparative Income Statement

For two years ended 31st March 2023 and 2024

Items	31-3-2023	31-3-2024	Absolute change in 2023-2024	Percentage change in 2023-2024
Net Sales	12,70,000	13,42,000	72,000	5.67%
Less: Cost of goods sold	7,38,000	8,26,000	88,000	11.92%
(1) Gross profit	5,32,000	5,16,000	-16000	-3.01%
Less: Operating expenses				
Administrative expenses	84,000	82,000	-2000	-2.38%
Selling expenses	1,78,000	1,72,000	-6000	-3.37%
(2) Operating expenses	2,62,000	2,54,000	-8000	-3.05%
Operating profit (1) – (2)	2,70,000	2,62,000	-8000	-2.96%
Add: Dividend	34,000	40,000	6000	17.65%
	3,04,000	3,02,000	-2000	-0.66%
Less: Interest paid	34,000	34,000	Nil	Nil
Net profit before tax	2,70,000	2,68,000	-2000	-0.74%
Less: Income tax	1,14,000	1,14,000	Nil	Nil
Net profit after tax	1,56,000	1,54,000	-2000	-1.28%

Interpretation

From the above comparative income statement the following points are worth noting:

i. The sales volume and cost of goods sold have increased by 5.67% and 11.92% respectively during the year ending 31st March, 2024 as compared to the last year ending 31st March, 2023.

ii. Gross profit, operating profit, net profit, administrative expenses and selling expenses have all decreased by 3.01%, 2.96%, 0.74%, 2.38% and 3.37% respectively during the year 2024 as compared to the last year 2023.

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From the above analysis it is evident that percentage increase in cost was higher than the percentage increase in sales. As a result gross profit, operating profit and net profit have decreased, despite a reduction in administrative and selling expenses.

The primary reason for this decline is a significant increase in cost of goods sold. It appears that the business was unable to transfer this increased cost to the consumers by raising prices because of acute competition.

Increase in cost of goods sold may be because of increase in prices of raw materials used or goods purchased and increase in labour rates or other manufacturing or production expenses. If this cost escalation is due to overall market price increases, the scope for cost reduction is limited. It means that management cannot reduce cost if it is due to overall increase in market prices of input, but management can do a lot if increase in cost is as a result of inefficiency of input.

To improve profitability, the management must focus on efficient utilisation of inputs such as materials, labour and overheads. They must adopt cost control and waste reduction measures and enhance productivity,

ii. Comparative balance sheet

A comparative balance sheet is a financial statement prepared on two or more different dates to compare the value of assets, liabilities and equity over time. This comparison helps identify changes in a business's financial position between the specified periods. This statement presents figures for assets and liabilities for two or more periods, showing their increase or decrease in absolute terms and percentage changes to highlight trends. By analysing these changes, users can assess the growth or contraction in key asset and liability components, examine the firm's liquidity, solvency and capital structure, and also evaluate the financial stability of the business. This facilitates a better understanding of how a business is evolving financially and helps stakeholders form an informed opinion about the firm's strength and long-term sustainability.

Illustration 2.1.2

From the following balance sheets of ABC Ltd as on 31st March 2023 and 31st March 2024, prepare a comparative balance sheet showing increase or decrease in amounts of each item and the percentage change thereof. Also give a brief report of the inferences you draw.

Balance Sheet of ABC Ltd

	31-03-2023	31-03-2024
I. Equity and Liabilities		
(1)Shareholders Fund		
(a) Share Capital:		
Equity share capital	14,00,000	22,00,000
(b) Reserves and Surplus		
Capital reserve	2,20,000	4,20,000

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Sinking fund	1,40,000	1,80,000
General reserve	6,80,000	6,30,000
(2) Non – current Liabilities		
Debentures	6,00,000	11,00,000
(3) Current liabilities		
Sundry creditors	8,20,000	2,68,000
Others	1,20,000	2,00,000
Total Equity and Liabilities	**39,80,000**	**49,98,000**
II. Assets		
(1) Non- current Assets		
Land	60,000	1,00,000
Building	10,40,000	29,44,000
Furniture	25,000	52,000
Other Assets	2,04,000	2,76,000
(2) Current Assets		
Investments	9,80,000	5,80,000
Stock	5,40,000	3,60,000
Debtors	7,36,000	5,90,000
Cash	2,87,000	64,000
Others	1,08,000	32,000
Total Assets	**39,80,000**	**49,98,000**

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Solution

Comparative Balance Sheet of ABC Ltd as on 31st March, 2023 and 2024

Liabilities	2023	2024	Absolute change in 2023-24	% change in 2023-24	Assets	2023	2024	Absolute change in 2023-24	% change in 2023-24
Shareholders' Funds:					Fixed Assets:				
Equity share capital	14,00,000	22,00,000	8,00,000	57.14%	Land	60,000	1,00,000	40,000	66.67%
Capital reserve	2,20,000	4,20,000	2,00,000	90.91%	Building	10,40,000	29,44,000	19,04,000	183.08%
Sinking fund	1,40,000	1,80,000	40,000	28.57%	Furniture	25,000	52,000	27,000	108.00%
General Reserve	6,80,000	6,30,000	-50,000	-7.35%	Other Assets	2,04,000	2,76,000	72,000	35.29%
(1) Shareholders Funds	24,40,000	34,30,000	9,90,000	40.57%	(1) Total fixed Assets	13,29,000	33,72,000	20,43,000	153.72%
Non- Current Liabilities					Current Assets:				
(2) Debentures	6,00,000	11,00,000	5,00,000	83.33%	Investments	9,80,000	5,80,000	-4,00,000	-40.82%
Current Liabilities:					Stock	5,40,000	3,60,000	-1,80,000	-33.33%
Sundry creditors	8,20,000	2,68,000	-5,52,000	-67.31%	Debtors	7,36,000	5,90,000	-1,46,000	-19.84%
Others	1,20,000	2,00,000	80,000	66.67%	Cash	2,87,000	64,000	-2,23,000	-77.70%
(3)Total current liabilities	9,40,000	4,68,000	-4,72,000	-50.21%	Others	1,08,000	32,000	-76,000	-70.37%
					(2) Total current assets	26,51,000	16,26,000	-10,25,000	-38.66%
Total liabilities and Capital (1)+(2)+(3)	39,80,000	49,98,000	10,18,000	25.58%	Total Assets (1) + (2)	39,80,000	49,98,000	10,18,000	25.58%

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Interpretation

The analysis of the comparative balance sheet reveals that the firm has mobilised long term funds such as share capital and debentures to finance the acquisition of fixed assets aimed at business expansion. There is a significant increase of 153.72% in fixed assets compared to the previous year indicating a strategic move toward capacity building and long term growth. This expansion has been supported by a reduction in current assets, possibly due to more efficient working capital management or reallocation of funds. The issue of new shares and debentures reflects the company's ability to raise funds from external and internal sources.

This shift is viewed as a positive step, as investment in fixed assets lays the foundation for future growth and operational stability. Moreover, the ratio of debt to equity remains on the lower side, indicating a sound financial position and lower financial risk. This provides the company with additional borrowing capacity, suggesting that further long term loans can be arranged for further expansion provided the business continues to engage in profitable operations.

2.1.3.2 Common Size Financial Statements

Common-size financial statements are those in which all items are expressed as a percentage of a standard base figure, making it easier to analyse and compare financial data across time periods or between firms of different sizes. This technique involves vertical analysis, where the relationship of each item is shown relative to the total within the same financial statement. It helps to interpret the proportional significance of each component and identify underlying changes or trends.

Common size analysis can be applied to:

- ◊ The income statement (profit and loss account)
- ◊ The balance sheet (position statement)

i. Common Size Income Statement

In a common size income statement, the net sales figure is taken as the base (100%) and all other items such as cost of goods sold, operating expenses, administrative expenses and net profit are expressed as a percentage of sales. It helps to assess the efficiency of cost and expense management over time. Common size income statement are useful for comparing two or more firms as it shows the relative efficiency of cost items for the two firms.

Illustration 2.1.3

Convert the following income statement of Raghu Ltd into common size income statement. Based on the financial condition in 2023, interpret the change in 2024.

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		For the year ended 31st March		
		2023		2024
Net Sales		12,70,000		13,42,000
Cost of goods sold		7,38,000		8,26,000
Gross Profit		5,32,000		5,16,000
Operating expenses:				
Administrative expenses	84,000		82,000	
Selling expenses	1,78,000		1,72,000	
		2,62,000		2,54,000
Operating profit		2,70,000		2,62,000
Add: Dividend		34,000		40,000
		3,04,000		3,02,000
Less: Interest paid		34,000		34,000
Net profit before tax		2,70,000		2,68,000
Less: Income tax		1,14,000		1,14,000
Net profit after tax		1,56,000		1,54,000

Solution

Raghu Ltd
Common Size Income Statement
for two years ending 31st March, 2023 and 2024

Items	**31-03-2023**		**31-03-2024**	
	Amount	% in relation to Sales	Amount	% in relation to Sales
Net Sales	12,70,000	100.00%	13,42,000	100.00%
Less: Cost of goods sold	7,38,000	58.11%	8,26,000	61.55%
(1) Gross profit	**5,32,000**	**41.89%**	**5,16,000**	**38.45%**
Less: Operating expenses				
Administrative expenses	84000	6.61%	82,000	6.11%
Selling expenses	1,78,000	14.02%	1,72,000	12.82%
(2) Operating expenses	**2,62,000**	**20.63%**	**2,54,000**	**18.93%**
Operating profit (1) – (2)	**2,70,000**	**21.26%**	**2,62,000**	**19.52%**
Add: Dividend	34,000	2.68%	40,000	2.98%
	3,04,000	23.94%	3,02,000	22.50%
Less: Interest paid	34,000	2.68%	34,000	2.53%
Net profit before tax	**2,70,000**	**21.26%**	**2,68,000**	**19.97%**

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Less: Income tax	1,14,000	8.98%	1,14,000	8.49%
Net profit after tax	**1,56,000**	**12.28%**	**1,54,000**	**11.48%**

Interpretation

Following are the key observations on the analysis of the common size income statement:

The gross profit as a percentage of sales declined from 41.89% in 2023 to 38.45% in 2024. This reduction is primarily due to an increase in the cost of goods sold, which rose from 58.11% to 61.55%. The rise in COGS (cost of goods sold) may be because of higher raw material prices, increased labour costs or inefficiencies in the purchasing or production departments.

Despite an increase in sales during 2024, the company managed to reduce its administrative and selling expenses, resulting in a decline in operating expenses from 20.63% to 18.93% of sales. This reflects improved operational efficiency and effective cost control measures.

The operating profit margin fell from 21.26% to 19.52% in 2024, mainly due to the rise in the ratio of COGS to sales. However, the impact on operating profit was partially offset by the reduction in operating expenses, demonstrating the company's efforts to manage indirect costs despite increased production costs.

The net profit margin also declined from 21.26% to 19.97% following the same pattern as operating profit. Though expenses were managed efficiently, the inability to fully control rising input costs led to an overall reduction in profitability.

When sales increased from 12,70,000 to 13,42,000 in 2024, the absolute operating profit decreased from 2,70,000 to 2,62,000. This indicates that the company's overall performance deteriorated slightly in 2024, largely due to the increased production costs which could not be offset by higher sales or cost reductions in other areas.

ii. Common Size Balance Sheet

Imagine comparing the expenses of a small cafe and a large hotel. Their total amounts are very different, but if you express each expense, like rent or utilities, as a percentage of total costs, you can easily see how their spending patterns differ.

A Common Size Balance Sheet does something similar for businesses. It shows each asset, liability, and equity item as a percentage of the total, making it easy to spot structural changes over time or compare companies of different sizes.

In a common-size balance sheet, the total of either assets or liabilities is considered as 100% and each item is presented as a percentage of that total. This vertical analysis facilitates easy comparison of the financial structure over different periods or between different firms.

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A common-size balance sheet facilitates the identification of trends in asset composition, capital structure, and liabilities. It is helpful to conduct intra-firm comparisons over multiple years to assess changes in financial policy.

Illustration 2.1.4

Convert the figures given in the following balance sheet into common size balance sheet and interpret the results thereof.

Balance Sheet of ABC Ltd

	31-03-2023	31-03-2024
I. Equity and Liabilities		
(1)Shareholders Fund		
(a) Share Capital:		
Equity share capital	14,00,000	22,00,000
(b) Reserves and Surplus		
Capital reserve	2,20,000	4,20,000
Sinking fund	1,40,000	1,80,000
General reserve	6,80,000	6,30,000
(2) Non – current Liabilities		
Debentures	6,00,000	11,00,000
(3) Current liabilities		
Sundry creditors	8,20,000	2,68,000
Others	1,20,000	2,00,000
Total Equity and Liabilities	**3980000**	**4998000**
II. Assets		
(1) Non- current Assets		
Land	60,000	1,00,000
Building	10,40,000	29,44,000
Furniture	25,000	52,000
Other Assets	2,04,000	2,76,000
(2) Current Assets		
Investments	9,80,000	5,80,000
Stock	5,40,000	3,60,000
Debtors	7,36,000	5,90,000
Cash	2,87,000	64,000
Others	1,08,000	32,000
Total Assets	**39,80,000**	**49,98,000**

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Solution

Common Size Balance Sheet of ABC Ltd as on 31st March, 2023 and 2024

Liabilities	2023		2024		Assets	2023		2024	
	Amount	% of Total Liabilities	Amount	% of Total Liabilities		Amount	% of Total Assets	Amount	% of Total Assets
Shareholders' Funds:					Fixed Assets:				
Equity share capital	14,00,000	35.18%	22,00,000	44.02%	Land	60,000	1.51%	1,00,000	2.00%
Capital reserve	2,20,000	5.53%	4,20,000	8.40%	Building	10,40,000	26.13%	29,44,000	58.90%
Sinking fund	1,40,000	3.52%	1,80,000	3.60%	Furniture	25,000	0.63%	52,000	1.04%
General reserve	6,80,000	17.09%	6,30,000	12.61%	Other Assets	2,04,000	5.13%	2,76,000	5.52%
(1) Shareholders Funds	24,40,000	61.31%	34,30,000	68.63%	(1) Total fixed Assets	13,29,000	33.39%	33,72,000	67.47%
Non- Current Liabilities					Current Assets:				
(2) Debentures	6,00,000	15.08%	11,00,000	22.01%	Investments	9,80,000	24.62%	5,80,000	11.60%
Current Liabilities:					Stock	5,40,000	13.57%	3,60,000	7.20%
Sundry creditors	8,20,000	20.60%	2,68,000	5.36%	Debtors	7,36,000	18.49%	5,90,000	11.80%
Others	1,20,000	3.02%	2,00,000	4.00%	Cash	2,87,000	7.21%	64,000	1.28%
(3)Total current liabilities	9,40,000	23.62%	4,68,000	9.36%	Others	1,08,000	2.71%	32,000	0.64%
					(2) Total current assets	26,51,000	66.61%	16,26,000	32.53%
Total liabilities and Capital (1)+(2)+(3)	39,80,000	100.00%	49,98,000	100.00%	Total Assets (1) + (2)	39,80,000	100.00%	49,98,000	100.00%

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Interpretation

Only a brief interpretation is provided here, as a detailed analysis has already been discussed in illustration 1.2.6. The following key points should be noted:

There is a significance increase in fixed assets in 2024. The proportion of fixed assets to total assets rose from 33.39% to 67.47% in 2024, indicating a strategic investment in long term growth. In 2023, long term funds (i.e. Shareholder's funds at 61.31% and debentures at 15.08%, totalling 76.39%) were available but only 33.39% of total assets were invested in fixed assets. This reflects an imbalance, as a substantial portion of long term funds was being used to finance current assets, which is not considered financially prudent.

Ideally long term funds should primarily be used to finance fixed assets, while current liabilities should finance at least 50% of current assets, in line with the desirable current ratio of 2:1. The remaining 50% of current assets should be supported by long term funds.

This imbalance was partially corrected in 2024, as a major portion of long term funds was appropriately allocated to improving the alignment between the source and application of funds.

2.1.3.3 Trend Percentages Analysis

Suppose a company wants to evaluate how its revenue, costs, and profits have changed over the last five years. By taking the earliest year as a base (assigned a value of 100) and expressing each subsequent year's figures as a percentage of that base, the company can clearly see whether these financial items are increasing or decreasing.

This is the essence of Trend Analysis. It helps analysts and managers examine the direction and rate of change in financial items over multiple accounting periods, understand growth patterns, compare performance with industry trends, and make informed decisions for forecasting and strategic planning.

Trend analysis is an essential tool of horizontal financial analysis that helps in examining the direction and rate of change in financial items over a period of time. It enables the analyst to evaluate the financial progress and operational efficiency of a business across multiple accounting periods.

In this method, trend percentages are calculated by selecting a base year (usually the earliest year in the data set) and assigning it a value of 100. Subsequent years' figures are then expressed as a percentage of the base year, showing the relative change.

Trend percentage analysis helps identify upward or downward movements, facilitates year-over-year comparisons, and aids in understanding the growth patterns of revenue, costs, profit, and assets. It also compares a firm's performance with industry trends.

Trend percentages are often presented in the form of index numbers, which highlight the direction and pace of change, thereby assisting in forecasting and strategic planning.
Points to note while calculating Trend Ratios:

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- ◊ The same accounting policies and principles must be followed over the years to ensure comparability.
- ◊ The base year should be a normal and representative year. Each item in this year is assigned a value of 100.
- ◊ Trend percentages should only be calculated for items that have a logical relationship with each other.
- ◊ Trend ratio of each item in other statement is calculated with reference to the same item in the base statement by using the following formula:

$$Trend\ \% = \frac{Figure\ in\ the\ current\ year}{Figure\ in\ the\ base\ year} \times 100$$

- ◊ Trend percentages must be interpreted along with the absolute data. Otherwise, they may give misleading conclusions. A high percentage increase on a very small base can be misleading.
- ◊ If there has been a significant price level change, trend percentages should be adjusted for changes in price levels to reflect real growth or decline.

Illustration 2.1.5

From the following information of Francis & Co, interpret the results of operations using trend ratios:

	For the year ended 31st March			
	2022	2023	2024	2025
Net Sales	10,500	10,000	13,500	14,500
Cost of Goods Sold	6500	6,390	7,850	8,200
Gross Profit	4,000	3,610	5,650	6,300
Selling Expenses	1500	1470	1700	1900
Net Operating Profit	2,500	2,140	3,950	4,400

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Solution

TREND RATIOS
31st March , 2022 - 2025

	For the year ended 31st March (Taking year 2022 100% as the base year)			
	2022	2023	2024	2025
Net Sales	100%	95%	129%	138%
Cost of Goods Sold	100%	98%	121%	126%
Gross Profit	100%	90%	141%	158%
Selling Expenses	100%	98%	113%	127%
Net Operating Profit	100%	86%	158%	176%

Interpretation

During the year 2023, sales volume, cost of goods sold (COGS) and selling expenses all declined compared to year 2022. However, the decline in COGS and selling expenses was proportionately less than the fall in sales. This suggests a limited flexibility in cost structure, indicating the presence of fixed costs.

In the years 2024 and 2025, sales volume, COGS and selling expenses increased over the base year 2022. Importantly, the rate of increase in sales was greater than the rate of increase in costs, reflecting improved cost efficiency and better absorption of fixed costs due to higher input.

In conclusion, a significant portion of the cost of goods sold and selling expenses is fixed in nature. These costs do not vary directly in proportion to changes in sales volume. This is evident from the sharper decline in net operating profit in 2023 when the sales fell down and in 2024 there was a faster growth in net profit when sales rose.

2.1.4 Ratio Analysis

Ratio analysis is one of the important tools of financial statement analysis. It involves the calculation and interpretation of relationships between different items of financial statements, such as the balance sheet and the income statement. By converting absolute figures into ratios, this tool helps users to understand the financial position, performance, and efficiency of a business in a clear and comparable form. Ratio analysis is widely used by managers, investors, creditors, and other stakeholders for decision-making. The detailed concepts, classification, and uses of ratio analysis will be discussed in the next block.

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Summarised Overview

Financial statement analysis helps transform accounting data into meaningful information for evaluating business performance and financial position. Although financial statements contain extensive numerical data, their true value lies in systematic analysis and interpretation rather than in mere presentation.

The concepts and objectives of financial statement analysis highlight its importance in assessing profitability, operational efficiency, liquidity, solvency, and overall financial stability. Analytical techniques make it possible to compare performance across accounting periods, identify trends, and evaluate strengths and weaknesses in a firm's financial structure.

Comparative Financial Statements enable the study of changes in income statements and balance sheets over time by showing absolute and percentage variations. Common Size Financial Statements present financial data in percentage terms, helping to analyse cost structure, asset composition, and capital structure irrespective of firm size. Trend Percentage Analysis facilitates the examination of long-term movements in financial items by relating them to a selected base year.

Through interpretation of these analytical tools, managers gain insights into cost behaviour, profitability trends, and changes in financial position. Financial statement analysis therefore supports informed managerial planning, control, and strategic decision-making by linking accounting information with real-world business evaluation.

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Self-Assessment Question

1. Define common size financial statements. How do they help in analysing a firm's financial data?
2. Differentiate between comparative financial statements and trend analysis. Provide an example of each.
3. What are the points to remember while calculating trend ratios?
4. What are the objectives of analysis of financial statements?
5. Following are the Income statement and balance sheets of Jacob Tyres Ltd.

	2023		2024	
Net Sales		8,20,000		12,00,000
Less: Cost of goods sold		6,00,000		9,00,000
Gross profit		2,20,000		3,00,000
Less: Operating expenses:				
Administration expenses	30,000		40,000	
Selling expenes	10,000		20,000	
		40,000		60,000
Operating profit		1,80,000		2,40,000
Add: Dividend		45,000		60,000
Less: Interest paid		25,000		30,000
Net profit before tax		2,00,000		2,70,000
Less: Income tax @ 50%		100000		135000
Net profit after tax		1,00,000		1,35,000

Balance Sheet
of Jacob Tyres Ltd

	2023	2024
I. Equity and Liabilities		
(1) Shareholders' Funds		
(a) Share capital		
Equity Share Capital	7,00,000	9,00,000
14% Preference Share capital	4,00,000	3,50,000
(b) Reserves and Surplus:		
Reserve	2,00,000	3,00,000
(2) Non current liabilities		
12% Debentures	2,00,000	2,00,000
(3) Current liabilities		
Sundry Creditors	1,20,000	1,00,000
Bills Payable	80,000	1,00,000
Tax Payable	2,00,000	3,00,000
Total Equity and Liabilities	19,00,000	22,50,000
II. Assets		
(1) Non current assets		
Land	6,00,000	6,00,000
Machinery	3,00,000	4,50,000
Furniture	80,000	1,20,000
Long term Investments	1,20,000	80,000
(2) Current Assets		
Stock	4,00,000	4,80,000
Debtor	3,00,000	3,60,000
Cash	1,00,000	1,60,000
Total Assets	19,00,000	22,50,000

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You are required to prepare:

i. Comparative income statement

ii. Comparative balance sheet

iii. Common size income statement

iv. Common size balance sheet

Also interpret the results.

6. Presented below are revenue and expense data of Tech Solutions Pvt Ltd for the year 2023 and 2024.

	2023	2024
Sales	8,76,000	7,16,000
Sales returns	46,000	26,500
Cost of goods sold	4,00,000	3,12,000
Selling expenses	2,00,000	1,30,000
General expenses	1,20,000	78,000
Miscellaneous Income	8400	8500
Income tax	32,000	65,600

You are required to prepare a comparative statement for the year 2023 and 2024 for the company and interpret the results thereof.

7. From the balance sheet given below calculate the trend ratios.

	2021	2022	2023
Share Capital	5,00,000	5,00,000	5,00,000
Reserves and Surplus	2,00,000	2,05,000	2,15,000
Debentures	32,000	31,000	30,000
Current Liabilities	27,01,000	28,08,000	29,14,000
	34,33,000	35,44,000	36,59,000
Fixed Assets	3,32,000	3,53,000	3,12,000
Investments	82,000	1,03,000	1,77,000
Current Assets	30,19,000	30,88,000	31,70,000
	34,33,000	35,44,000	36,59,000

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8. Explain the meaning of comparative financial statements. State any two advantages of preparing them.

9. What is a common size income statement? How does it help in evaluating cost structure and profitability?

10. Explain trend percentage analysis. Why is the selection of an appropriate base year important in this method?



Assignments

1. "Common-size statements enable better comparability across firms and time periods." Critically examine this statement with suitable illustrations. Explain how such statements assist in managerial decision-making.

2. Using comparative financial statements of any business of your choice (real or hypothetical), analyse the financial performance over two consecutive years. What trends do you observe and what could be the possible reasons behind them?

3. Evaluate the significance of trend percentage analysis in financial decision-making. How can this tool help in identifying early warning signals or growth opportunities for a business? Substantiate your answer with appropriate examples.

4. "How do comparative, common size and trend percentage analyses complement each other in evaluating a firm's financial performance and financial position?" Discuss with suitable illustrations and explain their relevance for managerial planning and control.

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Reference

1. SP Jain, Narang, K. L., Agrawal, S., & Sehgal, M. (2021). *Advanced accountancy* (Vol. 2, 23rd rev. ed.). Kalyani Publishers, New Delhi.

2. Gupta, R. L., Radhaswamy M., (2015) *Advanced Accountancy*, Sultan Chand & Sons, New Delhi.

3. Maheswari, S. N., (2015), *Management Accounting and Financial Control*, Sultan Chand & Sons, New Delhi.

4. Atrill, Peter and McLaney, Eddie (2013). *Financial Accounting for Decision Makers* (seventh edition). Pearson.

Suggested Reading

1. Arora, M. N. (2021). *A textbook of cost and management accounting* (11th ed.). Vikas Publishing House.
2. Mehta, B. K. (2021). *Cost and management accounting.* SBPD Publications.
3. Singh, S. (2016). *Management accounting*. PHI Learning Pvt. Ltd.

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Unit 2

Cash Flow Statement

Learning Outcomes

On completion of this unit, the learner will be able to:

- ◊ gain insight into the meaning, objectives and uses of cash flow statement
- ◊ explain the different types of cash flows
- ◊ comprehend the computation of cash flows from operating activities, investing activities and financing activities
- ◊ familiarise the preparation of cash flow statement

Background

All activities of a business run on cash. Do you agree? Cash is to a business what blood is to the human body. It is essential for day-to-day operations such as paying suppliers, salaries, wages, interest, and dividends. Without adequate cash, no business can function smoothly. Every business begins with cash as its initial capital, and the operations carried out using this capital generate further cash. The success or failure of a business depends largely on how efficiently it can generate and manage this cash.

A business may show high profits, yet still struggle to meet its obligations. Why does this happen? A detailed analysis of financial statements provides the answer. You will notice that debtors, inventory, and other assets may accumulate due to poor turnover management. As a result, the available cash can be far lower than the profit reported for the period. This highlights an important fact: generating profit does not always mean generating sufficient cash.

A firm must maintain an adequate cash balance. If it fails to do so, it may be unable to meet its short-term obligations. In business, this situation is known as liquidity crisis—a sign of financial weakness that can harm the firm's reputation.

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Therefore, maintaining an effective cash balance is crucial. Effective cash management means keeping an optimal amount of cash—neither too much nor too little—by balancing liquidity and profitability. This balance is known as the risk–return trade-off.

The cash flow statement helps answer two fundamental questions: Where did the cash come from?

Where did the cash go?

As you move through the following pages, you will understand how cash flows into and out of a business. For example, cash flows in when customers make payments and flows out when the business pays salaries or rent. Understanding this movement enables a business to control its cash flows and make informed decisions. By the end of this unit, you will be able to prepare a cash flow statement with clarity and confidence.



Keywords

Cash Flow Statement, Operating Activities, Investing Activities, Financing Activities



Discussion

2.2.1 Meaning of Cash Flow Statement

A cash flow statement is a statement that depicts the changes in the position of cash and cash equivalents from one period to another. A cash flow statement describes the inflows (or sources) and outflows (or uses) of cash and cash equivalents of an enterprise during a specified period of time. Cash inflows refer to transactions that increase an entity's cash position, while cash outflows refer to transactions that decrease an entity's cash position. The cash flow statement helps to trace the various sources that bring in cash, such as cash from operating activities, the sale of current and fixed assets, the issue of share capital, and debentures, among others. It also helps to trace the applications that cause the outflow of cash, such as losses from operations, the purchase of current and fixed assets, the redemption of debentures, preference shares, and other long-term debt for cash. Thus, a cash flow statement shows the cash receipts and disbursements that occur during a specific period. Cash Flow Statement is prepared as per Accounting Standard -3 (Revised) or AS- 3 (Revised). The revised Accounting Standard 3 (AS-3) has made it mandatory for all listed companies to prepare and present an annual cash flow statement, along with their other financial statements.

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2.2.2 Objectives of Cash Flow Statement

A cash flow statement is prepared

i. to determine the various sources/receipts of cash and cash equivalents classified under operating, investing and financing activities of a business enterprise.

ii. to determine the various applications /payments of cash and cash equivalents classified under the operating, investing and financing activities of a business enterprise.

iii. to determine the net change (net increase or net decrease) in cash and cash equivalents between two balance sheet dates. Net change is the difference between the sources and applications under operating, investing and financing activities.

2.2.3 Uses of Cash Flow Statement

i. Ascertainment of Cash Flows from Operating, Investing and Financing Activities:

The Cash Flow Statement helps to understand the inflows and outflows of cash and cash equivalents resulting from a business enterprise's operating, investing, and financing activities, as well as net changes in cash and cash equivalents.

ii. Facilitates Cash Planning

Cash Flow Statement gives information about sources and applications of cash and cash equivalents for a specific period. It helps in planning investments and assessing the future financial requirements of the enterprise.

iii. Helps in the determination of the ability to pay dividends and other commitments.

A Cash flow statement provides information about the sources and uses of cash under operating, investing, and financing activities. This helps shareholders determine whether the business can make dividend payments on their investment in shares. It also helps creditors know if they will receive interest and principal amount on time.

iv. Efficient Cash Management

The Cash Flow Statement helps management evaluate the usefulness of financial policies and their cash position. A cash flow statement provides information regarding the surplus or deficit of cash. This aids management in making plans for investing surplus cash or tapping sources from which the cash deficiency can be met. Additionally, a cash flow statement helps management make reliable cash projections for the immediate future.

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v. Determining reasons for cash position

There is a direct relationship between net profit and cash. High net profit leads to an increase in cash, and vice versa. However, a business enterprise may still have a low cash balance despite generating high profits. Sometimes, it may have a high cash balance despite having low profits. Reasons for such situations can be easily analysed with the help of a Cash Flow Statement.

vi. Facilitates Comparative Study

A cash flow statement enhances the comparability of reporting operating performance across different business enterprises. It helps to eliminate the effects of using different treatments for the same transactions and events. The cash flow statement is also used for inter-period comparison.

vii. Evaluate Management Decisions

The Cash Flow Statement provides information related to a company's operating, investing, and financing activities. This provides shareholders, potential investors, lenders, and creditors with information about cash flows, which in turn helps them evaluate management decisions.

viii. Helps to disclose the movement of cash

A comparison of the previous year's cash flow statement with the budget for that year will help understand the extent to which the enterprise's resources have been raised and utilised by the business. This comparison will help highlight the trend of cash movement that may otherwise remain undetected.

ix. Helps to evaluate the success or failure of cash planning

A comparison of the projected cash flow statement with the actual cash flow statement will help reveal the success or failure of the business enterprise's cash planning. Necessary remedial steps can be taken to improve the cash position in case of failure.

2.2.4 Terms related to Cash Flow Statement

Following are some of the terms related to cash flow statement used in AS-3 and their meaning

i. **Cash :** It refers to cash in hand and demand deposits with banks.

ii. **Cash equivalents :** These are short-term, highly liquid investments which are readily convertible into cash.

iii. **Cash Flows :** It refers to inflows and outflows of cash and cash equivalents. The statement of cash flow shows three main categories of cash inflows and cash outflows, namely - operating, investing and financing activities.

   a. **Operating activities :** These are the principal revenue generating activities of the enterprise.

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b. **Investing activities :** These are activities comprising of the acquisition and disposal of long- term assets and other investments which are not included in cash equivalents.

c. **Financing activities :** These are activities that result in change in the size and composition of the owner's capital (including Preference share capital in the case of a company) and borrowings of the enterprise.

2.2.5 Classification of Cash Flows

As per AS -3, a cash flow statement should report cash flows during the accounting period. These cash flows are classified as

i. Cash flows from Operating Activities

ii. Cash flows from Investing Activities

iii. Cash flows from Financing Activities

I. Cash Flows from Operating Activities

Nutribite Foods Ltd.is a company which produces a variety of packaged food items. Every week, the company buys raw materials such as grains, spices, oils, and packaging materials. Cash flows out when it pays wages to factory workers, electricity bills for running machines, and incurs transport costs to deliver products to supermarkets, retail stores, and online customers. On the other hand, cash flows in when customers, retailers, and distributors pay for their orders. These day-to-day inflows and outflows represent the company's operating activities associated with the production of packaged food. They indicate whether Nutribite is generating cash from its core business so as to keep production and sales running smoothly.

Operating activities refer to the principal revenue-generating activities of an enterprise. Principal revenue-generating activities refer to the activities carried out by a business enterprise to earn a profit. Following are some examples of cash flows from operating activities:

i. Receipts of cash realised from the sale of goods and rendering services.

ii. Receipts of cash realised from royalties, fees, commissions and other revenue.

iii. Payments of cash to suppliers for goods and services.

iv. Payments of cash to employees.

v. Payments or refund of Income tax (unless they are specifically identified with financing and investing activities).

vi. Receipts and payments of cash of an insurance enterprise for premiums and claims, annuities and other policy benefits

vii. Receipts and payments of cash from contracts which are held for dealing or trading purposes.

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Table 2.2.1 Cash Flows from Operating Activities (in the case of a Non –Financial Enterprise)

Cash Inflows	Cash Outflows
Cash Sales	Cash Purchases
Cash received from Debtors	Cash paid to Creditors
Cash receipts from Royalties, Fees and Commission	Payment of wages and salaries in cash
Cash received from other revenue services	Payment of other operating expenses (Office and Selling expenses etc.)
	Payment of Income Tax

Table 2.2.2 Cash Flows from Operating Activities (in the case of a Financial Enterprise)

Cash Inflows	Cash Outflows
Receipts of Interest	Payment of interest
Receipts of Commission	Payment of Loans and advances
Dividend received on securities	Payment of wages and salaries
Receipts from sale of securities	Payment in relation to Purchase of Securities

If securities and loans are held by an enterprise for trading purposes, like the inventory explicitly acquired for resale, then the cash flows arising from the purchase and sale of dealing or trading securities are classified as operating activities. Similarly, cash advances and loans made by financial enterprises are typically classified as operating activities, as they relate to the primary revenue-generating activity of that enterprise.

II. Cash Flow from Investing Activities

Let us continue with the example of Nutribite Foods. As the demand for its products grows, Nutribite decides to expand its production. The company purchases new processing machines, builds a storage unit for raw materials, upgrades packaging equipment and sells off some old and inefficient machines. While purchases result in an outflow of cash, selling old or inefficient machines leads to an inflow of cash. These cash flows are distinct from operating activities, as they do not arise from the company's day-to-day business operations.

Investing Activities refer to transactions involving the purchase and sale of fixed or long - term assets and investments.

Following are some of the examples of cash flows arising from investing activities:

i. Payments of cash made to acquire Fixed Assets (including intangible assets).

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ii. Receipts of cash from the disposal of fixed assets (including intangible assets).

iii. Payments of cash to acquire shares, warrants or debt instruments of other enterprises and interests in joint ventures.

iv. Cash advances and loans which are made to third parties (other than advances and loans of a financial enterprise).

v. Receipts of cash from the repayment of advances and loans made to third parties (other than advances and loans of a financial enterprise).

Table 2.2.3 Cash Flows from Investing Activities

Cash Inflows	Cash Outflows
Cash sales of plant and machinery, land and building, furniture, goodwill etc.	Purchase of Fixed Assets i.e. land, building, furniture, machinery etc.
Cash sales of investments made in the shares and debentures of other companies	Purchase of Intangible Assets i.e. goodwill, trade mark etc.
Dividend Received	Purchase of Shares
Interest Received	Purchase of Debentures, Government Bonds
	Loans and advances made to third parties

(Note: Interest received and dividend received are classified as operating activities in case of a financial enterprise)

III. Cash Flows from Financing Activities

To fund the expansion activities, NutriBite raises capital by taking a bank loan. It also issues shares to new investors. This brings in the much-needed cash inflow to purchase assets and support growth. Later, the company repays part of the loan, resulting in a cash outflow. It also distributes dividends to shareholders. These inflows and outflows related to borrowing, raising, and repaying funds are classified as financing activities.

Financing Activities are activities that result in changes in the size and composition of the owner's capital and borrowings of an enterprise.

Examples of cash flows from financing activities include:

i. Cash proceeds from the issue of shares or other similar instruments.

ii. Cash proceeds from issue of debentures, loans, notes, bonds or other short-term or long-term borrowings.

iii. Cash repayments on redemption of debentures, preference shares, bonds.

iv. Cash repayments of amounts borrowed.

v. Cash payments to owners to acquire or redeem the shares of the business entity.

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Table 2.2.4 Cash Flows from Financing Activities

Cash Inflows	Cash Outflows
Issue of Equity and Preference Share Capital (for cash)	Payment of interest
Issue of Debentures, Bonds, Notes and Loans (for cash)	Payment of dividends to shareholders
Proceeds from Loans and Borrowings	Redemption or repayment of debentures and loans
	Redemption of Preference Share Capital
	Buy back of Equity Shares

2.2.6 Computation of Cash Flows from Operating Activities

The principal revenue-producing activities of an enterprise are referred to as operating activities. Cash flow from Operating Activities may be calculated by using either (i) Direct Method or (ii) Indirect Method

i. Direct Method

Under this method, the cash receipts (inflows) from the business enterprise's operating activities and the cash payments (outflows) incurred for operating expenses are calculated to determine the cash flows from operating activities. The difference between cash receipts and cash payments is the Net cash flow from (or used in) operating activities. Thus, Cash flows from operating activities is calculated by considering cash receipts and cash payments related to operating activities during the period. Cash flow from Operating Activities using the direct method is calculated as follows.

Table 2.2.5 Cash flow from Operating Activities (Direct Method)

Particulars	₹	₹
Cash receipts from customers	xxx	
Cash paid to suppliers and employees	xxx	
Cash paid for other operating expenses	(xxx)	
Cash generated from Operations	xxx	
Income Tax paid	(xxx)	
Cash flow before extra - ordinary items	xxx	
Add/Less Extraordinary items (receipt / payment)	xxx / (xxx)	
Net Cash from (used in) operating activities		**xxx**

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Illustration 2.2.1

Calculate Cash Flows from Operating Activities from the following information

Particulars	Amount (₹)
Cash Revenue from operations	3,00,000
Cash paid to creditors	2,00,000
Selling & Distribution Expenses paid	10,000
Office & Administration Expenses paid	10,000
Cash receipts from debtors	5,00,000
Manufacturing overheads paid	20,000
Cash Purchases	50,000
Income Tax paid	1,20,000
Wages & Salaries paid	50,000
Trading Commission received	2,00,000
Trading Commission paid	25,000
Insurance proceeds from earthquake disaster settlement	1,00,000
Rent Paid	10,000
Income tax refund received	3,000

Solution

Cash flow from Operating Activities

Particulars	₹	₹
Cash Revenue from operations	3,00,000	
Cash receipts from debtors	5,00,000	
Trading Commission received	2,00,000	
Less : Operating Cash Payments		
Cash Purchases	(50,000)	
Cash paid to creditors	(2,00,000)	
Trading Commission paid	(25,000)	
Wages & Salaries paid	(50,000)	
Rent Paid	(10,000)	
Manufacturing overheads paid	(20,000)	
Office & Administration Expenses paid	(10,000)	
Selling & Distribution Expenses paid	(10,000)	
Cash generated from operation	6,25,000	
Less : Income Tax paid (Net of Tax Refund Received) (120,000- 3,000)	(1,17,000)	
Cash flow before extra - ordinary items	5,08,000	
Add : Insurance proceeds from earthquake disaster settlement	1,00,000	
Net Cash increase from operating activities		**6,08,000**

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ii. Indirect Method

Under Indirect Method, Cash Flow from Operating Activities is calculated from the financial statements, i.e., Statement of Profit & Loss and Balance Sheet in the following manner.

STEP 1: Determine Net Profit before Tax and Extraordinary Items

Case 1: If Statement of Profit and Loss or Net Profit Before Tax is given :

Particulars	₹
Net Profit-Before Tax	xxx
Add: Extraordinary Items debited as expenses	xxx
Less: Extraordinary Items credited as incomes	(xxx)
Refund of Tax	(xxx)
Net Profit Before Tax and Extraordinary Items	xxx

Case 2: If Net Profit After Tax (Before Appropriations) is given :

Net Profit After Tax (Before making Appropriations)	xxx
Add: Provision for Tax (Current year provision)	xxx
Extraordinary Items debited as expenses	xxx
Less: Extraordinary Items which have been credited to income	(xxx)
Refund of Tax	(xxx)
Net Profit Before Tax and Extraordinary Items	xxx

iii. If Reserve and Surplus as per Balance Sheet is given :

Particulars	₹
Surplus for the year or difference between opening and closing balance of surplus, ie. Balance in Statement of Profit and Loss (Net Profit After Appropriations)	xxx
Add:	
Proposed Dividend for current year	xxx
Interim Dividend Paid during the year	xxx
Transfer to Reserves	xxx
Provision for Tax (current year provision)	xxx
Extraordinary Items debited to expenses	xxx
Less: Extraordinary Items which have been credited to income	(xxx)
Refund of Tax	(xxx)
Net Profit Before Tax and Extraordinary Items	xxx

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2.2.6.1 Treatment of certain special items added to the Net Profit before Tax and Extra ordinary items

i. Interim Dividend

The following are treatments related to the Interim dividend

- ◊ It will be added back to the profits for the purpose of calculating cash from operating activities.
- ◊ The amount of interim dividend paid during the year is shown as an outflow of cash while calculating the cash flow from financing activities in the cash flow statement.

ii. Final dividend or Proposed Dividend

It is a non-operating item which should not be permitted to affect the calculation of cash generated by operating activities. If the opening and closing balances of the Proposed Dividend are given, it is assumed that the previous year's balance (i.e opening balance) has been paid during the year, and an amount equal to the closing balance is created as a provision for the current year. The proposed dividend of the Current Year is added to determine the Net Profit before Tax and extraordinary items. The proposed dividend of the Previous Year is shown as an outflow in the financing activity (except for financial enterprises), taken as paid in the Current Year. The proposed dividend Account is prepared if the opening and closing balances of the Proposed dividend are given.

Proposed Dividend Account

Particulars	Amount	Particulars	Amount
To Cash/ Bank (Payment of Dividend of last year)	xxx	By Balance b/d	xxx
To Balance c/d	xxx	By Profit and Loss A/c (Provision made for current year)	xxx
	xxx		xxx

iii. Transfer to Reserves

Transfer from Surplus, i.e., Balance in Statement of Profit & Loss to other reserves is added to Net Profit because it is an appropriation of Net Profit for the year. For example, Increase in General Reserve is added to Net profit for the year to determine Net Profit before Tax and Extraordinary Items because it is appropriated out of Surplus, i.e., Balance in Statement of Profit & Loss.

iv. Provision for Tax

- ◊ If only the amounts of provision for tax for the current year and the previous year are given, the Provision for Tax Account is prepared. Current year provision is

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assumed to be provided during the current year and added to net profit before tax and extraordinary items. The provision for the previous year is assumed to be tax paid during the current year and is deducted from cash generated from operations when calculating cash flows from operating activities. If the amounts of provision for tax for current year and previous year and also the provision made during the current year are given, then balancing figure will be the amount of tax paid during the year.

◊ If the amounts of provision for tax for current year and previous year and tax paid during the current year are given, then balancing figure will be the amount of provision made during the year.

Provision for Tax Account

Particulars	Amount	Particulars	Amount
To Cash/Bank (Tax paid) (Bal. Fig)	xxx	By Balance b/d	xxx
To Balance c/d	xxx	By Profit and loss A/c (current year provision)	xxx
	xxx		xxx

Illustration 2.2.2

The following relevant information is obtained from the book of Mr.Rohit Limited (Ltd.).

Liabilities	2023	2024
	₹	₹
Provision for Taxation	50,000	70,000

The amount of tax paid during 2024 amounted to ₹40,000. How would you deal with this item presuming to be non - current? You are also given net profit after taxation was ₹80,000.

Solution

To solve this problem, one should find out the amount of provision for tax charged to Profit and Loss Account in the year 2024.

Provision for Taxation Account

Particulars	Amount Rs.	Particulars	Amount Rs.
ToBank (payment)	40,000	By Balance b/d	50,000
To Balance c/d	70,000	By Profit and loss A/c (Bal: Fig)	60,000
	1,10,000		1,10,000

i. Rs. 40,000 is an outflow of cash

ii. Cash provided from operating activities will be calculated as

Net Income after taxation	₹80,000
Add: Provision for taxation	₹ 60,000
	₹1,40,000

STEP 2: Adjustment of Non –Cash and Non –Operating Items

Here the following non - cash expenses such as Depreciation, Amortisation (writing off) of Intangible Assets (ex: Goodwill, Patents, Trademarks, Copyrights etc), Provision for Expenses (ex: Provision for Doubtful Debts, Provision for Discount on Debtors or Trade Receivables, Provision for Other Expenses) and Non – Operating Expenses such as Interest on Debentures, Loans and Borrowings and Non – Operating Losses such as Loss on Sale of Fixed Asset, Loss on Sale of Investments, Expenses or Discount on Issue of Shares and Debentures are added to Net Profit before tax and extra ordinary items.

Non - cash incomes such as Excess Provisions or Reserves written back (transferred to statement of Profit as Loss as income) and non - operating incomes and gains such as Interest Received, Dividend Received, Rental Income, Gain or Profit on Sale of Fixed Assets and Gain or Profit on Sale of Investments are deducted from Net Profit before tax and extra ordinary items

STEP 3: Determination of Operating Profit Before Working Capital Changes (Determined as a result of Step 1 and Step 2)

In this step, "Decrease in Current assets" and "Increase in Current Liabilities" are added to operating profit before working capital changes.

"Increase in Current assets" and "Decrease in Current Liabilities" are deducted from operating profit before working capital changes.

The resultant figure will be "Cash generated from Operations".

Current assets include stock/inventories, Trade Receivables, prepaid expenses, accrued income etc. (except cash and cash equivalents). Current Liabilities include Trade Payables, Outstanding Expenses, Income received in advance etc.

STEP 4: Deduct Income Tax Paid (Net of Refund of Tax)

Income tax paid is deducted from Cash Generated from Operations determined as a result of Step 1, 2 and 3. The resultant figure will be "cash flows before extraordinary items".

STEP 5: Adjust Extraordinary Items

This is the last step in the calculation of cash from operating activities. Extraordinary items are added or deducted from Cash Flows from Operating Activities before

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Extraordinary Items. The resultant figure will be Net cash flows from/used in operating activities.

Table 2.2.5 Cash flows from operating activities (Indirect method)

Particulars	₹	₹
Net Profit before tax and extraordinary items		
Adjustment for Non – Cash and Non – Operating Items		
Add : Depreciation	xxx	
Interest on Debentures, Loans and Borrowings	xxx	
Loss on Sale of Fixed assets	xxx	
Loss on Sale of Investments	xxx	
Provision for Doubtful Debts	xxx	
Amortisation of intangible and fictitious assets	xxx	
Less: Interest Income	(xxx)	
Dividend Income	(xxx)	
Rental Income	(xxx)	
Profit on sale of Fixed Assets	(xxx)	
Profit on sale of Investments	(xxx)	
Appreciation of Fixed Assets	(xxx)	
Operating Profit before Working Capital Changes		xxx
Add: Decrease in current assets (except cash and cash equivalents)		
Decrease in inventories / Stock	xxx	
Decrease in Trade Receivables (Debtors and Bills Receivables)	xxx	
Decrease in Prepaid Expenses	xxx	
Decrease in Accrued Income	xxx	
Add: Increase in Current Liabilities		
Increase in Trade Payables (Creditors and Bills Payables)	xxx	
Increase in Outstanding Expenses	xxx	
Increase in Income Received in Advance	xxx	
Less : Increase in Current Assets (As individually stated above)	(xxx)	
Less: Decrease in Current Liabilities (As individually stated above)	(xxx)	
Cash generated from Operations	xxx	
Less : Income tax paid (Net of Tax Refund Received)	(xxx)	
Cash flows before extraordinary items	xxx	
Add/ Less Extra ordinary items	xxx	
Net Cash from (or lost) in operating activities		xxx / (xxx)

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Working Note: Net Profit Before Tax and Extraordinary Items

Particulars	₹
Closing balance of Profit and Loss Account	xxx
Less : Opening balance of Profit and loss account	(xxx)
Profit after Tax / Loss for the year	xxx
Add:	
Proposed Dividend for Current Year	xxx
Interim Dividend Paid during the year	xxx
Transfer to Reserves	xxx
Provision for Tax made for current year	xxx
Extraordinary Items debited to in Profit & Loss L A/c	xxx
Less: Extraordinary Items which have been credited in Profit &Loss A/c	(xxx)
Refund of Tax	(xxx)
Net Profit Before Tax and Extraordinary Items	xxx

Illustration 2.2.3

Sreedhar Ltd. made a Net Profit of ₹ 20,00,000 for the year ended 31st March 2024 after taking into account the following

Particulars	₹
Goodwill written off	6,000
Plant and Machinery having a book value of ₹ 14,000 was sold for	10,000
Profit on sale of investments	8,000
Depreciation on Building	52,000
Depreciation on Plant and Machinery	35,000
Transfer to General Reserve	20,000

The following was the position of Current Assets and Current Liabilities of the company as on 31st March 2023 and 31st March, 2024

	31st March 2023	31st March 2024
Debtors	45,000	35,000
Stock	82,000	90,000
Cash	13,000	22,000
Creditors	56,000	62,000
Outstanding Expenses	8,000	6,000
Prepaid Expenses	4,000	5,000
Bills Payable	11,000	15,000

You are required to calculate cash flows from operating activities using Indirect

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Method

Solution

Particulars	₹
Net profit for the year	20,00,000
Adjustment for non-cash and non-operating items:	
Depreciation on building	52,000
Depreciation on plant and machinery	35,000
Transfer to general reserve	20,000
Goodwill written off	6,000
Loss on sale of plant and machinery	4,000
Profit on sale of investments	(8,000)
Operating profit before working capital changes	21,09,000
Adjustments for changes in current assets and current liabilities:	
Decrease in debtors	10,000
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 payables	4,000
Net Cash Flow from Operating Activities	21,18,000

Illustration 2.2.4

Gagan Ltd has furnished the following Trading and Profit and Loss Account and balances of assets and liabilities

Trading and Profit and Loss Account for the year ended 31st March 2017

Income Statement

Particulars	Note No	31.3.2024 ₹
I. Revenue from Operations		5,00,000
II. Other Income	1	6,000
III.Total Revenue (I +II)		5,06,000
IV.Expenses		
Cost of materials consumed		-

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Purchase of Stock in Trade		65,000
Changes in inventories of finished goods, work in progress and Stock in trade	2	5,000
Employees benefits expenses (Salaries)		10,000
Finance Cost (Interest on Loan)		3,000
Depreciation and Amortisation Expenses		5,000
Other Expenses (Loss on sale of fixed asset)		2,000
Total Expenses		90,000
V.Profit before tax (III-IV)		4,16,000
VI. Tax		6,000
VII. Profit after tax (V- VI)		4,10,000

Notes to Accounts

Particulars	Amount
1. Other Income	
Income from Investment	4000
Profit in sale of investment	2000
	6000
2. Change in inventories of finished goods, WIP and stock in trade	
Opening Stock	15,000
Closing Stock	(10,000)
	5,000

Particulars	1.4.2023 ₹	31.3.2024 ₹
Stock	15,000	10,000
Debtors	15,000	20,000
Creditors	10,000	20,000
Outstanding Salary	3,000	2,000
Fixed Assets	25,000	30,000

You are required to prepare cash flows from operating Activities under (i) Direct

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Method and (ii) Indirect Method

Solution

(i) Cash flow from Operating Activities (Direct Method)

Particulars	₹	₹
Cash receipts from customers	4,95,000	
Cash paid to suppliers	(55,000)	
Cash paid to employees	(11,000)	
Cash generated from operation	4,29,000	
Income Tax paid	(6,000)	
Net Cash from operating activities		**4,23,000**

(ii) Cash flow from Operating Activities (Indirect Method)

Particulars	₹
Net profit before Tax and extra ordinary Items	4,16,000
Adjustment for non-cash and non-operating items:	
Depreciation	5,000
Loss on sale of assets	2,000
Profit on sale of investments	(2,000)
Interest expense	3,000
Income from investments	(4,000)
Operating profit before working capital changes	4,20,000
Adjustments for changes in current assets and current liabilities:	
Increase in debtors	(5,000)
Decrease in stock	5,000
Increase in creditors	10,000
Decrease in outstanding general expenses	(1,000)
Net Cash Flow from Operating Activities	4,29,000

Working Notes

1. Calculation of Cash paid to employees

Salaries for the period	10,000
Add: Outstanding at the beginning	3,000
	13,000

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Less : Outstanding at the end of the period	2,000
Cash paid to employees	11,000

2. Calculation of cash received from customers

Total Debtors Account

Particulars	Amount	Particulars	Amount
To Balance b/d	15,000	By Cash (Balancing Figure)	4,95,000
To Sales	5,00,000	By Balance c/d	20,000
	5,15,000		5,15,000

3. Calculation of cash paid to suppliers

Total Creditors Account

Particulars	Amount	Particulars	Amount
To Cash (Balancing figure)	55,000	By Balance b/d	10,000
To Balance c/d	20,000	By Purchases	65,000
	75,000		75,000

2.2.7 Calculation of Cash flow from Investing Activities

Investing Activities involve the acquisition and disposal of long-term assets (both tangible and intangible) and other investments not included in cash equivalents.

Cash Flows from Investing Activities are ascertained by analysing the changes in Fixed Assets, such as Plant and Machinery, Property, and other tangible assets, as well as Intangible Assets, including goodwill, and Long-term Investments or Non-Current Assets. These are ascertained with the help of balance sheets on the opening and closing dates, the income statement for the year and additional information.

The figures appearing in the balance sheets at two dates in respect of fixed assets might indicate whether a particular fixed asset has been purchased or sold during the year. This would enable the determination of cash inflows and outflows. For example, if machinery appears at Rs 60,000 in the current year and ₹50,000 in the previous year, the only conclusion, in the absence of any other information, is that there was a purchase of machinery for ₹ 10,000 during the year. Hence, ₹ 10,000 would be shown as an outflow of cash.

Investment activities also include interest received on loans and debentures, as

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well as dividends received. Cash flow from investing activities is determined in the following manner.

Table 2.2.6 Cash Flows from Investing Activities

Particulars	₹
Proceeds from Sale of Fixed (Tangible) Assets	xxx
Proceeds from Sale of Fixed (Intangible) Assets such as Goodwill, Patents etc.	xxx
Proceeds from Sale of Non – Current Investments	xxx
Interest Received on Investments	xxx
Dividend Received on Shares held as Investments	xxx
Rent Received from Property held as Investments	xxx
Purchase of Fixed (Tangible Assets)	(xxx)
Purchase of Fixed (Intangible Assets) like Goodwill	(xxx)
Purchase of Non – Current Investments	(xxx)
Net Cash Flow from (or used in) Investing Activities	**xxx**

Fixed Assets and Provision for Depreciation Account

If the amount of purchase and sale of fixed asset and depreciation are not given, the required information is determined by preparing the Fixed Asset Account with the available information.

Fixed Asset Account shows purchase and sale of fixed asset, gain (profit) or loss on sale of fixed asset and depreciation charged during the year. Fixed Asset Account is prepared as follows

Case I: When Fixed Asset is shown at Written Down Value, i.e., cost less depreciation.

Asset Account is credited with the amount of depreciation for the year, sale proceeds of the asset and loss on sale, if any and debited with the gain (profit) on sale. Closing Balance is the written down value or book value of the asset. In most cases, the purchase of fixed asset is a balancing amount on the debit side of the account and depreciation or the sale of fixed asset on the credit side of the account.

Fixed Asset Account (at written down value)

Particulars	Amount	Particulars	Amount
To Balance b/d	xxx	By Cash/Bank A/c (Sales)	xxx
To Gain / Profit on Sale of Fixed Asset	xxx	By Loss on Sale of Fixed Asset	xxx
To Cash / Bank A/c (Purchase)	xxx	By Depreciation A/c	xxx
		By Balance c/d	xxx
	xxx		xxx

Note: Treatment of Items

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i. Amount of sale proceeds of fixed assets is a cash inflow and will be shown as Sale of Fixed Assets while computing cash flows from investing activities.

ii. The amount of purchases of fixed assets is a cash outflow and it will be shown as Purchase of Fixed Assets while computing cash flows from investing activities.

Illustration 2.2.5

Manushi Ltd. has Machinery written down value of which on 1st April, 2023 was ₹ 8,50,000 and-on 31st March, 2024 was 9,60,000. Depreciation for the year was ₹60,000. In the beginning of the year, an item of machinery was sold for₹35,000 which had a written down value of ₹20,000. Calculate Cash Flow from Investing Activities.

Solution

Cash Flow from Investing Activities

Particulars	₹
Purchase of Machinery	(1,90,000)
Sale of Machinery	35,000
Cash used in Investing Activities	(1,55,000)

Working Note:

Machinery Account

Particulars	Amount	Particulars	Amount
To Balance b/d	8,50,000	By Cash/Bank A/c (Sales)	35,000
To Gain / Profit on Sale of Fixed Asset	15,000	By Depreciation A/c	60,000
To Cash / Bank A/c (Purchase) (Bal.Fig)	1,90,000		
		By Balance c/d	9,60,000
	10,55,000		10,55,000

Case II: When Fixed Assets are shown at Original Cost and Accumulated Depreciation Account is maintained.

Here, the depreciation for the period is not credited to the Asset Account. Instead, it will be debited to the Depreciation Account (transferred to the Statement of Profit & Loss) and credited to Accumulated Depreciation Account or Provision for Depreciation Account. So , in this case, asset is shown at its original cost less accumulated depreciation in the Balance Sheet and two accounts namely fixed asset and accumulated depreciation

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or provision for depreciation are prepared. Depreciation for the year can be determined from Accumulated Depreciation Account.

Fixed Asset Account (at cost)

Particulars	Amount	Particulars	Amount
To Balance b/d	xxx	By Cash/Bank A/c (Sales)	xxx
To Gain / Profit on Sale of Fixed Asset (P&L A/c)	xxx	By Loss on Sale of Fixed Asset (P &L A/c)	xxx
To Cash / Bank A/c (Purchase)	xxx	By Accumulated Depreciation A/c (Accumulated Depreciation on Asset sold)	xxx
		By Balance c/d	xxx
	xxx		xxx

Accumulated Depreciation Account

Particulars	Amount	Particulars	Amount
To Fixed Asset A/c (Transfer of Accumulated Depreciation on Fixed Asset Sold)	xxx	By Balance b/d	xxx
To Balance c/d	xxx	By Depreciation A/c (P&L A/c) (Depreciation for the current year)	xxx
	xxx		xxx

Illustration 2.2.6

Calculate the cash flow from investing activities from the following information

Particulars	Opening Balances (₹)	Closing Balances (₹)
Machinery (at Cost)	5,00,000	5,20,000
Accumulated Depreciation	2,00,000	2,10,000
Patents	3,80,000	2,60,000

Additional Information:

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During the year, a machine costing ₹38,000 with its accumulated depreciation- ₹ 24,000 was sold for ₹20,000. Patents written off were ₹40,000 and some patents were sold at a profit of ₹20,000

Solution

Cash Flow from Investing Activities

Particulars	₹
Sale of Machinery	20,000
Purchase of Machinery	(58,000)
Sale of Patents	1,00,000
Cash flow from Investing Activities	62,000

Working Note

Machinery Account

Particulars	Amount	Particulars	Amount
To Balance b/d	5,00,000	By Cash/Bank A/c (Sales)	20,000
To Gain / Profit on Sale of Fixed Asset (P&L A/c)	6,000	By Accumulated Depreciation A/c (Accumulated Depreciation on Asset sold)	24,000
To Cash / Bank A/c (Purchase) (Bal.Fig)	58,000		
		By Balance c/d	5,20,000
	5,64,000		5,64,000

Accumulated Depreciation Account

Particulars	Amount	Particulars	Amount
To Fixed Asset A/c (Transfer of Accumulated Depreciation on Fixed Asset Sold)	24,000	By Balance b/d	2,00,000
To Balance c/d	2,10,000	By Depreciation A/c (P&L A/c) (Bal Fig)	34,000
	2,34,000		2,34,000

Patents Account

Particulars	Amount	Particulars	Amount
To Balance b/d	3,80,000	By Cash/Bank A/c (Sales) (Bal.Fig)	1,00,000

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To Gain / Profit on Sale of Patents (given)	20,000	By Amortisation	40,000
		By Balance c/d	2,60,000
	4,00,000		4,00,000

Illustration 2.2.7

Calculate the cash flow from investing activities from the following information

Particulars	Purchase (₹)	Sales (₹)
Land	5,00,000	
Furniture	70,000	30,000
Goodwill	2,00,000	
Investments	85,000	10,000

Interest received on debentures - ₹ 6,000

Dividend received on shares - ₹ 8,000

Dividend paid to shareholders - ₹ 12,000

Solution

Cash Flows from Investing Activities

Particulars	₹
Cash paid for land purchased	(5,00,000)
Cash paid for furniture purchased	(70,000)
Cash received on furniture sold	30,000
Cash paid for goodwill	(2,00,000)
Cash paid for investments purchased	(85,000)
Cash received for investments sold	10,000
Interest received	6,000
Dividends received	8,000
Net Cash used in investing activities	**(8,01,000)**

Here, Dividend payment is a financial activity and so it is not included for calculating cash flows from investing activities.

2.2.8 Calculation of cash flow from financing activities

Financing Activities of an enterprise are those activities that cause changes in the size and composition of the owners' capital (i.e., equity and preference share capital in the case of companies) and borrowings of the enterprise. Some of the cash inflows include proceeds from the issuance of shares (both Equity Shares and Preference Shares), the

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issuance of debentures, loans, and bonds. Some of the cash outflows include short-term borrowings, long-term borrowings and repayments of borrowings. Accordingly, receipts or cash inflows and payments or cash outflows on account of the above items are shown in the Cash Flow Statement as the Cash Flow from Financing Activities.

Thus, Cash Flow from Financing Activities is determined by analysing the change in Equity and Preference Share Capital, Debentures and other borrowings (Both short-term and long-term borrowings).

Additionally, dividends paid (in all enterprises) and interest paid (in the case of non-financial enterprises) is also included in Financing Activities.

Note

i. An increase in share capital as a result of bonus issue of shares is not shown in the Cash Flow Statement since the company does not receive cash in this case. Instead, it is the capitalisation of reserves.

ii. Similarly, conversion of debentures into new debentures or shares is not shown in the Cash Flow Statement.

iii. When shares or debentures are issued at a premium, the Cash Flow Statement shows total cash received from the issue (i.e., Nominal (Face) Value of Shares + Securities Premium).

iv. Increase in underwriting commission means payment of underwriting commission in raising Share Capital/Debentures. It is a Cash Outflow and is included in Financing Activities.

Cash Flow from investing activities is calculated in the following manner

Table 2.2.7 Cash Flows from Financing Activities

Particulars	₹
Proceeds from Issue of Shares (Including Premium)	xxx
Proceeds from Issue of Debentures (Including Premium and Excluding Discount)	xxx
Raising of Loans and Borrowings (Both Long-term and Short-term)	xxx
Payment made for Redemption of Preference Shares	(xxx)
Payment made for Redemption of Debentures	(xxx)
Payment made for Buy-back of Equity Shares	(xxx)

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Repayment of Loans and Borrowings	(xxx)
Dividend Paid (Both Final and Interim)	(xxx)
Interest Paid on Debentures Loans and Borrowings	(xxx)
Cash Flows From (Used In) Financing Activities	**(xxx)**

Illustration 2.2.8

From the following information, calculate the Cash from financing activities:

Particulars	31.12.2023 ₹	31.12.2024 ₹
Equity share capital	4,00,000	5,00,000
10% debentures	1,50,000	1,00,000
Securities premium	40,000	50,000

Additional Information: Interest paid on debentures - ₹10,000.

Solution

Calculation of Cash flow from financing activities

Particulars	**₹**	**₹**
Cash proceeds from the issue of shares (Including premium)		1,10,000
Interest paid on debenture	10,000	
Redemption of debenture	50,000	(60,000)
Net cash flow from financing activities		50,000

Illustration 2.2.9

Prepare a statement showing net cash flow from financing activities

Balance as on	₹	₹
Equity Share Capital	2,00,000	3,00,000
Share premium	-	50,000
Preference Share Capital	2,00,000	1,00,000
12 % Debentures	1,50,000	2,50,000
Mortgage Loan	50,000	-

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Interest paid on debentures and loans for the year ₹ 30,000

Interim dividend paid - ₹ 20,000

Prepare a statement showing net cash flow from financing activities

Cash flows from financing activities

Particulars	₹	₹
Cash receipts from the issue of equity shares	1,00,000	
Cash received from premium on issue of shares	50,000	
Cash payments for redemption of preference shares	(1,00,000)	
Cash receipts from issue of debentures	1,00,000	
Cash payment for loan repaid	(50,000)	
Interest paid	(30,000)	
Interim dividend paid	(20,000)	
Net cash flow from financing activities		**50,000**

2.2.9 Preparation of Cash Flow Statement

A Cash Flow Statement is a statement which summarises sources and applications of cash and cash equivalents and depicts the reasons for the changes in the cash position from one period to another. It is prepared from the data made available from the comparative Balance Sheet, Profit and Loss Account and additional information. Cash Flow Statement is prepared in a report format that reconciles the beginning and ending of cash balances. The Net cash inflow or Net Cash outflow for each activity and for the overall business is reported in a cash flow statement.

There are two methods of preparing the Cash Flow Statement. They are the Direct Method and the Indirect Method. Both methods yield the same results in terms of the final total as well as the sub-totals of the three sections – operating, investing, and financing. They differ only in the manner in which the information regarding cash flow from operating activities is presented.

The preparation of Cash Flow Statement involves the following steps

Step 1: Calculation of Cash Flow from Operating Activities

Step 2: Calculation of Cash Flow from Investing Activities

Step 3: Calculation of Cash Flow from Financing Activities

Step 4: Calculation of Net Increase/ Decrease in Cash and Cash Equivalents –

(Step 4= Step 1+ Step 2+ Step 3)

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Step 5: Calculation of Cash and Cash Equivalents in the beginning of the year

Step 6: Resultant figure should be the balance of Cash and Cash Equivalents at the end of the year (i.e, Step 6 should be equal to Step 4 +Step 5). It should match with the balance as per Balance Sheet.

Table 2.2.8 Format of Cash Flow Statement (Direct Method)

Cash Flow Statement

(for the year ended……)

Particulars	₹	₹
Cash Flows from Operating Activities		
Cash receipts from customers	xxx	
Cash paid to suppliers and employees	(xxx)	
Cash generated from Operations	xxx	
Income - tax paid	(xxx)	
Cash flow before extraordinary items	xxx	
Extraordinary items	**(xxx)**	
Net cash from (used in) Operating Activities		**xxx**
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	xxx	
Net Cash from (used in) investing activities		**xxx**
Cash Flows from Financing Activities		
Individual items of cash inflows and outflows from financing activities (such as issue of shares, debentures, long term borrowings, repayments of long term borrowings, debentures, interest paid, dividend paid etc	xxx	
Net cash from (used in) Financing Activities		**xxx**
Net Increase (Decrease) in cash and cash equivalents		**xxx**
Add: Cash and cash equivalents at the beginning of period		xxx
Cash and cash equivalents at the end of the period		xxx

Table 2.2.9 Format of Cash Flow Statement (Indirect Method)

Cash Flow Statement

(for the year ended……..)

Particulars	**₹**	**₹**
A. Cash Flows from Operating Activities		
Net Profit Before Tax and Extraordinary Items		xxx

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Adjustments for Non –Cash and Non – Operating Items		
Add :		
Depreciation	xxx	
Interest on Debentures, Loans and Borrowings	xxx	
Loss on Sale of Fixed Assets	xxx	
Loss on Sale of Investments	xxx	
Provision for Doubtful Debts	xxx	
Provision for Discount on Debtors	xxx	
Preliminary Expenses Written off	xxx	
Amortisation of Assets	xxx	
Intangible Assets such as Goodwill, Patents, Trade Marks etc. written off	xxx	xxx
Less :		
Interest Income	xxx	
Dividend Income	xxx	
Rental Income	xxx	
Gain/ Profit on Sale of Fixed Assets	xxx	
Gain/ Profit on Sale of Investments	xxx	
Appreciation of Fixed Assets	xxx	(xxx)
Operating Profit Before Working Capital Changes		xxx
Adjustment for Changes in Working Capital		
Add: Decrease in Current Assets (except cash and cash equivalents) such as :	xxx	
Decrease in inventories / Stock	xxx	
Decrease in Trade Receivables (Debtors and Bills Receivables)	xxx	
Decrease in Prepaid Expenses	xxx	
Decrease in Accrued Income	xxx	
Add: Increase in Current Liabilities such as		
Increase in Trade Payables (Creditors and Bills Payables)	xxx	
Increase in Outstanding Expenses	xxx	
Increase in Income Received in Advance	xxx	xxx
Less : Increase in Current Assets (As stated above)	xxx	
Less: Decrease in Current Liabilities (As stated above)	xxx	(xxx)
Cash generated from Operations		xxx
Less : Income Tax Paid (Net of Tax Refund Received)		(xxx)
Cash Flow Before Extra ordinary Items		xxx

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Add/Less : Extra ordinary items		xxx
Net Cash Flow from (or used in) Operating Activities		xxx
B. Cash Flows from Investing Activities		
Proceeds from Sale of Fixed (Tangible) Assets	xxx	
Proceeds from Sale of Fixed (Intangible) Assets such as Goodwill, Patents etc.	xxx	
Proceeds from Sale of Non – Current Investments	xxx	
Interest Received	xxx	
Dividend Received	xxx	
Rent Received	xxx	
Purchase of Fixed (Tangible Assets)	(xxx)	
Purchase of Fixed (Intangible Assets) like Goodwill	(xxx)	
Purchase of Non – Current Investments	(xxx)	
Net Cash Flow from (or used in) Investing Activities		xxx
C. Cash Flows from Financing Activities		
Proceeds from Issue of Shares and Debentures	xxx	
Proceeds from Other Long term Borrowings and Loans	xxx	
Raising of Bank Overdraft and Cash Credit	xxx	
Repayment of Loans and Other Long term Borrowings	(xxx)	
Payment of Dividend (Final and Interim Dividend)	(xxx)	
Interest on Debentures and Loans	(xxx)	
Redemption of Preference Shares and Debentures	(xxx)	
Payment on Buy – back of Shares	(xxx)	
Net Cash Flow (or used in) Financing Activities		xxx
Net Increase (Or Decrease) in Cash and Cash Equivalents		xxx
Add: Cash and Cash Equivalents in the beginning of the year		xxx
Cash and cash Equivalents at the end of the year		xxx

Illustration 2.2.10

The summary cash account of Dev Ltd is given below. Using this, prepare a cash flow statement for the year ended 31st march 2024. The company does not have any cash equivalents. Prepare Cash Flow Statement using Direct Method.

Summary Cash Account for the year ended 31.3.2024

Balance as on 1.4.2023	4,000	Payment to suppliers	20,000
Issue of Equity Shares	3,000	Purchase of Fixed Assets	3,000
Receipts from customers	30,000	Overhead expenses	2,000

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Sale of Fixed Assets	2500	Wages and Suppliers	1,000
		Taxation	2,500
		Dividend	500
		Repayment of Bank Loan	3,000
		Balance on 31.3. 2024	7,500
	39,500		39,500

Solution

Cash Flow Statement of Dev Ltd for the year ended 31.3.2024

Particulars	**₹**	**₹**
Cash flows from operating activities		
Cash receipt from customers	30,000	
Cash paid to suppliers	(20,000)	
Cash paid to employees	(1,000)	
Cash paid for expenses	(2,000)	
Cash generated from operations	7,000	
Income tax paid	(2,500)	
Net cash flow from operating activities		4500
Cash flows from investing activities		
Cash paid for purchase of fixed assets	(3,000)	
Cash receipts on sale of fixed assets	2,500	
Net cash used for investing activities		(500)
Cash flows from financing activities		
Cash receipts on issue of equity shares	3,000	
Cash paid on repayment of bank loan	(3,000)	
Cash paid for dividend	(500)	
Net cash used for financing activities		(500)
Net increase in cash and cash equivalents		3,500
Add : Cash and cash equivalents at the beginning		4,000
Cash and cash equivalents at the end		**7,500**

Illustration 2.2.11

From the following Balance Sheets of Aron Ltd., Prepare a cash flow statement using indirect method

Particulars	**Note No**	**2023**	**2024**
I. Equity and Liabilities **1. Shareholder's Funds**			

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Share Capital	1	15,00,000	16,00,000
Reserves and Surplus	2	1,40,000	2,36,000
2. Share Application Money Pending Allotment			
3. Non – Current Liabilities			
4. Current Liabilities			
Trade Payables	3	1,60,000	2,08,000
Short term provisions	4	1,64,000	2,00,000
Total		**19,64,000**	**22,44,000**
II. Assets			
1. Fixed Assets			
Tangible Assets	5	5,60,000	7,40,000
Intangible Assets (Good will)		8,30,000	7,80,000
2. Current Assets			
Inventories		1,64,000	2,28,000
Trade Receivables	6	3,60,000	4,60,000
Cash and Cash Equivalents	7	50,000	36,000
Total		**19,64,000**	**22,44,000**

Notes to Account

Particulars	**2023**	**2024**
1. Share Capital		
8 % Redeemable Preference Share Capital	9,00,000	8,00,000
Equity Share Capital	6,00,000	8,00,000
Total	**15,00,000**	**16,00,000**
2. Reserves and Surplus		
General Reserves	80,000	1,40,000
Profit and Loss Account	60,000	96,000
Total	**1,40,000**	**2,36,000**
3. Trade Payables		
Creditors	1,20,000	1,76,000
Bills Payable	40,000	32,000
Total	**1,60,000**	**2,08,000**

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4. Short term Provisions			
Proposed Dividend		84,000	1,00,000
Provision for Tax		80,000	1,00,000
	Total	**1,64,000**	**2,00,000**
5. Tangible Assets			
Land and Buildings		4,00,000	3,40,000
Machinery		1,60,000	4,00,000
	Total	**5,60,000**	**7,40,000**
6. Trade Receivables			
Debtors		3,20,000	4,00,000
Bills receivables		40,000	60,000
	Total	**3,60,000**	**4,60,000**
7. Cash and Cash Equivalents			
Cash in hand		30,000	20,000
Cash at bank		20,000	16,000
	Total	**50,000**	**36,000**

Additional Information

1. Depreciation of ₹ 40,000 has been charged on machinery and a depreciation of ₹ 20,000 has been charged on land and building respectively in the year ended 31.3.2024
2. An interim dividend of ₹ 80,000 has been paid in October, 2023.
3. 70,000 income tax was paid during the year 2023-24.

Solution

Aron Ltd

Cash Flow Statement for the year ended 31.3.2024

Particulars	₹	₹
Cash flow from operating activities		
Net profit before income tax	3,66,000	
Adjustment for non-cash and non-operating items:		
Depreciation on building	20,000	
Depreciation on machinery	40,000	
Goodwill written off	50,000	
Operating profit before working capital changes	4,76,000	

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Increase in debtors	(80,000)	
Increase in stock	(64,000)	
Increase in bills receivable	(20,000)	*
Decrease in bills payable	(8,000)	
Increase in creditors	56,000	
Cash generated from operations	3,60,000	
Less: Income tax paid	(70,000)	
Net Cash Flow from Operating Activities		**2,90,000**
Cash flow from investing activities		
Purchase of machinery	(2,80,000)	
Sale of Land and Building	40,000	
Net cash used for investing activities		**(2,40,000)**
Cash flow from financing activities		
Issue of equity shares	2,00,000	
Redemption of Preference Shares	(1,00,000)	
Interim Dividend Paid	(80,000)	
Final Dividend	(84,000)	
Net Cash used for financing activities		**(64,000)**
Net decrease in Cash and Cash Equivalents		(14,000)
Balance of cash at the beginning		50,000
Balance of cash at the end		36,000

Working Notes

Calculation of Net Profit before Tax and Extra ordinary Items

Closing Balance of Profit and Loss Account	96,000
Less : Opening Balance of Profit and Loss Account	(60,000)
Profit After Tax	36,000
Add : Transfer to General Reserve	60,000
Interim Dividend Paid	80,000
Proposed Dividend	100,000
Provision for Income Tax	90,000
Net Profit before tax and extra ordinary items	3,66,000

Machinery Account

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Particulars	Amount	Particulars	Amount
To Balance b/d	1,60,000	By Depreciation	40,000
To Cash Purchases (Balancing Figure)	2,80,000	By Balance c/d	4,00,000
	4,40,000		4,40,000

Land and Buildings Account

Particulars	Amount	Particulars	Amount
To Balance b/d	4,00,000	By Depreciation	20,000
		By Cash Sales (Bal. Fig)	40,000
		By Balance c/d	3,40,000
	4,00,000		4,00,000

Provision for Tax Account

Particulars	Amount	Particulars	Amount
To Cash (Tax Paid)	70,000	By Balance b/d	80,000
To Balance c/d	1,00,000	By Profit & Loss A/c (Bal.Fig)	90,000
	1,70,000		1,70,000

Proposed Dividend Account

Particulars	Amount	Particulars	Amount
To Cash (Dividend Paid)	84,000	By Balance b/d	84,000
To Balance c/d	1,00,000	By Profit & Loss A/c (Bal.Fig)	1,00,000
	1,84,000		1,84,000

Illustration 2.2.12

Following is the Balance Sheet of Venus Ltd as at 31st March , 2023 .

Particulars	**Note No :**	**31.3.2023 (₹)**	**31.3.2024 (₹)**
I. Equity and Liabilities			
1. Shareholder's Funds			
(a) Share Capital		14,00,000	18,00,000
(b) Reserves and Surplus		2,00,000	5,00,000
2. Non -Current Liabilities			
Long term Borrowings		7,00,000	9,00,000
3. Current Liabilities			
(a) Short term Borrowings		1,50,000	3,00,000
(b) Short term Provisions		2,50,000	4,00,000

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Total		**27,00,000**	**39,00,000**
II. Assets			
1. Non -Current Assets			
(a) Property, Plant and Equipment and Intangible Assets			
(i) Property		18,30,000	29,30,000
(ii) Intangible		3,00,000	2,00,000
(b) Non -Current Investments		2,00,000	3,00,000
2. Current Assets			
(a) Current Investments		1,40,000	80,000
(b) Inventories		1,44,000	2,44,000
(c) Cash and Cash Equivalents		86,000	1,46,000
Total		**27,00,000**	**39,00,000**

Notes to accounts

Particulars	**31.3.2023 (₹)**	**31.3.2024 (₹)**
1. Reserves and Surplus		
Surplus i.e. Balance in Statement of Profit and Loss	2,00,000	5,00,000
2. Long -term Borrowings		
12 % Debentures	7,00,000	9,00,000
3. Short term Borrowings		
Bank Overdraft	1,50,000	3,00,000
4. Short term Provisions		
Provision for Tax	2,50,000	4,00,000
5. Property, Plant and Equipment		
Machinery	21,10,000	33,50,000
Accumulated Depreciation	(2,80,000)	(4,20,000)
	18,30,000	29,30,000
6. Intangible Assets		
Goodwill	3,00,000	2,00,000
7. Inventories		
Stock in trade	1,44,000	2,44,000

Additional Information

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i. ₹ 2,00,000, 12 % Debentures were issued on 31st March, 2023

ii. During the year a piece of machinery costing ₹1,60,000 on which accumulated depreciation was ₹ 80,000 was sold at a loss of ₹ 20,000

Prepare Cash Flow Statement

Venus Ltd.

Cash Flow Statement for the year ended 31st March 2023

Particulars	**Amount (₹)**	**Amount(₹)**
I. Cash Flow from Operating Activities		
Net Profit before Tax and Extraordinary Items (WN 1)	7,00,000	
Add: Non –cash and Non –Operating Charges		
Goodwill amortised	1,00,000	
Depreciation on Machinery	2,20,000	
Interest on Debentures (7,00,000 ×12/100)	84,000	
Loss on Sale of Machinery	20,000	
Operating Profit before Working Capital Changes	11,24,000	
Less: Increase in Current Assets		
Inventories	(1,00,000)	
Cash generated from Operations	10,24,000	
Less : Income Tax Paid	(2,50,000)	
Net Cash flow from Operating Activities		7,74,000
II. Cash Flow from Investing activities		
Purchase of Machinery	(14,00,000)	
Sale of machinery	60,000	
Purchase of Non – current Investments	(1,00,000)	
Net Cash used in Investing Activities		(14,40,000)
III. Cash Flow from Financing Activities		
Proceeds from Issue of Shares	4,00,000	
Proceeds from Issue of 12 % Debentures	2,00,000	
Interest on Debentures (7,00,000×12/100)	(84,000)	
Bank overdraft raised	1,50,000	
Net Cash Flow from Financing Activities		6,66,000
Net Increase/Decrease in Cash and Cash Equivalents		Nil
Add: Opening Balance of Cash and Cash Equivalents		
Current Investments	1,40,000	

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Cash and Cash Equivalents	86,000	2,26,000
Closing Cash and Cash Equivalents		
Current Investments	80,000	
Cash and Cash Equivalents	1,46,000	2,26,000

Working Notes

Calculation of Net Profit before Extra-ordinary Items

Particulars	Amount (₹)
Closing Balance of Surplus	5,00,000
Less: Opening Balance of Surplus Balance in Statement of Profit & Loss	2,00,000
	3,00,000
Add: Provision for Tax	4,00,000
Net Profit before Tax and Extraordinary Items	7,00,000

Machinery Account

Particulars	Amount	Particulars	Amount
To Balance b/d	21,10,000	By Bank A/c	60,000
To Bank A/c (Purchase) Bal.Fig	14,00,000	By Loss on Sale of Machinery A/c	20,000
		By Accumulated Depreciation A/c	80,000
		By Balance c/d	33,50,000
	35,10,000		35,10,000

Accumulated Depreciation Account

Particulars	Amount	Particulars	Amount
To Machinery A/c	80,000	By Balance b/d	2,80,000
To Balance c/d	4,20,000	By Depreciation (Bal Fig)	2,20,000
	5,00,000		5,00,000

Provision for Tax Account

Particulars	Amount	Particulars	Amount
To Cash/Bank A/c	2,50,000	By Balance b/d	2,50,000
To Balance c/d	4,00,000	By P& L A/C (Bal Fig)	4,00,000
	6,50,000		6,50,000

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Summarised Overview

A cash flow statement summarises the causes of changes in the cash position of a business enterprise between the dates of two balance sheets. It displays the cash receipts and disbursements for a specific period. Cash flow statement is prepared to determine the various sources and applications of Cash and Cash Equivalents classified under operating, investing and financing activities of a business enterprise and the net change in the Cash and Cash Equivalents between two balance sheet dates. Net change is the difference between the sources and uses of cash under operating, investing, and financing activities. A cash flow Statement has several uses. It serves as a vital tool in determining cash flows from operating, investing, and financing activities. It helps identify the reasons behind a business enterprise's cash position. It facilitates cash planning, ensures efficient cash management, and helps to determine the ability to pay dividends and meet other obligations.

Additionally, it facilitates inter-firm comparisons and the evaluation of management decisions. A Cash Flow Statement reports the cash flows of a business during a specific period, classified into three categories, namely

i. Cash flows from Operating Activities,

ii. Cash flows from Investing Activities,

iii. Cash flows from Financing Activities.

Operating activities refer to the principal revenue-generating activities of an enterprise. Investing Activities refer to transactions involving the purchase and sale of fixed or long-term assets and investments. Financing Activities of an enterprise are those activities that cause changes in the size and composition of the owners' capital (i.e., equity and preference share capital in the case of companies) and the enterprise's borrowings.

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Self-Assessment Question

1. What do you mean by cash flow statement?
2. What are the objectives of cash flow statement?
3. Discuss the uses of cash flow statement.
4. Elucidate the classification of cash flows

5. Explain the steps in calculation of cash flows from operating activities using indirect method.



Assignments

1. Classify the following into cash flows from operating activities, investing activities and financing activities

   a. Cash sale of goods

   b. Cash paid to suppliers of raw material

   c. Cash payments of salaries and wages to employees.

   d. Cash payment to acquire fixed assets

   e. Cash proceeds from issues of shares at premium.

   f. Payment of dividend

   g. Interest received on investment

   h. Interest on debentures

   i. Payment of income tax

   j. Cash payment of a long - term loan

2. Mark Ltd. made a Net Profit of ₹ 20,00,000 for the year ended 31st March 2024 after taking into account the following

Goodwill written off	8,000
Plant and Machinery having a book value of ₹ 14,000 was sold for	20,000
Profit on sale of investments	8,000
Depreciation on Building	32,000
Depreciation on Plant and Machinery	45,000
Transfer to General Reserve	10,000

The following was the position of Current Assets and Current Liabilities of the company as on 31st March 2023 and 31st March , 2024

Particulars	31st March 2023	31st March 2024
Debtors	55,000	35,000
Stock	62,000	80,000

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Cash	18,000	32,000
Creditors	66,000	62,000
Outstanding Expenses	9,000	6,000
Prepaid Expenses	8,000	5,000
Bills Payable	11,000	16,000

Calculate cash flows from operating activities using Indirect Method.

3. Spencer Pvt. Ltd. had a Machinery written down value of ₹ 12,00,000 on 1st April, 2023 and ₹ 13,50,000 on 31st March, 2024. Depreciation charged during the year was ₹ 80,000. At the beginning of the year, a machinery item was sold for ₹ 50,000, and its written down value was ₹ 30,000.Calculate the Cash Flow from Investing Activities.

4. Prepare a statement showing net cash flow from financing activities

Particulars	Balance as on 2023 (₹)	Balance as on 2024 (₹)
Equity Share Capital	8,00,000	12,00,000
Share premium	-	3,00,000
Preference Share Capital	6,00,000	2,00,000
12 % Debentures	5,00,000	9,00,000
Mortgage Loan	1,40,000	-

Interest paid on debentures and loans for the year ₹ 1,20,000

Interim dividend paid - ₹ 80,000

5. Following is the Balance Sheet of Vinayak Ltd as at 31st March , 2023. Prepare a Cash Flow Statement.

Particulars	**31.3.2023 (₹)**	**31.3.2024 (₹)**
1. Reserves and Surplus		
Surplus i.e. Balance in Statement of Profit and Loss	2,00,000	5,00,000
2. Long -term Borrowings		
12 % Debentures	7,00,000	9,00,000
3. Short term Borrowings		
Bank Overdraft	1,50,000	3,00,000
4. Short term Provisions		
Provision for Tax	2,50,000	4,00,000
5. Property, Plant and Equipment		
Machinery	21,10,000	33,50,000
Accumulated Depreciation	(2,80,000)	(4,20,000)

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	18,30,000	29,30,000
6. Intangible Assets		
Goodwill	3,00,000	2,00,000
7. Inventories		
Stock in trade	1,44,000	2,44,000

Notes to Account

Particulars	**31.3. 2023**	**31.3.2024**
Surplus (Balance in Statement of Profit and Loss)	2,00,000	4,60,000

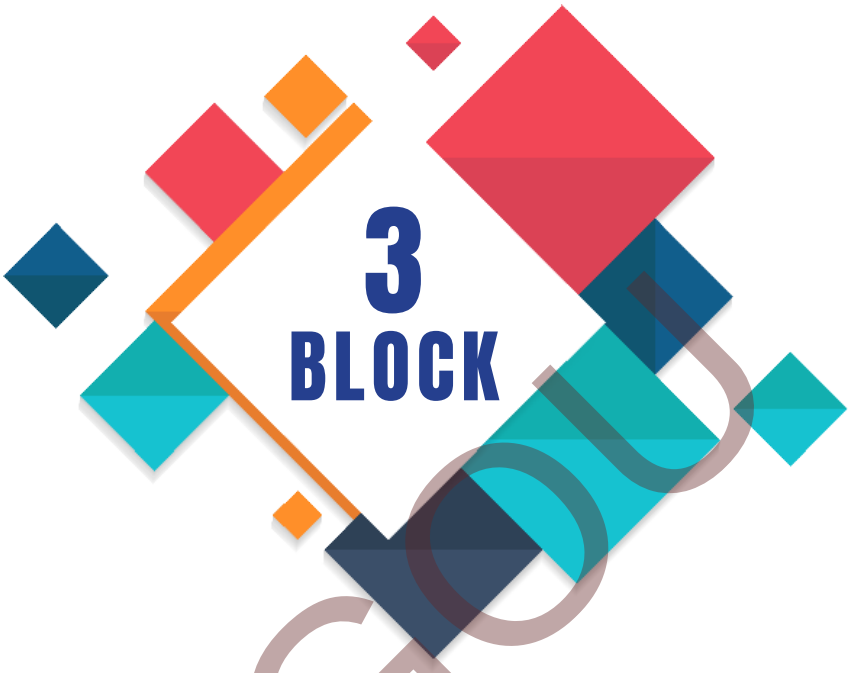
Reference

1. Khan, M. Y., & Jain, P. K. (2020). Management accounting: Text, problems and cases (7th ed.). McGraw Hill Education (India) Pvt. Ltd.
2. Gupta, Shashi. K., Sharma, R. K., & Gupta, N. (2018). Financial Management: Theory and Practice (Ninth). Kalyani Publishers.
3. Maheshwari, S. N., Maheshwari, S. K., & Maheshwari, S. K. (2023). *A textbook of accounting for management* (5th ed.). Vikas Publishing Private Limited
4. Jain, S. P., Narang, K. L., Agrawal, S., & Sehgal, M. (2019). *Advanced accountancy: Corporate accounting (Vol. II)*. Kalyani Publishers.

Suggested Reading

1. Arora, M. N. (2021). *A textbook of cost and management accounting* (11th ed.). Vikas Publishing House.
2. Mehta, B. K. (2021). *Cost and management accounting.* SBPD Publications.
3. Singh, S. (2016). *Management accounting*. PHI Learning Pvt. Ltd.

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Ratio Analysis

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Unit 1

Liquidity Ratios, Solvency Ratios and Leverage Ratios

Learning Outcomes

On completion of this unit, the learner will be able to:

- ◊ develop an understanding of the concept of Ratio Analysis and its importance in the analysis and interpretation of financial statements
- ◊ compute major accounting ratios and assess a firm's liquidity and solvency

Background

Imagine you are working as the Finance Manager of a growing company. One morning, the CEO hands you a 120-page annual report and asks a simple yet critical question:

"Are we financially healthy?"

As you turn the pages, you see detailed figures such as sales, expenses, assets, liabilities, and profits. The company has earned a profit this year, which appears encouraging. But is profit alone sufficient to evaluate overall performance?

Several important questions arise:

- ◊ Can the company meet its short-term obligations on time?
- ◊ Is it excessively dependent on borrowed funds?
- ◊ Are its assets being utilized efficiently?
- ◊ Are shareholders receiving satisfactory returns on their investment?

To answer these questions, we must carefully examine the financial statements particularly the Balance Sheet and the Income Statement and analyse how various

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figures relate to one another. By studying these relationships, we can assess the firm's profitability, financial stability, and future prospects.

To interpret these numbers meaningfully, management accounting provides a powerful analytical tool known as Ratio Analysis. It is important to understand that ratios do not replace financial statements; rather, they facilitate deeper analysis and interpretation of accounting data.

Ratio Analysis is not used only by management. Various stakeholders rely on it for informed decision-making. Investors use it to evaluate profitability and returns. Creditors and lenders apply it to assess the firm's ability to repay debts. Employees may examine it to understand the organisation's stability and growth potential.

This unit aims to help learners understand the meaning, concept, significance, and classification of Ratio Analysis. It will also equip you with the skills to compute key accounting ratios.



Keywords

Ratio Analysis, Liquidity Ratios, Solvency Ratios, Leverage Ratios, Profitability Ratios



Discussion

3.1.1 Ratio Analysis - Meaning

Although all financial transactions are systematically recorded in the books of accounts, these records by themselves do not provide clear answers to important performance-related questions such as:

- ◊ Can the company meet its short-term obligations as they fall due? (Liquidity)
- ◊ Is the company financially strong enough to manage long-term debts and support future expansion? (Solvency)
- ◊ Is the company generating adequate returns from its operations? (Profitability)
- ◊ How efficiently is the company utilizing its assets and other resources? (Turnover/Efficiency)
- ◊ To what extent does the company rely on borrowed funds, and how risky is its capital structure? (Leverage)

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To answer these questions effectively, a detailed analysis and interpretation of financial data is required. This systematic approach is known as Ratio Analysis.

Ratio Analysis is a widely used technique for analysing and interpreting financial statements. A ratio expresses the numerical or quantitative relationship between two variables. Ratios may be expressed in the form of percentages, fractions, times, proportion or as pure ratios. Accounting ratios or financial ratios express the relationship between two accounting figures. In other words, financial ratios refer to ratios that are computed by taking figures from financial statements, such as the Profit and Loss Account and the Balance Sheet. Ratio Analysis refers to the process of determining and interpreting the relationships between items of financial statements, such as the Balance Sheet and Profit and Loss Account. In other words, Ratio analysis is a technique of analysing financial statements by computing ratios. Ratio analysis comes as a vital aid in assessing the financial position and performance of the business enterprise. Ratio analysis plays a crucial role in decision-making.

Ratio analysis is undertaken

i. to simplify accounting information.

ii. to determine liquidity (or short term solvency) of the business.

iii. to determine the long-term solvency of the business.

iv. to determine operational efficiency of the business.

v. to analyse the profitability of the business with respect to revenue from operations and investment.

vi. to help in comparative analysis (both inter-firm comparison and intra – firm comparison).

3.1.2 Significance of Ratio Analysis

Ratio analysis is one of the powerful techniques employed in financial analysis. It is used as a device to analyse and interpret the financial health of an enterprise. Just as a doctor examines the patient by recording their body temperature, blood pressure, and other vital signs before concluding the illness, a financial analyst analyses the financial statements using various tools of analysis, such as ratios, before commenting on the financial health or weaknesses of an enterprise. With the help of ratios, financial statements can be analysed more clearly and decisions can be made based on such analysis. The significance of ratio analysis is discussed below:

i. Facilitates decision-making

Although financial statements are prepared for decision-making, no meaningful conclusions can be drawn from these statements alone. The information from these statements has to be analysed and interpreted. Ratio analysis facilitates decision-making by computing ratios from financial statements. It helps various stakeholders evaluate performance, financial health, and operational efficiency by forming relationships between financial statement items.

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ii. Aids in financial forecasting

Ratio Analysis is used as an important tool for financial forecasting and planning. Through the computation of ratios for a number of years, a trend can be established. By examining trends in the key ratios over time, the management will be able to forecast about the future performance of the business and plan the future activities of the firm.

iii. Helps in communication

Ratio analysis enables a firm to easily and understandably communicate its financial strengths and weaknesses to various stakeholders through the use of ratios. Ratios present financial statement information in a clear and meaningful way to the intended users. This, in turn, helps improve communication and enhance the usefulness and relevance of the financial statements.

iv. Helps in making inter - firm and intra - firm comparisons

Ratio analysis facilitates meaningful comparisons between the performance of different departments within the same firm or between the performance of different companies. When comparisons are made between different units of the same firm, it is referred to as intra–firm comparison. An intra-firm comparison can be made for different divisions, branches, or product lines within the same firm or company. When a comparison is made between two different firms, it is referred to as inter–firm comparison. Ratio analysis eliminates the problem of scale of operation, allowing even small businesses to be evaluated alongside larger business firms. Ratio analysis thus enhances the comparability of data and supports informed decision-making by stakeholders.

v. Helps in determining Liquidity

Ratio analysis enables the short-term creditors such as bankers and suppliers of raw material to evaluate the liquidity or the ability of the firm to meet its short-term obligations as and when they become due by using Liquidity Ratios such as Current Ratio and Quick Ratio.

vi. Helps in determining Solvency

Ratio analysis serves as a vital aid to Debenture-holders, financial institutions, and other long-term creditors of the firm in determining the solvency or the ability of the enterprise to pay its long-term obligations. The solvency of the firm can be assessed by computing Solvency Ratios, such as the Debt-to-Equity Ratio, Proprietary Ratio, and others.

vii. Helps in determining Operating Efficiency

The management of a firm will be interested in knowing whether the firm's resources are efficiently utilised in generating revenue. The operational efficiency of the firm can be assessed using activity ratios such as the Working Capital Turnover Ratio, Inventory Turnover Ratio, and Debtors Turnover Ratio, among others.

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viii. Useful in determining Profitability

The ultimate aim of every business concern is to generate profits from its operations. Profits are regarded as the yardstick or measure of a business concern's overall efficiency of operations. The investors and management of the firm are interested in evaluating the firm's profits. Investors and management can determine the Profitability of the business concern in terms of both Revenue from Operations (Sales) and in terms of their Investment using the various profitability ratios.

3.1.3 Classification of Ratios

Financial managers are not the sole users of ratio analysis. Various stakeholders of the business utilise it to assess the company's financial condition and for their own specific purposes. For example, suppliers and banks that provide short-term loans to a business concern will be concerned with evaluating the concern's liquidity position or short-term paying capacity. On the other hand, financial institutions offering long-term loans will be concerned with evaluating the business's solvency and long-term debt-paying capacity. Owners or shareholders of a firm will be interested in knowing the company's profitability and dividend-paying capacity. The management, on the other hand, wants to get a holistic view of the business's financial information. Thus, different types of ratios can be calculated using data from the financial statements, depending on the purpose of each stakeholder or user.

Ratios can be classified on different grounds. They are discussed below:

I. Traditional Classification

When ratios are classified on the basis of the financial statements from which they are drawn for calculation, then such classification is referred to as Traditional Classification. These are also referred to as statement ratios. Statement Ratios may be classified into Balance Sheet Ratios, Profit and Loss Ratios and Composite ratios.

a. Balance Sheet Ratios

These ratios are also referred to as Position Statement Ratios. These ratios express the relationship between two balance sheet items. In other words, both the accounting figures used to calculate such ratios are drawn solely from the Balance Sheet. Current Ratio, Quick Ratio, Absolute Liquidity Ratios, Debt-to-Equity Ratio, Proprietary Ratio, and Capital Gearing Ratio are some examples of Balance Sheet ratios.

b. Profit and Loss Account Ratios

Also referred to as Revenue / Income Statement Ratios, these ratios express the relationship between two Profit and Loss Account items (both figures are drawn from the Profit and Loss Account alone). Gross Profit Ratio, Net Profit Ratio, Operating Ratio, Operating Profit Ratio, Expenses Ratio, and Interest Coverage Ratio are examples of Profit and Loss Account Ratios.

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c. Composite Ratios

Composite Ratios, also known as Mixed Ratios or Inter-Statement Ratios, represent the relationship between two accounting figures: one drawn from the Profit and Loss Account and the other from the Balance Sheet. Stock Turnover Ratio, Receivables Turnover Ratio, Payables Turnover Ratio, Return on Shareholders' Funds, and Return on Equity Capital are examples of Composite Ratios.

II. Functional Classification of Ratios

a. Liquidity Ratios

These are ratios used to evaluate a firm's ability to meet its short-term obligations. They compare the short-term obligations (i.e., current liabilities) with the short-term resources (i.e., current assets) to meet these obligations. The various liquidity ratios include current ratio, quick ratio and absolute liquidity ratios.

b. Solvency Ratios

These are ratios used to ascertain the ability of the firm to meet the long - term obligations of the business. Solvency ratios may be further bifurcated into capital structure ratios and coverage ratios.

c. Turnover Ratios

These ratios are calculated to measure the efficiency with which the resources have been utilised by the firm. These ratios are called turnover ratios, as they indicate the speed at which assets are being converted into sales. The various Turnover Ratios include the Inventory Turnover ratio, Debtors Turnover ratio, Creditors Turnover Ratio, and others.

d. Profitability Ratios

These ratios help measure the overall performance and results of the firm's business operations. Profitability ratios are calculated (i) in relation to sales and (ii) in relation to investments. Moreover, Profitability Ratios also include Market Test Ratios.

e. Leverage Ratios

These ratios are used to calculate the long-term financial position of the firm. These include the Debt-Equity Ratio, Capital Gearing Ratio, and Total Investment to long term liabilities.

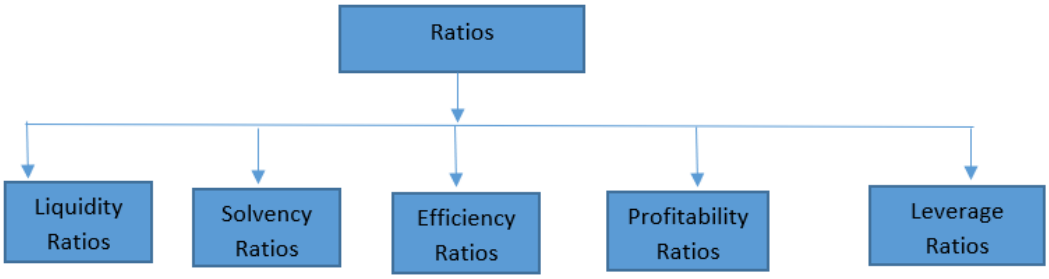


Fig. 3.1.1 Functional Classification of Ratios

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III. Classification According to Significance or Importance

This classification categorises ratios based on their significance or importance. It is based on the notion that some ratios are considered more important than others. Based on the significance, ratios can be classified as primary ratios and secondary ratios. The British Institute of Management has provided recommendations for ratios based on significance, particularly for inter-firm comparisons. For inter-firm comparisons, the ratios may be classified as Primary Ratios and Secondary Ratios.

i. Primary ratio

These are ratios which are of prime importance to a business concern. For example, Return on capital employed ratio..

ii. Secondary Ratios

These ratios which support or explain the primary ratio are called secondary ratios.

For example, Operating Profit Ratio.

3.1.4 Liquidity Ratios

Imagine that FreshMart Wholesale Pvt. Ltd., is a rapidly growing grocery distribution company. The firm purchases goods in bulk from suppliers, sells them to retailers often on credit and regularly meets expenses such as employee wages, transportation, and warehouse costs.

One day, a major supplier demands immediate payment for a large consignment. The management quickly reviews the company's financial position, checking cash in hand, bank balances, and the amounts expected to be collected from customers in the near future.

This situation raises a crucial managerial question:

Does the company have enough readily available funds to meet its short-term obligation without disturbing its day-to-day operations?

The ability of a business to meet such short-term commitments is known as liquidity. Liquidity Ratios (short-term solvency ratios) are therefore used to assess whether a company can pay its current liabilities using its current assets. These ratios help managers, creditors, and investors evaluate the short-term financial strength and operational stability of a firm.

The following are the key liquidity ratios:

i. Current Ratio

ii. Quick Ratio or Acid Test Ratio or Liquid Ratio

iii. Absolute Liquid Ratio

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i. Current Ratio

It is also referred to as the Working Capital Ratio. It expresses the relationship between Current Assets and Current Liabilities. It is the most popular ratio used to measure a firm's liquidity position or short-term solvency. The current ratio is calculated by dividing the current assets by the current liabilities.

$$\textbf{Current Ratio} = \frac{\textit{Current Assets}}{\textit{Current Liabilities}}$$

Current Assets refer to the assets that are expected to be used immediately or turned into cash within a period of one year. Current assets include cash in hand, cash at the bank, accounts receivable, marketable securities, sundry debtors, inventory, prepaid expenses, and other similar assets. Current liabilities are liabilities that are expected to be paid within one year. It includes bills payable, bank overdrafts, outstanding expenses (accrued expenses), sundry creditors, short-term advances, and income tax payable.

Interpretation of Current Ratio

A high current ratio indicates that the firm's liquidity position is strong. It means that the firm can pay its current obligations on time as they become due. On the contrary, a low current ratio indicates that the firm's liquidity position is not strong. This highlights that the firm will be unable to pay its current liabilities on time.

Traditionally, 2:1 is considered an ideal current ratio. This means that the current assets should be at least twice the amount of the current liabilities. Suppose the current assets are two times that of the current liabilities. In that case, it means that there will be no adverse effect on business operations when current liabilities are paid. On the other hand, a current ratio of less than 2 indicates that difficulty may be experienced in paying current liabilities and conducting day-to-day business operations. However, a very high or very low current ratio is not favourable. A very high current ratio indicates excessive investment in current assets, resulting in idle funds. This will affect the profitability of the concern since idle funds earn nothing.

On the other hand, a very low Current Ratio indicates inadequate investment in current assets, which may result in low liquidity. This will threaten the company's solvency. Higher liquidity means lower profitability and vice versa.

ii. Quick Ratio

The quick ratio is also known as the Acid Test Ratio or Liquid Ratio. The quick ratio is a ratio that assesses a company's capacity to settle its immediate or current liabilities with its available cash. In comparison to the current ratio, the quick ratio is considered a more rigorous test of liquidity. The acid test ratio expresses the relationship between Quick/ liquid assets and quick / liquid liabilities. It is computed by the following formula.

$$\textbf{Quick / Liquid/ Acid Test Ratio} = \frac{\textit{Quick Assets}}{\textit{Quick Liabilities}}$$

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A quick asset, also known as a liquid asset, refers to assets that can be quickly converted into cash. It involves current assets except inventory and prepaid expenses. Inventories are excluded because they sometimes take a long time to be converted into cash. Prepaid expenses are expenses paid in advance or expenses paid during the accounting period that are not yet due. So, they cannot be used to meet current liabilities. That is why these two items are excluded from the quick asset. Here, 'quick liability' refers to current liability, excluding bank overdrafts and cash credits.

Interpretation of Acid Test Ratio

The acid test ratio is a reliable way to determine if a corporation has sufficient liquid assets on hand to pay its short-term obligations. A 1:1 quick ratio is considered satisfactory. If the liquid ratio is less than 1, it means that quick liabilities exceed the quick assets. As a result, the business firm may not be able to meet its immediate short-term obligations.

iii. Absolute Liquid Ratio or Cash Position Ratio

It expresses the relationship between Absolute Liquid Assets and Current Liabilities. Absolute Liquid Assets mean cash in hand, cash at bank and marketable securities. A company's ability to pay off obligations entirely with its liquid assets (cash and cash equivalents such as marketable securities) is determined by the cash position ratio, which measures the ultimate liquidity of the business. Creditors use it to assess how quickly a business can pay off short-term obligations. A ratio of 0.75:1 is considered an acceptable norm for this ratio.

$$\text{Absolute Liquid Ratio} = \frac{\textit{Absolute Liquid Assets}}{\textit{Current Liabilities}}$$

OR

$$\text{Absolute Liquid Ratio} = \frac{\textit{Cash in hand} + \textit{Cash at Bank} + \textit{Marketable Securities}}{\textit{Current Liabilities}}$$

Illustration 3.1.1

From the given Balance Sheet calculate current ratio, quick ratio and absolute liquidity ratio

Liabilities	Amount (₹)	Assets	Amount (₹)
Capital	20,000	Fixed Asset	5,000
Current Liabilities	15,000	Stock	5,000
		Cash in Hand	10,000
		Bills receivable	15,000
	35,000		35,000

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i. Calculation of the Current Ratio

Current asset = Stock + Cash in Hand+ Bills receivable

= ₹5,000 + ₹10,000 + ₹15,000

= ₹30,000

Current liabilities = ₹15,000

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

$$= \frac{₹30,000}{₹15,000}$$

= 2:1

ii. Calculation of Acid test ratio

Quick asset = Current asset-Stock

= ₹30,000 - ₹5,000

=₹25,000

Current liabilities = ₹15,000

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

$$\text{Quick Ratio} = \frac{₹25,000}{₹15,000}$$

= 1.6 : 1

iii. Calculation of Absolute Liquid Ratio

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

$$\text{Absolute Liquid Ratio} = \frac{₹10,000}{₹15,000}$$

= 0.6 : 1

(Here, no bank overdraft is given so current liability is considered quick liability)

Interpretation:

Here, the current ratio is 2:1. So, it is considered satisfactory.

The quick ratio is 1.6:1, which is good.

But absolute liquidity ratio is 0.6:1. So, it is not up to the mark.

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Analysing these three ratios we can say that the firm can fulfil its short term obligations well.

However, the cash in hand alone may not be sufficient for this purpose.

Illustration 3.1.2

Varun Ltd. has a Current Ratio of 4: 1 and Quick Ratio of 1: 1. Its Working Capital is 3,00,000, Calculate the value of Inventories.

Solution

Given Current Ratio = 4 : 1

$$\text{i.e, Current Ratio} = \frac{Current\ Assets\ (CA)}{Current\ Liabilities\ (CL)} = \frac{4}{1}$$

$$CA - 4\ CL = 0 \quad \rightarrow \quad \text{Equation (i)}$$

$$\text{Given Working Capital} = ₹\ 3,00,000$$

$$\text{i.e} \quad CA\text{-}CL = ₹3,00,000 \quad \rightarrow \quad \text{Equation (ii)}$$

Subtracting Equation ii from Equation I

$$-3\ CL = -3,00,000$$

$$CL = 3,00,000/3 = ₹1,00,000$$

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

$$= ₹\ 1,00,000 \times 4$$

$$= ₹4,00,000$$

Given Quick Ratio = 1 : 1

$$\text{i.e, Quick Ratio} = \frac{Quick\ Assets}{Current\ Liabilities} = \frac{1}{1}$$

$$\text{Quick Assets} = \text{Quick Ratio} \times \text{Current Liabilities}$$

$$= ₹1,00,000 \times 1$$

$$= ₹1,00,000$$

$$\text{Inventories} = \text{Current Assets} - \text{Quick Assets}$$

$$= ₹4\ ,00,000 - ₹1,00,000$$

$$= ₹3,00,000$$

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3.1.5 Solvency Ratios

Imagine a group of entrepreneurs starting a company that produces high-quality cotton fabrics. They decided to expand the business by purchasing new machines and increasing production capacity after several years of steady growth. To finance the expansion, they relied on a combination of long-term bank loans, debentures, and share issues. Initially, the business was running smoothly. Profits were sufficient to pay interest on loans and dividends to preference shareholders. However, with the passage of time, raw material costs increased, and some large orders were delayed. This resulted in a reduction of cash flow, thus making it harder to meet fixed long-term obligations.

The management began to ask important questions:

- ◊ *Does the firm have enough long-term resources to repay the loans and debenture obligations on time?*
- ◊ *Is the mix of debt and equity balanced, or is the company taking on too much financial risk?*
- ◊ *Can the company continue paying interest and dividends even if profits fluctuate?*

This is where the relevance of solvency ratios arises.

Solvency refers to a firm's ability to meet its long-term obligations as and when they become due for payment. Some of the long-term liabilities of a firm include debentures, medium and long-term loans obtained from financial institutions, as well as goods supplied by creditors on instalment basis. Thus, the long-term creditors of a firm evaluate whether the firm has the capacity to pay interest at regular intervals and repay the principal amount on the maturity of the loans. So long-term solvency ratios are used to evaluate a firm's ability to meet fixed interest charges and repayment schedules associated with these long-term borrowings.

Solvency Ratios can be categorised into Capital Structure Ratios and Coverage Ratios.

A. Capital Structure Ratios

Following are the capital structure ratios

i. Debt Equity Ratio

ii. Proprietary Ratio

iii. Solvency Ratio

iv. Fixed Assets to Net Worth Ratio

v. Fixed Assets Ratio

vi. Funded Debt to Total Capitalisation

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i. Debt Equity Ratio

This ratio measures the claims of outsiders and shareholders against the firm's assets. It expresses the relationship between long-term debt and shareholders' funds. It helps to understand the extent to which debt and equity have been employed in financing the firm's assets.

$$\text{Debt-equity ratio} = \frac{Long\ Term\ Debt}{Shareholders'\ Fund}$$

Long - term debt includes all the long term liabilities owed by the firm to outsiders such as Debentures, Bonds, Mortgage Loan, Term Loans from Banks and Financial Institutions, Long Term Provisions and Public Deposits

Shareholder's Funds = Equity Share Capital + Preference Share Capital + Reserves and Surplus – Fictitious Assets (Accumulated Losses and Deferred Expenses)

Reserves and Surpluses include Capital Reserves, Revenue Reserves, Reserves representing accumulated profit, surpluses like reserve for contingencies, sinking fund etc.

Interpretation of the Ratio

This ratio indicates the margin of safety available to creditors of long-term funds. If the debt-to-equity ratio is high, it means that the firm is depending more on long-term borrowings compared to shareholders' funds, and vice versa. Thus, from the creditor's point of view, a high ratio means higher risk and lower safety cover. On the other hand, a low debt-to-equity ratio implies that the firm is relying more on shareholders' funds compared to long-term borrowings. This indicates that the lenders have low risk and high safety coverage. The ideal debt-to-equity ratio is 2:1.

Illustration 3.1.3

Calculate debt-equity ratio from the given data

Current liabilities	₹25000
Loan	₹200000
Shareholders fund	₹150000

Solution

$$\text{Debt-equity ratio} = \frac{Long\ term\ Debt}{Shareholders'\ Fund}$$

$$= \frac{₹2,00,000}{₹1,50,000}$$

$$= 1.33 : 1$$

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Illustration 3.1.4

Calculate debt- equity ratio.

Debentures	₹30,000
Equity shares	₹5,00,000
Preference shares	₹3,00,000
Reserve and surpluses	₹50,000
Fictitious asset	₹ 25,000
Loan	₹ 5,00,000

Solution

Debt = Debentures + Loan

= ₹30,000+₹5,00,000

= ₹5,30,000

Equity = Share capital (Equity shares + Preference shares) + Reserve & Surpluses – Fictitious Asset

= (₹5,00,000 + ₹ 3,00,000) + ₹50,000 - ₹25,000

= ₹8,25,000

$$\text{Debt-equity ratio} = \frac{₹5,30,000}{₹82,50,000}$$

= 0.64 : 1

ii. Proprietary Ratio

This ratio is also referred to as the Equity Ratio. This ratio expresses the relationship between the Shareholders' Fund and the Total Assets of the firm. It indicates the proportion of total assets that are financed using Owners' or Proprietors' funds.

Shareholders fund = Equity Share Capital + Preference Share Capital + Undistributed Profits+ Reserves and Surplus – Accumulated Losses

$$\textbf{Proprietary ratio} = \frac{\textit{Shareholders' Fund}}{\textit{Total assets}}$$

Interpretation of the Ratio

A higher ratio indicates a better long-term solvency position of the firm and vice versa. A high ratio indicates a high safety margin for creditors and indicates that the business is not availing much of trading on equity. Conversely, a low proprietary ratio

points to higher risk for creditors and shows that the firm is making greater use of trading on equity.

iii. Solvency Ratio/ Ratio of Total Liabilities to Total Assets

This ratio expresses the relationship between the Total Liabilities owed to outsiders and Total assets of the firm. It can be considered as a variant of the proprietary ratio. It indicates the proportion of the total assets that are financed using outsider's funds.

$$\textbf{Solvency ratio} = \frac{\textit{Total Liabilities to Outsiders}}{\textit{Total Assets}}$$

Alternatively, it can be computed as 100 – equity ratio

Interpretation of the Ratio

A lower ratio is considered favourable and indicates a stable long - term solvency position of the firm.

iv. Fixed Assets to Net worth Ratio

This ratio is also referred to as Fixed Assets to Proprietor's Fund. This ratio expresses the relationship between the Fixed Assets and Shareholder's Fund. Share holders Fund refers to Share Capital + Reserves and Surplus and Retained Earnings.

$$\textbf{Fixed Assets to Net worth Ratio} = \frac{\textit{Fixed Assets (After depreciation)}}{\textit{Shareholder's Funds}}$$

Interpretation of the ratio

Generally shareholders' equity (comprising reserves, surplus, and retained earnings) should be used to fund fixed assets. A ratio less than 100% indicates that shareholders' funds exceed the total value of fixed assets. This indicates that the owners also finance a portion of working capital. On the contrary, a ratio exceeding 100% means the owners' funds are insufficient to finance fixed assets. This situation will require the company to rely on external sources of finance. A level between 60% and 65% is generally considered acceptable for industrial enterprises, although there is no rule of thumb to interpret this ratio.

v. Fixed Assets to Total Long Term Funds or Fixed Assets Ratio

This ratio is a variant to the fixed assets to net worth ratio. This ratio helps to assess the extent to which the long term funds of the firm are deployed for financing the fixed assets of the firm.

$$\textbf{Fixed Assets Ratio} = \frac{\textit{Fixed Assets (After depreciation)}}{\textit{Total Long} - \textit{term Funds}}$$

The long-term funds = Shareholders' funds + Long-term borrowings.

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Shareholder's funds are calculated in a similar way as calculated in the case of calculation of debt –equity ratio.

vi. Funded Debt to Total Capitalisation

This ratio expresses the relationship between Funded Debt (long term funds which are raised from outsiders) and Total Capitalisation (total long term funds available in the business).

Funded Debt includes Debentures, Bonds, Mortgage Loans and other Long term Loans.

Total Capitalisation = Debentures + Bonds + Mortgage Loans + other Long term Loans + Equity Share Capital + Preference Share Capital + Reserves and Surplus + Other Undistributed Reserves.

$$\textbf{Funded Debt to Total Capitalisation Ratio} = \frac{\textit{Funded Debt (Long - term Debt)}}{\textit{Total Capitalisation}} \times 100$$

Illustration 3.1.5

Following are the extracts from the Balance Sheet of Sankar Ltd.

BALANCE SHEET

Particulars	Note No	Amount (₹)
I. EQUITY AND LIABILITIES		
Shareholder's Funds		
Share Capital :		
Equity Share Capital		6,00,000
7% Preference Share Capital		2,00,000
Reserves and Surplus		1,00,000
Non - Current Liabilities		
10% Debentures		4,00,000
Long –term Loans		50,000
Current Liabilities		4,50,000
Total		18,00,000
II. ASSETS		
Non –Current Assets		
Fixed Assets		12,00,000
Investments		1,00,000
Current Assets		5,00,000
Total		18,00,000

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You are required to calculate

(a) Debt Equity Ratio (b) Proprietary Ratio (c) Solvency Ratio

(d) Fixed Assets to Net worth Ratio (e) Fixed Assets Ratio

Solution

(a) Debt-equity ratio $= \frac{Long\ Term\ Debt}{Shareholders'\ Fund}$

Long term debt = 10% Debentures + Long term Loans

= ₹ 4,00,000 + ₹50,000

= ₹4,50,000

Shareholder's Funds = Equity Share Capital + Preference Share Capital + Reserves and Surplus

= ₹6,00,000+ ₹2,00,000+ ₹1,00,000

= ₹9,00,000

Debt Equity Ratio $= \frac{₹4,50,000}{₹9,00,000}$

= 0.5 : 1

(b) Proprietary ratio $= \frac{\boldsymbol{Shareholders'\ Fund}}{\boldsymbol{Total\ assets}}$

$= \frac{\boldsymbol{₹9,00,000}}{\boldsymbol{₹18,00,000}}$

= 0.50 or 50 %

(c) Solvency ratio $= \frac{\boldsymbol{Total\ Liabilities\ to\ Outsiders}}{\boldsymbol{Total\ Assets}}$

Total Liabilities to Outsiders = ₹4,00,000 + ₹50,000+ ₹4,50,000

= ₹9,00,000

Solvency ratio $= \frac{₹9,00,000}{₹18,00,000}$

= 0.50 or 50 %

(d) Fixed Assets to Shareholder's Fund Ratio $= \frac{\boldsymbol{Fixed\ Assets}}{\boldsymbol{Shareholder's\ \ Fund}}$

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$$= \frac{₹12,00,000}{₹9,00,000}$$

= 1.33 or 133.33 %

(e) Fixed Assets Ratio $= \frac{Fixed\ Assets\ (After\ depreciation)}{Total\ Long-term\ Funds}$

$$= \frac{Fixed\ Assets}{Shareholder's\ Funds + Long\ term\ Borrowings}$$

$$= \frac{₹12,00,000}{₹900,000 + ₹4,50,000}$$

$$= \frac{12,00,000}{13,50,000}$$

= 0.888 or 88.89 %

B. Coverage Ratios

These ratios are employed for assessing the extent to which the interest of the parties who are entitled to get a fixed return or scheduled repayment are safe. The fixed return here refers to interest or dividend. Coverage ratios include Interest Coverage Ratio, Debt Service Coverage Ratio, Preference Dividend Coverage Ratios. Coverage ratios are expressed in times.

i. Interest Coverage Ratio

This ratio measures the debt servicing capacity of a firm and expresses the relationship between Net Profit and Fixed Interest charges. For calculating this ratio, the Net Profit before interest and taxes is used.

Interest coverage ratio $= \frac{Net\ Profit\ (before\ interest\ and\ taxes)}{Fixed\ Interest\ Charges}$

Interpretation of the Ratio

This ratio holds importance to the debenture holders and the lenders of long -term funds. It indicates the number of times interest charges are covered by the profits available to pay the same. A high ratio is preferred by the creditors because even if the firm's earnings fall, the firm will be able to pay the fixed interest charges.

Illustration 3.1.6

Calculate Interest Coverage Ratio if the net Profit (after Taxes) of a firm is ₹80,000 and the fixed interest charges on long term borrowings is ₹ 10,000. The rate of income tax is 50%.

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Solution

$$\text{Interest coverage ratio} = \frac{Net\ Profit\ (before\ interest\ and\ taxes)}{Fixed\ Interest\ Charges}$$

$$\text{Net Profit Before Interest and Taxes} = \frac{EBIT}{1 - Tax\ Rate} + \text{Interest}$$

$$= \frac{80{,}000}{1 - 0.50} + 10{,}000$$

$$= 1{,}60{,}000 + 10{,}000$$

$$= ₹1{,}70{,}000$$

$$\text{Interest coverage ratio} = \frac{₹1{,}70{,}000}{₹10{,}000}$$

$$= 17 \text{ times.}$$

ii. Debt Service Coverage Ratio

This ratio is computed to determine the firm's capacity to pay off both the Interest and Principal portion of the Instalment. It is usually expressed in number of times.

$$\textbf{Debt Service Coverage Ratio} = \frac{Net\ Profit\ before\ Interest\ and\ Tax}{Interest + \frac{Principal\ Payment\ Instalment}{1 - tax\ rate}}$$

The principal portion of instalment is adjusted for tax effects since such payment is not deductible from net profit for tax purposes.

Interpretation of the ratio

This ratio indicates the number of times the interest amount on long-term debts and the principal portion of instalment is covered by the profits out of which that will be paid. It helps to determine the limit beyond which the debt servicing ability would be adversely affected. A higher coverage ratio is preferable as it improves its strength to service debt properly.

Illustration 3.1.7

If the Net Profit before Interest and Tax is ₹ 2,00,000, 10 % Debentures (payable in 10 years in equal instalments are ₹ 4,00,000 and Tax rate is 50 % , calculate the debt service coverage ratio.

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Solution

$$\text{Debt Service Coverage Ratio} = \frac{Net\ Profit\ before\ Interest\ and\ Tax}{Interest + \frac{Principal\ Payment\ Instalment}{1 - tax\ rate}}$$

$$= \frac{₹2,00,000}{₹40,000 + \frac{₹40,000}{1 - 0.5}}$$

$$= \frac{₹2,00,000}{₹40,000 + \frac{₹40,000}{0.5}}$$

$$= 1.67 \text{ times}$$

iii. Preference Dividend Coverage Ratio

This ratio establishes a relationship between Net Profits after Interest and Taxes and Preference Dividend on Preference Shares. This ratio measures the Preference Shares servicing capacity of a firm.

$$\textbf{Preference Dividend Coverage Ratio} = \frac{\textbf{Net Profit after Interest and Tax}}{\textbf{Preference Dividend}}$$

Interpretation of the ratio

This ratio indicates the number of times the amount of Preference Dividend is covered by the profits from which it will be paid. It indicates the limit beyond which the ability of the firm to service its preference share capital would be adversely affected. A higher ratio indicates greater ability of the firm to pay a preference dividend.

Illustration 3.1.8

Calculate Preference Dividend Coverage Ratio from the following information:

15% Long term Borrowings- ₹ 7,00,000, Net Profit before Interest & Tax- ₹ 5,00,000, Tax - 30%. 18% ₹ 1,00,000 Pref. Shares of 100 each.

Solution

$$\text{Preference Dividend Coverage Ratio} = \frac{Net\ Profit\ after\ Interest\ and\ Tax}{Preference\ Dividend}$$

Interest on Long term Borrowings = 15 % × ₹7,00,000

= ₹ 1,05,000

Net Profit after Interest = Net Profit before Interest – Interest on Long term Borrowings

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= ₹5,00,000 - ₹1,05,000

= ₹ 3,95,000

Tax on Net Profit @ 30 % = 30% × ₹3,95,000

= ₹1,18,500

Net Profit after interest and tax = ₹3,95,000 - ₹1,18,500

= ₹2,76,500

Preference Dividend = 18 % × ₹1,00,000

= ₹ 18,000

$$\text{Preference Dividend Coverage Ratio} = \frac{2,76,500}{18,000}$$

= 15.36 times.

3.1.6 Leverage Ratios

Imagine, Fresh Bites Pvt. Ltd., is a company that produces healthy snack bars. After a year of steady growth, the company's management decided to expand and establish a new production unit. To fund the expansion, management had two options: either to raise new capital through the issuance of equity shares or to borrow from a bank. The management opted for a bank loan because it allowed them to access a large amount of money quickly without the problem of dilution of ownership. Initially, this strategy worked well. The new funds helped buy machines, hire staff, and increase production. Since the profits from sales were higher than the interest on the loan, the shareholders enjoyed higher returns. This is an example of trading on equity , where borrowing boosts shareholder earnings. However, a few months later, raw material costs increased, and sales slowed due to increased competition. Even though earnings fell, the loan interest had to be paid on time, which put pressure on the cash flow. The management realised that debt, while helpful, also increased financial risk

This situation made the management ask key questions:

- ◊ *Is the company using too much borrowed money compared to own funds?*
- ◊ *Is the proportion of fixed-interest funds too high compared to shareholders' funds?*

The calculation of Leverage ratios helps to find answers to such questions.

These ratios are used to assess the long-term financial position of the business concern. These ratios are used to determine the proportion of debt and equity used in financing the firm's operations. Capital Structure refers to the kind and proportion of funds that make up the capitalisation. Debt represents borrowed funds. The use of debt in a firm's capital structure would require regular interest payments to lenders,

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regardless of the firm's profitability. So, due to this obligation, debt is generally considered riskier than equity. If a firm's earnings exceed the cost of borrowing, the excess profit enhances shareholder returns. This phenomenon is known as trading on equity or financial leverage.

On the other hand, if the cost of debt surpasses the firm's earnings, it diminishes the returns available to equity holders. Thus, the use of debt financing is often referred to as a double-edged sword; while it can boost returns, it also increases financial risk. Therefore, it's crucial to evaluate the debt-to-equity ratio in a firm's capital structure. Leverage ratios are thus employed to judge the debt–equity composition of the firm's capital. The following are the various leverage ratios.

i. Capital Gearing Ratio

This ratio is also referred to as the capitalisation ratio. This ratio helps to analyse the financial risk and the capital structure of a company. This ratio expresses the relationship between fixed income bearing funds and the funds of equity shareholders. Fixed income-bearing funds comprise debentures, preference share capital, and long-term loans. On the other hand, equity shareholders' funds comprise equity share capital, reserves and surplus. This ratio holds significant value for investors and creditors, as it provides insight into the firm's financial leverage, risk exposure, and ability to meet long-term obligations.

$$\textbf{Capital Gearing Ratio} = \frac{\textit{Fixed Income Bearing Funds}}{\textit{Equity Shareholders Funds}}$$

Interpretation of the ratio

This ratio indicates the margin of safety available to suppliers of fixed-income-bearing funds, such as debenture holders, providers of long-term loans, and preference shareholders. A high Capital Gearing Ratio implies the use of less equity than funds bearing fixed financial payments. This means a lower safety margin for funds bearing financial payments and vice - versa. The company is said to be lowly geared if the Capital Gearing Ratio is less than 1and if it is more than 1, it is said to be highly geared. Thus, the Capital gearing ratio shows the extent of the risk to which the company is subject to and also the opportunity for trading on equity.

Illustration 3.1.9

From the following information compute capital gearing ratio.

Equity Share Capital	– ₹15,00,000
12% Preference Share Capital	– ₹8,00,000
15 % Debentures	– ₹6,00,000
Long term Loan	– ₹2,00,000

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Current Liabilities –₹ 5,00,000

General Reserve – ₹5,00,000

Solution

$$\text{Capital Gearing Ratio} = \frac{Fixed\ Interest\ Bearing\ Funds}{Equity\ Shareholders\ Funds}$$

$$= \frac{12\%\ Preference\ Share\ Capital + 15\%\ Debentures + Long\ term\ Loan}{Equity\ Share\ Capital + General\ Reserve}$$

$$= \frac{8,00,000 + 6,00,000 + 2,00,000}{15,00,000 + 5,00,000}$$

$$= \frac{16,00,000}{20,00,000}$$

$$= 0.8$$

Since the ratio is less than one, it is low geared.

ii. Debt Equity Ratio

This ratio measures the claims of outsiders and shareholders against the assets of the firm. It expresses the relationship between Long term debt and Shareholder's Fund. It helps to understand to what extent or relative proportion, the debt and equity has been employed in financing the assets of the firm.

$$\textbf{Debt-equity ratio} = \frac{Long\ Term\ Debt}{Shareholders'\ Fund}$$

iii. Total Investment to Long term Liabilities

It expresses the relationship between Total Investment (ie. Shareholder's Fund and Long term Liabilities) and Long term Liabilities.

Total Investment to Long term Liabilities ratio

$$= \frac{Shareholder's\ Fund + Long\ term\ Liabilities}{Long\ term\ Liabilities}$$

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Summarised Overview

Ratio analysis is a vital tool used in financial analysis. It involves evaluating a firm's performance and financial health through the computation and interpretation of key ratios. Various ratios can be computed by drawing information from the financial statements, such as the Balance Sheet and Profit and Loss Statement. Ratio analysis enables various stakeholders of a firm, including management, investors, creditors, suppliers, employees, the government, and analysts, to make informed decisions. The significance of ratio analysis lies in its ability to simplify complex financial data, assess profitability, measure liquidity, determine operational efficiency, and evaluate solvency and leverage. Ratios can be broadly classified based on the financial statements to which they relate and the purpose they serve. Major categories of ratios include liquidity ratios, solvency ratios, leverage ratios, profitability ratios, and turnover (activity) ratios. Each type of ratio provides unique insight into different aspects of business performance. This makes Ratio analysis an essential component of financial decision-making.

Liquidity ratios are financial ratios that measure a firm's ability to meet its short-term obligations as they become due. They indicate whether a business has sufficient liquid resources to carry out its day-to-day operations smoothly and avoid cash shortages. These ratios are also referred to as short-term solvency ratios. Solvency ratios are used to evaluate a firm's ability to meet fixed interest charges and repayment schedules associated with these long-term borrowings. Leverage ratios are used to assess the long-term financial position of the business concern. These ratios are used to determine the proportion of debt and equity used in financing the firm's operations.

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Self-Assessment Question

1. What do you mean by Ratio Analysis? Discuss its significance
2. What is Current Ratio?
3. What are Solvency Ratios? Explain in detail.
4. Elucidate the different types of Leverage Ratios.
5. From the Balance Sheet below, find out liquidity ratios for the organisation and discuss your inferences.

Liabilities		Amount (₹)	Asset	Amount (₹)
Bills Payable		3,350	Cash at bank	2,600
Sundry Creditors		4,600	Closing Stock	250
Capital	6,200		Sundry debtors	8,560
Add: Net profit	17,560		Furniture	3,600
	23,760			15,000
Less: Drawings	1,700	22,060	Machinery	
		30,010		30,010

6. Calculate Interest Coverage Ratio if the Net Profit (after taxes) of a firm is ₹1,00,000 and the fixed interest charges on long term borrowings is ₹ 30,000. The rate of income tax is 50%.

7. If the Net Profit before Interest and Tax is ₹3,00,000, 12% Debentures (repayable in 8 years in equal instalments) amount to ₹6,00,000, and the tax rate is 40%, calculate the Debt Service Coverage Ratio.

8. Arjun Ltd. has a Current Ratio of 3:1 and a Liquid Ratio of 1:1. Its Working Capital is ₹2,00,000. Calculate the value of Inventories.

9. Calculate Capital Gearing Ratio from the following information:

Long-term Debts - ₹ 7,00,000, 18% Preference Share Capital - ₹ 8,00,000. Equity Share Capital - ₹ 3,50,000. Reserves & Surplus - ₹ 1,50,000.

10. From the following information Calculate Proprietary Ratio:

Equity Share Capital (₹10 each) - ₹1,50,000, 15 % Long term Borrowings – ₹8,00,000, Current Liabilities – ₹4,00,000, 18% Preference. Share capital - ₹1,00,000, Reserves & Surplus - ₹ 1,50,000, Fixed Assets – ₹11,00,000, Current assets- ₹5,00,000

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Assignments

1. Financial statements alone do not provide meaningful insights unless they are analysed using appropriate tools such as ratio analysis. Explain this statement by discussing the meaning, objectives, and significance of Ratio Analysis. Describe how it facilitates effective interpretation of financial data and supports informed decision-making.

2. Choose any two companies belonging to the same industry and calculate liquidity ratios using their latest financial statements. Compare and analyse their ability to meet short-term obligations. Identify possible

reasons for the differences observed and suggest measures to improve the liquidity position of the weaker company.

3. Select any one company and evaluate its solvency position by calculating ratios such as Debt-Equity Ratio and Proprietary Ratio. Based on your analysis, comment on the company's long-term financial stability and associated financial risk.

4. Select any listed company and obtain its most recent financial statements. Calculate leverage ratios such as Debt-Equity Ratio, Capital Gearing Ratio and Total Investment to Long term Liabilities. Analyse and interpret these ratios to assess the firm's capital structure and long-term financial strength.

Reference

1. Khan, M. Y., & Jain, P. K. (2020). Management accounting: Text, problems and cases (7th ed.). McGraw Hill Education (India) Pvt. Ltd.

2. Gupta, Shashi. K., Sharma, R. K., & Gupta, N. (2018). Financial Management: Theory and Practice (Ninth). Kalyani Publishers.

3. Maheshwari, S. N., Maheshwari, S. K., & Maheshwari, S. K. (2023). *A textbook of accounting for management* (5th ed.). Vikas Publishing Private Limited

4. Jain, S. P., Narang, K. L., Agrawal, S., & Sehgal, M. (2019). *Advanced accountancy: Corporate accounting (Vol. II)*. Kalyani Publishers.

Suggested Reading

1. Arora, M. N. (2021). *A textbook of cost and management accounting* (11th ed.). Vikas Publishing House.

2. Mehta, B. K. (2021). *Cost and management accounting.* SBPD Publications.

3. Singh, S. (2016). *Management accounting*. PHI Learning Pvt. Ltd.

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Unit 2

Turnover Ratios and Profitability Ratios

Learning Outcomes

On completion of this unit, the learner will be able to:

- ◊ understand the different types of ratios such as Turnover ratios and Profitability Ratios
- ◊ familiarise the application of these ratios

Background

UrbanStyle Fashions Ltd., a rapidly expanding company in the apparel retail sector, has reported a substantial rise in sales driven by strong demand for its latest collections. At first glance, this growth suggests improved performance and increasing success, leading stakeholders to assume that both profitability and efficiency have strengthened.

However, a closer examination of the financial statements reveals a different reality. Although sales have increased significantly, rising expenses such as procurement costs, warehousing charges, and marketing expenditures have reduced overall profit margins. Consequently, the growth in revenue has not resulted in a corresponding increase in profits.

In addition, the company is experiencing operational inefficiencies. A considerable portion of inventory remains unsold for extended periods, and receivables are taking longer to convert into cash. These issues indicate that the company is not utilizing its assets and working capital as efficiently as expected.

This situation underscores the importance of analysing both profitability and turnover. Profitability ratios measure the firm's ability to generate adequate returns from its operations, while turnover ratios assess how effectively it uses its resources. Together, these ratios provide a comprehensive evaluation of the company's financial performance and operational efficiency.

This unit provides a detailed discussion on profitability and turnover ratios.

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Keywords

Profitability, Efficiency, Profitability Ratios, Turnover Ratios

Discussion

3.2.1 Turnover Ratios

Imagine that FabricHub Textiles Ltd. and StyleWeave Pvt. Ltd. are two companies operating in the textile industry. At the beginning of the season, both companies invest similar amounts in purchasing fabric inventory. However, FabricHub manages its stock efficiently by ensuring regular sales and timely restocking, while StyleWeave faces slow-moving stock with a large portion of goods remaining unsold, leading to funds being locked in inventory.

The two companies also differ in their credit management practices. FabricHub allows credit sales but ensures that payments are collected on time, maintaining a steady cash flow. In contrast, StyleWeave allows customers extended time to pay, resulting in a significant amount of money being tied up in receivables.

When dealing with suppliers, FabricHub pays its dues on time, maintaining good relationships and ensuring smooth operations. On the other hand, StyleWeave delays payments due to its funds being blocked in unsold stock and overdue receivables, making it difficult to manage its obligations efficiently.

Further, FabricHub makes effective use of its resources, including both short-term assets like inventory and receivables, as well as long-term assets such as machinery and store infrastructure, to generate higher sales. StyleWeave, however, is unable to utilize its assets efficiently, resulting in lower sales despite having similar resources.

The situation of FabricHub and StyleWeave raises some critical questions:

- *Is the inventory being sold and replaced efficiently, or is money tied up in unsold stock?*
- *Are customers paying on time, or is too much money stuck in receivables?*
- *Are payments to suppliers being managed properly, or are there delays affecting operations?*
- *Is the working capital being used effectively to generate sales?*
- *Are the company's current assets being utilized efficiently to support business operations?*

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◊ *Are fixed assets such as machinery and infrastructure being used effectively to generate revenue?*

To answer such questions and assess how efficiently a company utilizes its resources to generate sales, turnover ratios are applied.

Turnover Ratios are also referred to as Efficiency Ratios or Activity Ratios or Asset Management Ratios or Current Assets Movement Ratios. These ratios are used for measuring the efficiency of the business in asset management. The efficiency is measured by the speed or rapidity with which assets are converted into sales. Higher the rate of turnover or asset conversion, more effectively the assets are being utilized, assuming all other factors remain constant. Turnover ratios are expressed in times.

The various turnover ratios are as follows:

i. Stock Turnover Ratio

ii. Debtors Turnover Ratio

iii. Creditors Turnover Ratio

iv. Working Capital Turnover Ratio

v. Fixed Assets Turnover Ratio

vi. Current Assets Turnover Ratio

i. Stock Turnover Ratio

Stock Inventory Ratio is also referred to as Inventory turnover ratio / Stock Velocity. This ratio helps to judge the efficiency with which the inventory is managed by the firm. Inventory Turnover Ratio (ITR) implies or indicates the number of times the stock has been turned over during the period. The main aim of computing this ratio is to ensure that only required amount of funds are tied up in inventory.

$$\text{Inventory Turnover Ratio} = \frac{\textbf{Cost of Goods Sold}}{\textbf{Average Inventory}}$$

$$= \text{……. Times}$$

Cost of Goods Sold = Sales- Gross Profit

Or

Cost of Goods Sold = (Opening Stock + Purchases + Direct Expenses)- Closing Stock

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

If there is no opening stock, the closing stock is considered average stock.

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Inventory Conversion Period

Inventory Conversion Period is used for calculating the average time taken for clearing the stocks.

$$\textbf{Inventory Conversion Period} = \frac{\textit{Days in a Year}}{\textit{Inventory Turnover Ratio}}$$

= ……. No of days

Interpretation

The Stock turnover ratio serves as a measure of how efficiently inventory is managed and indicates how rapidly inventory is sold. Generally, a higher turnover ratio is preferred over a lower one, as it reflects effective inventory control. A high ratio shows rapid sales and low inventory turnover ratio indicates blocking of funds in the stock. However, having an excessively high ratio is not desirable as it is suggests insufficient investment in inventory or an extremely low stock level. A low ratio, on the other hand is also not equally desirable as it denotes sluggish sales, poor market demand, or excess inventory.

Illustration 3.2.1

Calculate stock turnover ratio

Sales	₹ 1,00,000
Gross Profit	40% on Sales
Average Stock	₹ 10,000

Solution

Given Gross Profit = 40% on sales

= 40/100 × ₹1,00,000

= ₹40,000

Cost of Goods Sold = Net Sales- Gross Profit

= ₹ 1,00,000- ₹40,000

= ₹60,000

$$\text{Stock Turnover Ratio} = \frac{\textit{Cost of Goods Sold}}{\textit{Average Inventory}}$$

$$= \frac{\textbf{₹60,000}}{\textbf{₹10,000}}$$

= 6 times

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Illustration 3.2.2

Calculate Inventory Turnover Ratio/ Stock Turnover Ratio.

Opening Stock	₹40,000
Closing Stock	₹50,000
Purchases	₹80,000
Carriage Inwards	₹20,000

Solution

Cost of Goods Sold = Opening Stock + Purchases + Carriage Inwards - Closing Stock

= ₹ 40,000+ ₹ 80,000+₹ 20,000- ₹ 50,000

= ₹ 90,000

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

$$= \frac{\textbf{40,000 + 50,000}}{\textbf{2}}$$

= ₹ 45,000

$$\text{Stock Turnover Ratio} = \frac{\textbf{Cost of Goods Sold}}{\textbf{Average Inventory}}$$

$$= \frac{\textbf{₹90,000}}{\textbf{₹45,000}}$$

= 2 times

ii. Debtor's Turnover Ratio

Debtors turnover ratio is also known as Debtor's Velocity or Receivables Turnover Ratio. It is a ratio used for measuring the velocity of the debt collection of a firm. In other words, a company's efficiency in recovering receivables from its customers is measured by this ratio. It is expressed in times.

$$\textbf{Debtor's Turnover Ratio} = \frac{\textbf{Net Credit Sales}}{\textbf{Average Trade Receivable}}$$

= …….. times

Trade Receivables = Sundry Debtors + Bills Receivables + Accounts Receivables

$$\text{Average Trade Receivables} = \frac{\textbf{Opening Trade Receivables + Closing Trade Receivables}}{\textbf{2}}$$

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Interpretation of the Ratio

It implies the number of times the average debtors (receivables) are turned over during a year. The debtors' turnover ratio indicates the quality of the receivables and the firm's debt collection efforts. A high ratio implies a shorter collection period. This means prompt payments are made by Trade Receivables, whereas a low ratio indicates a longer collection period. This implies delayed payments for trade receivables. A very high ratio may be the result of a restrictive credit and collection policy. On the other hand, a very low ratio may be the result of liberal and inefficient credit and collection policy of the firm. This may involve the risk of bad debts and the burden of high interest costs.

Average Collection Period

It represents the number of days taken by a firm's trade receivables to be converted into cash. It is used for measuring the quality of a firm's receivables. Average Collection Period can be calculated in terms of days and months. Shorter the average collection period, the better is the quality of receivables. A longer collection period is an indicator of inefficient collection performance of the firm.

If the period is in days

$$\text{Average Collection Period} = \frac{365}{Debtors\ Turnover\ Ratio}$$

= ..... Number of Days.

If the period is in months

$$\text{Average Collection Period} = \frac{12}{Debtors\ Turnover\ Ratio}$$

= ..... Number of Months.

Illustration 3.2.3

Calculate Debtors turnover ratio

Total Sales	₹3,00,000
Cash Sales	₹50,000
Debtors as on 01.01.2020	₹30,000
Debtors as on 31.12.2020	₹40,000
Bills Receivable on 01.01.2020	₹20,000
Bills Receivable on31.12.2020	₹30,000

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Solution

Credit Sales = Total Sales - Cash Sales

= ₹3,00,000- ₹50,000

= ₹2,50,000

$$\text{Average accounts receivable} = \frac{\textit{Opening Trade Receivables} + \textit{Closing Trade Receivables}}{2}$$

$$= \frac{\textit{Opening debtors} + \textit{opening bills recivables} + \textit{closing debtors} + \textit{closing bills receivables}}{2}$$

$$= \frac{(30{,}000+20{,}000)+(40{,}000+30{,}000)}{2}$$

$$= \frac{50{,}000+70{,}000}{2}$$

= ₹ 60,000

$$\text{Debtor's Turnover Ratio} = \frac{\textit{Net Credit Sales}}{\textit{Average Trade Receivable}}$$

$$= \frac{₹\,2{,}50{,}000}{₹\,60{,}000}$$

= 4.1 times

Illustration 3.2.4

Calculate Debtors Turnover Ratio and Average Collection period.

Credit Revenue from Operations (Net Credit Sales) - ₹5,00,000

Closing Debtors – ₹ 50,000

Closing Bills Receivable – ₹ 30,000

Solution

$$\text{Debtor's Turnover Ratio} = \frac{\textit{Net Credit Sales}}{\textit{Average Trade Receivable}}$$

As opening and closing balances of debtors and bills receivables are not mentioned, closing balances have been taken as closing balances of debtors and bills receivables are taken as average trade receivables.

Average Trade Receivables = Closing Debtors + Closing Bills Receivable

= ₹ 50,000+ ₹30,000

= ₹80,000

$$\text{Debtor's Turnover Ratio} = \frac{₹5{,}00{,}000}{₹\,80{,}000}$$

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= 6.25 times

Average Collection Period (in days) = $\frac{365}{Debtors\ Turnover\ Ratio}$

= $\frac{365}{6.25}$

= 58 days

Average Collection Period (in months)= $\frac{12}{Debtors\ Turnover\ Ratio}$

= $\frac{12}{6.25}$

= 1 Year 9 months

iii. Creditors Turnover Ratio

The creditors turnover ratio or the creditors velocity or Payables Turnover Ratio states the relationship between net credit purchase and average accounts payable. This ratio indicates the velocity with which creditors of a firm are turned over in relation to the company's purchases. The objective of calculating this ratio is to determine the efficiency of a firm in managing and paying its trade payables.

$$\textbf{Creditors Turnover Ratio} = \frac{Net\ Credit\ Purchases}{Average\ Trade\ Payables}$$

= ……times

Trade payables = Creditors + Bills payable + Accounts Payable

$$\textbf{Average Trade Payables} = \frac{Opening\ Trade\ Payables + Closing\ Trade\ Payables}{2}$$

Interpretation of the ratio

The Creditors Turnover Ratio shows the punctuality in making payment of credit purchases. A higher turnover ratio indicates that less credit period is available to the firm. This necessitates to make early payments. On the contrary, a long period implies a long credit period is available for making the payment.

Average Payment Period

It represents the average days a firm takes to pay its creditors. A longer payment period means that the firm is benefiting from a longer credit period offered by its creditors. On the contrary, a shorter payment period means that less credit period is only offered by the creditors.

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Average Payment Period (in days) = $\frac{365}{Payables\ Turnover\ Ratio}$

Average Payment Period (in months) = $\frac{12}{Payables\ Turnover\ Ratio}$

Illustration 3.2.5

Calculate Creditors Turnover Ratio

Net credit purchases	₹ 4,00,000
Creditors as on 1.1.2020	₹1,50,000
Creditors as on 31.12.2020	₹50,000
Bills payable as on 1.1.2020	₹25,000
Bills payable as on 31.12.2020	₹1,75,000

Solution

Average accounts payable

$$= \frac{(Opening\ Creditors + Opening\ Bills\ Payable) + (Closing\ Creditors + Closing\ Bills\ Payable)}{2}$$

$$= \frac{(1,50,000 + 25,000) + (50,000 + 1,75,000)}{2}$$

$$= \frac{1,75,000 + 2,25,000)}{2}$$

$$= \frac{4,00,000}{2}$$

$$= 2,00,000$$

Creditors Turnover Ratio $= \frac{Net\ Credit\ Purchases}{Average\ Trade\ Payables}$

$$= \frac{4,00,000}{2,00,000}$$

= 2 Times

Illustration 3.2.6

From the following information, Calculate Creditors Turnover Ratio and Average Payment Period

Total Purchases - ₹ 9,00,000

Cash Purchases – 2,00,000

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Purchase Returns – 1,00,000

Creditors at the end of the year – 2,00,000

Creditors at the beginning of the year – 3,00,000

Solution

$$\text{Trade Payables Turnover Ratio} = \frac{\textit{Net Credit Purchases}}{\textit{Average Trade Payables}}$$

Net Credit Purchases = Total Purchases – Cash Purchases – Purchase Returns

= ₹9,00,000 –₹ 2,00,000 – ₹1,00,000

= ₹6,00,000

$$\text{Average Trade Payables} = \frac{\textit{Opening Creditors} + \textit{Closing Creditors}}{2}$$

$$= \frac{2{,}00{,}000 + 3{,}00{,}000}{2}$$

= ₹,2,50,000

$$\text{Trade Payables Turnover Ratio} = \frac{₹6{,}00{,}000}{₹2{,}50{,}000}$$

= 2.4 times

$$\text{Average Payment Period} = \frac{365}{\textit{Payables Turnover Ratio}}$$

$$= \frac{365}{2.4}$$

= 152 days

iv. Working Capital Turnover Ratio

Working capital ratio is used for measuring the effectiveness of utilization of working capital. In other words, it helps to assess the number of times the working capital is turned over in a course of a year.

Working Capital = Current Assets – Current Liabilities

$$\textbf{Working Capital Turnover Ratio} = \frac{\textit{Cost of Sales/Revenue from Operations}}{\textit{Average Working Capital}}$$

= …… times

$$\text{Average working Capital} = \frac{\textit{Opening Working Capital} + \textit{Closing Working Capital}}{2}$$

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Interpretation of the Ratio

While a high working capital turnover ratio indicates efficient utilisation of working capital, a low working capital ratio indicates inefficient utilisation of working capital.

Illustration 3.2.7

Calculate Working Capital Turnover Ratio from tm following information

Revenue from Operations	₹ 4,50000
Current Assets	₹ 2,00,000
Current Liabilities	₹ 1,00,000

Solution

Working Capital = Current Assets – Current Liabilities

= ₹ 2,00,000 - ₹ 1,00,000

= ₹ 1,00,000

$$\text{Working Capital Turnover Ratio} = \frac{\textit{Cost of Sales/Revenue from Operations}}{\textit{Average Working Capital}}$$

$$= \frac{4,50,000}{1,00,000}$$

= 4.5 times

v. Fixed Assets Turnover Ratio

This ratio expresses the relationship between Fixed Assets and Net Sales. It indicates the efficiency with which a business firm utilises its fixed assets to achieve sales.

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

= …… times

Net Fixed Assets = Fixed assets - Depreciation

Interpretation of the Ratio

A high fixed assets turnover ratio indicates efficient utilisation of fixed assets. On the other hand, a low fixed assets turnover ratio indicates inefficient utilisation of fixed assets.

Illustration 3.2.8

Calculate Fixed Assets Turnover Ratio from the following information

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Gross Fixed Assets - ₹5,00,000, Accumulated Depreciation – ₹3,00,000, Net Sales - ₹10,00,000

Solution

Net Fixed Assets = Gross Fixed Assets – Accumulated Depreciation

= ₹ 5,00,000 - ₹ 3,00,000

= ₹ 2,00,000

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

$$= \frac{10,00,000}{2,00,000}$$

= 5 times

vi. Current Assets Turnover Ratio

This ratio expresses the relationship between Current Assets and Net Sales. It indicates the efficiency with which a business firm utilises its current assets to achieve sales.

$$\textbf{Current Assets Turnover Ratio} = \frac{\textit{Net Sales}}{\textit{Current Assets}}$$

= …… times

Interpretation of the Ratio

A high current assets turnover ratio indicates efficient utilisation of current assets. On the other hand, a low current assets turnover ratio indicates inefficient utilisation of current assets.

Illustration 3.2.9

Calculate Current Assets Turnover Ratio from the following information

Current Assets - ₹5,00,000, Net Sales - ₹15,00,000

Solution

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

$$= \frac{15,00,000}{5,00,000}$$

= 3 times

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3.2.2 Profitability Ratios

Imagine that BrightTech Electronics Ltd. is a fast-growing company that manufactures smart home appliances. In the latest financial year, the company reported record sales of smart TVs and washing machines. At first glance, BrightTech appeared highly successful, leading investors to believe that profits were also rising sharply.

However, upon careful examination of the financial statements, the picture was different. Rising costs of raw materials, heavy spending on advertising, and high administrative expenses led to reduced earnings, resulting in a narrow profit margin.

This situation led the management of the company to look into certain critical points:

- ◊ *Is the company truly earning a sufficient profit compared to its sales volume?*
- ◊ *Are the costs incurred by the company under control, or are they consuming most of the company's revenue?*
- ◊ *Is the company generating sufficient returns on the assets and equity invested?*
- ◊ *How much profit remains after meeting all operating and financial expenses?*
- ◊ *Is BrightTech really creating long-term value for its shareholders?*

These are precisely the questions answered by profitability ratios.

Profits reflect the overall efficiency of a business. Shareholders or owners invest their funds to earn a fair return on their investment. From the management's point of view, profits are an indicator of a business's operational efficiency. For owners, they represent the value of their investment; for creditors, they provide a margin of safety. Employees view profits as a source of additional benefits, while the government sees them as a sign of the company's ability to pay taxes and a basis for policy decisions. For customers, profits suggest the potential for improved quality and fair pricing.

Profitability ratios are used to assess a firm's overall efficiency. Profitability ratios offer a deeper insight into a business's performance. Profitability ratios can be calculated in relation to sales and also in relation to investments. Thus, there are two categories of profitability ratios. They are

A. Profitability Ratios in relation to Sales

B. Profitability Ratios in relation to Investments

C. Market Test Ratios

A. Profitability Ratios in relation to Sales

i. Gross Profit Ratio

The ratio expresses the relationship between Gross profit and Revenue from operations (Net Sales). It is calculated using the following formula

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$$\textbf{Gross profit ratio} = \frac{Gross\ Profit}{Net\ Sales} \times 100$$

Gross Profit = Revenue from operations (Net Sales) – Cost of Revenue from Operations (Cost of Goods Sold)

Revenue from Operations refers to the revenue generated from the operating activities of the enterprise.

Cost of Revenue from Operations = Opening Inventories + (Purchases – Returns Outwards) + Direct Expenses – Closing Inventories

Interpretation of the Ratio

A higher gross profit ratio is considered preferable as it leaves a higher margin to meet the operating and non-operating expenses. A low Gross Profit Ratio indicates that the cost of goods sold is high owing to reasons like poor sales, low selling prices, stiff competition, poor purchasing policies etc.

ii. Net Profit Ratio

This ratio is used to indicate the percentage of profit that is earned on Revenue from Operations. This ratio expresses the relationship between Net Profit and Revenue from Operations.

$$\textbf{Net Profit} = \frac{Net\ Profit\ After\ Tax}{Revenue\ from\ Operations\ (Net\ Sales)} \times 100$$

Net Profit = Revenue from Operations – Cost of Revenue from Operations – Operating Expenses – Non – Operating Expenses + Non – Operating Income –Tax

Non - Operating Incomes refers to incomes earned from non –operating activities (activities other than the main operations of the business) such as interest on investments, profit on sale of fixed assets etc. Non – Operating Expenses refers to expenses which are incurred for activities other than its main operating activities such as interest on long –term borrowings.

Interpretation of the Ratio

Higher the ratio, more profitable the business is considered to be.

iii. Operating Ratio

This ratio is used to assess the operational efficiency of the business. This ratio expresses the relationship between Operating Cost and Net Revenue from Operations. It indicates the percentage of revenue of operations that is consumed or absorbed by the Operating Cost. It is calculated using the following formula

$$\text{Operating Ratio} = \frac{Operating\ Cost}{Revenue\ from\ Operations\ (Net\ Sales)} \times 100$$

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Operating Cost = Cost of goods sold + Operating Expenses

Operating Expenses = Office and Administrative Expenses + Selling and Distribution Expenses

Interpretation of the Ratio

A high operating ratio is considered to be unfavourable.

iv. Operating Profit Ratio

This ratio expresses the relationship between Operating Profit and Revenue from Operations (Net Sales) and it is calculated by dividing the Operating profit by Sales.

$$\text{Operating profit ratio} = \frac{Operating\ Profit}{Revenue\ from\ Operations\ (Net\ Sales)} \times 100$$

Operating Profit = Net Revenue from Operations (Sales) – Operating Cost

Operating Cost = Cost of goods sold + Office and Administrative Expenses + Selling and Distribution Expenses

Operating Profit Ratio can also be calculated using the following formula.

Operating Profit Ratio = 100 - Operating Ratio

Interpretation of the ratio

A high ratio is generally considered preferable, as it indicates better efficiency of the management.

v. Expenses Ratios

These ratios expresses the relationship between various expenses (Cost of goods sold, Office and Administrative Expenses, Selling and Distribution Expenses, Non – Operating Expenses) with respect to Sales.

It is calculated using the following formula

$$\text{Expense Ratio} = \frac{Expense}{Net\ Sales\ (Revenue\ from\ Operations)} \times 100$$

Following are the various Expenses ratios

(a) Cost of goods sold or Cost of Revenue Ratio =

$$\frac{Cost\ of\ Goods\ Sold\ or\ Cost\ of\ Revenue\ from\ Operations}{Net\ Sales} \times 100$$

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(b) Office and Administrative Expenses Ratio

$$= \frac{Office\ and\ Administrative\ expenses}{Net\ Sales} \times 100$$

(c) Selling and Distribution expenses ratio

$$= \frac{Selling\ and\ Distribution\ expenses}{Net\ Sales} \times 100$$

Interpretation of the Ratio

Lower the ratio, greater is the profitability and vice versa.

vi. Cash Profit Ratio

This ratio expresses the relationship between cash generated from operations and net sales. Depreciation is a non –cash expense and net profit is calculated after charging depreciation. As the net profit of the firm is affected by the amount or method of ascertaining depreciation, it would be advisable to calculate the cash profit ratio. In order to calculate the amount of cash profit, depreciation is added to Net Profit.

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

Illustration 3.2.10

Following is the Profit and Loss Account of Sana Traders for the year ended 31'st March 2025,

Profit and Loss Account

Dr **for the year ended 31'st March 2025** **Cr**

To Opening Stock	2,00,000	By Sales	11,20,000
To Purchases	7,00,000	By Closing Stock	2,00,000
To Wages	18,000		
To Gross Profit c/d	4,02,000		
	13,20,000		13,20,000
To Administrative Expenses	40,000	By Gross Profit b/d	4,02,000
To Selling and Distribution Expenses	1,78,000	By Interest on Investments (outside business)	20,000
To Non – Operating Expenses	60,000	By Profit on Sale of Investments	16,000
To Net Profit	1,60,000		
	4,38,000		4,38,000

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You are required to Calculate

(a) Gross Profit Ratio (b) Net Profit Ratio (c) Operating Ratio

(d) Operating Profit Ratio (e) Administrative Expenses Ratio

Solution

(a) Gross Profit Ratio

$$\text{Gross profit ratio} = \frac{Gross\ Profit}{Sales} \times 100$$

$$= \frac{₹,4,02,000}{₹,11,20,000} \times 100$$

$$= 35.9\ \%$$

(b) Net Profit Ratio

$$\text{Net Profit} = \frac{Net\ Profit\ After\ Tax}{Net\ Sales} \times 100$$

$$= \frac{₹,1,60,000}{₹,11,20,000} \times 100$$

$$= 14.3\ \%$$

(c) Operating Ratio

$$\text{Operating Ratio} = \frac{Operating\ Cost}{Net\ Sales} \times 100$$

$$= \frac{Cost\ of\ goods\ sold + Operating\ Expenses}{Net\ Sales} \times 100$$

Cost of goods sold = Opening Stock + Purchases + Wages– Closing Stock

= ₹ 2,00,000+ ₹7,00,000+ ₹18,000 – 2,00,000

= ₹7,18,000

Operating Expenses = Administrative Expenses + Selling and Distribution Expenses

= ₹40,000 + ₹ 1,78,000

= ₹2,18,000

$$\text{Operating Ratio} = \frac{₹7,18,000 + ₹2,18,000}{₹11,20,000} \times 100$$

$$= ₹\ \frac{7,18,000 + ₹2,18,000}{₹11,20,000} \times 100$$

$$= \frac{₹9.36,000}{₹11,20,000} \times 100$$

$$= 83.6\ \%$$

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(d) Operating Profit Ratio

= 100 – Operating Ratio

= 100 – 83.6 %

= 16.4 %

(e) Administrative Expenses Ratio

$$= \frac{Administrative\ Expenses}{Net\ Sales} \times 100$$

$$= \frac{₹40,000}{₹11,20,000} \times 100$$

= 3.6 %

B. Profitability Ratios in relation to investment

i. Return on Shareholder's Investment or Net worth / Return on Shareholder's Funds

This ratio is considered as one among the key indicators for measuring a firm's overall efficiency. This ratio expresses the relationship between net profits (after interest and tax) and proprietor's fund

The primary goal of any business is to maximise profits. So, this ratio reflects the extent to which the firm is able to accomplish this goal. The ratio holds significant value for both shareholders as well as the management of a company. This ratio can be used for inter –firm comparison (i.e, the comparison of the ratio with the same ratio of similar firms in the same industry). This would aid the investors in assessing the attractiveness of the investment in the firm as compared to other firms. In addition to this, trend ratios for a number of years can also be calculated to get an idea of the prosperity, growth or deterioration in the company's profitability and efficiency.

$$\text{Return on Investment} = \frac{Net\ Profit\ (after\ interest\ and\ tax)}{Shareholder's Funds}$$

Shareholder's Fund or Shareholder's Investment = Equity Capital + Preference Share Capital + Reserves and Surplus – Accumulated Losses (if any)

Net profit means the net profit after the payment of interest and taxes.

This ratio is expressed in the form of percentage by multiplying the above formula with 100.

Interpretation of the ratio

A higher ROI ratio is considered preferable.

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Illustration 3.2.11

		₹
Issued and Subscribed Capital		
1,000 equity shares of ₹ 100 each		1,00,000
500 , 6 % preference shares of ₹ 100 each		50,000
		1,50,000
Reserves and Surplus		
Revenue Reserve	15,000	
Capital Reserve	25,000	
Reserves for Contingencies	10,000	50,000
Net Profit before Interest and Tax		75,000
Interest Charges		15,000
Tax Rate 50 %		

Calculate Return on Share holder's Investment

Solution

Shareholder's Fund or Shareholder's Investment = Equity Capital + Preference Share Capital + Reserves and Surplus

= ₹1,00,000+ ₹50,000+ ₹50,000

= ₹ 2,00,000

Calculation of Net Profit after interest and tax

	₹
Net Profit before Interest and Tax	75000
Less Interest	15,000
	60,000
Less Tax @ 50 %	30,000
Net Profit after interest and tax	30,000

$$\text{Return on Investment} = \frac{Net\ Profit\ (after\ interest\ and\ tax)}{Shareholder's Funds}$$

$$= \frac{₹30,000}{₹2,00,000} \times 100$$

= 15 %

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ii. Return on Equity Capital or Return on Equity Shareholder's Fund or Return in Equity

This ratio expresses the relationship between the Net Profits and the Equity Share Capital. Equity shareholders are considered as the real owners of a company and they are more concerned in assessing the profitability of the company. Hence, it is judicious to judge the performance of the company in terms of the return earned by the equity shareholders on the capital invested by them.

$$\text{Return on Equity Capital} = \frac{Net\ Profit\ After\ Tax - Preference\ Dividend}{Equity\ Share\ Capital\ (paid-up)}$$

Interpretation of the ratio

A higher ratio is considered preferable.

Illustration 3.2.12

Following information is given for a company whose accounting year ends on 31st March 2025

	₹
5,000 equity shares of ₹ 10 each ₹ 8 paid up	40,000
2500 , 6 % preference shares of ₹ 20 each	50,000
Profit before tax	40,000
Rate of Tax	50 %

Calculate Return on Equity Capital

Solution

$$\text{Return on Equity Capital} = \frac{Net\ Profit\ After\ Tax - Preference\ Dividend}{Equity\ Share\ Capital\ (paid-up)} \times 100$$

Calculation of Profit available to Equity Shareholders

Particulars	₹
Profits	40,000
Less Tax @ 50%	20,000
Profit after tax	20,000
Less Preference Dividend	3,000
Net Profit after tax and preference Dividend	17,000

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$$\text{Return on Equity Capital} = \frac{17{,}000}{40{,}000} \times 100$$

$$= 42.5\ \%$$

iii. Return on Capital Employed

It is a popular ratio which is used for measuring the overall profitability and efficiency of a business. This ratio is considered as the indicator of earning capacity of the capital employed in the business. Since, this ratio is very important in assessing the overall profitability of a firm, this ratio is also called overall profitability ratio. This ratio expresses the relationship between profits and capital employed.

$$\text{Return on capital employed} = \frac{Net\ Profit\ before\ interest\ and\ Taxes}{Capital\ employed} \times 100$$

Capital employed refers to the total funds invested in a firm. These funds are supplied by the owners and lenders of a company. Net Profit before interest and tax is used for computing this ratio. Interest comprising of interest on long - term borrowings and interest on short - term borrowings will be deduced while calculating Net profit. Non - trading incomes (like interest on investments) and non –trading losses (such as loss on sale of fixed assets or investments etc) are not considered while calculating operating profit (they are excluded).

Capital Employed = Equity Share Capital + Preference Share capital + Undistributed Profit+ Reserves and Surplus + Long term Liabilities – Non business assets

Or

Capital employed = Tangible and Intangible Fixed Assets + Current Assets – Current Liabilities

Interpretation of the ratio

A higher return on capital employed ratio implies more efficient usage of capital employed.

iv. Return on Assets

This ratio is used for measuring the profitability of the firm in relation to the assets employed in the firm.

$$\text{Return on assets} = \frac{Net\ Profit\ \ after\ tax}{Average\ Total\ Assets}$$

Illustration 3.2.13

Following figures of Sarang Company are available for the year ended 31st March 2025

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Net profit before interest and tax - ₹ 1,50,000

Net profit after interest and tax - ₹ 1,00,000

Capital employed - ₹ 13,00,000

Total Assets - ₹ 15,50,000

You are required to calculate

(a) Return on Capital Employed (b) Return on Total Assets

Solution

(a) Return on Capital Employed $= \frac{Net\ Profit\ Before\ Interest\ and\ Tax}{Capital\ employed} \times 100$

$= \frac{1,50,000}{13,00,000} \times 100$

$= 11.54\ \%$

(b) Return on Total Assets $= \frac{Net\ Profit\ After\ Interest\ and\ Tax}{Total\ Assets} \times 100$

$= \frac{1,00,000}{15,50,000} \times 100$

$= 6.45\ \%$

C. Market Test Ratios

Market value ratios are used to evaluate the current share price of a publicly-held company's stock. These ratios are employed by current and potential investors to determine whether a company's shares are over-priced or under-priced.

They include the following

i. Earnings Per Share

ii. Price Earning Ratio

iii. Dividend Yield Ratio

iv. Dividend Pay-out Ratio

v. Earnings Yield Ratio

vi. Market value to Book value Ratio

i. Earnings per share

It is considered as a good measure of profitability and is considered as a significant ratio from the point of view of the equity shareholders.

$$\textbf{Earnings per share} = \frac{Net\ Profit\ after\ Tax - Preference\ dividend}{Number\ of\ equity\ shares}$$

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Illustration 3.2.14

Triston Ltd. has the following financial details for the year ending March 31, 2025:

Net Profit after tax - ₹18,00,000

10% Preference Share Capital - ₹5,00,000

Number of Equity Shares Outstanding: 40,000 shares

The face value of each preference share is ₹100.

Solution

$$\text{Earnings per share} = \frac{\textit{Net Profit after Tax} - \textit{Preference dividend}}{\textit{Number of equity shares}}$$

Preference Dividend = 10 % of ₹5,00,000

= ₹50,000

$$\text{Earnings per Share} = \frac{18{,}00{,}000 - 50{,}000}{40{,}000}$$

= ₹ 43.75

ii. Price Earning Ratio (P/E Ratio)

This ratio expresses the relationship between market price per equity share and earnings per share. This is a crucial ratio as it aid the investors whether or not to buy shares in a particular company. A high ratio indicates that the share is overvalued and a low ratio indicates that the share is undervalued.

$$\textbf{Price Earning Ratio} = \frac{\textit{Market price per equity share}}{\textit{Earnings per share}}$$

iii. Dividend Yield Ratio

This ratio expresses the relationship between dividend per share and market value per share. This ratio is useful to those investors who are interested in dividend income.

$$\textbf{Dividend Yield Ratio} = \frac{\textit{Dividend per equity share}}{\textit{Market value per share}} \times 100$$

Dividend per share is obtained by dividing the dividend paid to shareholders by the number of shares.

iv. Dividend Pay–Out Ratio or Pay–Out Ratio

This ratio is used for calculating the extent to which earnings per share or EPS have been retained by the business firms. This ratio indicates the relative proportion of the earnings per share that has been used for paying the dividend and proportion of earnings per share that has been retained in the business.

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$$\text{Dividend Pay –out Ratio} = \frac{Dividend\ per\ equity\ share}{Earnings\ \ per\ share} \times 100$$

v. Earnings Yield Ratio

This ratio expresses the relationship between earnings per share and market value of shares of the firm.

$$\text{Earnings Yield Ratio} = \frac{Earnings\ per\ share}{Market\ Price\ \ per\ share} \times 100$$

$$\text{Earnings per Share} = \frac{Net\ Profit\ available\ to\ the\ equity\ shareholders}{Number\ of\ equity\ shares}$$

vi. Market Value to Book Value Ratio

This ratio expresses the relationship between market value per share and book value per share of the firm.

$$\text{Market Value to Book Value Ratio} = \frac{Market\ Value\ per\ share}{Book\ Value\ \ per\ share}$$

$$\text{Book Value per share} = \frac{Equity\ Share\ Capital + Reserves\ and\ Surplus - Accumulated\ Losses}{Total\ Number\ of\ Equity\ Shares}$$

Illustration 3.2.15

Barun Ltd. provides the following information for the year ending March 31, 2025:

Earnings Per Share (EPS): ₹25

Market Price per Share: ₹500

Dividend per Share: ₹20

You are required to calculate the following:

i. Price-Earnings (P/E) Ratio

ii. Dividend Yield Ratio

iii. Dividend Payout Ratio

Solution

$$\text{(i) Price-Earnings (P/E) Ratio} = \frac{Market\ price\ per\ equity\ share}{Earnings\ \ per\ share}$$

$$= \frac{₹500}{₹25}$$

$$= ₹20$$

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(ii) Dividend Yield Ratio $= \frac{Dividend\ per\ equity\ share}{Market\ value\ per\ share} \times 100$

$= \frac{₹20}{₹500} \times 100$

$= 40\ \%$

(iii) Dividend Payout Ratio $= \frac{Dividend\ per\ equity\ share}{Earnings\ \ per\ share} \times 100$

$= \frac{₹20}{₹25} \times 100$

$= 80\ \%$

Illustration 3.2.16

Calculate Earnings Yield Ratio from the following information

Market price of an equity share (having face value ₹10) - ₹100

Profits available to the equity share holders - ₹ 3,00,000

Number of equity shares = 50,000

Solution

Earnings Yield Ratio $= \frac{Earnings\ per\ share}{Market\ Price\ \ per\ share} \times 100$

Earnings per Share $= \frac{Net\ Profit\ available\ to\ the\ equity\ shareholders}{Number\ of\ equity\ shares}$

$= \frac{₹3,00,000}{50,000}$

$= ₹\ 6$

Earnings Yield Ratio $= \frac{₹6}{₹100} \times 100$

$= 6\ \%$

Summarised Overview

Turnover ratios, also referred to as efficiency or activity ratios, evaluate how effectively an organisation utilizes its assets to generate revenue. They indicate the efficiency with which resources such as inventory, receivables, and fixed assets are managed in the course of business operations. Profitability ratios, in contrast, measure a firm's ability to generate earnings and assess its overall

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financial performance. These ratios are broadly classified into those related to sales and those related to investments, thereby offering insights into both operational performance and returns on capital employed. In addition, market-based fest ratios assist investors in assessing the market valuation and earning potential of a company's shares. Collectively, these ratios provide a comprehensive framework for analysing a firm's operational efficiency, profitability, financial strength, and market performance.



Self-Assessment Question

1. What are profitability ratios?
2. What is Stock Velocity?
3. Discuss the various Market Test Ratios.
4. What do you mean by Return on Capital Employed?
5. Elaborate the various profitability ratios in relation to investment.
6. Calculate Stock Turnover Ratio:

   Sales – ₹1,50,000

   Gross Profit – 30% on Sales

   Average Stock – ₹15,000

7. Michael Ltd. provides the following information for the year ending 31st March 2025:

   Earnings Per Share (EPS): ₹75

   Market Price per Share: ₹600

   Dividend per Share: ₹300

You are required to calculate the following:

   i. Price-Earnings (P/E) Ratio

   ii. Dividend Yield Ratio

   iii. Dividend Payout Ratio

8. Calculate (i) Stock Turnover Ratio, (ii) Creditors Turnover Ratio (iii) Debtors Turnover Ratio And Working Capital Turnover Ratio from the following information

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Total Sales – ₹13,50,000 , Cash Sales – ₹5,00,000, Average Inventory – ₹1,24,250, Cash Purchases - ₹3,00,000, Total Purchases - ₹8,45,250, Average Account Payables – ₹80,000, Average Account Receivables – ₹85,000, Cost of goods sold – ₹5,10,000

9. Following figures of Meera Ltd. are available for the year ended 31st March 2026:

   Net Profit before Interest and Tax – ₹2,40,000

   Net Profit after Interest and Tax – ₹1,80,000

   Capital Employed – ₹16,00,000

   Total Assets – ₹18,50,000

You are required to calculate:

   a. Return on Capital Employed

   b. Return on Total Assets

10. From the following information, calculate the Creditors Turnover Ratio and Average Payment Period:

    Total Purchases – ₹12,00,000

    Cash Purchases – ₹3,00,000

    Purchase Returns – ₹1,50,000

    Creditors at the end of the year – ₹2,50,000

    Creditors at the beginning of the year – ₹3,50,000

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Assignments

1. Select any one listed company of your choice (for example, Tata Motors, Reliance Industries, or Infosys). Calculate Return on Capital Employed, Earnings Per Share (EPS), using the company's published financial statements for the previous two years. Give comments after interpreting the results of the ratio analysis.

2. Select two companies of your choice belonging to the same industry (such as two banks, two FMCG firms, or two automobile manufacturers). Obtain their financial statements for the most recent financial year and calculate any five key financial ratios for each company. Compare the results and analyse which company is performing better financially.

Conclude with a brief explanation of the possible reasons behind the differences in their performance and suggest areas of improvement for the weaker company.

3. Assume that you are a financial advisor helping a potential investor decide whether to invest in a particular company. Select any listed company and collect its most recent financial statements. Calculate the Price-to-Earnings (P/E) Ratio, Earnings Per Share (EPS), Return on Equity (ROE), and Dividend Yield Ratio. Analyse and interpret these ratios. Based on your analysis, prepare a brief recommendation on whether the investor should consider investing in this company, with suitable justifications.

4. Gather the most recent annual report of a company and compute key efficiency ratios. Interpret each ratio to determine how well the company utilizes its assets and manages its day-to-day operations. Based on your evaluation, identify any inefficiencies and recommend strategies for improving overall business efficiency.

5. Assume that you are advising the management of a company on improving its profitability. Select any listed company and analyse its financial statements for the most recent year. Calculate key profitability ratios such as Operating Profit Ratio, Net Profit Ratio, and Return on Assets (ROA). Interpret the results and identify areas where the company can improve its profitability. Provide suitable recommendations based on your analysis.



Reference

1. Khan, M. Y., & Jain, P. K. (2020). Management accounting: Text, problems and cases (7th ed.). McGraw Hill Education (India) Pvt. Ltd.

2. Gupta, Shashi. K., Sharma, R. K., & Gupta, N. (2018). Financial Management: Theory and Practice (Ninth). Kalyani Publishers.

3. Maheshwari, S. N., Maheshwari, S. K., & Maheshwari, S. K. (2023). *A textbook of accounting for management* (5th ed.). Vikas Publishing Private Limited

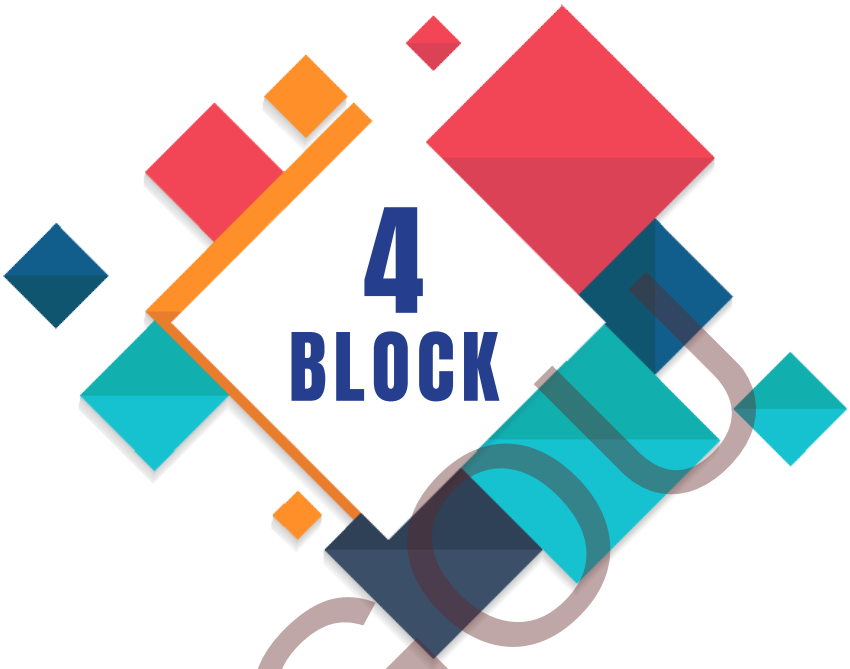
4. Jain, S. P., Narang, K. L., Agrawal, S., & Sehgal, M. (2019). *Advanced accountancy: Corporate accounting (Vol. II)*. Kalyani Publishers.

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Suggested Reading

1. Arora, M. N. (2021). *A textbook of cost and management accounting* (11th ed.). Vikas Publishing House.
2. Mehta, B. K. (2021). *Cost and management accounting.* SBPD Publications.
3. Singh, S. (2016). *Management accounting*. PHI Learning Pvt. Ltd.

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Decision Making Tools

Unit 1

Marginal Costing

Learning Outcomes

On completion of this unit, the learner will be able to:

- ◊ understand the meaning of marginal cost
- ◊ understand the meaning of marginal costing
- ◊ gain insights on the importance and uses of marginal costing
- ◊ understand the concept of CVP Analysis and its techniques.
- ◊ understand how marginal costing is applied to solve various managerial problems faced by the business firms

Background

A manufacturing business incurs various expenses, including the purchase of raw materials, payment of wages, repair costs, rental charges, salaries for office staff, and other related expenses. Some costs change with the number of units produced (such as materials and labour), while others remain the same (such as rent and salaries).

Imagine a customer asks a manufacturer whether he can supply 100 units of a product. The manufacturer knows he can produce them, but he is unsure about the right price to quote. If he sets the price too high, he might lose the order; if he sets it too low, he could end up selling below cost and incurring losses.

Marginal costing is a simple technique that helps us make smart business decisions by classifying costs based on their behaviour. Marginal costing typically ignores fixed costs, as they remain static regardless of production levels. As we go deeper into the topic, these ideas will become more transparent and more intuitive.

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You will likely find this unit interesting to learn. It is not just a method but a way of thinking about the complicated pricing strategies. Marginal costing helps businesses in product and manufacture related decisions like

- ◊ Pricing
- ◊ Deciding volume of production.
- ◊ Choose which products is more profitable
- ◊ Control costs and improve profits



Keywords

Marginal Cost, Marginal Costing, Cost - Volume - Profit Analysis, Marginal Costing, Make or Buy decision, Key factor analysis



Discussion

4.1.1 Marginal Cost

Raju runs a small sweet shop in his town and sells homemade protein chocolates at a nearby park.

To make one chocolate, Raju spends:

- ◊ Protein powder: ₹5
- ◊ Labour: ₹3
- ◊ Fuel: ₹2

So the total cost per chocolate = ₹10.

These per-unit expenses are known as variable costs (or marginal costs) because they change with each chocolate produced.

But are these the only costs in the business?

No. Raju also pays fixed costs such as shop rent (₹3,000 per month) and staff salary (₹2,000 per month)—a total of ₹5,000. These costs stay the same whether he makes 1 chocolate or 1,000.

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One day a customer asks Raju to produce 1,000 chocolates, and Raju wants to earn a total profit of ₹2,000 on this order.

◊ Variable (marginal) cost per chocolate = ₹10

◊ Desired profit per chocolate = ₹2 (because ₹2 × 1,000 chocolates = ₹2,000)

Selling price per chocolate = Variable cost + Desired profit

= ₹10 + ₹2

= ₹12

Why Fixed Cost Is Excluded in Marginal Costing?

Under marginal costing, only variable costs are considered for product costing because fixed costs like rent and salaries are common overheads required to keep the business running. They remain the same regardless of production volume. These costs will be recovered over time as the business increases its sales, but they don't affect the decision for a specific order.

As you go ahead you will understand the interesting aspects of marginal costing and how it helps a business in various product related decisions and understand how marginal costing is applied to solve various managerial problems faced by the business firms.

Let us see the definitions of Marginal cost and related concepts.

Marginal Cost is the additional or incremental cost incurred for producing an additional or extra unit of a product. Marginal cost shows how the total cost changes when we increase or decrease the output by one unit. Chartered Institute of Management Accountants (CIMA) London has defined marginal cost as "the amount at any given volume of output by which the aggregate costs are changed if the output is increased or decreased by one unit". Here "a unit" may be an order, a single product, a batch of product, a process or even mean a specific stage involved in a series of production stages.

The per unit marginal cost remains constant irrespective of the volume of production or the level of activity. In order to gain more understanding on the topic of marginal cost let us look into an example.

4.1.2 Marginal Costing Versus Absorption Costing

The concept of marginal costing is often contrasted with the technique of absorption costing. Also referred to as Traditional or Full cost Method, Absorption costing involves charging all types of costs both variable and fixed costs to the processes, products or operations. According to CIMA, London "Absorption Costing is the practice of charging all costs both variable and fixed to operations, processes or products".

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Table 4.1.1 Difference between Absorption Costing and Marginal Costing

Basis	Absorption Costing	Marginal Costing
Costs	Here both fixed costs as well as variable costs are charged to the products, processes and operations.	Only variable costs are charged to products whereas fixed costs are considered as period costs
Inventory valuation	Here, the total cost comprising both the fixed cost and variable cost are used for valuation of finished goods and work in progress.	Here, finished goods and work in progress is valued at marginal cost or variable cost.
Managerial decision – making	Here, profit (sales minus total cost) forms the foundation for managerial decision making	Here, Contribution margin (Sales minus variable cost) forms the basis for managerial decision -making
Over or under – absorption of fixed cost	As fixed costs are arbitrarily apportioned over product costs in absorption costing, the possibility of over or under absorption arises.	As fixed costs are excluded in marginal costing the possibility of over and under absorption of fixed costs is eliminated.

4.1.3 Characteristics / Features of Marginal Costing

Following are the distinguishing features of the marginal costing technique

1. **Technique of Costing:** Marginal Costing is a technique of costing and not a method of costing. Techniques differ from methods of costing. Techniques refer to the diverse ways of analysing and presenting the different costs that aid management in decision-making. In contrast, methods of costing refer to the various processes and techniques employed by firms to ascertain their costs. Different industries employ various costing methods, depending on the nature of their business. There are various costing methods, including process costing and job costing.

2. **Segregation of Costs:** There are different cost elements such as production, administration, selling and distribution. Under marginal costing, each of these cost elements is further bifurcated into fixed and variable cost elements. The semi-variable costs are also further segregated into fixed costs and variable costs.

3. **Product Costs:** In Marginal Costing, only the variable or marginal costs are considered as product costs.

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4. **Period Costs:** Under Marginal costing, the fixed costs are treated as period costs, and they are charged to the Costing Profit and Loss Account for the corresponding period in which they are incurred.

5. **Inventory:** The finished goods or work in progress are also valued at marginal costs

6. **Determination of prices:** Prices under marginal costing are determined based on marginal costs after adding the contribution. Contribution is the excess of sales over variable cost.

7. **Profitability:** Contribution margin is also used to determine the profitability of products or departments.

4.1.4 Assumptions of Marginal Costing

1. Under the marginal costing technique, all types of costs are segregated into fixed costs and variable costs.

2. Regardless of the level of output, the variable cost per unit remains constant. (However, the changes in variable cost are directly proportional to the changes in the volume of output.)

3. Regardless of the level of output, the selling price per unit also remains constant.

4. Fixed costs do not vary for the entire volume of production and remain constant.

5. The only factor which influences the cost is the level of output or the volume of production.

4.1.5 Uses of Marginal Costing

i. **Facilitates the fixation of selling prices:** Determination of selling price is a crucial decision as it has the potential to impact the profitability of the business firm. Marginal Costing technique comes as a vital aid to the management in the situation of fixation of selling prices of products. We know that the sale of a product at any price below the level of marginal cost will lead to a cash loss for the firm, as marginal cost represents the minimum price that can be fixed for a product. Additionally, the firms should also provide a reasonable contribution to cover the fixed costs. Hence, if the marginal cost of the product and overall profitability of the concern are estimated in advance, then the fixation of the selling price would become easier.

ii. **Helps to maintain the desired level of profit :** Due to competitive pressures, regulatory requirements, or other unavoidable factors, businesses are often compelled to reduce product prices periodically. Such price reductions lower the contribution margin per unit, but the business firms will want to sustain a minimum profit level. However, the companies can still sustain this minimum level of desired profit by increasing sales volume if the demand for the company's products is elastic. For this, marginal costing techniques can

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be applied to estimate the necessary sales volume that firms must achieve to maintain a desired level of profit.

iii. **Helps to accept a price less than its total cost :** At times, firms are forced to set the selling price of a product below its total cost under exceptional circumstances, such as trade depression. The selling price of a product during special scenarios is fixed at a level above its marginal cost but below its total cost. The selling prices are fixed in such a manner because any price above the marginal cost will positively contribute to covering variable costs (marginal costs) as well as contribute something towards fixed expenses, even if it does not fully cover total costs. This is better than not having any contribution towards fixed costs at all. So, when an organisation receives a specific order, setting a price below total cost but above marginal cost may be justifiable, provided that it does not adversely affect the domestic market.

iv. **Facilitates the determination of sales mix :** Marginal costing also helps in making decisions to select the appropriate sales mix or production. For this, the per-unit contribution of each product is evaluated. The products are prioritised based on their respective per-unit contribution. The product with the highest contribution is given the highest preference or priority for production, and those with the lowest contribution are given the least preference or priority. However, the calculations are done assuming fixed costs remain constant. Products that generate a negative contribution margin should be discontinued or deprioritised, unless there are compelling reasons to continue their production.

v. **Helps to decide whether to make or buy the products :** A make-or-buy decision involves determining whether a company should produce a component of the finished product in-house (make) or purchase it from an external supplier (buy). To make the 'make or buy' decision, the firm will compare the marginal costs of manufacturing internally with the price quoted by an external supplier in the market. If the marginal costs are found to be higher than the purchase price, then the decision is taken to procure the product or component from outside rather than opting for in-house manufacture or production and vice versa.

vi. **Helps to fix the optimum level of activity :** Business firms often employ the technique of marginal costing to determine the optimum activity level. For this, the contribution for different activity levels is determined. Finally, the activity level that gives the highest contribution will be chosen as the optimum activity level. The level of production can be raised till the marginal cost does not exceed the selling price.

vii. **Helps to choose the best method of production :** Marginal costing also aids management in selecting the most effective method from among the various production methods. In such situations, business firms can calculate the contribution of each production method and choose the one that yields the highest contribution.

viii. **Helps to analyse the impact of changes in sales price:** Due to several factors, such as changes in levels of competition, changes in government regulations, or

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expansion plans, a business organisation may face the challenge of adjusting its selling prices. So, it would be imperative to analyse the impact of variations in selling prices on the profitability of the business firm. This impact can be easily analysed without any hassle using the technique of contribution.

ix. **Performance Evaluation :** Marginal costing is also employed by the firms for evaluating the performance of the different divisions, departments, product lines and markets. Similarly, business firms can also decide to discontinue the unprofitable ones within each category (i.e., departments, divisions, product lines, markets) in the future. Using the P/V ratio, the performance of the different divisions, departments, product lines and markets can also be evaluated and compared. The one which gives the lowest P/V ratio in each category may be discontinued.

4.1.6 Importance of Marginal Costing

Marginal Costing is a vital technique that aids management in planning and controlling the operations of the firm. The following points highlight the importance of marginal Costing.

◊ **Aids in managerial decision-making :** At times, management is confronted with the problem of making crucial choices that impact the business's profitability. Some of such scenarios include whether to make or buy a product, how to select a profitable sales mix, whether to accept or reject an offer, how to deal with the problem of a limiting factor or key factor, how to determine the optimum level of activity, whether to continue or shut down business operations and so on. Therefore, Marginal Costing plays a crucial role in managerial decision-making, as it enables precise decisions in the above circumstances.

◊ **Helps in Cost Control :** Marginal Costing helps to exercise control over the variable overheads and avoids the need for arbitrary apportionment, allocation and absorption of fixed overheads.

◊ **Facilitates Profit planning :** Marginal Costing aids management in planning profit by determining the profit at different levels of sales and production volume.

◊ **Aids in Production Planning :** The marginal cost per unit remains constant despite the variations in the level of output or volume of production. The stable nature of marginal cost (per unit) in turn enables the management to plan their production processes with ease.

◊ **Aids the determination of different parameters or factors :** Marginal Costing enables the management to determine several parameters like break - even point (the level of production at which total cost becomes equal to the total revenue), the different amount of profits expected at different activity levels, the sales that has to be achieved in order to achieve a desired or pre –fixed amount of profit, the impact of variations in wages, variations in raw material prices and variations in sales mixture on the profit of the firm and so on.

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4.1.7 Limitations of Marginal Costing

Not all the assumptions of marginal Costing may hold true under certain circumstances. They are discussed below:

1. For instance, after a certain level of activity is reached, fixed costs will no longer remain constant and will begin to vary.

2. Segregation of cost may not be easy in all cases. It may be challenging to categorise certain costs as either fixed or variable in some instances—for example, semi-variable costs.

3. Similarly, in the case of Variable costs, they do not always stay constant or vary directly in proportion to output volume. This happens due to the effects of the law of diminishing or increasing returns.

4. Due to several factors, including changes in price levels, shifts in competition levels, and discounts, the selling price may not remain constant indefinitely or across all output levels.

5. In the long run, setting selling prices requires consideration of fixed costs; therefore, pricing decisions cannot rely solely on marginal costs in the long run.

6. Marginal Costing completely overlooks the time factor. If two jobs provide the same contribution but one takes longer to complete, the longer job should be considered more costly. However, this aspect is entirely disregarded under marginal Costing.

7. As mentioned earlier, fixed costs are not considered while valuing finished goods and work-in-progress inventories in marginal Costing. In reality, this practice is completely illogical as fixed costs also form part of manufacturing costs. Stocks valued under marginal Costing are undervalued, meaning the profit and loss statement cannot accurately reflect actual profits. Likewise, the balance sheet does not provide an accurate representation of the company's financial position, as stock values are understated.

8. Although the scenario of under- or over-absorption of fixed overheads rarely arises in the application of the marginal costing technique, the problem of under- or over-absorption may occur in cases involving variable overheads.

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4.1.8 Determination of Cost and Profit under Marginal Costing

Table 4.1.2 Cost and Profit Statement under Marginal Costing

Particulars	Amount ₹	Amount ₹
Sales/ Revenue (A)		XXX
Costs of Sales / Production		
Direct Material (i)	XXX	
Direct Labour (ii)	XXX	
Direct Expenses (iii)	XXX	
Variable overheads (iv)	XXX	
Total (B) [(i) + (ii) + (iii) + (iv)]		XXX
Contribution (C) [(A) – (B)]		XXX
Less: Fixed Overheads		XXX
Profit		XXX

Here variable overheads include variable production overheads, variable administration overheads and variable selling and distribution overheads. Fixed overheads include fixed production overheads, fixed administration overheads and fixed selling and distribution overheads.

Contribution

Imagine you sell a product for ₹20 while it costs you ₹12 to make. The extra ₹8 does not immediately become profit; it first helps pay the shop's rent, salaries, and other fixed expenses. Only after those fixed costs are covered does any remaining amount turn into profit.

This extra amount from each sale that goes toward covering fixed costs and then profit is called Contribution (or Contribution Margin). Understanding contribution helps a business determine how much each sale contributes to its overall profitability.

Understanding contribution is essential because it shows how much of each rupee of sales is available to cover fixed costs and generate profit. It helps determine the break-even point, guides pricing and product-mix decisions, and reveals how changes in sales volume affect overall profitability. In short, mastering this concept enables you to make more informed managerial and financial decisions.

Contribution shows the amount by which sales revenue exceeds variable costs. It is also referred to as 'Contribution Margin' or 'Gross Margin'. Contribution represents the portion of sales that helps cover fixed costs and generate profit. In other words, contribution is equal to fixed cost plus profit. If the contribution exceeds the amount of fixed costs, a profit will be made. On the other hand, if the amount of fixed cost exceeds the amount of contribution, it will result in a loss. If the fixed cost is zero, then the contribution will equal the profit.

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Contribution = Sales - Variable Cost

OR

Contribution = Fixed Cost ± Profit / Loss

Marginal Cost Equation

We know that,

Sales – Variable Cost = Contribution

&

Contribution = Fixed Cost ± Profit/Loss

This implies that Sales – Variable Cost = Fixed Cost ± Profit / Loss

Thus, marginal cost equation = S - VC = FC ± P/L

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

Let's us take a few examples to further understand the application of the marginal cost equation.

Illustration 4.1.1

You are required to determine the variable cost from the following particulars

Sales – ₹ 5,00,000, Fixed Cost - ₹1,30,000 , Profit ₹ 80,000

Solution

Sales – Variable Cost = Fixed Cost + Profit

5,00,000 – Variable Cost = 1,30,000 +80,000

Variable Cost = 5,00,000 – 2,10,000 = ₹ 2,90,000

Illustration 4.1.2

From the following details, calculate the amount of profit earned during the year.

Variable Cost - ₹ 20 per unit, Fixed Cost – ₹4,50,000, Selling Price - ₹50 per unit,

Number of units produced – 50,000 units

Solution

Total Sales Value = Selling price per unit × No: of units

= ₹ 50 × 50,000

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= ₹25,00,000

Variable cost = Variable cost per unit × No: of units

= ₹ 20 × 50,000

= ₹10,00,000

Marginal Cost Equation :

Sales – Variable cost = Fixed Cost +Profit

25,00,000 – 10,00,000 = 4,50,000 + Profit

15,00,000 = 4,50,000 + Profit

Profit = 15,00,000 – 4,50,000

= ₹10,50,000

Illustration 4.1.3

Calculate the Fixed cost from the following information

Sales - Rs . 10,00,000, Variable cost - 50%, Profit - ₹ 2,00,000

Solution

Sales = ₹10,00,000

Variable cost = 50%

$= \frac{50}{100} \times 10,00,000$

= ₹ 5, 00,000

Marginal Cost equation

Sales – Variable Cost = Fixed Cost + Profit

10,00,000 – 5,00,000 = Fixed cost + 2,00,000

5,00,000 = Fixed Cost +2,00,000

Fixed Cost = 5,00,000 – 2,00,000

= ₹3,00,000

4.1.9 Cost – Volume – Profit Analysis (CVP Analysis)

Picture a factory manager who wants to know how many units must be sold to cover all expenses and start making a profit. He also wonders what happens if raw material prices rise, or if he offers a discount to boost sales.

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Cost–Volume–Profit (CVP) Analysis answers these kinds of questions. By studying the interaction between costs, sales volume, and profit, CVP enables managers to determine the break-even point, set prices, select the optimal sales mix, and plan for various business scenarios.

The Cost–Volume–Profit Analysis, an important tool used in profit planning, cost control, and decision-making of a firm, can be considered the logical extension of the marginal costing technique. CVP analysis explores the relationship between the three crucial factors: cost, volume, and profit. These factors are both interconnected and interdependent. Although diverse factors influence a firm's profits, the cost of production or manufacture, the volume of sales, and the selling price are the three predominant factors that can significantly impact a business firm's profit. Management uses CVP analysis to find solutions to different business dilemmas such as determining the break-even point, selecting an appropriate sales mix, determining the optimum activity level, fixation of selling prices, make or buy decisions, determine the amount of sales to be achieved to avoid losses, determine the amount of sales to earn a desired amount of profit, study the impact of changes in prices, cost and sales volume on profits and so on. The various techniques or elements that comprise the CVP analysis include contribution, marginal cost equation, profit–volume ratio, break-even analysis, and margin of safety. Each of these concepts is further discussed in the various sections.

4.1.10 Profit Volume Ratio (P/V ratio)

The Profit-Volume (PV) Ratio, also known as the Contribution Margin Ratio, Contribution Ratio or Marginal Ratio, is a ratio which expresses the relationship between the contribution (i.e., sales revenue minus variable costs) and sales revenue. The ratio indicates the amount of sales which is available to cover the fixed cost and the profit. The P/V ratio is usually expressed in percentage. It is calculated as follows:

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

A high PV Ratio indicates a strong ability of the firm to cover fixed costs and yield profits from additional sales, while a low PV ratio suggests that the firm needs to increase its sales volume to reach profitability.

However, we know that Contribution = Sales – Variable Cost and Contribution = Fixed Cost + Profit. So substituting these formulas in the above equation, P/V ratio can also can be expressed as

$$\text{P/V ratio} = \frac{\text{Sales} - \text{Variable Cost}}{\text{Sales}} \times 100$$

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

$$\text{P/V ratio} = \frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100$$

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Uses of Profit Volume Ratio

i. The PV Ratio is crucial tool which enables the management in estimating the break – even point.

ii. P/V ratio helps to estimate the different amounts of profit the firm will be able to earn for different sales levels.

iii. The sales volume required to be achieved to earn a stated amount of profit can also be estimated with the help of this ratio.

iv. The ratio helps to determine the contribution for a stated sales volume.

v. The ratio helps to determine the sales volume for a variable cost.

vi. The ratio helps to determine the variable cost for a stated sales volume.

Let us consider the formula for P/V ratio once again,

$$\textbf{P/V ratio} = \frac{\textbf{Fixed Cost} + \textbf{Profit}}{\textbf{Sales}}$$

$$\textbf{Sales} = \frac{\textbf{Fixed Cost} + \textbf{Profit}}{\textbf{P/V ratio}}$$

Using the above formula, the sales required to be achieved for a pre-determined amount of profit can be found.

Illustration 4.1.4

Calculate P/V ratio under each of the following cases

i. Contribution = ₹75, Sales = ₹300

ii. Sales = ₹ 90 Variable cost = ₹60

iii. Fixed Cost = ₹50, 000, Profit = ₹10,000, Sales = ₹1,20,000

Solution

i. Given Contribution = ₹75, Sales = ₹300

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

$$= \frac{75}{300} \times 100$$

$$= 25\%$$

ii. Given Sales = ₹90, variable Cost = ₹60

$$\text{P/V ratio} = \frac{\text{Sales} - \text{Variable Cost}}{\text{Sales}} \times 100$$

$$= \frac{90-60}{90} \times 100$$

$$= \frac{30}{90} \times 100$$

$$= 33.33\ \%$$

iii. Given, Fixed Cost = ₹50,000, Profit = ₹10,000, Sales = ₹1,20,000

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

$$\text{P/V ratio} = \frac{50,000+10,000}{1,20,000} \times 100$$

$$\text{P/V ratio} = \frac{60,000}{1,20,000} \times 100$$

$$= 50\ \%$$

Illustration 4.1.5

Determine P/V ratio under each of the following cases

Case I

	2023	2024
Sales	6,00,000	9,00,000
Profit	45,000	70,000

Case II

	2023	2024
Sales	1,00,000	4,50,000
Total Cost	65,000	2,00,000

Solution

Case I

$$\text{P/V ratio} = \frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100$$

$$= \frac{(70,000-45,000)}{(9,00,000-6,00,000} \times 100$$

$$= \frac{25,000}{3,00,000} \times 100$$

$$= 8.33\ \%$$

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Case II

Profit = Sales – Total Cost

Profit in 2023 = 1,00,000 - 65,000 = 35,000

Profit in 2024 = 4,50,000 - 2,00,000 = 2,50,000

$$\text{P/V ratio} = \frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100$$

$$= \frac{2,50,000 - 35,000}{4,50,000 - 1,00,000} \times 100$$

$$= \frac{2,15,000}{3,50,000} \times 100$$

= 61.43 %

Illustration 4.1.6

Sales – ₹ 25,00,000

Variable Cost – 60%

Profit - ₹ 4,50,000

Determine the a) P/V ratio, b) Fixed Cost and c) Sales Volume to earn a profit of ₹ 7,50,000 d) Profit when sales are ₹ 18,00,000

Solution

a. Contribution = Sales – Variable Cost

= ₹ 25,00,000 - ₹15,00,000

= ₹10, 00,000

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

$$= \frac{10,00,000}{25,00,000} \times 100$$

= 40 %

b. Contribution = ₹ 10,00,000

Profit = ₹ 4,50,000 (given)

Contribution = Fixed Cost + Profit

10,00,000 = Fixed Cost + 4,50,000

Fixed Cost = 10,00,000 – 4,50,000

= ₹ 5,50,000

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c. Sales to earn a profit of ₹ 7,50,0000

Sales to earn a predetermined amount of profit is found by the formula

$$\text{Sales} = \frac{\text{Fixed Cost + Profit}}{\text{P/V ratio}}$$

$$= \frac{5{,}50{,}000 + 7{,}50{,}000}{40/100}$$

$$= \frac{13{,}00{,}000}{40/100}$$

$$= \frac{13{,}00{,}000 \times 100}{40}$$

$$= ₹32{,}50{,}000$$

d. Profit when Sales ₹18,00,000

$$\text{We know that P/V ratio} = \frac{\text{Fixed Cost + Profit}}{\text{Sales}}$$

$$\frac{40}{100} = \frac{5{,}50{,}000 + \text{Profit}}{18{,}00{,}000}$$

$$\frac{40}{100} \times 18{,}00{,}000 = 5{,}50{,}000 + \text{Profit}$$

$$7{,}20{,}000 = 5{,}50{,}000 + \text{Profit}$$

$$\text{Profit} = 7{,}20{,}000 - 5{,}50{,}000$$

$$= ₹\ 1{,}70{,}000$$

4.1.11 Break Even Analysis

Consider a large automobile manufacturer planning to launch a new electric vehicle line. Building assembly plants, purchasing advanced machinery, training staff, and establishing a nationwide distribution network will all involve high fixed costs. Before committing to this investment, the company must know the exact number of cars it needs to sell and at what price to recover those costs and start earning a profit.

Break-even analysis gives management that clarity. It shows how many units must be sold to cover fixed expenses, how shifts in raw-material prices or labour rates will affect profitability, and whether the project is financially viable. This helps decision-makers set production targets, fix selling prices, and plan for market uncertainties such as fluctuating battery costs or changes in government incentives.

The cost–volume–profit analysis, also known as the CVP Analysis, is a key measure used in profit planning for businesses. The CVP analysis examines the interrelationship between the cost of producing products, the volume, and the profits of the firm. CVP analysis is often referred to as Break–even analysis, and the two terms are used interchangeably by many. It is because break–even analysis is the most commonly

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known form of cost–volume–profit analysis. It is a means through which companies can analyse how a change in cost items, such as variable costs and fixed costs, affects the profitability of a business and a change in the volume of sales.

Assumptions under Break –Even Analysis

1. All types of costs, such as production, administration, and selling and distribution costs are further divided into fixed and variable components.
2. Fixed costs remain unchanged regardless of the level of output.
3. Per –unit selling price remains the same at all output levels.
4. Per –unit variable cost also remains the same at all output levels. However, total variable cost varies directly in proportion to variations in the levels of output.
5. Cost is only affected by the Volume of Production
6. There are no variations in the general price level.

Break –Even Point

Also referred to as 'Critical Point' or 'Equilibrium Point' or 'Balancing Point', the Break-even point refers to that level of sales volume at which total revenue becomes equal to total cost. It is a point where businesses neither make a profit nor incur losses. In other words, it is a no–profit, no–loss point. At the break-even point, the contribution equals the fixed costs. If businesses increase their production or sales beyond the break-even point, they will be able to make profits. On the other hand, if businesses decrease their production or sales below the break-even point, they will incur losses.

The break –even point can be determined using two methods namely algebraic method and the graphic or chart method.

i. Algebraic Method

Break –even point can be computed in terms of units of sales volume, sales value and in terms of percentage. The formula for computing Break – Even Point in terms of units, sales value and percentage using the algebraic method as follows:

a. Break – Even Point (in units) $= \frac{\text{Fixed cost}}{\text{Selling Price per unit} - \text{Variable Cost per unit}}$

$= \frac{\text{Fixed cost}}{\text{Contribution per unit}}$

b. Break – Even Point (in sales value) $= \frac{\text{Fixed cost}}{\text{Contribution per unit}} \times \textit{Selling price per unit}$

Or

Break – Even Point (in sales value) $= \frac{\text{Fixed cost}}{\text{P/V ratio}}$

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c. Break – Even Point $= \frac{\text{Fixed cost}}{\text{Total Contribution}} \times 100$

(as a percentage of estimated sales or capacity)

$$= \frac{B.E.P\ (in\ value)}{\text{Total Sales (in value)}} \times 100$$

$$= \frac{B.E.P\ (in\ units)}{\text{Total Sales (in units)}} \times 100$$

Illustration 4.1.7

XYZ Ltd. sells a product for ₹50 per unit. The fixed costs for the company amount to ₹100,000, and the variable cost per unit is ₹30. Actual sales = ₹ 10,00,000.

Calculate the a) break-even point in units b) break-even point in value and c) break-even point in percentage.

Solution

a. Break – Even Point (in units) $= \frac{\text{Fixed cost}}{\text{Selling Price per unit} - \text{Variable Cost per unit}}$

$$= \frac{₹1,00,000}{₹50 - ₹30}$$

= 5,000 units

b. Break–Even Point (in sales value) $= \frac{\text{Fixed cost}}{\text{Contribution per unit}} \times Selling\ price\ per\ unit$

$$= \frac{₹1,00,000}{₹50 - ₹30} \times 50$$

= ₹ 2,50,000

c. Break – Even Point (in %) $= \frac{\text{B.E.P (in units)}}{\text{Total Sales (in units)}} \times 100$

B.E.P in units = 5000 units

Total sales in units $= \frac{₹10,00,000}{₹50}$

= 20,000 units

Hence, Break – Even Point in (%) $= \frac{5,000}{20,000} \times 100$

= 25 %

ii. Graphic Method / Chart Method

It is also possible to determine the break - even point graphically. This is done with the help of break–even chart. A break - even chart is basically the graphical

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representation of the break–even analysis. The graphic method of break-even analysis is a powerful tool for understanding the relationship between costs, sales volume, and profits, enabling businesses to make informed decisions regarding pricing, production levels, and financial planning.

Steps to Create a Break-Even Graph

1. **Draw the Axes:** The horizontal axes or the x –axis represents the volume of production or sales and it may be expressed in terms of units. The vertical axis or the y - axis represents the costs and sales revenue (in rupees).

2. **Draw Fixed Costs Line:** Draw a line parallel to the x-axis at the level of total fixed costs. The parallel line to x-axis indicates the constant nature of the fixed costs regardless of the level of production or sales.

3. **Draw the Total Costs Line:** For each unit of output, the corresponding variable costs are plotted above the fixed cost line and for zero level of activity, the variable costs are joined to the fixed cost. Starting from the total fixed costs line, draw a line that slopes upward, indicating the total costs increase as more units are produced. As the variable costs are plotted above the fixed costs, it represents the total costs at different activity levels.

4. **Draw the Total Revenue Line:** Sales for different activity levels are plotted and joined by an upward-sloping line that represents total revenue.

5. **Identify the Break-Even Point:** The break-even point is where the total revenue line intersects the total costs line. At this point, the business covers all its costs, and profit is zero.

Let us consider an example to understand how to determine break –even point graphically

Illustration 4.1.8

Calculate Break – Even Point in units and sales value with the help of a Break –Even Chart. The per unit selling price is ₹12, Variable cost (per unit) is ₹ 6, Fixed Cost is ₹4,800 and the output levels are 200,400,600,800,1000,1200,1400,1600

Solution

Output	Variable Cost (₹)	Fixed Cost (₹)	Total Cost (₹)	Sales (₹)
0	0	4,800	4,800	0
200	1,200	4,800	6,000	2,400
400	2,400	4,800	7,200	4,800
600	3,600	4,800	8,400	7,200
800	4,800	4,800	9,600	9,600
1000	6,000	4,800	10,800	12,000

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1200	7,200	4,800	12,000	14,400
1400	8,400	4,800	13,200	16,800
1600	9,600	4,800	14,400	19,200

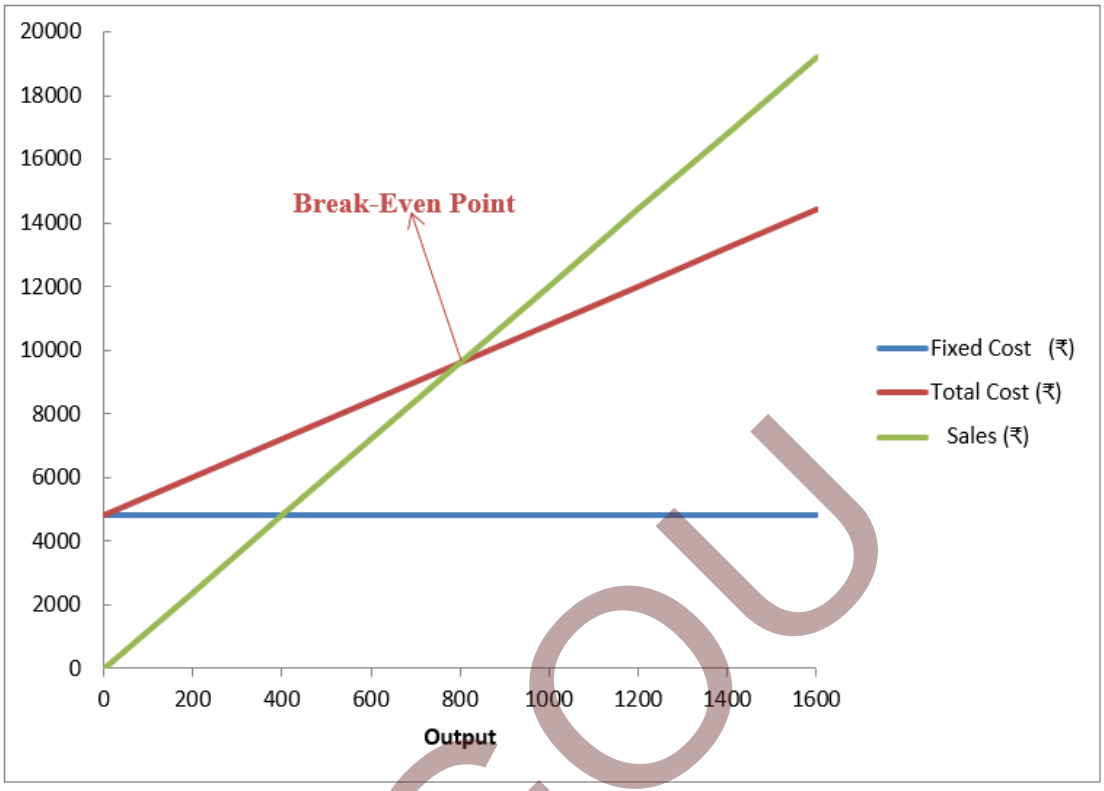


Fig. 4.1.1 Break Even Chart

Here Break - even Point (in Units) is 800 units and break - even point in sales value is (₹) 9,600

Here, the red line represents Total Costs which includes both fixed and variable costs. It starts at the level of fixed costs and increases as more units are produced. The green line represents Total Revenue (Sales), which starts from the origin and increases linearly with sales. The blue line represents the Fixed Cost which remains constant irrespective of the level of output. The orange point marks the Break-even Point, where total revenue equals total costs. At this point, the company has neither profit nor loss.

Interpretation

- ◊ **To the left of the break-even point :** The company incurs a loss because total costs exceed total revenue.
- ◊ **At the break-even point :** Total revenue equals total costs, resulting in no profit or loss.
- ◊ **To the right of the break-even point :** The company makes a profit since total revenue exceeds total costs.

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Verification using algebraic method'

$$\text{Break – Even Point (in units)} = \frac{\text{Fixed cost}}{\text{Selling Price perunit} - \text{Variable Cost per unit}}$$

$$= \frac{₹4800}{₹12 - ₹6}$$

$$= 800 \text{ units}$$

Break – Even Point

$$\text{(in sales value)} = \frac{\text{Fixed cost}}{\text{P/Vratio}}$$

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

$$= \frac{12-6}{12} \times 100$$

$$= 50\ \%$$

$$\text{Break – Even Point} = \frac{\text{Fixed cost}}{\text{P/Vratio}}$$

$$= \frac{4800}{50} \times 100$$

$$= ₹\ 9{,}600$$

Angle of Incidence

It is the angle formed between the Total Cost Line and Sales line as a result of the intersection of these lines at the break –even point. It is an indicator of the profit –earning capacity of the business firm and a higher angle indicates a higher profit whereas a lower angle depicts a lower rate of profit. The business firms employ the angle of incidence along with the margin of safety to analyse the soundness of a business. A high margin of safety accompanied by a large angle of incidence indicates that the business is said to be in a favourable position and vice –versa.

Margin of Safety

Margin of safety shows the difference between actual sales and the break - even sales or it is the excess of sales over break even sales. At margin of safety contribution will become equal to profit as fixed costs are zero.

Margin of safety can be computed in units, value and also as percentage of sales.

It is computed using the following formulas

i. Margin of Safety (in units) = Actual Sales or Total Sales (in units) – Break even Sales (in units)

$$= \frac{Profit}{Contribution\ per\ unit}$$

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ii. Margin of Safety (in value) = Actual Sales (in value) – Break even sales (in value)

$$\text{Or} = \frac{Profit}{P/V\ ratio}$$

Or = Margin of safety (in units) ×Selling Price per unit

iii. Margin of Safety (as % of sales) = $\frac{Margin\ of\ safety\ (in\ units)}{Actual\ Sales\ (in\ units)} \times 100$

Or

$$= \frac{Margin\ of\ safety\ (in\ value)}{Actual\ Sales\ (in\ value\ )} \times 100$$

Or

= 100 – Break Even Sales (in %)

Or

$$= \frac{\text{Profit}}{\text{Total Contribution}} \times 100$$

Illustration 4.1.9

A company has achieved actual sales of ₹500,000. Its break-even sales are calculated to be ₹350,000. Determine the margin of safety in rupees and as a percentage of actual sales.

Solution

i. Margin of Safety (in Value) = Actual Sales (in value) – Break even sales (in value)

= ₹500,000 - ₹350,000

= ₹1,50,000

ii. Margin of Safety (as % of sales) = $\frac{Margin\ of\ safety\ (in\ value)}{Actual\ Sales\ (in\ value)} \times 100$

$$= \frac{₹1,50,000}{₹500,000} \times 100$$

= 30 %

Illustration 4.1.10

Calculate Margin of Safety in each of the following cases

i. Profit = ₹8,400, P/V ratio = 40 %

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ii. Break even Sales = 20% , Actual Sales = ₹ 15,00,000

iii. Profit = ₹5,600, Contribution (per unit) = ₹ 7

iv. Actual Sales = 5,000 units, Break even sales = 1,300 units

v. Profit = ₹6,300, Contribution = ₹25,200

vi. Break –even sales = 60%

Solution

i. Margin of Safety $= \frac{Profit}{P/V\ ratio}$

$= \frac{8,400}{\frac{40}{100}}$

= ₹ 21,000

ii. Margin of Safety = Actual Sales – Break even sales

Break even sales $= \frac{20}{100} \times$ ₹15,00,000

= ₹ 3,00,000

Margin of Safety = ₹15,00,000 - ₹ 3,00,000

= ₹ 12,00,000

iii. Margin of Safety $= \frac{Profit}{Contribution\ per\ unit}$

$= \frac{₹5,600}{₹7}$

= 800 units

iv. Margin of Safety = Actual Sales– Break even Sales

= 5000 -1300

= 3,700 units

v. Margin of Safety $= \frac{\text{Profit}}{\text{Total Contribution}} \times 100$

$= \frac{6,300}{25,200} \times 100$

= 25%

vi. Margin of Safety = 100 – Break even sales (%)

= 100 % – 60 %

= 40 %

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Application of marginal costing in decision making

Marginal costing plays a crucial role in various decision-making scenarios within a business. Some of the important managerial problems where marginal costing can be applied for decision making are discussed below.

1. Fixation of selling price

Although the firms consider the prevailing market conditions and other diverse economic parameters when setting selling prices, they primarily rely on the marginal costing technique for determining prices under different circumstances. Business firms are often required to adjust their pricing strategies in response to changes in economic conditions or scenarios. The selling prices fixed during normal business conditions may not be the same as those fixed during times of depression or situations of extreme competitive pressures. Sometimes, firms may set their selling prices in a way that covers total costs and earns a targeted level of profit. However, the firms may be forced to set the selling prices to the levels of the marginal cost or even below the marginal cost in certain situations such as:

- ◊ when a new product is introduced into the market
- ◊ while exploring new foreign markets or eliminating competitors from the market
- ◊ to maintain the plant and machinery in running condition
- ◊ to retain existing customers or to prevent the loss of orders in the future.
- ◊ Marginal costing is a valuable approach for making pricing decisions, especially in competitive and dynamic markets. Let us closely examine how marginal costing enables the business firms to fix their selling prices under different conditions.

a. Normal Business Condition: Under normal business conditions, companies may set their selling prices to cover total costs, which include both fixed and variable expenses, while also ensuring a target profit margin. Alternatively, pricing decisions can be based on marginal cost. In this approach, firms add a substantial margin to the marginal or variable cost to account for fixed costs and secure the desired profit.

b. Trade Depression: During economic downturns, demand often declines, and firms may struggle to cover their total costs (fixed and variable). In such situations, pricing based on marginal cost can help businesses stay competitive by focusing on covering variable costs while contributing partially to fixed costs. By doing this, firms can avoid shutting down operations, as any revenue above the marginal cost reduces losses; even if total costs aren't fully covered.

c. Intense Competition: During the times of intense competition, the firms may be forced to fix their prices below the total cost and in those scenarios; the price may be fixed on the basis of the marginal cost of the products while also contributing towards fixed costs. There are also instances where the firms may

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fix their selling prices below the marginal costs. This is done in order to eliminate their competitors from the market especially the weaker ones.

2. Accepting additional orders

Sometimes the business firms may receive orders from export markets or orders in bulk quantities from large buyers. Normally in such situations, the business firms are often faced with the problem of deciding whether to accept or reject these orders. It is because these orders will be usually received with the demand to fix selling prices below the prevailing market price of the product. In such situation, the firms base their decisions on marginal costs. Such orders will be accepted at a price above the marginal cost in order to provide for the fixed costs. It is important to note that special orders from local dealers should be avoided as it would affect the general price level of the product prevailing in the local markets.

Illustration 4.1.11

Dev Ltd. is producing 60,000 units of a product at 60 % capacity. It receives an order from Mr. Smith, a foreign dealer for 40,000 units for Rs.40 although the local price is Rs.60 per unit. The cost per unit of the product is as follows

Direct Material	₹ 20
Direct Labour	₹ 10
Variable expenses	₹ 5
Fixed Overheads	₹ 15

Should Dev Ltd accept the order from Mr. Smith or not?

Solution

Calculation of Current Profit (before accepting order)

Particulars	Amount (₹)
Sales (60,000 ×60)	36,00,000
Less: Variable Cost (60,000 ×35)	21,00,000
Contribution	15,00,000
Less: Fixed Cost (60,000 x 15)	9,00,000
Profit	6,00,000

Calculation of Profit (if order is accepted)

Particulars			Amount (₹)
Sales	(60,000 × 60)	36,00,000	
	(40,000 × 40)	16,00,000	52,00,000

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Less: Variable Cost (1,00,000 × 35)	35,00,000
Contribution	17,00,000
Less: Fixed Cost (constant)	9,00,000
Profit	8,00,000

So, if Dev Ltd. accepts Mr. Smith's order, the profit will be increased by ₹ 2,00,000. Therefore, it will be advisable to accept the order.

3. Make or buy decisions

A make-or-buy decision is a strategic choice a company faces when determining whether to produce a component or finished product internally (make) or buy it from an external supplier (buy). To make this decision, the company compares the marginal costs of producing the item in-house or internally within the firm with the purchase price offered by an external supplier. Marginal cost refers to the additional cost incurred to produce one more unit of the component, including direct materials, labour, and other variable costs. In contrast, the purchase price is the cost the company would incur by acquiring the same component from an external supplier.

If the marginal cost of producing the item internally exceeds the price offered by an external supplier, the company is likely to choose the buy option. This is because purchasing the component from an outside supplier would be more cost-effective and it will allow the company to focus more on other core activities. On the other hand, if the marginal cost of internal production is lower than or equal to the external price, the company may decide to make the component in-house, as this would be a more economical choice in the long run.

Illustration 4.1.12

Consider the following information related to the total cost of manufacture of a product by ABC Ltd.

Direct Material	₹ 21
Direct labour	₹ 17
Variable overhead	₹ 15
Fixed overhead	₹ 13
Cost per unit	₹ 66

If the same product is available in the market for ₹ 64, should ABC Ltd manufacture or purchase the product from the market?

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Solution

Here, marginal cost of the product is calculated

Direct Material	₹ 21
Direct Labour	₹ 17
Variable Overhead	₹ 15
Marginal Cost	₹ 53

As the marginal cost of the product (₹ 53) is lower than the purchase price (₹ 64), ABC Ltd should manufacture the product rather than purchasing the same from the market.

4. Key factor analysis

A key factor or a limiting factor can be considered as a factor, resource, or constraint that limits the activities or operations of the business. This key factor restricts the company's ability to produce more output or achieve higher sales or prevents it from making unlimited profits. Common examples of key factors include:

a. **Raw materials:** Shortage of essential materials required for manufacturing

b. **Sales volume:** Limited demand or market size for products

c. **Labour:** Availability of skilled labour or workforce hours

d. **Financial resources:** Limited access to capital or credit to expand operations.

e. **Production capacity:** Limited machinery or labour available to produce goods.

Firms should identify the key or limiting factors affecting their operations. When a limiting factor is present, profitability should be assessed based on the contribution margin per unit of the limiting factor. Priority should be given to the product that yields the highest contribution margin per unit of the limiting factor, rather than one that generates a lower contribution per unit. If two or more limiting factors are present, it is important to account for each of them in the analysis.

If sales (in units) are the limiting factor, then the basis for deciding the priority of products is the contribution per unit. On the other hand, if the sales in value are the limiting factor, then P/V ratio is the deciding factor. If limiting factor is raw material, then per unit contribution of raw material to produce a unit of the product is considered for decision making. If labour is the key factor, then per unit contribution of labour hour that would be required to produce a unit of the product is considered. If machine hour is the key factor, then the per unit contribution of machine hour that would be required to produce a unit of the product is considered.

Illustration 4.1.13

Mohan Ltd manufactures two products using the same raw material and production facilities. Consider the following additional information and evaluate the succeeding questions.

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Particulars	Product I	Product II
Selling price per unit	200	160
Material @ ₹ 2 per kg	(2 x 20 units) = 40	(2 x 5 units) = 10
Labour @ ₹ 3 per hour)	(3 x10 units) = 30	(3 x 20 units) = 60
Variable Overheads @ ₹ 4 per machine hour	(4 x 20 units) = 80	(4 x 15 units) = 60
Total Fixed Overheads: ₹ 12,00,000		

Evaluate the profitability of both the products and give recommendations regarding selection of the best alternative.

i. When sales value is limited

ii. When sales quantity is limited

iii. When raw material is in short supply

iv. When labour hours are limited

v. When Production capacity in terms of machine hours is limited

Solution

Calculation of per unit contribution of key factor

Particulars	Product I	Product II
Selling Price (per unit)	200	160
Less: Variable Cost:		
Material	40	10
Labour	30	60
Variable overheads	80	60
Contribution (per unit)	50	30
P/V Ratio $\frac{Contribution}{Sales} \times 100$	$\frac{50}{200} \times 100$ 25 %	$\frac{30}{160} \times 100$ 18.75 %

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Contribution per unit raw material $\frac{Contribution\ per\ unit}{Raw\ material\ required\ per\ unit}$	$= \frac{50}{20}$ $= ₹\ 2.5$	$= \frac{30}{5}$ $= ₹\ 6$
Contribution per labour hour $\frac{Contribution\ per\ unit}{Labour\ hours\ required\ per\ unit}$	$= \frac{50}{10}$ $= ₹\ 5$	$= \frac{30}{20}$ $= ₹\ 1.5$
Contribution per machine hour $\frac{Contribution\ per\ unit}{Machine\ hours\ required\ per\ unit}$	$= \frac{50}{20}$ $= ₹\ 2.5$	$= \frac{30}{15}$ $= ₹\ 2$

i. When sales value is limited, Product I is more profitable than Product II as its P/V ratio is higher than that of Product II.

ii. When sales quantity is limited, Product I is more profitable than Product II as its contribution per unit is higher than that of Product II.

iii. When raw material is in short supply, Product II is more profitable than Product I as its contribution per kg of raw material is higher than that of Product I.

iv. When labour hours are limited, Product I is more profitable than Product II as its contribution per labour hour is higher than that of Product II.

v. When Production capacity in terms of machine hours is limited, Product I is more profitable than Product II as its contribution per machine hour is higher than that of Product I.

5. Own or Lease

A leasing agreement is a contract where the lessor (owner) allows the lessee (user) to use an asset for a fixed period in exchange for rent. The lessee selects the asset, and the leasing company buys it. The lessee then uses the asset and pays regular rent. Leasing offers 100% financing, meaning the lessee doesn't need to make a down payment or invest upfront. The rent paid is tax-deductible, reducing taxable income. In contrast, buying an asset allows businesses to claim depreciation and interest on loans as tax deductions. Buying is better for assets that increase in value over time. So, the two alternatives will be evaluated to take a decision whether to purchase or lease a particular asset. The total cost of the two alternatives is compared to calculate the annual saving or extra cost involved. The decision will be taken in favour of the alternative, which gives minimum cost or higher profit.

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6. Sell or further process

The marginal costing technique helps determine whether a product should be sold as is or further processed by comparing the additional revenue and additional cost of further processing. For this, the marginal revenue from further processing is calculated. Marginal revenue is the difference between the revenue from selling the product after further processing and the revenue from selling it in its current state. The marginal cost of further processing is calculated by considering all additional costs incurred for the product's further processing. Finally, the marginal revenue will be compared with the marginal cost. If the marginal revenue from further processing exceeds the marginal cost, it is advisable to process the product further, as it will increase overall profit. On the contrary, if the marginal cost exceeds the marginal revenue, the product should be sold without further processing to avoid reducing profits.

7. Closing down or suspending activities

This is a temporary decision that involves determining whether it is better to continue or suspend the business firm's activities due to a trade recession. This could be associated with a single product, a division or the factory as a whole. A firm can continue operating as long as its sales revenue is enough to cover marginal costs and fixed overheads. Although some fixed costs, such as payment of wages to temporary staff, are escapable or avoidable, some fixed costs incurred even during temporary shutdowns, in the form of interest, depreciation, taxes, and insurance, are unavoidable. In addition to this, when the factory or the concerned unit is reopened after shutdown, certain additional fixed costs will also be incurred, such as the overhauling of plant and machinery. However, the contribution should exceed the difference between the fixed costs incurred during normal conditions and those incurred while the plant is closed.

The shutdown point is said to have been reached whenever the contribution from continuing operations equals the difference between the fixed costs incurred while the plant is operating and the fixed costs incurred while it is closed down.

The shutdown point can be calculated using the following formulas:

$$\textbf{Shutdown point (in sales value)} = \frac{(\text{Fixed costs} - \text{Shutdown costs})}{\text{P/V } ratio}$$

$$\textbf{Shutdown point (in sales units)} = \frac{(\text{Fixed costs} - \text{Shutdown costs})}{\text{Contribution per unit}}$$

Illustration 4.1.14

Raj Ltd. produces 40,000 units of Product A at normal operating capacity. The per unit cost of manufacturing Product A is given below

Direct Material	₹ 15
Direct Labour	₹ 5
Variable Overhead	₹ 6
Fixed Overhead	₹ 8
Total Cost	**₹34**

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The selling price per unit of Product A is ₹ 38. However, Raj Ltd expects that only 4,000 units will be sold in the upcoming year. So, the management of the company is planning to shut down the plant estimating that fixed overheads can be reduced to ₹ 90,000 in the next year. When the plant is operating, fixed costs are incurred uniformly throughout the year. The additional cost associated with the shutdown of the plant is estimated to be ₹ 30,000. Should the plant be shut down? Also estimate the shutdown point.

Solution

Unavoidable Fixed costs = ₹ 90,000

(+) Additional Shut down costs = ₹ 30,000

Total Shut down Costs ₹ 1,20,000

If the company is operating it will incur ₹ 3,20,000 (40,000 × ₹ 8) as fixed costs. On the other hand, if it shuts down its activities, the fixed cost incurred will be ₹ 1,20,000. So the plant should operate if the contribution is greater or equal to ₹ 2,00,000 which is the difference between these fixed costs (i.e. ₹3,20,000 - ₹1,20,000). On the other hand, if the difference in fixed costs is higher as compared to the contribution, then it should be shut down.

Calculation of Contribution

Sales (4,000 × 38)	₹ 1,52,000
Less: Variable Costs (4,000 × 26)	(₹ 104,000)
Contribution	₹48,000
Less: Fixed Costs	(₹ 3,20,000)
Hence, Loss	₹ 2,72,000

So, it is evident that if Raj Ltd continues to operate in the next year it will have to operate the plant at a loss of ₹ 2,72,000 but if the plant is closed down, the shut down costs will be ₹1,20,000.

So, it is advisable to shut down the plant.

Calculation of shut –down point

$$\text{Shut –down point} = \frac{\text{(Fixed costs – Shutdown costs)}}{\text{Contribution per unit}}$$

$$= \frac{(3,20,000 - 1,20,000)}{38-26}$$

= 16,667 units

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Summarised Overview

Marginal costing is a costing technique that only includes variable costs in the cost of a product, process, or operation. Fixed costs are treated as period costs and written off against the profits of the relevant periods in which they arise. The Cost–Volume–Profit Analysis can be considered the logical extension of the marginal costing technique. The CVP analysis examines the interrelationship between costs, volume and profit. It plays a predominant role in the profit planning, cost control and decision–making of a firm. The different concepts and elements that form part of the CVP analysis are contribution, P/V ratio, marginal cost equation, break-even analysis, and margin of safety. Marginal costing is widely used in managerial decision–making, cost control, profit planning, production planning, and determining various parameters, such as the break-even point and the sales required to achieve a desired or predetermined profit.

Marginal costing remains a predominant technique for setting selling prices under different scenarios. In normal business conditions, prices are set to cover total costs (fixed and variable) while ensuring a target profit margin. During depression, businesses may price products based on marginal cost to remain competitive, cover variable costs, and contribute partially to fixed costs, reducing overall losses. During intense competition, the price may be fixed based on the marginal cost of the products, while also contributing to fixed costs. The firms may also set prices at or below marginal cost to remain competitive in the market. In a make-or-buy decision, a company must determine whether to produce a component or a finished product internally or purchase it from an external supplier.

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Self-Assessment Question

1. Define Marginal Costing.
2. What is the formula for calculating Contribution?
3. State the formula for Break-even Point in units.
4. What does P/V Ratio stand for in marginal costing?
5. What is the Margin of Safety?
6. How is the Contribution Margin calculated?
7. What is the primary assumption about fixed costs in marginal costing?

8. Which costs are considered when calculating marginal cost: variable or fixed?

9. What is meant by Variable Cost?

10. Which costs are excluded from inventory valuation in marginal costing?

11. Name two main advantages of using marginal costing.

12. In marginal costing, how are selling price and variable cost per unit assumed to behave with output changes?

13. Define Break-even Point.

14. What is the contribution margin ratio?

15. List one limitation of marginal costing.

16. How does marginal costing treat fixed costs over different levels of production?

17. What effect does an increase in fixed costs have on the break-even point?

18. Why is marginal costing useful in decision-making? Give an example of a variable cost.

19. What do you mean by make or buy decision?

20. What do you mean by key factor analysis? How is the decision taken by a business firm when there is a key factor?

21. How should a firm decide whether to close down or suspend its business activities?

22. How is the selling price determined under different economic conditions?

23. When should a company decide to process a product further instead of selling it as such?

24. What factors should be considered before accepting a special order?

25. How are own or lease decisions taken?

26. What do you mean by shut down point?

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Assignments

1. Discuss the uses and limitations of marginal costing
2. Elucidate on the key differences between Absorption Costing and Marginal Costing.
3. What are the limitations of marginal costing?
4. What do you mean by Break –even point? How can you determine break –even point Discuss its major applications or uses.
5. Calculate the P/V ratio for each of the following cases:
    i. Contribution = ₹120, Sales = ₹600
    ii. Sales = ₹150, Variable Cost = ₹90
    iii. Fixed Cost = ₹70,000, Profit = ₹20,000, Sales = ₹1,80,000
6. Calculate the following using the following information:
    i. P/V Ratio
    ii. Fixed Cost
    iii. Sales Volume to earn a profit of ₹6,00,000
    iv. Profit when sales are ₹20,00,000

Information:

- ◊ Sales = ₹30,00,000
- ◊ Variable Cost = 70% of Sales
- ◊ Profit = ₹5,00,000

7. ABC Ltd. sells a product for ₹60 per unit. The company's fixed costs are ₹150,000, and the variable cost per unit is ₹35. If actual sales are ₹9,00,000, calculate the following:
    i. Break-even Point in units
    ii. Break-even Point in value
    iii. Break-even Point as a percentage of actual sales
8. Calculate the Margin of Safety for each of the following cases:
    i. Profit = ₹9,500, P/V ratio = 30%

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ii. Break-even Sales = 25% of actual sales, Actual Sales = ₹12,00,000

iii. Profit = ₹4,800, Contribution (per unit) = ₹8

iv. Actual Sales = 4,000 units, Break-even Sales = 1,200 units

v. Profit = ₹5,700, Contribution = ₹19,000

vi. Break-even Sales = 55% of actual sales

9. Paramjith Ltd. is currently producing 50,000 units of a product at 50% capacity. The company receives a special export order from Mr.Stefan for 30,000 units at ₹45 per unit, whereas the domestic price is ₹70 per unit. The cost per unit is as follows:

Direct Material	₹ 25
Direct Labour	₹ 15
Variable Expenses	₹ 10
Fixed Overheads	₹ 15

Should Paramjith Ltd accept the order from Mr. Stefan or not?

10. Consider the following information related to the total cost of manufacture of a product by Pawan Ltd.

Direct Material	₹ 30
Direct labour	₹ 26
Variable overhead	₹ 24
Fixed overhead	₹ 22
Cost per unit	₹ 102

If the same product is available in the market for ₹ 90, should ABC Ltd manufacture or purchase the product from the market?

Solution : As the marginal cost of the product (₹ 80) is lower than the purchase price (₹ 90), Pawan Ltd should manufacture the product rather than purchasing the same from the market.

11. Aman Ltd manufactures two products using the same raw material and production facilities. Consider the following additional information and evaluate the succeeding questions.

Particulars	Product I	Product II
Selling price per unit	400	320

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Material @ ₹ 2 per kg	80	20
Labour @ ₹ 3 per hour)	60	120
Variable Overheads @ ₹ 4 per machine hour	160	120
Total Fixed Overheads: ₹ 24,00,000		

Evaluate the profitability of both the products and give recommendations regarding selection of the best alternative.

i. When sales value is limited

ii. When sales quantity is limited

iii. When raw material is in short supply

iv. When labour hours are limited

v. When Production capacity in terms of machine hours is limited

Solution

i. When sales value is limited, Product I is more profitable than Product II as its P/V ratio (25 %) is higher than that of Product II (18.75%).

ii. When sales quantity is limited, Product I is more profitable than Product II as its contribution per unit (₹100) is higher than that of Product II (₹60).

iii. When raw material is in short supply, Product II (₹6) is more profitable than Product I as its contribution per kg of raw material is higher than that of Product I (₹2.5).

iv. When labour hours are limited, Product I is more profitable than Product II as its contribution per labour hour (₹5) is higher than that of Product II (₹1.5) .

v. When Production capacity in terms of machine hours is limited, Product I is more profitable than Product II as its contribution per machine hour (₹2.5) is higher than that of Product II (₹ 2).

12. Raj Ltd. produces 50,000 units of Product A at normal operating capacity. The per unit cost of manufacturing Product A is given below:

Direct Material	₹ 17
Direct Labour	₹ 7
Variable Overhead	₹ 8
Fixed Overhead	₹ 10
Total Cost	**₹42**

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The selling price per unit of Product A is ₹ 46. However, Raj Ltd expects that only 5000 units will be sold in the upcoming year. So, the management of the company is planning to shut down the plant estimating that fixed overheads can be reduced to ₹ 1,00,000 in the next year. When the plant is operating, fixed costs are incurred uniformly throughout the year. The additional cost associated with the shutdown of the plant is estimated to be ₹ 50,000. Should the plant be shut down? Also estimate the shutdown point.

If Raj Ltd continues to operate in the next year it will have to operate the plant at a loss of ₹ 4,30,000 but if the plant is closed down, the shut down costs will be ₹1,50,000. So, it is advisable to shut down the plant. Shut –down point = 25,000 units.

13. Explain in detail how the marginal costing assists the business to take decisions under different business scenarios.



Reference

1. Gupta, Shashi. K., Sharma, R. K., & Gupta, N. (2018). *Financial Management: Theory and Practice* (Ninth). Kalyani Publishers.
2. Jain, I. C. (2008). *Management Accounting*. Taxmann Allied Services (P).Ltd.
3. Maheshwari, S. N., & Maheshwari, S. K. (2008). *A Textbook of Accounting for Management.* Vikas Publishing House Pvt Ltd.
4. Maheshwari, S. N., & Mittal, S. N. (2021). *Elements of Cost Accounting* (Eighth). Mahavir Publication.
5. Tulsian, T. C., Tulsian, B., & Tulsian, T. (2020). *Tulsian's Cost and Management Accounting.* McGraw Hill Education (India), Private Limited.



Suggested Reading

1. Arora, M. N. (2021). *Cost accounting: Principles and practice* (13th ed.). Vikas Publishing House.
2. Drury, C. (2018). *Management and cost accounting* (10th ed.). Cengage Learning.

SGOU

3. Horngren, C. T., Datar, S. M., & Rajan, M. V. (2018). *Cost accounting: A managerial emphasis* (16th ed.). Pearson.

4. Jain, S. P., & Narang, K. L. (2016). *Cost accounting: Principles and practice*. Kalyani Publishers.

5. Maheshwari, S. N., & Mittal, S. N. (2020). *Cost accounting: Theory and problems*. Shree Mahavir Book Depot.

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Unit 2

Budgetary Control

Learning Outcomes

On completion of this unit, the learner will be able to:

- ◊ explain the concept and importance of budgeting in business management
- ◊ identify the general principles involved in the budgeting process
- ◊ classify and describe different types of budgets and their applications
- ◊ outline the steps in the preparation of various functional budgets

Background

Every business must have an idea regarding its probable receipts and payments over a particular period of time in future. This can be well decided if it can prepare budgets. "Budgeting has become a powerful tool for planning and controlling business activities. A budget is like a financial roadmap—it shows the direction an organisation wants to move in and the resources required to get there. A business will be in a safer zone if it can plan ahead, coordinate the activities of different departments, communicate goals clearly across the organisation, and control performance by comparing actual results with the plan."

In this unit, you will explore:

- ◊ The meaning and objectives of budgeting,
- ◊ The principles that guide the budgetary process, and
- ◊ The different types of budgets prepared in organisations, including sales, production, materials, labour, and cash budgets.

By the end of this unit, you will see how budgeting helps managers make better decisions, control costs, and lead their organisations towards success.

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Keywords

Budget, Budgeting, Budgetary Control, Planning, Control, Fixed Budget, Flexible Budget, Sales Budget, Production Budget, Materials Budget, Labour Budget, Cash Budget, Capital Expenditure Budget

Discussion

4.2.1 Meaning of Budget

Imagine you are running a big bazaar. In the next year, a new unit is to be established exclusively for cosmetic products. However, here is the challenge: resources are limited, uncertainties exist, and without a clear plan, even the best ideas may collapse.

This is where the concept of a budget is relevant. A budget acts like a map for a traveller. It tells you the route you need to follow or how much fuel you require to reach your destination. In simple terms, a budget is a plan of action prepared for a future period, showing how income will be earned and how resources will be spent.

A business that operates without budgets often faces wastage, mismanagement, and loses opportunities. Modern management has realised that forecasting alone is not sufficient. Systematic planning and control are essential. Thus, budgeting evolved as a core tool of management accounting, ensuring that strategy is converted into action.

According to CIMA, a budget is *"a plan expressed in money, prepared and approved prior to a defined period of time, usually showing income, expenditure, and the capital to be employed."* In other words, it serves as both a plan for the future and a control mechanism for comparing actual performance with targets.

4.2.2 Objectives of Budgeting

Think of a budget just as you would estimate the cost of a costly item before making a purchase. A company makes such estimates well in advance of its spending on whether to produce something or invest in activities. They estimate in terms of:

- What expenses will we incur?
- How much revenue will we generate?

This proactive thinking ensures that the future is not left to chance but carefully designed.

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Objectives can thus be:

1. Coordination among Departments

In a company, marketing, production, finance, and HR often work like different instruments in an orchestra. If each plays on its own, the result is noise. A budget acts like the conductor, aligning everyone's actions to produce harmony. The sales team sets targets, production ensures output matches demand, and finance arranges funds accordingly.

2. Efficient Resource Utilization

Resources—money, manpower, machinery—are always limited. The budget ensures they are not wasted. For example, if production requires raw materials worth ₹10 lakhs, the budget makes sure funds are arranged without overspending.

3. Performance Evaluation

Imagine playing cricket without a scoreboard. How would you know who is performing well? Similarly, without budgets, managers cannot judge efficiency. Budgets set standards, and later actual results are compared with them to measure success.

4. Cost Control and Discipline

When a budget is in place, every department is aware of its spending limit. This prevents overspending and brings financial discipline.

In the modern business environment marked by intense competition, uncertainty and various risks, managerial decision-making has become increasingly complex. This had led to the development and adoption of several managerial tools, techniques and procedures to support effective business management. Among these, budgeting stands out as one of the most common, practical and widely applied tools for planning and control.

The term budget is derived from a French term, "Bougette", which means a leather pouch in which funds are appropriated for meeting anticipated expenses. In any business organisation, planning plays a vital role in achieving goals efficiently and effectively. A budget is a key tool in this planning process. It provides a detailed financial plan that outlines expected income and expenditure over a specific period. The budget serves not only as a planning mechanism but also as a tool for coordination, communication, and performance evaluation.

A budget is a plan that shows in numbers what a business wants to do in the future. It addresses questions such as how much money the business expects to earn and spend, and how it plans to utilise its resources. Thus, a budget is a detailed plan that shows what an enterprise aims to achieve in the future.

Some of the important definitions of budget are as follows:

The Chartered Institute of Management Accountants, London, defines budget as "A financial and/or quantitative statement, prepared prior to a defined period of time, of the policy to be pursued during that period for the purpose of attaining a given objective."

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According to George R Terry, “A Budget is an estimate of future needs arranged according to an orderly basis, covering some or all of the activities of an enterprise for a definite period of time.”

“A Budget is a comprehensive and coordinated plan, expressed in financial terms, for the operations and resources of an enterprise for some specific period in the future.” –James.

Brown and Howard define budget as a “pre-determined statement of management policy during a given period which provides a standard for comparison with the results actually achieved.”

Thus, a budget is a blueprint of a business plan, expressed in monetary or quantitative terms, outlining what the enterprise aims to achieve in a future period. The process of preparing these budgets and using them to plan, organise, and control business activities is known as budgeting. When budgets are used systematically to guide operations and ensure that objectives are met, it is referred to as budgetary control, which involves applying principles, procedures, and practices to monitor performance and achieve desired results.General Principles in the Budgetary Process

A well designed budget is a powerful tool for guiding managerial decisions and achieving organisational objectives. To maximise its effectiveness, certain core principles must be observed throughout the budgeting process. These principles ensure that budgets are realistic, actionable and aligned with the broader goals of the business. The general principles in the budgetary process are as follows:

1. Timeliness

The budgeting period should be carefully selected to ensure that it allows for meaningful and effective managerial action. The chosen time frame must align with both the urgency of decision-making and the practicality of implementing corrective measures during that period.

2. Management Commitment

Senior level management must actively endorse and participate in the budgeting process. This includes setting clear targets, finalizing budget figures, monitoring actual performance, identifying variances and taking corrective actions. Recognising and rewarding high performers further reinforces commitment.

3. Employee Participation

Managers and employees at all level should be engaged in target setting and budget preparation. This will help in defining realistic targets as well as provide motivation to the employees. When employees help craft the budge, they gain a deeper understanding of future challenges and are more driven to meet or exceed their efficiency and activity targets.

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4. Clear Organisational Objectives

Budget goals should be explicitly defined and quantified, reflecting the company's strategies and policies. A clear corporate policy framework provides the necessary context for setting meaningful and achievable budget targets.

5. Responsibility Accounting

Budgets should be tied to specific individuals or departments, focusing only on the costs they can control. Performance evaluations then compare actual results against these responsibility center budgets, enabling fair and transparent accountability.

6. Appropriate Organisational Structure

There should be well-planned organisational structure with clearly defined authority and responsibility of different levels of management. Role and responsibilities of Budget Committee and its President must be made known to the people in the organisation.

7. Flexibility and Adaptability

When underlying assumptions change due to market shifts, cost fluctuations, or other factors the budget should be revised. This allows for meaningful comparisons between actual performance and the adjusted budgeted benchmarks.

8. Communication

Final approval of the budget should be communicated to the organisation. An efficient reporting system must deliver accurate, up-to-date performance information to managers. Prompt communication of variances enables fast corrective action where needed.

9. Strong Accounting System

Reliable and precise financial data is the foundation of any budget system. A strong accounting infrastructure ensures that information is timely, accurate, and dependable, supporting effective budget implementation and control.

4.2.3 Types of Budgets

Budgets are mainly classified on the basis of time, flexibility and functions. On the basis of time, budgets are further classified as long term, short term and current. On the basis of flexibility, budgets are classified as fixed and flexible. Sales, production, materials, labour, work overheads, administration overheads, selling and distribution overheads, capital expenditure and cash are the various classifications of budgets on the basis of functions.

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Table 4.2.1 Types of Budgets

On the basis of time	On the basis of flexibility	On the basis of function
Long Term	Fixed	Sales
Short Term	Flexible	Production
Current		Materials
		Labour
		Work Overheads
		Administration, Selling and Distribution Overheads
		Capital Expenditure
		Cash

I. On the basis of Time

a. **Long Term Budgets:** These budgets are developed for long term planning and typically cover a period ranging from five to ten years. They are mainly concerned with strategic areas such as capital expenditure, research and development, and long term financing. Preparation and control of long-term budgets are usually the responsibility of top-level management.

b. **Short Term Budgets:** Short term budgets are generally prepared for a period of one to two years, and they are usually expressed in monetary terms. These budgets are commonly used by industries producing consumer goods such as sugar, cotton, and textiles. They focus on operational planning and are more detailed than long-term budgets.

c. **Current Budgets:** Current budgets are prepared for short periods such as weeks or months. They are closely related to the day-to-day operations of the business and reflect the current operating conditions. These budgets are useful for closely monitoring on going activities and making timely adjustments.

II. On the basis of Flexibility

a. **Fixed Budgets:** A fixed budget remains unchanged regardless of the actual level of activity. It is prepared for a specific level of output or capacity and does not accommodate changes in business activity. According to the ICMA, England, a fixed budget is "a budget which is designed to remain unchanged irrespective of the level of activity actually attained." Fixed budgets are limited in practical use because real-life conditions are rarely static. When actual performance differs from the budgeted levels, a fixed budget cannot serve as an effective tool for cost control.

b. **Flexible Budget:** A flexible budget is designed to adjust according to the level of activity. Also known as a variable or sliding scale budget, it reflects the changes in cost behaviour by considering fixed, variable, and semi-variable

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costs. According to the ICWA, UK, a flexible budget is "a budget which, by recognising the difference between fixed, semi-fixed and variable costs, is designed to change in relation to the level of activity."

Flexible budgets provide a more realistic and practical approach, allowing management to evaluate performance and control costs effectively across different levels of output. They are useful for price fixation, sending quotations, tendering, and estimating profits at various capacities.

III. On the basis of Function

a. Sales Budget

The sales budget is usually the starting point in the budgeting process, as sales often act as the key factor influencing other functional budgets such as production, purchasing, and cash budgets. It is one of the most important yet most difficult budgets to prepare, mainly due to the challenge of accurately forecasting future sales. The sales budget is prepared by the sales manager, who must consider a variety of internal and external factors to ensure realistic and reliable estimates.

Factors to consider in preparing a sales budget are as follows:

- ◊ Analysis of previous year's sales
- ◊ Estimates and inputs provided by the sales team
- ◊ General trade and market conditions
- ◊ Availability of raw materials
- ◊ Availability of financial resources
- ◊ Production capacity of the plant
- ◊ Seasonal variations in demand
- ◊ Government policies and restrictions
- ◊ Level of competition and consumer preferences
- ◊ Effectiveness of advertising and promotional efforts

The sales budget should be presented in terms of quantities of finished goods and their expected selling prices. It can be prepared by classifying data according to:

- ◊ Products
- ◊ Sales regions or territories
- ◊ Time periods (monthly, quarterly, yearly)
- ◊ Types of customers
- ◊ Individual salespersons

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A well-prepared sales budget serves as a base for other operational budgets and helps the management set realistic sales targets, evaluate performance, and take informed decisions in marketing and resource planning.

b. Production Budget

The production budget is prepared by the production manager and shows the estimated output for a specific budget period. Its main objective is to determine how many units need to be produced to meet the forecasted sales. It is typically presented in two parts: one part showing the volume of production and the other showing the cost of production.

This budget is based on the sales budget but also considers factors such as the optimum utilization of plant capacity, availability of raw materials, and labour. The production budget must ensure smooth operations by avoiding excessive workload during peak periods and by maintaining a minimum stock of finished goods.

Cost of production budget is divided into three parts namely material cost budget, labour cost budget and overhead cost budget. Since he cost of production includes these three components, separate budget are required for each to ensure accurate planning and control.

c. Material Budget

To ensure uninterrupted production, a material budget is prepared to plan the timely availability of raw materials during the budget period. It specifies the quantities and costs of direct materials required to meet the production target set in the production budget.

Indirect materials are not included in this budget as they are accounted for under overhead costs. The material budget plays a key role in purchase planning and cost estimation.

d. Labour Budget

The labour budget is a part of the production budget and is usually prepared by the personnel department. It estimates the labour force required to meet the production goals for the budget period. This estimation is based on past records and projected production volumes. The labour budget ensures that the business has the right number of workers, with the right skills, available at the right time, thereby avoiding under or overstaffing.

e. Works Overhead Budget

The works overhead budget estimates the costs of indirect materials, indirect labour, and other indirect factory expenses required during the budget period to support the production activities. These overheads are classified into three categories: fixed, variable, and semi-variable.

This classification helps in preparing detailed budgets and allows further breakdown department-wise or section-wise, enabling better control and monitoring. The budget

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for fixed overheads is usually based on the previous year's data since these costs do not change with the level of activity. In contrast, variable overheads are estimated based on the expected level of output, as they fluctuate with changes in production. This approach ensures that the overhead costs are planned realistically and managed efficiently.

f. Administration Overheads Budget

This budget includes the estimated costs related to the administrative functions of the business, such as office expenses and management salaries. It is generally prepared based on past expenditures with adjustments for expected future changes. The administrative costs for each responsibility centre are identified separately and then compiled to form the overall administration overhead budget.

Selling and Distribution Overhead Budget: This budget covers all costs related to selling and distributing the products during the budget period. It is closely linked to the sales budget and is usually prepared territory-wise by the respective sales managers. Costs are categorised into fixed, variable, and semi-variable components. Past data and market trends are typically used to estimate future expenses.

g. Capital Expenditure Budget

This long-term budget outlines the anticipated expenditure on fixed assets such as land, buildings, plant, and machinery. Such expenditures may arise due to the need for replacing old assets, expanding production capacity, meeting increased demand, or adopting new technologies. Since these are long-term investments, they are planned well in advance and often approved at the top management level.

h. Cash Budget

The cash budget provides an estimate of expected cash inflows and outflows over a specific budget period, typically on a monthly or weekly basis. It is prepared by the chief accountant after all functional budgets are compiled. The cash budget helps ensure sufficient liquidity for operations, anticipates potential cash shortages (allowing for arrangements such as bank overdrafts), and highlights surplus cash as well as the impact of seasonal fluctuations. The main objective is to maintain proper coordination of working capital, sales, investments, and credit.

Illustration 4.2.1

Smart Tech Ltd is expecting to have Rs. 32,000 cash in hand on 1.04.2023. Prepare a cash budget for three months starting from April to June, 2023 based on the following information.

Month	Sales	Purchases	Wages	Expenses
February	80,000	54,000	7,000	6,000
March	90,000	66,000	8,000	7,000
April	1,06,000	70,000	9,000	8,000
May	1,10,000	78,000	12,000	10,000
June	1,30,000	72,000	15,000	12,000

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Credit period allowed by supplier is 2 months. 25% of sales is for cash and the period of credit allowed to customers for credit sales is 1 month. Delay in payment of wages and expenses are one month. Income tax of Rs. 28,000 is to be paid in June 2023.

Solution

Cash Budget for the months from April to June 2023			
	April	**May**	**June**
Receipts:			
Opening Balance	32,000	57,000	81,000
Cash Sales (25%)	26,500	27,500	32,500
Cash realised from Debtors (75% of previous month's sales)	67,500	79,500	82,500
Total (a)	**1,26,000**	**1,64,000**	**1,96,000**
Payments:			
Creditors for purchases	54,000	66,000	70,000
Wages	8,000	9,000	12,000
Expenses	7,000	8,000	10,000
Income Tax			28,000
Total (b)	**69,000**	**83,000**	**1,20,000**
Closing Balance of cash (a-b)	**57,000**	**81,000**	**76,000**

Formulation of various types of Budget

Preparation of Flexible Budget

1. Decide the range of activity to be covered by the flexible budget (for example, 60%, 80%, and 100% of normal capacity).
2. Determine the behaviour of each cost element—whether it is fixed, variable, or semi-variable.
3. Select the activity levels for which the budget is to be prepared (usually expressed in units of output or machine hours).
4. Prepare the budget for each selected activity level by applying the appropriate cost behaviour assumptions.

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Illustration 4.2.2

The following information at 50% capacity is given. Prepare a flexible budget and forecast the profit or loss at 60%, 70% and 90% capacity.

Particulars	Expenses at 50% capacity
Fixed expenses:	
Salaries	60,000
Rent and taxes	30,000
Depreciation	40,000
Administrative expenses	90,000
Variable expenses:	
Materials	2,20,000
Labour	2,30,000
Others	40,000
Semi - variable expenses	
Repairs	1,00,000
Indirect labour	1,50,000
Others	90,000

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%	11,00,000
70%	13,00,000
90%	15,00,000

Solution

Flexible Budget				
Particulars	Capacities			
	50%	60%	70%	90%
Fixed expenses:				
Salaries	60,000	60,000	60,000	60,000
Rent and taxes	30,000	30,000	30,000	30,000
Depreciation	40,000	40,000	40,000	40,000
Administrative expenses	90,000	90,000	90,000	90,000
Variable expenses:				

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Materials	2,20,000	2,64,000	3,08,000	3,96,000
Labour	2,30,000	2,76,000	3,22,000	4,14,000
Others	40,000	48,000	56,000	72,000
Semi - variable expenses				
Repairs	1,00,000	1,00,000	1,10,000	1,15,000
Indirect labour	1,50,000	1,50,000	1,65,000	1,72,500
Others	90,000	90,000	99,000	1,03,500
Total cost	**10,50,000**	**11,48,000**	**12,80,000**	**14,93,000**
Sales		11,00,000	13,00,000	15,00,000
Profit/Loss		**-48,000**	**20,000**	**7,000**

Preparation of Sales Budget

A variety of internal and external factors influence the preparation of a realistic and achievable sales budget. The sales manager is directly responsible for the preparation and execution sales budget. The following factors are considered by the sales manager while preparing the sales budget.

- ◊ *Past Sales Figures:* Historical sales data serves as a vital reference point for sales forecasting. An analysis of past trends whether upward or downward provides a base for estimating future performance. These records are particularly useful when combined with expected seasonal variations, potential market demand, and general trade conditions.

- ◊ *Assessment and Reports by Sales Personnel:* Salesmen, being in direct contact with customers and market conditions, are well-positioned to provide valuable insights into future sales. Their field experience enables them to make realistic assessments. However, sales managers must critically evaluate these inputs to remove personal bias or overly optimistic/pessimistic estimates before incorporating them into the sales budget.

- ◊ *Availability of Raw Materials:* In some industries, raw materials are a key factor influencing the sales budget. If the availability of materials is limited or uncertain, it can directly impact the volume of goods that can be produced and sold. Thus, anticipated supply levels must be taken into account while projecting sales.

- ◊ *Seasonal Fluctuations:* Sales of certain products vary significantly with seasons. These variations must be factored into the budget to reflect periods of high and low demand. Efforts such as offering discounts or promotional incentives during off-peak seasons can help in stabilizing demand throughout the year.

- ◊ *Availability of Finances:* Financial resources are essential to support sales operations, including purchasing inputs, production, and promotional activities. Limited availability of funds can restrict sales efforts. Therefore, sales budgeting must align closely with the financial budget to ensure feasibility.

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◊ *Plant Capacity:* Sales projections must also consider the production capacity of the plant. The sales team must ensure that their targets align with what the production department can realistically deliver. At the same time, sales initiatives should aim to achieve optimum utilisation of the available plant capacity.

Illustration 4.2.3

ABC Ltd manufactures two types of water bottles, Copper and Stainless Steel water bottles and Sells them in Cochin and Calicut markets. The following information is made available for the current year.

Market	Types	Budgeted Sales	Actual Sales
Cochin	Copper	400 at Rs 9 each	500 at Rs 9 each
	Stainless Steel	300 at Rs 9 each	200 at Rs 9 each
Calicut	Copper	600 at Rs 9 each	700 at Rs 9 each
	Stainless Steel	500 at Rs 21 each	400 at Rs 21 each

Market studies reveal that Stainless Steel water bottle is popular as it is under-priced. It is observed that if its price is increased by Rs 1, then it will find a ready-made market. On the other hand, Copper water bottle is overpriced and market could absorb more sales if selling price is reduced by Rs 1. 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.

Product	% increase in sales over current budget	
	Cochin	Calicut
Copper	10%	5%
Stainless Steel	20%	10%

With the help of an effective advertisement campaign, the following additional sales above the estimated sales of sales manager are possible.

Product	Cochin	Calicut
Copper	60 units	70 units
Stainless Steel	40 units	50 units

Prepare a budget for sales incorporating the above estimates.

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Solution

Sales Budget										
Area	**product**	**Budget for the current year**			**Actual Sales**			**Budget for the future period**		
		Units	**Price**	**Value**	**Units**	**Price**	**Value**	**Units**	**Price**	**Value**
Cochin	Copper	400	9	3,600	500	9	4,500	500	10	5,000
	Stainless Steel	300	21	6,300	200	21	4,200	400	20	8,000
	Total	700		9,900	700		8,700	900		13,000
Calicut	Copper	600	9	5,400	700	9	6,300	700	10	7,000
	Stainless Steel	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
Total	Copper	1,000		9,000	1,200		10,800	1,200		12,000
	Stainless Steel	800		16,800	600		12,600	1,000		20,000
	Total	1,800		25,800	1,800		23,400	2,200		32,000

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Working Notes:

Budgeted sales for Cochin		**Copper (units)**	**Stainless Steel (units)**
Budgeted		400	300
Add: Increases	10% and 20%	40	60
		440	**360**
Increase due to advertisement		60	40
		500	**400**
Budgeted sales for Calicut			
Budgeted		600	500
Add: Increases	5% and 10%	30	50
		630	**550**
Increase due to advertisement		70	50
		700	**600**

Preparation of Production Budget

The production budget is closely linked to the sales budget. Since sales depend on the availability of finished goods, production must be scheduled in line with anticipated demand. The production budget forecasts not only the number of units to be manufactured but also estimates the cost of production, including materials, labour, and overheads.

Two key questions must be answered during its preparation:

a. What is to be produced?

b. When is it to be produced?

The process of preparing a production budget typically involves the following stages:

◊ *Production Planning*

An effective production plan is the foundation of a production budget. It identifies the number of physical units to be manufactured during the budget period. The plan must ensure the optimum utilisation of plant capacity, avoid disruptions caused by shortages of materials or labour, and maintain a smooth flow of production activities.

◊ *Consideration of Plant Capacity*

It is essential to determine how many units of various products can be produced within the constraints of the plant's operational capacity. The capacity should not be overestimated or underestimated. A realistic estimate often termed "normal capacity" ensures that production targets are both achievable and cost-effective.

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◊ *Stock Quantity to be Held*

The quantity of finished goods to be kept in inventory is an important consideration. This depends on factors such as projected sales, storage facilities, and inventory holding costs. The production requirement is calculated using the following formula:

Production = Estimated Sales + Closing Stock – Opening Stock

Additionally, the level of work-in-progress should also be assessed to determine accurate production needs.

◊ *Considering the Sales Budget*

The sales budget serves as the guiding framework for the production budget. Close coordination between the two is necessary to avoid overproduction (leading to excess inventory) or underproduction (resulting in stock outs). In cases where sales deviate from projections, the production schedule should be adjusted accordingly.

Illustration 4.2.4

Prepare a production budget for each month and a summarised production cost budget for the six months period ending 31st December 2024 from the following data of product Z.

The units to be sold for different months are as follows.

July 2024	1,300
August	1,300
September	1,900
October	2,100
November	2,700
December	2,500
January 2025	2,200

There will be no work-in-progress inventory at the end of any month. Finished goods inventory at the end of each month, including June 2024, will equal 50% of the following month's sales. Budgeted production and production cost for the year ending 31st December 2024 are as follows.

Production (units)	22,000
Direct materials (per unit)	10
Direct wages (per unit)	4
Total factory overheads apportioned to products	8,80,000

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Solution

Production Budget (for each month from July 2024 to December 2024)				
Month	**Opening Stock**	**Sales**	**Closing Stock**	**Production**
July	650	1,300	650	1,300
August	650	1,300	950	1,600
September	950	1,900	1,050	2,000
October	1,050	2,100	1,350	2,400
November	1,350	2,700	1,250	2,600
December	1,250	2,500	1,100	2,350
			TOTAL	**12,250**

Production = Sales + Closing Stock – Opening Stock

Production cost budget for six months ending 31st Dec 2024		
	Rate per unit	**Production units (12250)**
Direct materials	10	1,22,500
Direct Wages	4	49,000
Factory overheads (88000/22000)	4	49,000
	Total	**2,20,500**

Illustration 4.2.5

A company manufacturers two products X and Y and the budgeted data for the year are as follows.

	Product X	**Product Y**
Sales Price Per Unit	95	70
Direct Materials Per Unit	2	10
Direct Wages Per Unit	5	4
Total Works Overhead	10,105	9,009
Total Marketing Overhead	1,200	1,100

The Sales manager forecasts the sales in unit as follows:

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	Product X	Product Y
January	28	10
February	28	12
March	24	16
April	20	20
May	16	24
June	16	24
July	18	20
August	18	20
September	18	20
October	18	20
November	18	20
December	18	20

It is assumed that (i) no work-in-progress inventory will remain at the end of any month, and (ii) finished goods inventory at month-end will be maintained at 50% of the next month's expected sales.

You are required to prepare a production budget for each month and production cost budget.

Solution

Production Budget (units)								
Month	**Production X**				**Production Y**			
	Sales	**Add: Closing Stock**	**Less: Opening Stock**	**Production**	**Sales**	**Closing Stock**	**Opening Stock**	**Production**
January	28	14	14	28	10	6	5	11
February	28	12	14	26	12	8	6	14
March	24	10	12	22	16	10	8	18
April	20	8	10	18	20	12	10	22
May	16	8	8	16	24	12	12	24
June	16	9	8	17	24	10	12	22
July	18	9	9	18	20	10	10	20
August	18	9	9	18	20	10	10	20
September	18	9	9	18	20	10	10	20
October	18	9	9	18	20	10	10	20
November	18	9	9	18	20	10	10	20
December	18	9	9	18	20	10	10	20
Total	240			235	226			231

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Sales + Closing Stock – Opening Stock = Production

Note: The opening stock for each month is equal to half of that month's budgeted sales, since the closing stock of finished goods from the previous month is set at 50% of the following month's sales.

Summarised Production Cost Budget			
Particulars	**Product X (235 units)**	**Product (Y 231 units)**	**Total**
Direct material : A at 20Rs	(235 x 20) = 4,700	(231 x 10) = 2,310	7,010
B at 10 Rs			
Direct labour: A at 5Rs	(235 x 5) = 1,175		2,099
B at 4 Rs		(231 x 4) = 924	
Works Overhead	10,105	9,009	19,114
Total production cost	**15,980**	**12,243**	**28,223**
Cost Per unit	**68**	**53**	

Preparation of Materials Budget

Materials used in production are classified into direct materials and indirect materials. The materials budget typically focuses on direct materials, while indirect materials are accounted for within the overhead budget. The objective of this budget is to ensure that the necessary materials are available in the right quantity and at the right time to meet production requirements. The preparation of the materials budget involves the following key activities:

◊ *Estimation of Raw Material Requirements*

This includes identifying the quantity of each type of material needed for the production of various products. The requirement is determined by multiplying the per-unit material requirement for each product by the number of units to be produced.

◊ *Scheduling of Purchases*

Once the material requirement is known, purchases are scheduled to ensure timely procurement. The material quantities needed are spread over months or quarters in alignment with the production schedule. This breakdown ensures that raw materials are procured in appropriate quantities at the right time.

◊ *Control of Raw Material Inventories*

Effective inventory control is essential to avoid both shortages and overstocking. The required quantity is adjusted by considering current stock levels, materials already on order, and the desired closing inventory.

In enterprises where raw material usage is standardised, the materials budget can be prepared with high accuracy. In other cases, an estimate may be developed by

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calculating the average proportion of raw material cost to total product cost based on historical data. This estimate is then adjusted for current price trends, expected wastage during production, anticipated changes in material consumption.

The Buying Department is responsible for identifying the most cost-effective sources for acquiring the required materials, while ensuring that quality and quantity standards are met.

The materials budget can be divided into two components:

◊ *Materials Requirement Budget*

This component estimates the total quantity of raw materials needed for production during the budget period, based on the production budget.

◊ *Materials Procurement or Purchase Budget*

This outlines the quantity of materials that need to be acquired from the market. It is calculated by adjusting the material requirement with opening inventory, closing inventory and Materials already on order. This budget plays a critical role in coordinating production planning, inventory management, and purchasing decisions, ensuring uninterrupted operations and efficient use of resources.

Illustration 4.2.6

The sales manager of a manufacturing company expects to sell 50,000 units of a particular product next year. Based on this report, the production department gives the following figures. Two kinds of raw materials X and Y are required for manufacturing the product. Each product requires 3 units of material X and 2 units of material Y.

The estimated opening balances next year will be:

Finished products - 10,000 units

material X - 12,000 units

material Y - 15,000 units

The desirable closing balances at the end of the year are:

Finished products - 16,000 units

material X - 14,000 units

material Y - 15,000 units

You are required to prepare a material purchase budget.

Solution

Production during the year is calculated as:

Estimated sales units + desired closing stocks of finished goods - opening stocks of finished goods

50,000+16,000-10,000 = 56,000 units

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Materials Purchase Budget		
	Material X	**Material Y**
Materials required to produce 56000 units:		
Material X @ 3 units for 56,000 units	1,68,000	
Materials B @ 2 units for 56,000 units		1,12,000
Desired closing balance of materials at the end of year	14,000	15,000
	1,82,000	1,27,000
Less: Opening balances of material at the beginning of the year	12,000	15,000
Materials required to be purchased during the year	1,70,000	1,12,000

Illustration 4.2.7

From the following figures prepare raw materials purchase budget for January 2024.

Materials (units)						
	A	B	C	D	E	F
Estimated stock on January 1	18,000	8,000	25,000	3,000	15,000	29,000
Estimated stock on January 31	21,000	9,000	29,000	5,000	17,000	33,000
Estimated consumption	1,20,000	44,000	1,32,000	36,000	88,000	1,72,000
standard price per unit	0.23	0.04	0.15	0.1	0.2	0.3

Solution

Raw materials purchase budget for January 2024						
	A	B	C	D	E	F
Estimate consumption (units)	1,20,000	44,000	1,32,000	36,000	88,000	1,72,000
Add: Estimated stock on Jan 31	21,000	9,000	29,000	5,000	17,000	33,000
	1,41,000	53,000	1,61,000	41,000	1,05,000	2,05,000
Less: Estimated stock on Jan 1	18,000	8,000	25,000	3,000	15,000	29,000
Estimated purchase	1,23,000	45,000	1,36,000	38,000	90,000	1,76,000
Rate per unit	0.23	0.04	0.15	0.1	0.2	0.3
Estimated purchase	**28,290**	**1,800**	**20,400**	**3,800**	**18,000**	**52,800**

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Summarised Overview

Budgeting is an essential tool for managerial planning and control, helping organisations allocate resources efficiently and achieve predetermined objectives. A budget is a financial and quantitative statement that outlines expected income, expenditure, and operations for a defined period. The budgeting process is guided by principles such as timeliness, management commitment, participation, clear objectives, responsibility accounting, flexibility, and strong communication. Budgets can be classified based on time (long-term, short-term, current), flexibility (fixed and flexible), and function (sales, production, material, labour, overhead, administration, selling and distribution, cash, and capital expenditure). Each functional budget serves a specific purpose and is interrelated with others, with the sales budget often acting as the starting point. The formulation of budgets involves systematic steps such as estimating requirements, scheduling, and ensuring coordination between departments. Overall, budgeting enables effective planning, cost control, and performance evaluation, making it indispensable in modern business management.

Self-Assessment Question

1. Define the term "budget" and explain its significance in managerial planning.
2. What are the general principles that should be followed in the budgeting process?
3. Differentiate between fixed and flexible budgets with suitable examples.
4. Explain the factors that influence the preparation of a sales budget.
5. Write short notes on: (a) Capital Expenditure Budget (b) Cash Budget.
6. Why the sales budget is considered the starting point for preparing other budgets?
7. Describe the steps involved in the preparation of a production budget.
8. Explain the objectives of budgeting in a business organisation.
9. How does a materials budget ensure uninterrupted production?
10. Discuss the importance of management commitment and employee participation in budgeting.

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Assignments

1. Discuss how budgeting serves as a tool for planning and control in a business organisation. Support your answer with suitable examples.
2. Compare and contrast fixed and flexible budgets. In which situations is a flexible budget more useful than a fixed budget?
3. Assume you are the sales manager of a company preparing a sales budget for the next quarter. Describe the factors you would consider and why.
4. Explain the interrelationship between the sales budget, production budget, and materials budget in the overall budgeting process.
5. "Budgeting is not merely an accounting exercise; it is a vital managerial tool." Comment on this statement with reference to the principles and objectives of budgeting.
6. The following overhead expense is related to a cost centre at 50% of normal capacity. Prepare a flexible budget for the cost centre operating at 75%, 100% and 125%. Mention the basis and assumptions upon which various expenses are divided.

Machinery Repairs	120
Foreman	100
Assistant Foreman	50
Inspectors	75
Shop Labourers	60
Defective Work	25
Consumable Stores	20
Overtime Bonus	_
Machine Depreciation	140

7. A factory is currently working to 50% capacity and produces 20,000 units. Estimate the profits of the company when it works at 60% and 80% capacity and offer your critical comments. At 60% working raw material cost increases by 2% and selling price falls by 2%. At the 80% working, raw material cost increases by 5% and selling price falls by 5%. At 50% capacity working, the product costs Rs. 180 per unit and is sold at Rs. 200 per unit. The unit cost of Rs. 180 is as follows.

Material	100
Labour	30
Factory Overhead	30 (40% fixed)
Administrative Overhead	20 (50% fixed)

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8. The production cost of a factory are given below:

Direct Wages	80,000
Direct Materials	1,10,000
Production overheads :	
Fixed	40,000
Variable	60,000

During the upcoming years, it is expected that average rate for direct labour will fall form Rs. 0.90 per hour to Rs. 0.75 per hour. Production efficiency will be reduced by 5%. Price per unit of direct material and of other materials and services which comprise overheads will remain unaffected. Direct labour hours will increase by 33.33%. You are required to prepare a budget.

9. ABC Ltd Company manufactures two products X and Y. An estimate of the number of units to be sold in the first six months of the year is given below:

	Product X	Product Y
January	1,500	3,000
February	1,700	3,000
March	2,100	2,600
April	2,500	2,200
May	2,900	1,800
June	2,900	2,000

It is expected that no work-in-progress inventory will remain at the end of any month. Finished goods inventory at the end of each month (including the previous December) will be maintained at 50% of the following month's projected sales.

Budgeted production and production costs are as follows:

	Product X	Product Y
Production (units)	35,000	36,000
Direct Material (per unit)	Rs. 13	Rs. 18.50
Direct Labour	Rs. 5.50	Rs. 8
Total factory overhead for the year	Rs. 75,000	Rs. 1,04,000

Prepare production budget and summarised cost budget for five months ending 31st May.

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10. ABC Ltd Company has Rs. 25000 in bank on 1st May, 2024. Prepare a cash budget for the three months: May, June and July based on the following information.

Month	Sales	Purchases	Wages	Office Expenses	Factory Expenses	Selling Expenses
March	60,000	40,000	6,000	4,000	5,000	3,000
April	66,000	42,000	6,500	4,000	5,500	3,000
May	70,000	45,000	7,000	4,000	6,000	3,500
June	80,000	40,000	9,000	4,000	7,500	450
July	90,000	40,000	9,500	4,000	8,000	4,500

20% of sales are made in cash, with the remaining amount collected in the month following the sale. Suppliers provide goods on a two-month credit. Wages and all other expenses are paid in the month after they are incurred. The company will pay a dividend of Rs 10,000 to shareholders and a bonus of Rs 15,000 to workers in May. A plant has been ordered and is expected to be received in June at a cost of Rs 80,000, which will be paid in the same month. Income tax of Rs 25,000 is due for payment in July.



Reference

1. Gupta, Shashi. K., Sharma, R. K., & Gupta, N. (2018). *Financial Management: Theory and Practice* (Ninth). Kalyani Publishers.
2. Jain, I. C. (2008). *Management Accounting*. Taxmann Allied Services (P).Ltd.
3. Maheshwari, S. N., & Maheshwari, S. K. (2008). *A Textbook of Accounting for Management.* Vikas Publishing House Pvt Ltd.
4. Maheshwari, S. N., & Mittal, S. N. (2021). *Elements of Cost Accounting* (Eighth). Mahavir Publication.
5. Tulsian, T. C., Tulsian, B., & Tulsian, T. (2020). *Tulsian's Cost and Management Accounting.* McGraw Hill Education (India), Private Limited.

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Suggested Reading

1. Bhattacharyya, D. (2011). *Management accounting*. Pearson.
2. Drury, C. (2018). *Management and cost accounting* (10th ed.). Cengage Learning.
3. Khan, M. Y., & Jain, P. K. (2021). *Management accounting*. (8th ed.) McGraw-Hill Education.
4. Pandey, I. M. (2018). *Management accounting* (3rd ed.). Vikas Publishing House.

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MODEL QUESTION PAPER SETS

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SREENARAYANAGURU OPEN UNIVERSITY

Model Question Paper (SET- A)

QP CODE: ……

Reg. No:.....

Name: ……

FIRST SEMESTER MASTER OF BUSINESS ADMINISTRATION DEGREE EXAMINATION

DISCIPLINE CORE COURSE

M26BS02DC - ACCOUNTING FOR MANAGERS

Time: 3 Hours | Max Marks: 70

Section A

Answer any five of the following questions in one or two sentences each. Each question carries 2 marks.

(5 x 2 = 10)

1. Define Budget
2. What is Stock Velocity?
3. What do you mean by Break –even analysis?
4. What is P/E ratio?
5. What is Cash Flow Statement?
6. Calculate Stock Turnover Ratio if Sales – ₹2,00,000, Gross Profit – 25% on Sales and Average Stock – ₹20,000
7. What is GAAP?
8. What is Trend Analysis?

Section B

Answer any six of the following questions. Each question carries 5 marks.

(6 x 5 = 30)

9. Prepare Journal entries for Z. Ltd for the month of February from the following details

   Feb 2 – Purchased raw material for production for cash ₹ 7000

   Feb 6 – Paid wages to carpenter for making chair for office ₹2500

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Feb 10 – Sold goods worth ₹6000

Feb 12 – Mr. B purchased goods on credit for ₹5000

Feb 20 – Purchased material on credit from C for ₹8500

10. Explain the significance of Ratio Analysis.

11. Calculate the cash flow from investing activities from the following information:

Particulars	Opening Balances (₹)	Closing Balances (₹)
Plant & Equipment (at Cost)	6,00,000	6,80,000
Accumulated Depreciation	2,50,000	2,90,000
Goodwill	4,00,000	3,20,000

Additional Information:

i. During the year, a machine costing ₹80,000 with accumulated depreciation of ₹30,000 was sold for ₹40,000.

ii. Goodwill written off amounted to ₹50,000 and some goodwill was sold at a profit of ₹10,000.

12. Ray Ltd. is producing 50,000 units of a product at 50% of its capacity. It receives a special order from a foreign buyer for 30,000 units at ₹45 per unit, whereas the normal selling price is ₹70 per unit. The cost per unit is as follows:

Direct Material – ₹25

Direct Labour – ₹12

Variable Expenses – ₹8

Fixed Overheads – ₹20

Should Ray Ltd. accept the special order? Give reasons.

13. Following figures of Kabir Ltd. are available for the year ended 31st March 2026:

Net Profit before Interest and Tax – ₹2,00,000

Net Profit after Interest and Tax – ₹1,40,000

Capital Employed – ₹14,00,000

Total Assets – ₹17,00,000

You are required to calculate:

a. Return on Capital Employed

b. Return on Total Assets

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14. What are comparative financial statements? Explain in detail

15. Briefly explain the various Accounting Concepts.

16. If Sales = ₹40,00,000, Variable Cost = 65% of Sales, and Profit = ₹6,00,000, calculate the following:

    i. P/V Ratio

    ii. Fixed Cost

    iii. Sales required to earn a profit of ₹8,00,000

    iv. Profit when sales are ₹25,00,000

17. Define Management Accounting and explain its scope.

18. Briefly explain any five applications of marginal costing in decision - making.

Section C

Answer any two of the following. Each question carries 15 marks.

(2x15=30)

19. Briefly explain the different types of accounting ratios.

20. Elucidate the different types of budgets.

21. Following are the Income Statements and Balance Sheets of Sun Tyres Ltd.

Particulars	2024 (₹)	2025 (₹)
Net Sales	9,00,000	13,00,000
Less: Cost of Goods Sold	6,50,000	9,50,000
Gross Profit	2,50,000	3,50,000
Less: Operating Expenses		
Administrative Expenses	40,000	50,000
Selling Expenses	20,000	30,000
Total Operating Expenses	60,000	80,000
Operating Profit	1,90,000	2,70,000
Add: Dividend Received	30,000	50,000
Less: Interest Paid	20,000	25,000
Net Profit Before Tax	2,00,000	2,95,000
Less: Income Tax @ 50%	1,00,000	1,47,500
Net Profit After Tax	1,00,000	1,47,500

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Balance Sheet of Sun Tyres Ltd

Particulars	2024 (₹)	2025 (₹)
I. Equity and Liabilities		
(1) Shareholders' Funds		
(a) Share capital		
Equity Share Capital	8,00,000	10,00,000
12% Preference Share Capital	3,00,000	2,50,000
(b) Reserves and Surplus		
Reserves	2,50,000	3,50,000
(2) Non-Current Liabilities		
10% Debentures	2,00,000	2,50,000
(3) Current Liabilities		
Sundry Creditors	1,50,000	1,30,000
Bills Payable	1,00,000	1,20,000
Tax Payable	2,00,000	3,00,000
Total Equity and Liabilities	20,00,000	24,00,000
II. Assets		
(1) Non –Current Assets		
Land	7,00,000	7,00,000
Machinery	4,00,000	5,50,000
Furniture	1,00,000	1,50,000
Long-term Investments	1,00,000	80,000
(2) Current Assets		
Stock	3,50,000	4,20,000
Debtors	2,50,000	3,20,000
Cash	1,00,000	1,80,000
Total	20,00,000	24,00,000

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You are required to prepare:

i. Comparative income statement

ii. Comparative balance sheet

Also interpret the results.

22. Following is the Balance Sheet of K Ltd as at 31st March, 2023. Prepare a Cash Flow Statement.

Particulars	31.3.2023 (₹)	31.3.2024 (₹)
1. Reserves and Surplus		
Surplus (Balance in Statement of Profit & Loss)	2,50,000	5,50,000
2. Long-term Borrowings		
12% Debentures	8,00,000	10,00,000
3. Short-term Borrowings		
Bank Overdraft	2,00,000	3,50,000
4. Short-term Provisions		
Provision for Tax	3,00,000	4,50,000
5. Property, Plant & Equipment		
Machinery	24,00,000	36,00,000
Less: Accumulated Depreciation	(3,00,000)	(4,50,000)
	21,00,000	31,50,000
6. Intangible Assets		
Goodwill	3,50,000	2,50,000
7. Inventories		
Stock in Trade	1,80,000	2,80,000

Notes

Particulars	31.3.2023 (₹)	31.3.2024 (₹)
Surplus (P&L Balance)	2,50,000	5,10,000

Additional Information :

1. A machine costing ₹2,40,000 with accumulated depreciation ₹1,20,000 was sold for ₹1,00,000.
2. Depreciation on machinery during the year amounted to ₹2,70,000.

Income tax paid during the year was ₹2,20,000

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SREENARAYANAGURU OPEN UNIVERSITY

Model Question Paper (SET- B)

QP CODE: ……

Reg. No:.....

Name: ……

FIRST SEMESTER MASTER OF BUSINESS ADMINISTRATION DEGREE EXAMINATION

DISCIPLINE CORE COURSE

M26BS02DC - ACCOUNTING FOR MANAGERS

Time: 3 Hours | Max Marks: 70

Section A

Answer any five of the following questions in one or two sentences each. Each question carries 2 marks.

(5 x 2 = 10)

1. What is Accounting Equation?
2. Define Working Capital.
3. What is Contribution?
4. What do you mean by Cash Budget?
5. What is Current Ratio?
6. Calculate Gross Profit if Sales = ₹1,50,000 and Cost of Goods Sold = ₹1,05,000
7. What is Matching Concept?
8. What is Fund Flow Statement?

Section B

Answer any six of the following questions. Each question carries 5 marks.

(6 x 5 = 30)

9. Prepare Journal entries for M Ltd. for the month of March:

   March 3 – Started business with cash ₹1,00,000

   March 6 – Purchased goods for cash ₹20,000

   March 10 – Sold goods for ₹15,000

   March 15 – Purchased furniture on credit ₹25,000

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March 25 – Paid salaries ₹8,000

10. Explain the objectives of Accounting.

11. From the following information, calculate Cash Flow from Operating Activities:

    Net Profit before tax – ₹1,50,000

    Depreciation – ₹20,000

    Increase in Debtors – ₹10,000

    Decrease in Creditors – ₹5,000

12. A company is producing 40,000 units at 60% capacity. It receives a special order for 20,000 units at ₹50 per unit.

    Cost per unit:

    Direct Material – ₹20

    Direct Labour – ₹10

    Variable Overhead – ₹5

    Fixed Overhead – ₹15

Should the company accept the order? Give reasons.

13. Calculate:

    a. Return on Capital Employed

    b. Net Profit Ratio

Given:

    Net Profit after tax – ₹1,20,000

    Capital Employed – ₹10,00,000

    Sales – ₹8,00,000

14. Explain the importance of Trial Balance.

15. Explain any five Accounting Concepts.

16. If Sales = ₹30,00,000, Variable Cost = 60% of Sales and Fixed Cost = ₹6,00,000, calculate:

    i. P/V Ratio

    ii. Break-even Sales

    iii. Profit at sales of ₹40,00,000

17. Define Cost Accounting and explain its objectives.

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18. Explain the advantages of Budgetary Control.

Section C

Answer any two of the following. Each question carries 15 marks.

(2x15=30)

19. Explain the different branches of Accounting and their significance.

20. Discuss the various types of budgets in detail.

21. Following are the Income Statements and Balance Sheets of Bharath Tyres Ltd.

Income Statement of Bharath Tyres Ltd

Particulars	2024 (₹)	2025 (₹)
Net Sales	8,00,000	12,00,000
Less: Cost of Goods Sold	5,50,000	8,50,000
Gross Profit	2,50,000	3,50,000
Less: Operating Expenses		
Administrative Expenses	30,000	60,000
Selling Expenses	30,000	20,000
Total Operating Expenses	60,000	80,000
Operating Profit	1,90,000	2,70,000
Add: Dividend Received	40,000	60,000
Less: Interest Paid	30,000	35,000
Net Profit Before Tax	2,00,000	2,95,000
Less: Income Tax @ 50%	1,00,000	1,47,500
Net Profit After Tax	1,00,000	1,47,500

Balance Sheet of Bharath Tyres Ltd

Particulars	2024 (₹)	2025 (₹)
I. Equity and Liabilities		
(1) Shareholders' Funds		
(a) Share capital		
Equity Share Capital	9,00,000	11,50,000
12% Preference Share Capital	2,00,000	1,00,000
(b) Reserves and Surplus		
Reserves	3,00,000	2,50,000
(2) Non-Current Liabilities		
10% Debentures	1,50,000	3,50,000

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(3) Current Liabilities		
Sundry Creditors	2,00,000	1,80,000
Bills Payable	1,00,000	1,70,000
Tax Payable	1,50,000	2,00,000
Total Equity and Liabilities	20,00,000	24,00,000
II. Assets		
(1) Non –Current Assets		
Land	8,00,000	7,00,000
Machinery	3,00,000	6,00,000
Furniture	1,00,000	1,00,000
Long-term Investments	1,00,000	1,20,000
(2) Current Assets		
Stock	4,00,000	4,40,000
Debtors	2,00,000	3,00,000
Cash	1,00,000	1,40,000
Total	20,00,000	24,00,000

You are required to prepare:

i. Comparative income statement

ii. Comparative balance sheet

Also interpret the results.

22. Following is the Balance Sheet of ABC Ltd as at 1st March , 2023 .

Particulars	**31.3.2023 (₹)**	**31.3.2024 (₹)**
1. Reserves and Surplus		
Surplus i.e. Balance in Statement of Profit and Loss	3,00,000	6,00,000
2. Long -term Borrowings		
12 % Debentures	6,00,000	8,00,000
3. Short term Borrowings		
Bank Overdraft	2,00,000	3,00,000
4. Short term Provisions		
Provision for Tax	2,00,000	4,00,000
5. Property, Plant and Equipment		
Machinery	21,10,000	33,50,000
Accumulated Depreciation	(2,80,000)	(4,20,000)

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	18,30,000	29,30,000
6. Intangible Assets		
Goodwill	3,00,000	2,00,000
7. Inventories		
Stock in trade	1,44,000	2,44,000

Additional Information

i. ₹ 2,00,000, 12 % Debentures were issued on 31st March, 2023

ii. During the year a piece of machinery costing ₹1,60,000 on which accumulated depreciation was ₹ 80,000 was sold at a loss of ₹ 20,000

Prepare Cash Flow Statement.

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സർവ്വകലാശാലാഗീതം

വിദ്യയാൽ സ്വതന്ത്രരാകണം
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