UNIT 7 READING AND INTERPRETATION OF FINANCIAL STATEMENTS

Structure

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7.0 INTRODUCTION

In the previous two units, you came to know that financial statements are the formal records of financial activities of a business firm. The various stakeholders of any firm depend on the annual reports and financial statements to secure appropriate information for their needs. The principal components of the financial statements are the profit & loss account, balance sheet, statement of changes in financial position and foot notes. These statements prepared to show the year-end profit or loss and the financial position of the firm. The financial statements are not an end in themselves; they are only vehicles of communicating the financial health of a firm. Though they contain significant facts regarding the concern in the form of figures, but the figures are dumb. No meaningful conclusions can be drawn from these figures unless they are read, analysed and interpreted. Thus, the significance of these statements lies not in their preparation but in their read, analysis and interpretation. The focus of this unit is on the understanding the financial statements and their reading and will focus on the various tools to analysis the information conveyed by these statements. By a meaning analysis and its interpretation of these information, the performance and financial health of a firm can be dissected. Accordingly, this unit is a focus on the users' perspective.

7.1 OBJECTIVES

After studying this unit, you should be able to:

Explain the structure and format of an annual report,
Develop the understanding about the disclosure requirements in the annual report,
Identify the various users who need financial information and types of information required by each,
Explain the meaning and importance of financial statements and their gap,
Carry out analysis of financial statements of a firm,
Discuss the importance of cash flow statement and interpret the same,
Aanalyze and assess the overall performance of a business entity,
Explain important ratios that may be used for analysis.

Make an evaluative and analytical comparative study, and
Aassist in focusing and constructing a future course of action.

7.2 ANNUAL REPORT

An annual report is a document which is prepared by every company as a regulatory requirement and provides the information on its financial results about the operations and conditions, over the previous accounting years. The various information related to finance in the annual reports helps to the various stakeholders who are interested to deal with the company. This document helps them in analysing the financial conditions, growth, funding pattern and how the company is a good in terms of placing the investments as an investor, financer, supplier etc.

Although they are primarily used to convey financial and performance-based information about a business entity.

A typical annual report at its basic includes -
(a) General Information about the operation and its segment in which the company is involved.
(b) Director's Report along with audited financial statements of Profit & Loss /Income Statement, Balance-Sheet, Cash Flow Statement, and notes on accounts.
(c) Management Discussion and Analysis section providing a composite summary of performance of various businesses of the Company along with prospective analysis.
(d) Corporate Governance Report
(e) Listing of the Company's board of directors, management committee and statutory auditor.
(f) Shareholding pattern; and
(g) Share Price data and Dividend declared.

Other Disclosures in Annual Report

Besides the financial statements - Balance Sheet, Profit and Loss account and Cash Flow Statements - the annual report of a company includes several other reports which are useful for analysing the affairs of the company. These reports give further insights Into the operations, financial structure and financial conditions of the company. Some of the disclosures which are mandatory in nature are required to be disclosed while some of them are in the nature of voluntary. The various information provided in the annual report can be classified in to following four heads -

Under Companies Act	As per Accounting Standards	As per Listing Agreement	Voluntary Disclosures
Director's report	Contingent Liabilities	Corporate Governance Reporting	Value Added Statement
Auditor's report	Related Party Disclosures	Management Discussion and Analysis	Economic Value Added
Details regarding the associate companies	Segment Reporting		Brand Valuation
Reporting on CSR	Interest in Joint Ventures		Human Resource Accounting

NEED FOR ANNUAL REPORT/ FINANCIAL STATEMENT INFORMATION

Annual reports are repository of qualitative information which is crucial in making critical decisions. Such information includes mainly the Management discussion and analysis and chairman speech. This section of the report not only narrates an idea about the future strategy of the company but also tells you about the vision of the company. It also let you know about the various users who makes analysis for taking certain crucial decisions. Anyone -prospective investor, financers, managers, government, customers, suppliers, lenders, academician, researchers and other regulatory agencies wants to know about the prospects and financial health of the firm are interested in the analyzing of various financial and non-financial information. So, the annual report/ financial statements information which aims to analyse and measuring the performance of the target firm, is mainly intended for - (i) internal use i.e., management, shareholders, and (ii) the outsiders i.e., for external use. However, the objective of analysis is different for different users

As discussed, the information given in the annual report/financial statements is very useful to several parties. These can be broadly classified in two categories -

A. Internal Users -

(1) **Owners / Shareholders** These people are much interested in the annual report/financial statements. They are very keen in the welfare and prosperity of the business. These people use the annual report to evaluate the business operations and financial performance conditions to seek the answers of the following questions –

- **(a)** How is the profit situation whether the profit level is adequate?
- **(b)** How much is the Earning per Share and Dividend per Share and how much can be expected in future?;
- **(c)** How much appreciation in the value of shares can take place?

The annual report/financial statements prepared from time to time satisfy their curiosity.

(2) **Management** - The annual report/financial statements are most necessary for the management to make rational decisions to maintain the sustainability of the business and also help them in taking of important decisions relating to fixing up the selling prices and making future policies.

(3) Employees - Employees are concerned about the financial health of the company they work for, especially if their bonus is contingent on the company's profitability. They want to know if the bonus they are receiving is correct, so they are interested in preparing a true profit and loss account.

(4) Trade Unions - they analyse and interpret the annual report/financial statements of different firms to analyse the trend of growth.

B. External Users -

(1) **Prospective Investors** - They are interested to know the earning capacity, liquidity, solvency and safety of their investment. They use the annual report/financial statements to a great extent in determining the relative merits of various investment opportunities.

(2) Lenders - The lenders study the result of operation of the business activities through the available information of its annual report/financial statements before lending. The aim of such study is to analyse the status of the firm for the worthiness of lending with reference to the payment of interest periodical and the repayment of the principal.

(3) Trade Creditors - Trade creditors i.e., suppliers of goods and services on credit are interested in knowing the creditworthiness and financial soundness of the firm before offering the goods/services on credit. They can make a proper diagnosis of the purchaser concerns with the help of their annual report/financial statements.

(4) Government and Regulatory Authorities - These are interested in formulating laws to regulate business activities and law relating to taxation etc. annual report/financial statements help them while compiling the data on the National Income, Tax Collection, etc.

(5) Researchers -The annual report/financial statements being a mirror of the financial and non-financial information of a firm are of immense use to the various researchers who seeks to make a study into business affairs and practices of a particular firm.

(6) Customers - Customers are interested in the establishment of good accounting controls so that the cost of production can be reduced, resulting in lower prices for the goods and services they purchase.

(7) Stock Exchanges - These deals in buying and selling of the various securities of various companies for which they derive the information regarding the various financial information which help in determining the fair share price for them.

In addition, various financial analysts, financial news agencies, press and reporting agencies and public at large have also interest in the annual report/financial statements of the various business firms.

☞ Check your Progress – 1

1. What are the other disclosures apart from financial statements, in the annual report?

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2. List any five potential users of Annual Report of a company.

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3. Name the three main financial statement which a company prepares every year.

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4. Mention the purpose for which the information is required by the following person -

(a) Shareholders
(b) Management
(c) Lenders
(d) Government

Activity 1

Some Weblink for Annual Reports

The following are the weblinks of two well-established Indian companies. You can click them and get a feel of real-life Annual Reports of the latest financial year.

Tata Steel

https://www.tatasteel.com/investors/integrated-reportannual-report/integrated-report-annual-accounts-2020-21-114th-year-and-related-documents/
Infosys
https://www.infosys.com/investors/reports-filings.html

7.3 FINANCIAL STATEMENTS AND INFORMATION GAP

The necessary and primary function of reading a financial statement for the purpose of financial analysis is to seek out and pinpoint the degree of strengths and weakness of a business undertaking, by regrouping the data and figures provided in the financial statements; and make a comparison of its various components in reference to some predetermined standards and formulae. As a result, the analyst must understand the implications of changes in cost-price levels, changes in an enterprise's accounting practices, financial statement window dressing, personal judgement, accounting principles and traditions, and so on. Information gap is the deviations in the information expected by the different users for their various decisions and what the information provided by the company in its financial statements. The following are the shortcomings of financial statements - dependence on historical costs. Some other limitations of financial analysis are mentioned below:

Based on historical costs –

Financial statements do not reveal the company's current worth. The worth of assets and liabilities fluctuates over time. We adjust the amount for some items, such as marketable securities, to reflect changes in their market values, but not for others, such as fixed assets. As a result, the financial statement may be misleading if we report a big share of the amount based on prior costs.

Based on Personal judgment-

The value of assets appearing in statements is determined by the standards of the person dealing with it. Personal judgement is used to establish the technique of depreciation, mode of asset amortization, and so on.

Judgment in respect of various accounting policies-

As we produce a balance sheet based on a going concern concept, asset valuation does not represent the asset's realizable or replacement value. And we know that the amount stated in financial accounts is not accurate. Furthermore, it is dependent on management's judgement in terms of accounting policies used.

7.4 ANALYSIS OF PROFIT & LOSS ACCOUNT

As we had already discussed in unit 1 about the understanding and preparation of Profit and Loss Account (which may contain Trading Account component too) and Balance sheet which are the two primary and necessary financial documents for measuring and determining the profitability, sustainability, and financial soundness of a business entity. Analysis of a financial statement refers to employment of such tools and techniques on the details revealed by the financial documents, so that the profitability and financial status of a business entity can be determined with a certain degree of preciseness and reliability.

The P&L statement reveals the company's realized profits or losses for the specified period by comparing total revenues to the company's total costs and expenses. Over time it can show a company's ability to increase its profit, either by reducing costs and expenses or increasing sales. A Profit and Loss Statement, also known as an Income Statement. The Profit and Loss Statement/Account is prepared for two reasons.

i. To understand a company's profits/losses,

ii. Statutory requirements ("Companies Act, Partnership Act or any other law")

Structure of the Profit and Loss Statement

The following are the primary categories featured on the P&L:Revenue (or Sales)

- Cost of Goods Sold
- Selling, General & Administrative Expenses
- Marketing and Advertising
- Interest Expense
- Taxes
- Net Income
- Earnings Per Share

The brief interpretations of basic terms used in the profit and loss account have been explained below:

1. ***Revenue (Net Sales)***. This entry indicates the monetary worth of goods or services sold to clients by a business. Typically, sales are reported net of various reductions, refunds, and so like.

2. ***Cost of Goods Sold*****.** This component calculates the total amount of expenses incurred during the product creation process, including the cost of materials, labour, and so on. Direct and indirect costs are included in the cost of products sold. Direct costs (materials; product parts acquired for building; products purchased for resale; labour costs; shipping costs, and so on) are expenses that can be directly related with the object and its creation.

3. ***Gross Profit*****.** Net Sale- Cost of goods sold

4. ***Operating Expenses*****.** Selling and administrative costs are included in operating expenses. Selling expenses are those associated with a company's process of generating sales, such as miscellaneous advertisement expenses, sales commission, and so on. Administrative expenses include all costs associated with the management of a company's operations, such as office employee pay, insurance, and so on.

5. ***Operating Income*****.** Gross profit - Operating expenses.

6. ***Income Before Income Taxes*****.** Income before taxes is defined as operating income that includes (or excludes) additional income or expense.

7. ***Income Taxes*****.** Income before taxes is defined as operating income that includes (or excludes) additional income or expense.

8. ***Net Income*****.** After subtracting all expenses, taxes, depreciation, and other charges from a company's net sales, net income is the amount of money left. To put it another way, this entry indicates the primary reason for a company's existence: profit. Net profit, or net earnings, is another term for it. The profit and loss report's net income is an important aspect of the company's financial report analysis.

11. ***Earnings Per Share***. This component is frequently found at the bottom of a profit and loss statement. It is calculated by dividing the net profit by the total number of outstanding shares. The net profit earned by one common stock share is the outcome. A stockholder's risk management could benefit from this measurement.

Income statements are intended to provide users with information about a company's financial performance. With this data, a variety of metrics and analytics may be created to provide more in-depth assessments of the company. These indicators, on the other hand, become useful when compared to other companies. Income statement metrics such as total revenue growth and gross profit margin are generated and compared for similar companies within an industry in this sort of study. For example, see the metrics associated with a pair of two manufacturing companies are given below -

Omicorn Chemicals and Fertilizers Ltd.

- Revenue growth: 26.6 %
- Gross profit margin: 58%
- Net profit margin: 24 %
- Net income growth: 29.4%

Delta Chemical Ltd.

- Revenue growth: 22.2%
- Gross profit margin: 67 %
- Net profit margin: 24 %
- Net income growth: 28.2%

For an investor, looking to a fresh investment by purchasing the shares of a chemical manufacturer. If you compare the statistics of these two companies yields a number of insights that are not obvious if viewed on a standalone basis. The following are just a few of the interpretaions that can be drawn from the financial information of the both companies -

1. On both revenue and net income growth basis, Omicorn Chemicals and Fertilizers Ltd. is outperforming. As future growth prospects are highly important to every investor, Omicorn Chemicals and Fertilizers Ltd. appears to be the more attractive option.
2. Delta Chemical Ltd. has a lower COGS due to its higher gross profit margin than Omicorn Chemicals and Fertilizers Ltd. This suggests that Delta Chemical Ltd. can source its inputs for less than Omicorn Chemicals and Fertilizers Ltd., which could be indicative of an inherent competitive advantage.
3. Despite both firms having the same net profit margin, Omicorn Chemicals and Fertilizers Ltd. Systems appears to have lower operating costs than Delta Chemical Ltd. based on the differences between gross and net profit margins. This implies Omicorn Chemicals and Fertilizers Ltd. is operating its business more efficiently than Delta Chemical Ltd.

Numerous other analyses can be performed as part of any comparative company analysis using the income statement. The notion is that any income statement analysis should contain some type of comparative analysis to provide context for the given statistics and metrics. Investors, management, and others can have a comprehensive understanding of an organization's financial performance and make informed decisions as a result.

7.5 ANALYSIS OF BALANCE SHEET

As you recall from the unit 1, that Balance sheet is the arrangement of the assets and liabilities of a firm in a proper or in a systematic way. The balance sheet as prepared at the end of the accounting period shows the year-end status of each of the assets of the firm and the various claims on these assets. The analysis of Balance sheet is an analysis of the capital, financial structure and assets of the company for the purpose of getting the insights on the correct financial position of the business at a particular point in time. We could also say that the balance sheet shows the year-end balance in the asset, liability, and capital accounts. A company's balance sheet, also known as a "statement of financial position".

Balance sheet analysis: An examination of a company's assets, liabilities, and equity is known as a balance sheet analysis. This analysis is usually done at regular intervals, such as once a year or once a quarter. Balance sheet analysis is a method of calculating the company's revenue, assets, and liabilities.

Analyzing a Balance Sheet with Ratios

We may explore several ways used to analyse the information included inside a balance sheet after we have a better knowledge of how it is generated. Financial ratio analysis is the main technique.

Financial strength and activity ratios are the two most common types of ratios that employ balance sheet data. Working capital and debt-to-equity ratios are examples of financial strength measurements that show how well a company can meet its obligations and how leveraged those obligations are.

This might provide investors an understanding of the company's financial stability and how it finances itself. Activity ratios are primarily used to assess how successfully a company manages its operational cycle (which include receivables, inventory, and payables). These figures can reveal information about a company's operational efficiency. We will discuss in detail the different ratios in later section in this unit.

7.6 ANALYSIS OF CASH FLOW STATEMENT

In unit 2, we had discussed in detail about the meaning and process of preparing the cash flow statement. You recall it A cash flow statement is a type of financial statement that shows how much cash you have on hand at any given time. A statement that is prepared by the firms on a periodic basis is known as the 'Cash Flow Statement', which is made with the help of two statements (discussed in previous unit) – the Income Statement and Balance-sheet. The Cash Flow Statement is a very important statement which is an immense use for the financial decision making and analysis e.g. capital structure, capital budgeting, dividend declaration etc. This statement summarises the various sources of receiving the cash and its various uses by the firm from/to the different activities Operating, investing and financing activities during the period of time. In order to prepare, a cash flow statement we require Income Statements and Balance sheet of the current and previous years then the changes in both of the financial statements are obtained and classified as per the different activities i.e. Operating, investing and financing activities.

Why do you need cash flow statements?

Cash flow statements are essential for three reasons:

1. They demonstrate your financial strength.
2. In the form of cash withdrawals, cash inflows, and cash holdings, they show you changes in assets, liabilities, and equity.
3. They give you the ability to forecast future cash flows.

On top of that, if a firm plan on securing a loan or issuing bonds debentures etc, firm will require up-to-date cash flow statements to apply.

Preparation of Cash Flow Statement under the three sections -

Cash flow statements categorize cash receipts and payments based on their source. Operating Activities, Investing Activities, and Financing Activities are the three basic categories in which they might be categorize. A brief discussion of each of these three sections are given below:

- **Cash Flow from Operating Activities** is money earned or spent in the course of normal business operations—the main method a company makes money is via the sale of goods or services.
- **Cash Flow from Investing Activities** is money earned or spent by a firm on investments such as buying equipment or investing in other businesses.
- **Cash Flow from Financing Activities** is money earned or spent to finance a business through loans, lines of credit, or owner's equity.

Using the cash flow statement example above, here's a more detailed look at what each section does, and what it means for a business.

Preparing a Cash Flow Statement
To start with, we need two successive balance sheets and the operating statement or profit and loss account linking the two balance sheets.

There are two ways in which this statement can be drawn up. The direct method entails disclosing important categories of gross cash inflows and gross cash payments. The second method is known as the short-cut or indirect method. Under this method net profit or loss is taken as the basis and adjusted for the effects of transactions of non-cash nature, changes in current assets and current liabilities and transactions of income or expenses associated with financial cash flows.

[A details discussion on these two methods have been discussed in preceding unit 2. Please refer to it for details]

Preparation of a cash flow statement through Direct Method is a straightforward exercise and left to the students to follow up. Here, we would take up the cash flow statement by indirect method for further examination through an illustration appended below:
Illustration:
The balance sheet of Radhey Shankar & Shyam Trading Limited as at March 2021 and 2022 are given below:

Radhey Shankar & Shyam Trading Limited

Balance Sheets as at	31st March, 2021	31st March, 2022
	Rs.	Rs
Cash Balances	50,000	60,000
Plant and Machinery	2,00,000	2,50,000
Less: Accumulated Depreciation	60,000	80,000
Land	1,00,000	80,000
Inventory	1,40,000	1,20,000
Trade Debtors	75,000	1,00,000
	5,05,000	5,30,000
Balance Sheets as at	**31st March 2021 Rs.**	**31st March 2022 Rs.**
Liabilities:		
Share Capital	2,00,000	2,40,000
Trade Creditors	30,000	40,000
Debtors	1,50,000	90,000

Retained Earnings	1,25,000	1,60,000
	5,05,000	5,30,000

Additional Information:
Cash dividends of Rs.25,000 has been paid during the year. Prepare cash flow statement following the indirect method.
Solution

Radhey Shankar & Shyam Trading Limited

Cash Flow Statement As On 31" March 2022 (In Rs.)

Cash from Operating Activities		
Net Profit Before Taxation *	60,000	
Add: Depreciation	20,000	
Operating Profit Before Working Capital Changes		80,000
Net Increase in Debtors	(25,000)	
Net Decrease in Inventory	20,000	
Net Increase in Creditors	10,000	
Net Cash from Operating Activity (A)		85,000
Cash Flow From Investing Activities:		
Purchase of Plant and Machinery	(50,000)	
Proceeds from Sale of Land	20,000	
Net Cash Used in Investing Activities (B)		(30,000)
Cash Flow from Financing Activities		
Issue of Share Capital	40,000	
Redemption of Debentures	(60,000)	
Dividends Paid	(25,000)	
Net Cash from Financing Activities (C)		(45.000)
Net increase in cash (A+B+C)		10,000
Cash Balance at the Beginning of the Period		50,000
Cash Balance at the End of the Period		60,000

Note: *Profit for the period = Increase in retained earnings + Dividends paid
= 35,000 + 25,000 = 60,000

☞ Check your Progress – 2

1. Mention any Four information gap which an analyst must aware while analysing any financial information.

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2. Mention any Five items which found in any Profit & Loss Account/Income Statement.

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3. What are the different sections in a cash flow statement?

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7.7 TECHNIQUES OF FINANCIAL STATEMENTS ANALYSIS

The necessary and primary function of reading a financial statement for the purpose of financial analysis is to seek out and pinpoint the degree of strengths and weakness of a business undertaking, by regrouping the data and figures provided in the financial statements; and make a comparison of its various components in reference to some predetermined standards and formulae. So that the gaps in the financial information can be identified, located and measured for the purpose of financial decision-making. Thus, all processes and techniques, which assist in making some concrete deductions, from the basic details provided by the financial statements are included in the financial analysis. Besides, the data available in the financial information should be methodically classified and compared with figures of the relevant previous periods of some similar firms. This can be done through inter-firm and intra-firm comparisons.

On the other hand, interpretation means, putting the hidden meaning of the financial statements, in to simplified lucid terms, for the greater benefit of the users of accounting. Interpretation explains the financial affairs and position, in such a simple language that may understood even by a layman, who may not have any clear or basic knowledge or understanding of the principles of financial documents.

Objectives of Financial Statements:

The following are the some of the common objects of interpretation:

(i) To investigate the future potential of the concern.

(ii) To determine the profitability and future prospects of the concern.

(iii) To make comparative study of operational efficiency of similar concerns.

(iv) To examine the earning capacity and efficiency of various business activities with the help of income statements.

(v) To estimate about the performance efficiency and managerial ability.

(vi) To determine short term and long-term solvency of the business concerns.

(vii) To enquire about the financial position and ability to pay of the concern.s

Importance of Analysis and Interpretation of Financial Statements:

(i)On the other hand, intuition-based decisions may be incorrect and flawed. Because analysis and interpretation are founded on logical and scientific procedures, conclusions made on that basis are rarely misleading and incorrect.

(ii) The user's personal experience is extremely limited. Only by observation and external experience can he comprehend the complexity of business and mutual relationships. As a result, financial statements in an implicit form must be analyzed in a comprehensible manner.

(iii) Scientifically based decisions or findings are relative and easily understood by others.

(iv) Analysis and interpretation are required even for verifying and examining the correctness and accuracy of conclusions made based on intuition.

Major Techniques of Financial Statements Analysis

In addition to the Analysis of Profit and Loss Account, Balance Sheet and Cash Flow Statement, as discussed earlier, these are major techniques employed in the analysis of financial statements mentioned as follows:

1. Comparative Statements
2. Common Size Statements
3. Trend Analysis
4. Ratio Analysis

1. Comparative Statements

Comparative Financial Statements are created when financial statements from two or more years are displayed side by side to facilitate comparison. Such statements include columns that illustrate the rise or reduction in these values from one year to the next, in addition to the absolute figures for each year. Furthermore, these statements may show the percentage change from one year to the next. Because comparative statements are so useful, the Companies Act of 2013 mandates that a company's Profit & Loss Account and Balance Sheet include statistics from the prior year with figures from the current year.

Purpose and Significance:

A. To help for measuring the effects of the operation – This statement is very helpful in measuring the effects of the conduct of a business firm over a period of time under consideration.

B. To help in knowing the Trends: This statement helps in knowing the indication about the various trends and directions operating results e.g. cost of production, sales, operating profits and expenses etc. and financial position e.g capital, assets, outside liabilities etc. for a period of time under consideration.

C. To Identify the Concern's Strong and Weak Areas: It may also indicate the firm's strong and weak points. Management can then examine and determine the causes of the weaknesses before taking corrective action.

D. To Compare the Firm 's financial performance to the Industry Average: Comparative financial statements enable a business unit to compare its performance to the industry average.

E. To Assist in Anticipating: A comparative assessment of the variations in important numbers over time assists management in forecasting the business's profitability and financial soundness.

Limitations:

A. These accounts do not show how particular components have changed in respect to total assets, total liabilities, or net sales.

B. Because there is no common foundation, these statements are useless for comparing the financial statements of two or more businesses.

Types of Comparative Statements:

In practice, any statement can be prepared in comparative form but the majority of the companies/users prepare the comparative statement for Income Statement and balance-sheet. Thus, the following comparative statements are most popular for the users of the financial information -

(i) Comparative Income Statement/ Profit & Loss Account

(ii) Comparative Balance Sheet

(i) Comparative Income Statement / Profit &Loss account: Income Statement or Profit and loss account indicates the net profit or loss for a specific year, whereas comparative profit and loss account shows the following information over several years.

a. Rate of increase or decrease in sales.

b. Rate of increase or decrease in cost of goods sold.

c. Rate of increase or decrease in gross profit

d. Rate of increase or decrease in operating profit.

e. Rate of increase or decrease in net profit.

Preparation of Comparative Income Statement / Profit & Loss Account This statement helps to understand the progress of the conduct of the business operations. In a comparative Income Statement/ Profit & Loss Account, various items appeared in Income Statement/ Profit & Loss Account at two different periods are presented in a such manner so that the changes in each related item between two dates could be easily known. This statement is prepared in making of five columns out of which first three columns are used for showing the original data of Income Statement/ Profit & Loss Account of two periods i.e. first column for items of Income Statement/ Profit & Loss Account and next two columns are used for showing the figures of previous year and current year respectively while the fourth column is used for showing the changes of different items in terms of increases and decreases in absolute amounts and a last column i.e. fifth is used for showing the changes of different items in terms of percentage. It implies that amount of current year is more/less than the amount of previous year. Here, it is advised to show theitems of Income Statement in condensed form to avoid confusion arising out of too much items. This statement can be explained more clearly by taking the following example -

Illustration 2: From the following Profit & Loss Account of Bharat Trading Co. for the year ending 31st Dec.March,2020 and 2021 you are required to prepare a comparative Profit & Loss Accountand give your comments.

Bharat Trading Co.
PROFIT AND LOSS ACCOUNT
For the year ended 31st March 2020 and 2021

Particulars	**2020**	**2021**	**Particulars**	**2020**	**2021**
To Cost of goods sold	420,000	5,60,000	By sales	6,0 0,000	7,20,000
To administrative Expenses	50,000	66,000	By Dividend Received	30,000	90,000
To selling and Distribution expenses	25,000	23,000			
To Interest on Debentures	12,000	12,000			
To loss on sale of plant	6,000	4,000			
To provision for income Tax	40,000	48,000			
To net Profit	77,000	97,000			
	6,30,000	8,10 000		6,30,000	8,10,000

Solution 2:

Bharat Trading Co
Comparative Profit & Loss account
For the year ended 31st March 2020 and 2021

Particulars	**2020 (Rs.)**	**2021 (Rs.)**	**Absolute Increase/ Decrease (Rs.)**	**Percentage Increase/ Decrease (%)**
Sales	6,00,000	7,20,000	+120,000	+20
Less: Cost of Goods Sold	4,20,000	5,60,000	+140,000	+33.33
Gross Profit (A)	1,80,000	1,60,000	-20,000	-11.11
Less: Operating expenses				
Administrative expenses	50,000	66,000	+16,000	+32
Selling & distribution expenses	25,000	23,000	-2,000	-8
Total Operating expenses (B)	75,000	89,000	+14,000	+18.67
	105,000	71,000	-34,000	-32.38
Add: Dividend Received	30,000	90,000	+60,000	+200
Total Income (C)	135,000	1,61,000	+26,000	+19.26
Less: other expenses:				
Interest on debentures	12,000	12,000	-	-
Loss on sale of plant	6,000	4,000	-2,000	-33.33
Total other expenses (D)	18,000	16,000	-2,000	-11.11
Income before tax (C-D)	117,000	1,45,000	+28,000	+23.93
Less Provision for Tax	40,000	48,000	+8,000	+12
Income After Tax	77,000	97,000	+20,000	+25.97

Interpretation – From the above statement, the following points are worth noting -

1. As compared to 2020, during 2021 sales have increased by Rs 1,20,000 i.e. by 20% but due to an increase of 33.33% in cost of goods sold during the current period, gross profit has been reduced by Rs 20,000 i.e. 11.11%. The increase in cost of goods sold more than the

increase in sales volume indicates the inefficiency of production/purchase department. Hence, it is a matter of serious concern for the management to find out the real causes of such huge increases as compare to sales.

2. This statement further shows that the operating expenses in total have also increased in current year by Rs 14,000 i.e. 18.67% out of which administrative expenses have alone contributed in increasing of operating expenses by 32% which is also a serious concern for the management to investigate further for the causes. However, the selling expenses have been decreased by 8% in current period which shows a positive sign specially when the sales have been increased by 20%.
3. The operating profits during the current period has been come down by Rs 34,000 i.e. 32.38% which can be the effect of increase in cost of goods sold and operating expenses and which require to give focus of management for analyzing the further in details.
4. This statement further depicts that the total profits have increased by Rs 26,000 i.e. 19.26% which is the result of 200% (Rs 60,000) increase in dividend income i.e non-operating income which indicates a favourable sign for the firm.

(ii) Comparative Balance Sheet: The effects of all business operation of a firm can be found from the balance-sheets in the form of changes in the values of different items of balance sheet i.e. owner's capital, assets and liabilities. These changes can be studied by comparing the current year and previous yea balance-sheets of the same firm. For this purpose, the statement of comparative balance-sheet can be prepared for the use by the different decision-makers.

Preparation of Comparative Balance Sheet: In a comparative Balance sheet, various items appeared in balance-sheet at two different dates are presented in a such manner so that the changes in each related item between two dates could be easily known. This statement is also prepared in making of five columns out of which first three columns are used for showing the original data of balance-sheet of two dates i.e. first column for items of balance sheet (Assets and Liabilities), and next two columns are used for showing the figures of previous year and current year respectively while the fourth column is used for showing the changes of different items in terms of increases and decreases in absolute amounts and a last column i.e. fifth is used for showing the changes of different items in terms of percentage. It implies that amount of current year is more/less than the amount of previous year. This statement can be explained more clearly by taking the following example -

Illustration 1: From, the following Balance Sheets of Varsha International Engineering Ltd. as on 31st March 2021 and 31st March 2022 prepare a Comparative Balance Sheet and comment upon the changes:

VARSHA INTERNATIONAL ENGINEERING LTD.

BALANCE SHEETS
As on 31st March 2021 and 2022

Liabilities	2021	2022	Assets	2021	2022
Current Liabilities	2,00,000	4,00,000	Fixed Assets	12,00,000	18,00,000
Reserves	3,00,000	2,00,000	Less: Accumulated Depreciation	2,00,000	3,00,000
12% Loan	5,00,000	8,00,000		10,00,000	15,00,000
Share capital	5,00,000	10,00,000	Current Assets	5,00,000	9,00,000
Total Liabilities	15,00,000	24,00,000	Total Assets	15,00,000	24,00,000

Solution 1:

COMPARATIVE BALANCE SHEET OF VARSHA INTERNATIONAL ENGINEERING LTD.

as on 31st March 2021 and 2022

Particulars	2021	2022	Increase or decrease over 2021	% Increase or reaseover 2022
Fixed Assets	12,00,000	18,00,000	+6,00,000	+ 50
Less: Accumulated Depreciation	2,00,000	3,00,000	+1,00,000	+50
Net Fixed assets (A)	10,00,000	15,00,000	+5,00,000	+50
Working capital:				
Current assets (1)	5,00,000	9,00,000	+4,00,000	+80
Current Liabilities (2)	2,00,000	4,00,000	+2,00,000	+100
Working capital ((B) (1-2)	3,00,000	5,00,000	+2,00,000	+66.67
Capital Employed (A+B)	13,00,000	20,00,000	+7,00,000	+53.85
Less: 12% Loan	5,00,000	8,00,000	+3,00,000	+60
Shareholder's fund	8,00,000	12,00,000	+4,00,000	+50
Represented By:				
Share capital	5,00,000	10,00,000	+5,00,000	+100
+ Reserves	10,00,000	2,00,000	-1,00,000	-33.33
Shareholder's Fund	8,00,000	12,00,000	+4,00,000	+50

Comments: The above comparative balance-sheet depicts the following points -

1. In 2022, the share capital has increased by Rs. 5, 00,000, i.e., 100% increase. It has strengthened the financial position of the company which has been used for financing the fixed assets
2. Reserves have come down by Rs. 1, 00,000 i.e., 33.33%, which reflects loss in the business during the current accounting period
3. 12% loan has increased by Rs. 3, 00,000 (60%). Which has been used for financing of working capital to the extent of Rs 2,00,000 and remaining amount for financing of fixed assets i.e. Rs 1,00,000

4. **4.** Total fixed assets have increased by Rs. 6, 00,000, which has been financed from the issue of share capital and 12% loan to the extent of Rs 5,00,000 and Rs 1,00,000 respectively..
.

5. **5.** In 2022, the current liabilities have increased by Rs. 2,00,000, i.e., 100% increase, which has been used for the financing of current assets and current assets have also increased by Rs. 4,00,000, i.e., 80% increase. It has resulted in increase in the working capital of the firm by Rs. 2, 00,000 which has been financed by increase in loan.

2. Common Size Statements

As indicated by its name, this statement expresses the relationship of each items with some common form e.g. expressed as a percentage of total. Thus, all the items in the financial statements (Income Statement/Profit & Loss Account and Balance-Sheet) are to related to totals and when multiplied by 100 become related to a common value. These statements are used by the analysts to analysis of the performance of the firm by comparing each individual item vis-à-vis the totals in the statement. These statements also helps in analyzing the overall performance over the different years say two years or more for a firm. These statements can also be used for comparing with the competitive firms in the same industry for analyzing the performance of relative efficiency.

Purpose and Significance:

I. Common size analysis indicates the sources of capital and all other sources of funds, as well as the distribution or application of total funds in a commercial enterprise's asset.

II. A comparison of the common size statement over more than several years will clearly show the changing percentage of the main components of asset, liabilities, costs, net sales, and profits.

III. A comparison of the common size statement of two or more companies in the same industry, or of a company with the industry, will aid in corporate appraisal and ranking.

Limitations:

a. These statements show percentage of each item to total sum but do not show variations inthe individual items from period to period.

b. Many people consider the common size statement to be meaningless because there is no defined standard proportion of each item to total.

Preparing Common Size Statement

In common size statements individual figure are converted into percentage to some commonbase.

All statistics in a balance sheet are expressed as a proportion of the total assets or liabilities.

In profit and loss account, sales figure is taken as 100 and all other figures are expressedas percentage of sales.

Illustration 3: Prepare a common size balance sheet from the following Balance sheet ofAroma Industries and interpret the same.

Balance Sheet
As on 31st December 2020 and 2021

Liabilities	2020(Rs.)	2021(Rs.)	Assets	2020 (Rs.)	2021(Rs.)
Equity share Capital	6,00,000	6,00,000	Land & Building	8,00,000	7,50,000
General reserve	6,80,000	10,00,000	Plant & Machinery	3,00,000	5,00,000
10% Debenture	3,00,000	3,00,000	Furniture	1,00,000	1,06,250
Bills Payable	84,000	1,40,000	Stock	4,50,000	6,25,000
Creditors	3,28,000	4,50,000	Sundry Debtors	2,55,000	4,10,000
Outstanding Expenses	8,000	10,000	Cash	95,000	1,08,750
	20,00,000	25,00,000		2000,000	2500,000

Solution 3:

Balance Sheet
As on 31st December 2020 and 2021

Particulars	31st December 2020		31st December 2021	
	Amount (Rs)	**%**	**Amount (Rs)**	**%**
Fixed Assets:				
Land & Building	8,00,000	40	7,50,000	30
Plant & Machinery	3,00,000	15	5,00,000	20
Furniture	1,00,000	5	1,06,250	4.25
Total Fixed Assets (A)	12,00,000	60	13,56,250	54.25
Current Assets				
Stock	4,50,000	22.50	6,25,000	25
Sundry Debtors	2,55,000	12.75	4,10,000	16.40
Cash	95,000	4.75	1,08,750	4.35
Total Current Assets (B)	8,00,000	40	11,43,750	45.75
Total Assets (A+B)	20,00,000	100	25,00,000	100
Liabilities and Capital				
Owner's Equity				
Equity share capital	6,00,000	30	6,00,000	24
General reserve	6,80,000	34	10,00,000	40
Total Owners Equity (C)	12,80,000	64	16,00,000	64
Long Term Borrowings				
10% Debenture	3,00,000	15	3,00,000	12
Current Liabilities				
Bills payable	84,000	4.20	1,40,000	5.60
Creditors	3,28,000	16.40	4,50,000	18
Outstanding expenses	8,000	.40	10,000	.40
Total Current Liabilities (E)	4,20,000	21	6,00,000	24
Total liabilities and Capital (C+D+E)	20,00,000	100	25,00,000	100

Working Notes: All the % will be calculated on basis of total of Balance sheet. Hence in 2020 % will be based on Rs. 20, 00,000 and in 2021 % will be based on 25, 00,000

Interpretation: in 2020, current assets were 40% of Total assets. In 2021, these have increased to 45.75%. Current liabilities have also increased from 21% to 24%. Working capital has improved because of a bigger rise in current assets than in current liabilities. Fixed assets have decreased from 60% to 54.25 percent of total assets. owners' equity has remained constant.

3. Trend Analysis

This analysis is also an important and useful technique of horizontal financial analysis. This technique is immensely used by the analysts in making a comparative study of the financial figures of several years. Under this method, trend percentages are calculated for each item of the financial statements taking the this figure of base year as 100. Generally, the beginning year is taken as the base year. The trend percentages show the relationship of each item with its previous year's percentages. One can also show these percentages in the form of this Index Numbers showing relative change in the financial data of the given period. The examination of trend percentages moves in one of two directions: upward or downward advancement or regression. Generally, the trend percentages are calculated only for important items rather calculating the trends for all the items shown in the financial statements.

Purpose and Significance:

a) Trend percentages are more helpful than absolute data because they show the growth in an accounting item as well as the amount of the change in percentage.

b) The trend percentage allows for a more efficient comparison of commercial enterprise financial performance over time.

Limitations:

a. Any one trend isn't very analytical or enlightening on its own.

b. If percentages and ratios are interpreted separately from the absolute data from which the percentages were produced, the interferences are likely to be ludicrous and unfounded.

c. During inflationary periods, data over time becomes incomparable unless the data is corrected in absolute rupees.

d. There's always the risk of picking a base year that isn't representative, usual, or typical. There is always the danger of selecting the base year which may not be representative, normal and typical.

Care to be taken before making a Trend Analysis:

(i) The firm needs to follow the accounting principles, rules,and practices constantly over the period for which the analysis is made in order to maintain consistency and comparability.

(ii) A normal and representative year shoudl be taken as a base year for calculating the trend percentages.

(iii) Only calculate trend percentages for things that are related logically.

(iv) After reviewing the absolute statistics on which trend percentages are based, they should be examined.

(v) Before calculating trend percentages, figures from the current year should be adjusted for price level changes in comparison to the base year.

Illustration 4: Calculate the trend percentages from the following data relating to asset side of the Balance sheet of KRISHNA Industries Ltd. taking year ending 31st March 2019 as the base year:

Assets	As at 31st March			
	2019	2020	2021	2022
Machinery	4,00,000	5,00,000	5,00,000	5,00,000
Land & Building	1,50,000	1,50,000	2,00,000	2,00,000
Furniture	50,000	60,000	60,000	80,000
Stock	1,00,000	1,25,000	1,40,000	1,50,000
Debtors	50,000	60,000	75,000	1,00,000
Cash & Bank	10,000	15,000	25,000	20,000
Other current Assets	40,000	30,000	60,000	50,000
	8,00,000	9,40,000	10,60,000	11,00,000

Solution 4:

Trend Percentages
31st March 2019 to 2022

Assets	Absolute Amounts (Rs.)				Trend Percentages (BaseYear 2019)			
	2019	2020	2021	2022	2019	2020	2021	2022
Fixed Assets:								
Machinery	4,00,000	5,00,000	5,00,000	5,00,000	100	125	125	125
Land & Building	1,50,000	1,50,000	2,00,000	2,00,000	100	100	133	133
Furniture	50,000	60,000	60,000	80,000	100	120	120	160
Total Fixed Assets(A)	6,00,000	7,10,000	7,60,000	7,80,000	100	118	127	130
Current Assets:								
Stock	1,00,000	1,25,000	1,40,000	1,50,000	100	125	140	150
Debtors	50,000	60,000	75,000	1,00,000	100	120	150	200
Cash & Bank	10,000	15,000	25,000	20,000	100	150	250	200
Other current Assets	40,000	30,000	60,000	50,000	100	75	150	125
Total current Assets (B)	2,00,000	2,30,000	3,00,000	3,20,000	100	115	150	160
Total Assets (A+B)	8,00,000	9,40,000	10,60,000	11,00,000	100	118	133	138

4. Ratio Analysis

Financial statements without absolute figures expressed in monetary terms are worthless. Unless articulated in relation to other figures, these figures often do not communicate much sense. A 'ratio' is the mathematical expression for the connection between two figures. In the words of R. N. Anthony “A Ratio is simply one number expressed in terms of-another. It is found by dividing one number in to other.”

Ratio can be expressed in the following three ways:

A. **Pure Ratio or Simple Ratio** It’s just dividing one number by another. If a company's current assets are Rs. 2,00,000 and its current liabilities are Rs. 1,00,000, the current assets to current liabilities ratio is 2: 1.

B. **‘Rate' or 'So Many Times':** The number of times a figure is compared to another figure is calculated. For example, if a company's credit sales are Rs. 2,00,000 during the year and its debtors are Rs. 40,000 at the end of the year, the Debtors Turnover Ratio is 2,00,000 / 40,000 = 5 times. In comparison to debtors, credit sales are 5 times higher.

C. **Percentage:** The relationship between two figures is expressed in hundredths in this style. For instance, suppose a company's capital is Rs. 10,000 and its profit is Rs. 2,000. In percentage terms, the profit to capital ratio is

$$\frac{2,00,000}{10,00,000} \times 100 = 20\%.$$

Purpose and Significance:

It primarily aids a user in making sense of the seemingly meaningless numbers in financial accounts. The data then speak of the company's liquidity, solvency, profitability, and so on. The major purposes and significance of Ratio Analysis is as follows.

A. **Helpful in Analysis of Financial Statements:** The ratio analysis is an effective method for analyzing financial data. It helps bankers, creditors, investors, and shareholders acquire a thorough understanding of a company's profitability and financial health.

B. **Simplification of Accounting Data**: Accounting ratios simplify and summarize a large amount of accounting data, making it easier to comprehend. It reveals the relationship between two such figures who are linked by a cause-and-effect relationship.

C. **Helpful in Comparative Study:** A comparison of profitability and financial soundness between two companies in the same industry can be conducted using ratio analysis. Ratio analysis can also be used to compare current year numbers to those from past years.

D. **Helpful in Forecasting**: Accounting ratios are quite useful for forecasting and planning for the future. For example, if a firm's sales this year are Rs. 10 Lakhs and the average amount of stock retained during the year is Rs. 2 Lakhs, i.e., 20% of sales, and the firm wants to expand sales to Rs. 15 Lakhs next year, it must be prepared to keep a stock of Rs. 3, 00,000, i.e., 20% of 15 Lakhs.

E. **Estimate About the Trend of the Business:** Accounting ratios developed throughout time will disclose the pattern of costs, sales, profits, and other vital facts.

F. **Fixation of Ideal Standards**: Ratios assist us in developing acceptable criteria for many commercial things. The efficiency of the firm may be simply examined by comparing the actual ratios calculated at the end of the year with the ideal ratios.

G. **Effective Control**: Ratio analysis reveals a company's liquidity, solvency, and profitability. Such data enables management to examine the changes that have occurred in the financial activities of the organization over time. It assists them in doing their managerial functions more successfully, such as planning, organizing, directing, communicating, and controlling.

H. **Study of Financial Soundness.** Ratio analysis reveals the position of a corporation from many perspectives. It reveals the business's position in terms of liquidity, solvency, profitability, and so on. We can take judgments about the financial health of the business from such a study.

Limitations:

a. Ratio Analysis Becomes Less Effective Due to Price Level Changes
b. Ratios may be Misleading in the Absence of Absolute Data
c. Limited Use of a Single Ratio
d. Window-Dressing
e. Lack of Proper Standards
f. Ration alone are not adequate for proper conclusions
g. Effect of personal ability and bias of the Analyst

Types of Ratios:

1. Liquidity Ratios
2. Leverage Ratios
3. Turnover or Activity Ratios
4. Profitablity Ratios
5. Valuation Ratios

To facilitate the discussion of various ratios the financial statements of Diversified limited,given below will be used.

Diversified Limited: Profit and loss account for the year ending 31st March 20X1 **(Rs in lakh) (Rs in lakh)**

Particulars	**20X1**	**20X0**
Net Sales	701	623
Cost of goods sold	552	475
Stock	421	370
Wages and salaries	68	55
Other manufacturing	63	50
Gross profit	149	148
Operating expenses	60	49
Depreciation	30	26
General administration	12	11
Selling	18	12
Operating profit	89	99
Non — operating surplus/ deficit	-	6
Profit before interest and tax	89	105
Interest	21	22
Profit before tax	68	83
Tax	34	41
Profit after Tax	34	42
Dividends	28	27
Retained Earnings	6	15
Per share data (in Rs.)		
Earnings per share	2.27	2.80
Dividend per share	1.80	1.80
Market price per share	21.0	20.0
Book value per share	17.47	17.07

Diversified Limited: Balance sheet as on 31st March 20X1
((Rs in lakh))

	20X1	**20X0**
1.Sources of Funds	262	256
a) Shareholders fund	150	150
Share capital	112	106
Reserves & Surplus		
b) Loan Funds	143	131
(i)Secured loans	108	29
Due after 1 year	35	40

Due within 1 year	69	25
(ii)Unsecured loans	29	10
Due after 1 year	40	15
Due within 1 year	474	412
2.Application of Funds		
a) Fixed Assets	330	322
b) Investments	15	15
Long term investments	12	12
Current investments	3	3
c) Current assets, loans and Advances	234	156
i)Inventories	105	72
(ii)Sundry debtors	114	68
(iii) Cash & bank balance	10	6
(iv)Loans & Advances	5	10
Less: Current liabilities & Provisions	105	81
Net current assets	129	75
	474	412

1. Liquidity Ratios:

The ability of a company to satisfy its obligations in the short run, usually one year, is referred to as liquidity. The liquidity ratio is generally based on the connection between current assets and current liabilities (the sources for satisfying short-term obligations). Current ratio, acid test ratio, and cash ratio are essential liquidity ratios.

Current Ratio A very popular ratio, the current ratio is defined as:

$$\frac{\text{Current Assets}}{\text{Current liabilities}}$$

Diversified Ltd's Current Ratio for 20X1 is 237/ 180 = 1.32

A high current ratio is typically regarded as an indication of financial strength. Bankers in India have utilized a 1.33 standard. The international standard is 2.0. The nature of current assets must not be neglected when analyzing the current ratio—perhaps inventories are slow-moving, and a portion of loam advances may be sticky dues from associate companies.

Acid-test Ratio also called the **Quick Ratio;** the acid-test ratio is defined as:

$$\frac{\text{Quick assets}}{\text{Current liabilities}}$$

Quick assets are defined as current assets excluding inventories. Diversified's acid-test ratio for 20X1 is (237-105) /180=0.73
This is a fairly stringent measure of liquidity as it excludes inventories, perhaps the least liquidof current assest, from the numerator.

Cash Ratio Sometimes, financial analysts look at cash ratio, which is defined as:

$$\frac{\text{Cash and bank balances+Current investments}}{\text{Current liabilities}}$$

Diversifies's cash ratio for 20X1 is: (10+3)/180=0.07

This is a very stringent measure of liquidity. Indeed, lack of immediate cash may not matter if thefirm can stretch its payments or borrow money at short notice.

2. Leverage Ratios

Financial leverage refers to the use of debt financing. While debt capital is a less expensive form of financing, it also carries a higher risk. Leverage ratios assist in determining the risk associated with borrowing money. Coverage ratios depict the link between debt servicing responsibilities and the sources of funding to meet these obligations.

Debt-equity Ratio The debt-equity ratio is defined as:

$$\frac{\text{Debt}}{\text{Equity}}$$

The numerator of this ratio consists of all debt, short- term as well as long-term, and the denominator consists of net worth plus preference capital plus deferred tax liability.

Diversified’s debt-equity ratio for the 20X1 year-end is:
212 / 262 = 0.809

Interpretation - Whether a given debt-equity ratio shows a favourable or unfavourable financial conditions of a firm depends on the industry norm and the pattern of earnings. A low debt-equity ratio is generally viewed as a favourable from the point of view of long-term financers/creditors because of a large margin of protection provides safety for the creditors, on the other hand, the same low ratio may be taken as quite unsatisfactory by the shareholders because they find neglected oopportunity for using low –cost funding from outsiders that could increase there earnings per share. Keeeping in view of the interest of both stakeholders (shareholders and long-term creditors) debt to equity ratio of 2:1 can be considered as acceptable.

Debt-asset Ratio The debt-asset ratio measures the extent to which borrowed funds support the firm’s assets. It is defined as:

$$\frac{\text{Debt}}{\text{Assets}}$$

The numerator of the ratio inclues all debt, short-term as well as long-term, and the denominator of this ratio is the total of all assets (the balance sheet total.)

Diversified’s debt-asset ratio for 20X1 is:
212 / 474 = 0.45

Interest Coverage Ratio Also called the times interest earned, the interest coverage ratio is defined as:

$$\frac{\text{Profit before interest and taxes}}{\text{Interest}}$$

Diversified 's interest coverage ratio for 20X1 is:
89/21 = 4.23

Note that a high interest coverage ratio means that the firm can meet its interest burden even if earnings before interest and taxes suffer a considerable decline and Vice-Versa.

Fixed Charges Coverage Ratio This ratio shows how many times the cash flow beforeinterest and taxes covers all fixed financing charges. It is defined as:

Profit before interest and taxes + Depreciation Interest +Repayment of loan –
1-Tax rate

In the denominator of this ratio only the repayment of loan is adjusted upwards for the tax fator because the loan repayment amount, unlike interest, is not tax deductible.
Diversified's tax rate has been assumed to be 50 percent.

Diversified's fixed charges coverage ratio for20X1 is:

119 = 0.70
21+75
0.50

This ratio assesses debt servicing capacity thoroughly because it considers both interest and principal payback requirements. Other fixed charges, such as lease payments and preference dividends, can be added to the ratio.

The more the ratio, the more is the margin of safety to the lenders. If the ratio is one, it means profits of the firm is just equal to interest payment, it will reflect a bad position of the firm as nothing will be left for the shareholders and will be unsafe for the lenders also.

3. Turnover Ratios

Turnover ratios, also known as activity ratios or asset management ratios, measure how well a company's assets are utilized. These ratios are based on the relationship between activity levels and asset levels, as measured by sales or cost of things sold.

Inventory Turnover The inventory turnover, or stock turnover, measures how fast the inventory is moving through the firm and generating sales. It is defined as:

$$\frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

Where Average Inventory = (Opening Stock + Closing Stock) / 2

Diversified's inventory turnover for 20Xl is:

$$\frac{552}{(105 + 72)/2} = 6.24$$

The Inventory turnover reflects the efficiency of inventory management. The higher the ratio, the more efficient the management of inventories and *vice versa.*

Debtor Turnover This ratio indicates how many times various debtors (accounts receivable) are turned over during the year. It is defined as follows:

$$\frac{\text{Net credit sales (Total Sale-Cash Sales}}{\text{Average Receivables}}$$

If the figure for net credit sales is not available, one may have to make do with the net salesfigure.

Diversified's debtors' turnover for 20X1 is:

$$\frac{701}{(114+68)/2} = 7.70$$

The bigger the debtor turnover, the more efficient credit management.

Average Collection Period:

The average collection duration is the amount of days' worth of credit sales that have been locked in by various debtors. It's defined as follows:

$$\frac{365}{\text{Debtors' turnover}}$$

To evaluate credit management efficiency, compare the average collection period to the firm's credit terms. Suppose, a firm allows 30 days credit ot its customers and the ratio is say 50 days then it is a cause of concern to the management because amounts is outstanding for a period of 50 days. Efforts should be made to make collection process efficient so that the amount due from debtors may be realized in within the allowable period as per the credit policy. Higher the period, more the chances of bad debts and lower the period, less chances of bad debts.

Fixed Assets Turnover: This ratio measures sales per rupee of investment in fixed assets. Itis defined as:

$$\frac{\text{Net Sales}}{\text{Average net fixed assets}}$$

Diversified's fixed assets turnover ratio for 20X1 is: 701 / [(330 + 322)/2] = 2.15

This ratio is intended to assess the effectiveness with which fixed assets are utilized. A high ratio suggests efficient asset utilization, whereas a low ratio shows poor asset utilization.

Total Assets Turnover

$$\frac{\text{Net sales}}{\text{Average total assets}}$$

Diversified's total assets turnover ratio for 20X1 is:

701 ÷ [(474 + 412)/2] = 1.58

This ratio measures how efficiently assets are employed, overall.

4. Profitability Ratios

Profitability ratios show the result of business operations. Profitability ratios are classified into two types: profit margin ratios and rate of return ratios. Profit margin ratios demonstrate the connection between profit and sales.

There are multiple measurements of profit margin since profit can be quantified at various times.

The three most used profit margin ratios are:

1. Gross profit margin
2. Operational profit margin
3. Net profit margin.

The relationship between profit and investment is reflected in rate of return ratios. Return on assets, earning power, return on capital employed, and return on equity are all relevant rate of return indicators.

Gross Profit Margin =

$$\frac{\text{Gross profit}}{\text{Net sales}}$$

Gross profit =Net sales- cost of goods sold.
Gross profitmargin ratio for 20X1 is:
149/701 = 0.21 or 21 percent

This ratio depicts the margin remaining after deducting manufacturing costs. It assesses both production efficiency and pricing.

Return on Assets (ROA) defined by:

$$\frac{\text{Profit after tax}}{\text{Average total assets}}$$

Diversified ROA for the year 20X1 is:
34 / [(412 + 474) / 2] = 7.7%

ROA is an unusual metric since its numerator represents the return to shareholders while its denominator represents all investors.

Return on Capital Employed (ROCE) The return on capital employed is defined as:

$$\frac{\text{Profit before interest and tax (1-tax rate)}}{\text{Average Total Assets}}$$

89(1-0.5) ÷ [(412 + 474) / 2] = 0.201 or 20.1%
ROCE is the post-tax version of earning power. It considers the effect of taxation, but not thecapital structure.
Return on Equity: Equity(ROE) is defined as:

$$\frac{\text{Equity Earnings}}{\text{Average Equity}}$$

This ratio's numerator equals earnings after tax minus preference dividends.
All contributions made by equity shareholders (Paid-up Capital + Reserves and Surplus) are included in the denominator.

Diversified ROE for the year 20X1 is:

34÷ [(262 + 256) / 2 = 0.131 or 13.1%

In accounting terms, the return on equity is the most essential metric of performance. Several factors influence it, including the debt-equity ratio, average cost of debt financing, and tax rate. When evaluating all profitability measurements, keep in mind that historical asset valuation gives an upward bias to profitability measures during an inflationary environment. This is due to the fact that the numerator reflects current values and the denominator represents past values.

5. Valuation Ratios

Valuation ratios are used to value the company's equity stock in the capital market. Because market value reflects the combined influence of risk and return, valuation ratios are the most comprehensive gauge of a company's performance. The price-earnings ratio, Enterprises Value - EV-EBITDA ratio, and market value to book value ratio are all key valuation ratios.

Price-Earnings Ratio: The price–Earnings Ratio is defined as:

$$\frac{\text{Market price per share}}{\text{Earnings per share}}$$

On a given day, the current market price per share could be the price. Earnings per share is calculated by dividing profit after taxes less preference dividend by the number of outstanding equity shares.

Diversified Price-Earnings ratio at the end of year 20X1 is:
21.0 / 2.27 = 9.25

This ratio primarily reflects growth prospects, risk, shareholders orientation, and degree ofliquidity.

Diversified Pice-Earnings ratio at the end of year 20X1 is:
21.0 / 2.27 = 9.25

This rato primarily reflects growth prospects, risk, shareholders orientations, and degree of liquidity.

EV-EBITDA The EV-EBITDA ratio is defined as:

$$\frac{\text{Enterprises Value (EV)}}{\text{Earnings before interest, taxes, depreciation, and amortization (EBITDA)}}$$

EV is sum of market value of equity and market value of debt, Diversfied EV-EBITDA for the year 20X1 is:

$$\frac{15x21+212}{219} = 4.43$$

EV-EBITDA We supposed to reflect the profitability, growth, risk, liquidity and corporate image.

Comparative Analysis: A comparison study is required to determine whether the ratios are high or low.
Cross section analysis (In which industry average may be used as benchmark)
Time series analysis (in which the ratios of the firm are compared over time.

A. Cross section analysis (in which industry average may be used as benchmark)

Following exhibit shows the ratios of Diversified limited with industry average
Comparison of ratios of Diversified limited with industry average -

Ratio	Formula	Diversified Ltd	Industry Average
1. Liquidity			
Current ratio	Current assets / Current Liability	1.32	1.26
Acid test ratio	Quick assets / Current liabilities	.73	.69
2. Leverage			
Debt-Equity Ratio	Debt / Equity	.81	1.25
Debt- asset ratio	Debt / Assets	.45	.56
Interest coverage Ratio	EBIT / Interest	4.23	4.14
3. Turnover			
Inventory turnover	Net sales / Average Inventory	6.24	66.43
Accounts receivable turnover	Net credit sales / Average Accounts receivables	7.70	7.50
Fixed assets Turnover	Net sales / Average net fixed assets	2.15	2.23
Total assets turnover	Net sales / Average Total assets	1.582	1.26
4. Profitability			
Gross profit margin	Gross profit / Net sales	21.0%	18.0%
Net profit margin	Net profit / Net sales	4.9%	4.0%
Return on assets	Net profit / Average Total assets	7.7%	6.9%
ROCE	PBIT(1-T) / Average Total assets	10.1%	8.8%
ROE	Equity Earnings / Average net worth	13.1%	11.9%
5. Valuation			
Price-earning ratio	Market price per share Earning per share	9.25	9.26
Market value to book value ratio	Market price per share Book price per share	1.20	1.16

Comments:

i. It has favorable liquidity position. All the liquidity ratios are higher than the industry average.

ii. Leberage ratios are shade lower than the industry average.

iii. Turnover ratios are more or less comparable with industry average.
iv. Profit margin ratios are somewhat higher than the industry average. The rate of return mearures of Diversified ltd. are also higher than the industry average.
v. Valuation ratios are also slightly favorable than the industry average.

B. Time series analysis (in which the ratios of the firm are compared over time)

Following table shows the Time series of certain financial ratios for five years

Ratios	**1**	**2**	**3**	**4**	**5**
Debt equity Ratio	.91	.98	.65	.61	.81
Total Asset Turnover Ratio	1.51	1.59	1.58	1.53	1.58
Net Profit Margin (%)	8.8	11.6	9.8	6.6	4.9
Return on Equity (%)	25.4	30.7	24.5	16.7	13.1
Price-Earning Ratio	18.6	15.3	10.3	7.1	9.3

Comments:

i. The Debt Equity Ratio improved for three years in succession but deteriorated in last year.
ii. Total Assets Turnover Ratio remained more or less the same.
iii. The Net Profit Margin Ratio And ROE improved impressively in the second year but then decline over remaining three year.
iv. Price-Earnings Ratio deteriorated steadily over time except in the last year.

Check your Progress- 3

1. Name the various tools of financial statement analysis.

2. Horizontal Analysis means --

3. Evaluating series of financial data over a period of time.

Cost of Goods Sold Rs 50,00,000
Sales (net) Rs 1,50,00,000
Operating Expenses Rs 25,00,000
Calculate the Operating Ratio.

4. If Current Ratio is 2.5, Quick Ratio is 1.5, Working Capital is Rs 1,56,000 then what would be Current Assets and Inventory?

5. The Current Assets and Working Capital of a company are Rs 24,00,000 and Rs 15,00,000 respectively. How much the company borrow on a short-term basis to maintain its current ratio of 2.0.?

7.8 SUMMARY

In addition to the financial statements, the annual report of a company provides a number of other useful information to the various users of financial information. These reports give further insight into the financial performance and position of the company.

The financial statements are not an end in themselves; they are only vehicles of communicating the financial health of a firm. Though they contain significant facts regarding the concern in the form of figures, but the figures are dumb. No meaningful conclusions can be drawn from these figures unless they are read, analysed, and interpreted. Thus, the significance of these statements lies not in their preparation but in their read, analysis and interpretation.
Financial Statements are prepared predominantly for maintaining a permanent record of its past transactions and events as a legislative requirement and for making decisions for its day-to-day operations and for implementing strategies. Thus, these statements are not merely an end in themselves, but are useful in decision-making. Reading, evaluation, analysis and interpretation of the financial statement is basically a process of calculating the significant and substantial financial information of short-term and long-term importance.

7.9 KEY WORDS

Analysis of Financial Statement - It refers to the process of critical examination of the financial information contained in the financial statement.
Annual Report -The basic source which provide the financial and non-financial information is the Annual Report of the company, which is presented by the company to its shareholders at the Annual General Meeting.
Cash Flow Statement -It is a statement which shows inflow and outflow of cash in a business firm during a particular period.
Common size Statements - Under this technique, all the items of statement are presented as percentage to the total of these items and common base is provided for comparison.
Comparative Statements - Under this technique, Profit & Loss Accounts, Balance-Sheets, Cost Statement and Sale Statements of some previous years are compared.
External Analysis - When financial statements of a firm are analysed by outsiders, it is known as external analysis.
Horizontal Analysis -When financial statement of a number of years of some firm are analysed, it is called Horizontal analysis.
Internal Analysis - When financial statements of a firm are analysed by the members of firm itself, it is known as internal analysis.
Ratio - A ratio is simply one number expressed in terms of another.
Ratio Analysis - It is the process of determining and expressing the numerical or quantitative relationship between two or more variables for the purpose of financial analysis.

Reading and Interpretation of Analysis of Financial Statement - Reading and Interpretation refers to the system of drawing fruitful conclusions based on analysed figures and interpretation.
Trend Analysis - When a series of financial data is analysed to study the trend of such data, it is known as trend analysis.
Vertical Analysis - It refers to the establishment of quantitative relationship among different items of financial statements of one year only.

7.10 SELF ASSESSMENT QUESTIONS/EXERCISES

1. What are the different sources of disclosures in the annual reports of a company?
2. Who needs annual report and for what purposes? What information do they need?
3. Explain in brief the types of tools that may be used for financial statement analysis.
4. Distinguish between Diversified Tal and vertical analysis of financial statements with suitable examples.
5. What are the Common Size Statements and what purpose do they serve? Take some hypothetical figures in respect of the balance sheet of two companies - small company and Big company. Explain how common size statements facilitate inter-firm comparison.
6. Classify accounting ratios according to sources and enumerate the balance sheet and profit & loss account ratios.
7. Consider yourself as Manager of a company and the management of the company has approached you for suitable advice about the taking over a similar business and has handed over to you the published accounts of the target firm for the last three years, As a manager- Financial Analyst, what particulars rations would you look into?
8. How would you analyse the financial position of a company from the point of view of:
(I) Bank
(II) An Investor
(III) A Creditor
9. Discuss the utility of ratio accounting to the management accountant.
10. Financial Information can be used to ascertain efficiency or otherwise utilization of assets. Which ratios can be used to measure efficiency in assets utilization?
11. The financial statement of Aggarwal Food Company Limited is given below:

Profit and loss account for the year ending 31st March 2022
(Rs. in Crore)

	2022	**2021**
Net sales	1065	950
Cost of goods sold	805	720
Stocks	600	520
Wages and Salaries	120	110
Other manufacturing expenses	85	90
Gross profit	260	230
Operating expenses	90	75
Depreciation	50	40
Selling and Administration expenses	40	35
Profit before interest and tax	170	155
Interest	35	30
Profit before tax	135	125
Tax	50	40
Profit after tax	85	80
Dividends	35	30

Retained earnings	50	50

Balance Sheet As on 31st March 2022
(Rs. in Crore)

	2022	2021
1.Sources of Funds		
a) Shareholders fund	505	455
Share capital	125	125
Reserves & Surplus	380	330
b) Loan Funds	280	260
(i) Secured loans	180	160
Due after 1 year	130	135
Due within 1 year	50	255
(ii) Unsecured loans	100	100
Due after 1 year	60	70
Due within 1 year	40	30
Total	785	715
2. Application of Funds		
a) Fixed Assets	550	495
b) Investments	30	25
Long term investments	20	20
Current investments	10	5
c) Current assets, loans and Advances	355	333
i) Inventories	160	138
(ii) Sundry debtors	120	115
(iii) Cash & bank balance	25	20
(iv) Loans & Advances	50	62
Less: Current liabilities & Provisions	150	13
Net current assets	205	195
Total	785	715

Calculate the following ratios:

a) Current Ratio b) Acid Test Ratio c) Cash Ratio d) Debt-Equity Ratio e) Interest Coverage Ratio f) Fixed Charges Coverage Ratio g) Inventory Turnover Ratio h) Debtors Turnover Ratio i) Average Collection Period j) Fixed Asset Turnover Ratio k) Total Asset Turnover l) Gross Profit Margin m) Net Profit Margin n) Return on Asset o) Return on Equity

7.11 SOLUTIONS/ ANSWERS

Check your Progress -1

1. Other disclosures apart from financial statements

(a) Management Discussion and Analysis section providing a composite summary of performance of various businesses of the Company along with prospective analysis.
(b) Corporate Governance Report
(c) Listing of the Company's board of directors, management committee and statutory auditor.

(d) Shareholding pattern; and
(e)Share Price data and Dividend declared.

2. Five potential users of Annual Report - prospective investor, financers, managers, government, customers, suppliers, lenders, academician, researchers.

3. Profit & Loss Account/Income Statement; Balance-Sheet and Cash Flow Statement.

4. Mention the purpose for which the information is required by the following person.

(e) Shareholders' Investment decisions, Probability & Growth of the company.

(f) Management Dividend decisions, Price determination, Future decisions.

(g) Lenders Profitability and solvency position, prospects of the firm.

(h) Government Collection of direct and Indirect tax collection, regulation intervention, resource allocation etc.

(v) Corporate Governance Report.

Check your Progress -2

1. Four information gap - Effect of the cost price level changes, Changes in accounting policies, Window dressing of financial statements, personal judgment, Accounting concepts, and Conventions.

2. Items Shown in Profit & Loss Account –

- Revenue (or Sales)
- Cost of Goods Sold (or Cost of Sales)
- Selling, General & Administrative (SG & A) Expenses
- Marketing and Advertising
- Technology / Research & Development
- Interest Expense
- Taxes
- Net Income
- Earnings Per Share

3. Three Sections in a cash flow statement - Operating Activities, Investing Activities and Financing Activities.

Check your Progress- 3
1. Following are the main tools of analysis of financial information -

A. Comparative Financial Statement;

B. Common-size Statements
C. Trend Analysis
D. Ratio Analysis
E. Cash Flow Analysis

2. Horizontal Analysis - In comparing the same firm's financial statements of two or more periods to analyse changes that have taken place over the period.

3. Operating Ratio - 50%

4. Current Assets - Rs 2,60,000 and Inventory - Rs 1,04,000

5. Rs 6,00,000

Answer to self-assessment questions/exercises

11.

(a) 1.52 (b) 0.85 (c) 0.15 (d) 0.55 (e) 4.9 (f) 1.24 (g) 5.4 (h) 9.06 (i) 40.3 Days (j) 2.04 (k) 1.42 (l) 24.4% (m) 7.98% (n) 11.3% (o) 17.7%

7.12 REFERENCES AND FURTHER READINGS

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