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Financial Reporting and Analysis

SEMESTER 2

MASTER OF COMMERCE

BLOCK 2

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MASTER OF COMMERCE

FINANCIAL REPORTING AND ANALYSIS

Block 2

DETAILED SYLLABUS

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BLOCK INTRODUCTION

The second block of the course ***Financial Reporting and Analysis*** consists of 6 units. After completing this block, you will be able to get a fair idea on the different concepts on Fund Flow Statement, Budget and Budgetary Control, Corporate Financial Reporting and Ratio Analysis. You will also learn about the emerging new concepts of corporate reporting.The structure of Block 2 is as follows:

UNIT 8: Fund Flow Statement

UNIT 9: Budget and Budgetary Control

UNIT 10: Corporate Financial Reporting

UNIT 11: Ratio Analysis

UNIT 12: Environmental Accounting– Reporting and Audit

UNIT 13: Human Resource Accounting (HRA) and Reporting

Each unit of these blocks includes some along-side boxes to help you know some of the difficult, unseen terms. Some “EXERCISES” have been included to help you apply your own thoughts. You may find some boxes marked with: “LET US KNOW”. These boxes will provide you with some additional interesting and relevant information. Again, you will get “CHECK YOUR PROGRESS” questions. These have been designed to self-check your progress of study. It will be helpful for you if you solve the problems put in these boxes immediately after you go through the sections of the units and then match your answers with “ANSWERS TO CHECK YOUR PROGRESS” given at the end of each unit. you in making your learning more active and efficient. And, at the end of each section, you will get “CHECK YOUR PROGRESS” questions. These have been designed to self-check your learning.

UNIT 8: FUND FLOW STATEMENT

UNIT STRUCTURE

8.1 Learning Objectives

8.2 Introduction

8.3 Concept of Fund and Flow of Fund

8.4 Meaning, Importance and Limitations of Funds Flow Statement

8.5 Sources and Applications of Funds

8.6 Preparation of Funds Flow Statement

8.7 Funds Flow Statement and Cash Flow Statement: Similarities and Dissimilarities

8.8 Let Us Sum Up

8.9 Further Reading

8.10 Answers To Check Your Progress

8.11 Model Questions

8.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- discuss the meaning of financial statements
- discuss the meaning, importance and limitations of funds flow statement
- prepare funds flow statements
- understand the distinction between fund flow and cash flow.

8.2 INTRODUCTION

We are aware that profit and loss account and the balance sheet. These are the basic financial statements. One of the important concepts applied while preparing these financial statements is going concern concept. This concept infuses the element of dynamism. But these two most important constituents of financial statements, Balance sheet and profit and loss account fail to reflect the changes that have taken place in between two points of time. A balance sheet reports the firm's assets and liabilities at a

point of time. The profit and loss account gives the summary result of transactions relating to revenue and expenses.

Both the statements fail to reflect the nature of transactions that have taken place during the period to finance the financial and operational activities of the firm. These only provide some information relating to financial sources and application thereof. Some of these information are explicit and some are hidden in the statements. To overcome these limitations and to provide more transparent information to the user of financial statements regarding the sources of financial resources, now-a-day other two statements are prepared as complementary to the basic financial statements. These are Fund Flow Statement and Cash Flow Statement. It is to be noted that preparation of Cash Flow Statement is mandatory under the Companies Act, 1956 in India in the prescribed format as per Accounting Standard 3 issued by the Institute of Chartered Accountants of India. Since most of the business decisions are taken on the basis of Cash Flow therefore Cash Flow Statement is prepared to facilitate the financial decision makers. This unit is prepared to familiar the students with the concept and technique of preparing Fund Flow Statement and Cash Flow Statement.

8.3 CONCEPT OF FUND AND FLOW OF FUND

Dictionary meaning of the word 'fund' (singular) is permanent stock of something ready to be drawn upon or stock of money and the meaning of the word 'funds' (plural) is 'pecuniary resources' (Oxford Encyclopedic dictionary, 1991 edition). Different writers in financial accounting have used the term in various ways. But in general it may be said that the following four approaches to the concept of funds will serve the purpose of using the techniques of funds flow and cash flow in financial statement analysis. These four concepts are:

i) Cash and bank
ii) Cash, bank and cash equivalent
iii) Total current assets or gross working capital
iv) Current assets minus current liabilities or net working capital (generally called working capital)

In order to evaluate the cash flows, a cash flow statement is prepared. For this purpose, 'Fund' is defined as cash, bank and cash equivalent. These represent highly liquid resources This concept of funds is very much useful to analyse the demand liability and to assess the credibility of the firm.

'Total current assets' concept of funds represents the funds from the operating point of view. This is also known as gross working capital concept of funds. A business firm actually operates on the current assets for its day to day activities. In other words, these are the assets acquired for sale or are created out of the operating transactions. Therefore, current assets are the key resources, i.e. funds, which represent the useable resources available to a firm for day to day operations. The major constituents of current assets are inventory, accounts receivables, short term investments, cash and bank balances. From this, it is logically appears that the liabilities created out of the day to day operating transactions shall be met out of the assets acquired for sale or created out of operating transactions. Therefore, the amount of current assets to the extent of the amount of current liabilities is not available for day to day use. For this reason total current assets (Gross working capital) concept of funds is generally not used while preparing funds flow statement.

Therefore for the purpose of Fund Flow Statement 'Fund' is defined as current assets minus current liabilities or net working capital. Thus–

Funds for Cash Flow Statement =

Cash, bank and cash equivalent

Funds for Fund Flow Statement =

Current Assets – Current Liabilities = Net Working Capital

Flow of Fund: Flow (verb) means to circulate or to come or to go and flow (noun) means amount that flows. Flow of funds means circulation of funds– to come and to go. To be more specific it means inflow (come) and outflow (go) of funds, i.e. working capital. 'Inflow of funds' means increase, i.e., source of funds from various sources and outflow of funds means application of funds. The concept will be more clear by taking a few examples.

i) Issue of shares, debentures etc. for cash are sources– inflow of funds.

ii) Purchase of assets, payment of tax and dividend are application of fund– outflow of fund.

Inflow of funds will increase the amount of funds (working capital) and outflow of funds will decrease the amount of funds. As stated earlier, inflow and outflow of funds are the result of some transactions, therefore it is necessary to understand the nature of these transactions.

Transactions Affecting Flow of Funds: In order to understand the nature of transactions affecting the flow of funds, we have divided the items of balance sheet into four parts.

i) Long term sources representing capital and long term liabilities, to be called **'Non-current items'**.

ii) Short term sources representing current liabilities, to be called **'Current items'**.

iii) Long term applications representing fixed assets and long term investments, to be called **'Non-current items'**.

iv) Short term applications representing short term investments and current assets, to be Called **'Current items'**.



LET US KNOW

When a transaction is effected between a current item and non-current item then there will be a flow of fund. This is shown below :

1) Transactions between Non-Current and Non-Current Items – No. flow of Funds.
2) Transactions between Current and Current Items – No Flow of Funds.
3) Transactions between non-current and current or current or current and non-current items – flow funds.

A transaction between a current item and non-current item results a flow of fund which may be either source or application of fund.



CHECK YOUR PROGRESS

Q.1: What is the meaning of Fund as used in Fund Flow Statement?

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8.4 MEANING, IMPORTANCE AND LIMITATIONS OF FUNDS FLOW STATEMENT

Meaning of Fund Flow Statement: Funds Flow Statement (FFS) is a technique of analysis of financial position of a company. It is a widely used technique by financial analysts. FFS is a summary of transactions indicating sources and applications of funds, and for this it is also known as 'statement of sources and uses of funds'. In this context Almand Coleman defines it as 'a statement summarizing the significant financial changes which have occurred between the beginning and the end of company's accounting period'.

R. A. Foulke defines it as 'a statement of the sources and applications of funds is a technical device designed to highlight the changes in the financial condition of a business enterprise between two' dates (Practical Financial Statement Analysis, p. 473.)

Funds, as used here, is the excess of current assets over current liabilities, i.e. net working capital. Therefore, FFS is a statement showing the causes of the change in working capital between two points of time, generally the two consecutive Balance Sheet dates. Thus, preparation of FFS involves two important factors– (a) what is the net change in working capital and (b) what are the reasons for such change. Broadly, the reasons for change in working capital are divided into two parts– (i) Sources, i.e. reasons that cause increase in working capital and (ii) Applications or uses, i.e., reasons that cause decrease in working capital.

Importance of Fund Flow Statement: FFS is very important in financial management. The importance of Funds Flow Statement can be discuss as under–

- It helps to formulate a sound financial policy, short term, medium term and long term.
- It helps the management to understand the various reasons for changes in funds position.
- With the help of a well drawn Funds Flow Statement, the management can determine the available funds to be allocated among various assets that will be acquired in future.
- Working capital management is one of the complex problems in financial management. Funds Flow Statement and its analysis helps the management to prepare a well devised working capital plan.
- The information provided by a Fund Flow Statement regarding the amount of working capital, its changes and reasons thereof, reflect the creditworthiness of the enterprise.
- Funds Flow Statement provides a basis for estimating the amount of funds needed for future growth.
- It helps the management in preparing the schedule to meet its obligation. This helps in eliminating unnecessary interest costs.
- A Funds Flow Statement also helps to earn additional income. A well analyzed statement helps in planning the temporary investment of idle funds. This will reduce the lost in value of rupee.

Limitations of funds flow Statement: Despite wide ranges of uses of funds Flow Statement, it has certain limitations. These limitations are as follows:

- Funds Flow Statement is prepared on the basis of recorded facts. Therefore, it reflects a historical financial position (working capital). Therefore, in a rapidly changing economy and financial situation, its relevancy is limited.
- Funds Flow Statement in isolation is of little importance in financial planning. It provides only additional information as regards changes in working capital.

- It is not a substitute of Balance Sheet and profit and loss account. It only supplements these conventional statements for a better analysis of financial position.
- Non-fund items are not taken into account while Funds Flow Statement is prepared. But these items have important bearing on financial analysis. For example, depreciation is one of the most important issues in financial planning but it is not taken into account in preparation of Funds Flow Statement.
- Funds Flow Statement is a static statement. It is prepared by taking into account figures of two points of time. Thus, it can not reveal continuous changes.
- Funds Flow Statement may be said as the by-product of the two primary financial statements– income statement and Balance Sheet. So it is not an original statement.
- In recent times, the importance of Funds Flow Statement is getting down in comparison to the Cash Flow Statement. Due to inflation and rapidly changing financial instruments and financial charges, cash is regarded more crucial than fund in financial planning.



LET US KNOW

Funds Flow provides the following information:

- Funds From operation.
- Funds generated through financing activities, viz. issue of shares debentures or bonds.
- Funds used in acquisition of fixed assets.
- Funds used in investment, viz. in purchasing shares, debentures or bond of other companies.
- The extent of working capital used in acquisition of assets or in payment of liabilities.
- The amount of working capital increased due to excess generation of funds over their application.

- The solvency, liquidity and financial soundness (flexibility) of the organization.
- The amount of funds used in payment of income taxes and dividend.



CHECK YOUR PROGRESS

Q.2: Write two advantages of Funds Flow Statement.

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8.5 SOURCES AND APPLICATIONS OF FUNDS

Funds are collected from different sources and added to the existing funds (working capital). The following are some of the important sources of funds–

- Funds from operations or trading profit.
- Issue of shares
- Issue of debentures and bonds
- Loan from financial institutions (Long term)
- Sale of fixed assets
- Sale of investments
- Non-operating receipts.
- Decrease in working capital.

The following are some important applications of funds–

- Operating loss or trading loss.
- Purchase of fixed assets
- Purchase of investments
- Redemption of debentures
- Repayment of bonds and long-term loans.
- Redemption of preference shares
- Payment of non-operating expenses like dividend.

- Payment of income tax.
- Increase in working capital.

Examples of some of Transactions are given below which may or may not result in Sources and Applications of fund:

Sl. No.	Transaction	Debit Account and Credit Account NA/CA		Type of Account Fund	Whether Flow of	Source or Application
1	2	3		4	5	6
1	Issue of Share for Cash	Bank Share Capital	Dr. Cr.	CA NCA	Yes	– Source
2	Land Purchased and Price Paid by issuing Shares	Land Share Capital	Dr. Cr.	NCA NCA	No	–
3	Debentures Converted into Share Capital	Debenture Share Capital	Dr. Cr.	NCA NCA	No	–
4	Gen Reserve Created or Transfer to Gen Reserve	P/L Appro Geni Reserve	Dr. Cr.	NCA NCA	No	
5	Goodwill Written off	P/L A/c Goodwill	Dr. Cr.	NCA NCA	No	–
6	Land Purchased and Cash Paid	Land Bank	Dr. Cr.	NCA CA	Yes	Application
7	Preference Share Redeemed	Preference Share Capital Bank	Dr. Cr.	NCA CA	Yes	Application
8	Issue of Debentures against Purchase of Stock	Inventory Debenture	Dr. Cr.	CA NCA	Yes	Source
9	Conversion of Fixed Assets into Stock-in Trade	Stock in Trade Fixed Assets	Dr. Cr.	CA NCA	Yes	Source
10	Debentures Redeemed	Debenture Bank	Dr. Cr.	NCA NCA	Yes	Application
11	Interim/Final Dividend Proposed	P/L Appropriation Interim/Final Dividend	Dr. Cr	NCA NCA	No	–
12	Dividend/Tax Paid	Dividend/Tax Bank	Dr. Cr.	NCA CA	Yes	Application

8.6 PREPARATION OF FUNDS FLOW STATEMENT

There are two parts of Funds Flow Statement. The one part is the 'Schedule of Changes in Working Capital' and is generally is prepared first and then the other part is 'Sources and Application of Funds or Funds Flows Statement'. For the preparation of Funds Flow Statement, there would be two balance sheets, one at the beginning and the other at the end along with other information.

Preparation of Funds Flow Statement involves mainly, listing of various sources and applications of funds. So, it is necessary to examine carefully the items in the balance sheets and information provided. By and large, sources and applications of funds may be found out from the following:

1) Transactions of non-current items.
2) Transactions of current items or working capital
3) Operating profit or loss or funds from operation
4) Payment of dividend and tax etc.
5) Increase/Decrease in Working Capital

Funds from Operation: There are three approaches to calculate Funds from Operation.

1) Sales Approach,
2) Capital Approach and
3) Net Profit Approach.

Capital Approach is generally applied in single proprietorship and partnership where generally accounts are kept under Single Entry System. However, Net Profit Approach is the mostly used method. In Net Profit Approach generally Adjusted Profit and Loss Account is prepared to find out Funds from Operation.

Adjusted Profit and Loss Account:

Dr			Cr
	Rs.		Rs.
To Non-Cash Expenses Depreciation	—	By Balance b/d	—
Goodwill Written-off	—	(Opening Balance)	—
Preliminary Expenses Written-off	—	By Non-operating Gain or Profit	—
To Non-Operating Expenses/Losses	—	Profit on Sale of Fixed Assets	—
Loss on Sale of Fixed Assets	—	By Funds from Operation (Balance Figure)	
Discount on Issue of Shares/Debentures	—		
To Balance c/d (Closing Balance)	—		

Dr			Cr
Particulars	**Rs.**	**Particulars**	**Rs.**
To Depreciation	1,000	By Gross Profit	19,000
To Salaries	8,000	By Profit on Sale of Plant	3,500
To Loss on Sale of Machine	400		
To Goodwill Written off	2,350		
To Preliminary Expenses Written-off	600		
To Sundry Expenses	2,500		
To Net Profit	7,650		
	22,500		22,500

EXAMPLE 8.1



From the following Profit and Loss account of East and West Ltd., Calculate funds from operation.

Profit and Loss A/c for the year ending 31st March' 09

Solution:

Calculation of Fund from operation:

	Rs.	Rs.
Net Profit as per Profit & Loss Account:		7,650
Add. Items not resulting the Application fo Funds:		
(a) Depreciation	1,000	
(b) Loss on Sale of Machine	400	
(c) Goodwill Written-off	2,350	
(e) Preliminary Expenses Written-off	600	4,350
		12,000
Less, Items which are not a Source of Funds: Profit on Sale of Plant		3,500
Funds from Operations		**8,500**

EXAMPLE 8.2



From the following Balance Sheet of Katrina Co. Ltd., Prepare a Statement of Sources and Uses of Funds and the Schedule of Changes in Working Capital.

Items	**Assets**	
	31st March, 2009	31st March 2008
Cash in Hand	7,500	3,500
Accounts Receivable	9,000	9,800
Stocks	1,20,000	
Land	3,000	
Long-term Investments	1,000	
	32,500	25,500
	Liablilities	
Equity Capital	15,000	12,500
Accounts Payable	7,500	6,000
General Reserve	7,500	25,500

Solution:

Statement of Sources and Uses of Funds:

Sources	**Rs.**	**Uses**	**Rs.**
Increase in Capital	2,500	Purchase of Land	1,000
Funds from Operations**	1,500		
Sale of Investments	500	Increase in Working Capital	3,500
	4,500		**4,500**

****Note:** Funds from operation is assumed to be the increase in General Reserves by Rs. 1,500 (Rs. 7,500, Rs. 6,000) as there is no Profit & loss account figure.

Schedule of Changes in Working Capital:

Current Assets	2008	2009	Effect on W.C. Increase (+) Decrease (–)
	Rs.	Rs.	Rs.
Cash	3,500	7,500	(+) 4,000
Accounts Receivable	9,800	9,000	(–) 800
Stocks	8,700	12,000	(+) 3,300
Total (a)	**22,000**	**28,500**	**(+) 6,500**
Current Liabilities			
Accounts Payable	7,000	10,000	(–) 3,000
Total (b)	**7,000**	**10,000**	**(–) 3,000**
Working Capital [(a) – (b)]	15,000 (c)	18,500 (d)	(+) 3,500
Increasing in Working Capital [(c) – (d)]	**3,500**		****3,500**

8.7 FUNDS FLOW STATEMENT AND CASH FLOW STATEMENT: SIMILARITIES AND DISSIMILARITIES

Fund Flow Statement and Cash Flow Statement are both together called Statement of Changes in Financial Position. Inputs for the preparation of both the statements are taken from the balance sheets and profit and loss account. Generally Cash Flow Statement is prepared as a

complementary to Funds Flow Statement. Funds Flow Statement is prepared for long range planning and Cash Flow Statement is prepared for short range planning. Fund Flow Statement is based on accrual concept of accounting while Cash Flow Statement is prepared on cash concept of accounting. Cash Flow Statement is mandatory as per the Companies Act and as per the Accounting Standard 3 while Funds Flow Statement is not mandatory. From the view point of decision making Cash Flow Statement is widely used since most of the business decisions are based on cash flow.



8.8 LET US SUM UP

In this unit we have discussed the following:

- Financial statements are the end products of the accounting system.
- Besides trading and profit and loss accounts and balance sheet, the companies also prepare funds flow and cash flow statements as a part of financial statements.
- 'Net working capital' concept is used in preparing funds flow statement.
- Importance and limitations of funds flow statement.
- Funds flow statement is prepared in two parts: 'Schedule of Changes in Working Capital' and 'Sources and Application of Funds'.
- Cash flow statement provides information regarding cash receipts and cash disbursements over a period of time.
- The similarities and dissimilarities between cash flow and funds flow statements.
- Benefits and preparation of cash flow statement.



8.9 FURTHER READING

1) Khan and Jain. *Management Accounting*. Delhi: Tata Mc-graw Hills Ltd.

2) Sharma and Gupta. *Management Accounting*. Delhi: Kalyani Publishers.

3) Sikidar, S. and Gautam, H.C. *Financial Statement Analysis*.



8.10 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: For Funds Flow statement, 'Net Working Capital' concept of fund is used.

Net Working Capital = Current Assets – Current Liabilities

Ans. to Q. No. 2: a) Fund Flow Statement helps to formulate a sound financial policy, short term, medium term and long term.

b) Fund Flow Statement helps the management to understand the various intricacies of and reasons for changes in funds position.



8.11 MODEL QUESTIONS

Q.1: A company redeemed its preference share capital of Rs. 2,00,000 for which it raised equity capital of Rs. 15,0000.It also issued bonus shares of the value of Rs. 1,00,000. What would be the net effect of these transactions on the Cash Flow?

Q.2: A building standing in the books at Rs. 40,000 was sold for Rs. 52,000. The profit on sale of building was transferred to Profit and loss account thus increasing the net profit to Rs. 1,80,000. What is the amount of Cash Flow from operations?

Q.3: Explain the difference between Funds Flow Statement and Cash Flow Statement

Q.4: What are the benefits of Fund Flow Statement?

Q.5: How is Fund Flow Statement prepared?

*** ***** ***

UNIT 9: BUDGET AND BUDGETARY CONTROL

UNIT STRUCTURE

9.1 Learning Objectives

9.2 Introduction

9.3 Meaning and Uses of Budget and Budgetary Control

9.4 Classification and Types of Budgets

9.5 Advantages and Limitations of Budgetary Control

9.6 Flexible Budget

9.7 Let Us Sum Up

9.8 Further Reading

9.9 Answers To Check Your Progress

9.10 Model Questions

9.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- explain the meaning of the term budget and budgetary control
- describe the objectives and/or uses of budget and budgetary control
- describe the concept of fixed, flexible and master budget and the nature or characteristics thereof
- explain the advantages and limitations of budget and budgetary control.

9.2 INTRODUCTION

Planning is considered to be the most important function of management. In the words of Prof. J. P. Bose, “Planning means assessing the future and making provision for the same”. It helps in determining the course of action to be followed for achieving the objectives and fulfilling the targets and goals of the organization. Hence, one of the essential features of modern business management is planning and control. There are number of tools and devices, which assist management in planning, and controlling business operations. Budgeting is considered to be the most common, useful and widely practiced standard device of planning and control.

9.3 MEANING AND USES OF BUDGET AND BUDGETARY CONTROL

Budgetary control is a means of control in which the actual state of affairs is compared with the budgets so that appropriate action may be taken with regard to any deviations before it is too late. Thus, budgetary control is a continuous process which helps in planning, coordinating and controlling the operations of an undertaking. In the words of Terry, "Budget is a means and budgetary control is the end result." According to Prof. Van Sickle "A budget is an integral part of the budgetary control system. The budget is the financial plan, budgetary control results from the administration of financial plans."

According to Brown and Howard, "Budgetary control is a system of controlling costs which includes the preparation of budgets, coordinating the departments and establishing responsibilities, comparing actual performances with the budgeted and acting upon results to achieve maximum profitability."

J. Batty puts it as "A system which uses budgets as a means of planning and controlling all aspects of production and/or selling commodities and services.''

The following points emerge from the definitions given above:

1) Budgets are prepared for each department and then the plans and objectives are presented before the management.
2) The budgetary control coordinates the plans of various departments and then the master budget is prepared.
3) The essential features of budgetary control are to conduct continuous comparison of actual performance with budgeted figures in order to reveal the deviations.
4) Budgets are revised, whenever considered necessary according to changed conditions.

OBJECTIVES/USES OF BUDGETARY CONTROL: The main objectives of budgetary control are as follows:

1) To ensure planning for future by formulating various functional budgets.

2) To coordinate the activities of the various departments.
3) To operate various divisions, units, departments and cost centers efficiently and economically.
4) To pre-determine the capital expenditures of the business for future.
5) To prevent waste, reduce expenses and to obtain the desired income.
6) To centralize the control system.
7) To establish divisional as well as individual responsibilities.
8) To correct the deviations from the established standards.



CHECK YOUR PROGRESS

Q.1: What is a budget?

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9.4 CLASSIFICATION AND TYPES OF BUDGETS

The following are the types and classification of budgets:

A) Classification According to Time:
   1) Long-term budgets
   2) Short-term budget
   3) Current budget

B) Classification on the Basis of Functions:
   1) Operating budget
   2) Financial budget
   3) Master budget

C) Classification on the Basis of Flexibility:
   1) Fixed budget
   2) Flexible budget

A) Classification According to Time:

1) Long-Term Budget: These budgets are usually prepared for the purpose of long term business planning by the top level management and not allowed to be known to lower level management and the budget covers certain activities like capital

expenditure projects, long term financing and research and development projects etc. The period covered by long term budget normally ranges from five to ten years. Long term budgeting is mostly used by those industries where the gestation period is longer than others.

2) **Short-Term Budget:** The period covered by this type budget ranges from one to two years only and these budgets are expressed in monetary terms. The industries producing consumer goods use this type of budgets.
3) **Current Budget:** The period covered by this type of budget may comprise of a few months or a few weeks only. These budgets are usually concerned with the current activities of the organization.

B) Classification on the Basis of Functions:

1) **Operating Budget:** These budgets are prepared to cover different activities or operations of the organization and its number depends upon the nature of the business and the volume of transactions. The most common operating budgets are Sales Budget, Production Budget, Production Cost Budget, Purchases Budget, Raw Material Consumption Budget, Labour Budget, Plant Utilisation Budget, Administrative Overhead Budget and Sales Overhead Budget etc. These budgets may be expressed either in terms of programmes or in terms of responsibility centers.
2) **Financial Budget:** The financial budgets are concerned with receipts and payments of cash, determination of working capital requirements, evaluation of capital expenditure proposals, projection of financial position and profit and loss etc. The most common financial budgets are Cash Budget, Working Capital Budget, Capital Expenditure Budget, Projected Income Statement and Balance Sheet etc.
3) **Master Budget:** Master Budget is the outcome of integration of various functional budgets. According to ICWA, London, "The Master Budget is the summary budget incorporating its functional budgets." It is prepared by the Budget Officer and is kept in the

custody of the top level management as it contains matters of a confidential nature. This budget is mainly used to coordinate and control the activities of the various departments.

C) Classification on the Basis of Flexibility:

1) **Fixed Budget:** This budget has been designed in such a way that it remains unchanged even when there is a change in the level of activity. This budget is prepared for a given level of activity and is not adjusted for any change in the level of activity actually attained. This budget has very limited use and it is not an effective tool for cost control. This budget can be put into use under some static conditions only, but in practical life conditions never remain static.

2) **Flexible Budget:** This is a dynamic budget which is designed to change in accordance with change in the level of activity. The budget is prepared in such a way that it presents the budgeted cost for different levels of activity. It is considered to be a more realistic and practical budget because any change expected in the level of activity is given due weightage. This budget is more useful for those concerns where the level of activity changes from time to time and where the concern has to operate under conditions of uncertainties. The flexible budget facilitates ascertainment of cost of production at various levels of activity, fixation of selling price, preparation of tenders and quotations and profits etc at various changed levels of activity.



CHECK YOUR PROGRESS

Q.2: What is a fixed budget?

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Q.3: What do you mean by flexible budget?

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9.5 ADVANTAGES AND LIMITATIONS OF BUDGETARY CONTROL

The budgetary control helps in fixing goals for the organization as a whole and concerted efforts are made for achieving the objectives laid down in the budget.

The following are the advantages of budgetary control:

1) **MAXIMISATION OF PROFIT:** The budgetary control aims at profit maximization and in order to do this proper planning and coordination of functions of different departments becomes necessary. Also a proper control system becomes highly necessary in order to put the limited available resources to its best possible use. The budgetary control system extends useful services in this regard.
2) **COORDINATION:** The working of departments is properly coordinated in order to make them to work in a concerted manner with a spirit of co-operation. For achieving this objective budget of one department has to be linked up with another department. Here, budgetary control system is of much help.
3) **SPECIFIC AIMS:** The plan, policies, objectives, targets and goals etc. are decided upon by the top management. All efforts are put together to reach the common goal of the enterprise. Every department has some own objectives to be achieved and accordingly the efforts are being directed to achieve the common objectives.
4) **TOOLS FOR MEASURING PERFORMANCES:** It is an important tool for measuring performances. The actual performances of the departments are periodically reviewed and compared with the budgeted standards and their deviations, if any, are calculated for initiating remedial action.
5) **ECONOMY:** By means of budgets and budgetary control the planning of expenditure is made more systematic so as to put the limited available resources to its best possible use with a view to achieving economy in respect of various cost.

6) **DETERMINING WEAKNESSES:** With the application of the budgetary control technique the weak spots can be pinpointed for taking specific measures for their elimination.
7) **CORRECTIVE ACTION:** The deficiencies as observed through budgetary control techniques may be taken up for corrective action whenever required.
8) **CONCIOUSNESS:** The system of budgetary control makes everyone in the organization conscious of their duties and responsibilities as these are already defined in the budget. Thus everyone becomes aware as to what they actually have to do.
9) **REDUCTION OF COST:** The purpose of budgetary control is to enable the management to exercise a better and more effective control over cost which ultimately leads to reduction in cost.
10) **INTRODUCTION OF INCENTIVE SCHEMES:** Budgetary control enables the introduction of various inventive remuneration schemes of wage payment by laying down budgeted limited and standards as to time and volume of work etc.

The following are the limitations of Budgetary Control System:

1) **UNCERTAINITY:** The budgets are always prepared for the future and future being uncertain, the budgeted results may not always come to our expectation.
2) **BUDGETARY REVISION REQUIRED:** Budgets are always prepared in anticipation of certain assumed conditions but such conditions may change requiring revision in the budget. Too much of revision reduce the importance of the budget.
3) **DISCOURAGES EFFICIENT PERSONS:** Under the system of budgetary control budgeted limits, standards and targets are well defined for everyone. The workers have to fulfill the targets given to them. There may be efficient workers who are capable of going beyond the targets set. Thus budgetary control limits the capabilities and discourages the good and efficient workers.
4) **PROBLEM OF COORDINATION:** The success of budgetary control depends upon the coordination of all the departments. If such coordination is lacking, the budgetary control system will fail.

5) **CONFLICT AMONG DIFFERENT DEPARTMENTS:** Budgetary control system leads to conflict of interest amongst the various departments because one department will only think about itself and ignore the interest of the other departments.
6) **IT DEPENDS ON THE SUPPORT OF TOP MANAGEMENT:** The success of budgetary control depends upon the attitude of the top level management. If they support, the system will operate well and if they do not support the system will fail.

9.6 FLEXIBLE BUDGET

We have already discussed above the concept of Flexible Budget. Let us remember again:

1) This is a dynamic budget which is designed to change in accordance with change in the level of activity.
2) The budget is prepared in such a way that it presents the budgeted cost for different levels of activity.
3) It is considered to be a more realistic and practical budget because any change expected in the level of activity is given due weightage.
4) This budget is more useful for those concerns where the level of activity changes from time to time, and
5) Where the concern has to operate under conditions of uncertainties.
6) The flexible budget facilitates ascertainment of cost of production at various levels of activity, fixation of selling price, preparation of tenders and quotations and profits etc at various changed levels of activity.

The following are budgeted expenses for production of 10,000 units of a product:

	Rs. per Unit
Direct material	60
Direct labour	30
Variable overheads	25
Fixed overhead (Rs. 1,50,000)	15
Variable expenses (direct)	5

Selling expenses (10% fixed)	15
Administrative expenses	
(Rs. 50,000 rigid for all levels of production)	5
Distribution expenses (20% fixed)	5
	160

Prepare a budget for production of 6,000, 7,000 and 8,000 units showing distinctly marginal cost and total cost.

Solution: Flexible Budget:

	Per Unit Rs.	**6,000 Units Rs.**	**7,000 Units Rs.**	**8,000 Units Rs.**
Direct Material	60	3,60,000	4,20,000	4,80,000
Direct Labour	30	1,80,000	2,10,000	2,40,000
Direct Variable Expenses	5	30,000	35,000	40,000
Variable Overhead:				
Production	25	1,50,000	1,75,000	2,00,000
Selling	13.5	81,000	94,500	1,08,000
Distribution	4	24,000	28,000	32,000
	137.5	8,25,000	9,62,500	11,00,000
Fixed Cost:				
Production Overhead		1,50,000	1,50,000	1,50,000
Administrative Overhead		50,000	50,000	50,000
Selling Overhead		15,000	15,000	15,000
Distribution Overhead		10,000	10,000	10,000
		2,25,000	2,25,000	2,25,000
Total Cost:		**10,50,000**	**11,87,500**	**13,25,000**
Cost per Unit:		**175**	**169.64**	**165.63**



9.7 LET US SUM UP

In this unit, we have learnt:

- The meaning and concept of budget and budgetary control.
- The objectives and uses of budgets and budgetary control.

- Classification of budgets from the point of view of time, flexibility and functions.
- The usefulness/advantages and limitations of budgets and budgetary control, and
- Preparation of flexible budget.



9.8 FURTHER READING

1) Khan and Jain. *Management Accounting*. Delhi: Tata Mc-graw Hills Ltd.
2) Sharma and Gupta. *Management Accounting*. Delhi: Kalyani Publishers.
3) Pillai & Bhagawathi. *Management Accounting*. Delhi: S. Chand & Co. Ltd.



9.9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: A budget is a numerical statement expressing the plans, policies and goals of the enterprise for a definite period in future.

Ans. to Q. No. 2: Fixed budget is a budget which is unchanged even where there is a change in the level of activity.

Ans. to Q. No. 3: Flexible budget is a dynamic budget which is designed to change in accordance with the change in the level of activity.



9.10 MODEL QUESTIONS

Q.1: What do you mean by budget and budgetary control? Discuss the objectives/uses of budgetary control.

Q.2: Discuss the concept of fixed, flexible and functional budgets.

Q.3: Briefly state the advantages and limitations of budgets and budgetary control.

Q.4: Write notes on fixed budget and flexible budget.

Q.5: What do you mean by operating budgets? Briefly state various operating budgets prepared by an organization.

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UNIT 10: CORPORATE FINANCIAL REPORTING

UNIT STRUCTURE

10.1 Learning Objectives

10.2 Introduction

10.3 Concept and Practices of Financial Reporting

10.4 Objectives of Financial Reporting

10.5 Users of Financial Reporting

10.6 General and Specific Purposes of Financial Reporting

10.7 Qualitative Characteristics of Financial Reporting Information

10.8 Let Us Sum Up

10.9 Further Reading

10.10 Answers To Check Your Progress

10.11 Model Questions

10.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- discuss the concept and practices of financial reporting
- explain the meaning and objectives of financial reporting
- explain the general and specific purposes of financial reporting
- discuss the qualitative characteristics of financial reporting.

10.2 INTRODUCTION

This unit discusses the concept and practices of Corporate Financial Reporting. Financial reporting refers to the communication of financial information, like financial statements, to the financial statement users, like investors and creditors. Financial reporting is typically viewed as companies issuing financial statements. But financial reporting is much broader than just as set of financial statements. We shall further discuss the objectives of financial reporting and the users of the same. We shall finally conclude our discussion highlighting the qualitative characteristics of financial reporting information.

10.3 CONCEPT AND PRACTICES OF FINANCIAL REPORTING

Reporting is considered as the final step of accounting process. Accounting not only includes preparation and presentation of financial statements but it also incorporates the function of communication of information contained in those financial statements to various stakeholders. The process of communication of information may be grouped under two heads viz. financial reporting for various stakeholders and management reporting for internal management of an organisation.

Corporate financial reporting is the process of communicating financial information relating to a corporate entity to various stakeholders. Financial information or accounting information refers to the data contained in the financial statements. Financial statements include statement of profit and loss, balance sheet, Statement of changes in equity, cash flow statement, fund flow statement, notes to financial statements, management discussion and analysis etc.

As mentioned above, disseminating financial information to various stakeholders forms the basic function of financial reporting. The stakeholders who are interested in financial information of an organisation include shareholders, investors, creditors, bank and other money lenders, employees, government, brokers and underwriters, financial analyst and above all the public at large. They require financial information for various decision making purposes.



CHECK YOUR PROGRESS

Q.1: What do you mean by corporate financial reporting?

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10.4 OBJECTIVES OF FINANCIAL REPORTING

The basic objective of financial reporting is to communicate information relating to economic resources and performance of a reporting entity useful to those having reasonable rights to such information and interest in the affairs of the entity. Various national and international accounting bodies have given different objectives of financial reporting. Some of these are discussed below:

According to Financial Accounting Standard Board (1978), the objectives of financial reporting should be the following:

1) Financial reporting should provide information that is useful to the present and potential investors and creditors and other users in making rational investment, credit and similar decisions. The information should be comprehensible to those who have a reasonable understanding of business and economic activities and are willing to study the information with reasonable diligence.
2) Financial reporting should provide information to help the present and potential investors and creditors and other users in assessing the amounts, timing and uncertainty of prospective cash receipts from dividends or interest and the proceeds from the sale, redemption or maturity of securities or loans. Since 'investors' and 'creditors' cash flows are related to enterprise's cash flows, financial reporting should provide information to help investors, creditors, and others, assess the amounts, timing and uncertainty of prospective net cash inflows to the related enterprises.
3) Financial reporting should provide information about the economic resources of an enterprise, the claim to those resources (obligations of the enterprise to transfer resources to other entities and owner's equity), and the effects of transactions, events and circumstances that change its resources and claim to those resources.
4) Financial reporting should provide information about an enterprise's financial performance during a period. Investors and creditors often use information about the past in assessing the prospects of an

enterprise. Thus, although investment and credit decision reflect investors' and creditors' expectations about future enterprise performance, these expectations are commonly based at least partly on the evaluation of past performance.

5) Financial reporting should provide information about how an enterprise obtains and spends cash, about its borrowing and repayment of borrowings, about its capital transactions, including cash dividend and other distributions of enterprises resources to the owners, and about other factors that may affect an enterprise's liquidity or solvency.
6) Financial reporting should provide information about how the management of an enterprise has discharged its stewardship responsibilities to the owners (shareholders) for the use of enterprise resources entrusted to it.
7) Financial reporting should provide information that is useful to the management and the directors in making decisions in the interests of the owners.

According to Institute of Chartered Accountants of India (ICAI), following are the objectives of financial reporting:

1) The objective of financial statements is to provide information about the financial position, performance and cash flows of an enterprise that is useful to a wide range of users in making economic decisions.
2) Financial statements prepared for this purpose meet the common needs of most users. However, financial statements do not provide all the information that users may need to make economic decisions.
3) Financial statements also show the results of the stewardship of management, or the accountability of management for the resources entrusted to it. Those users who wish to assess the stewardship or accountability of management do so in order that they may make economic decisions; these decisions may include, for example, whether to 12 hold or sell their investment in the enterprise or whether to re-appoint or replace the management.



CHECK YOUR PROGRESS

Q.2: Mention two objectives of financial reporting.

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10.5 USERS OF FINANCIAL REPORTING

The financial information provided in financial statements are used by those who need them for their decision making purposes and who have reasonable rights to use those information. The users of financial information must have interest in the affairs of the reporting entity. However, the reason behind such interest may vary depending on the type of users. The various users of financial reporting are summarised below:

1) **Investors** and potential investors are interested in their potential profits and the security of their investment. Future profits may be estimated from the target company's past performance as shown in the income statement. The security of their investment will be revealed by the financial strength and solvency of the company as shown in the statement of financial position.
2) **Employees** and trade union representatives need to know if an employer can offer secure employment and possible pay rises. They will also have a keen interest in the salaries and benefits enjoyed by senior management.
3) **Lenders** need to know if they will be repaid. This will depend on the solvency of the company, which should be revealed by the statement of financial position.

4) **Government** agencies need to know how the economy is performing in order to plan financial and industrial policies. The tax authorities also use financial statements as a basis for assessing the amount of tax payable by a business.
5) **Suppliers** need to know if they will be paid. New suppliers may also require reassurance about the financial health of a business before agreeing to supply goods.
6) **Customers** need to know that a company can continue to supply them into the future. This is especially true if the customer is dependent on a company for specialised supplies.
7) **The public** may wish to assess the effect of the company on the economy, local environment and local community. Companies may contribute to their local economy and community through providing employment and business for local suppliers. Some companies also run corporate responsibility programmes through which they support the environment, economy and community.
8) **Other users** of financial information include brokers and underwriters, financial analysts, researchers, academicians who use financial statements for information and analysis purposes.



CHECK YOUR PROGRESS

Q.3: Mention two users of financial reporting information.

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10.6 GENERAL AND SPECIFIC PURPOSES OF FINANCIAL REPORTING

General purpose financial statements are issued to help the investors and creditors to help them in their decision making process. General purpose financial statements are meant for general purposes and are not intended for special use. They can be used by wide range of users for wide range of

activities irrespective of types of users and nature of activities. General purpose financial statements include a Statement of Profit and Loss, a Balance Sheet, a Statement of Owners Equity/Retained Earnings, Statement of Cash Flows and the Notes to Accounts.

The purpose of preparation of statement of profit and loss is to evaluate the financial performance of an entity over a period of time. In other words, a statement of profit and loss shows whether an entity is earning profit or is suffering loss. The objective of balance sheet is to show the financial position of an entity on a certain point of time. Financial position of an entity is reflected in the position of assets, liabilities and equity of the entity. A statement of changes in equity shows the changes in the amount of capital, reserves and surplus and other components of equity of an entity over a period of time. Statement of cash flows is prepared by an entity in order to ascertain the amount of cash inflows and cash outflows of an entity over a period of time. In other words, it shows the sources from which the entity is getting cash and the uses to which the cash resources are being applied for. Finally, the notes to accounts composed of notes to statement of profit and loss, notes to balance sheet, notes to cash flow statement etc. which are prepared for information and explanation purposes.

The information contained in these financial statements can be used by various types of users for different purposes. For instance, both investors and creditors can analyse the statement of profit and loss in order to evaluate the performance of the entity. These statements are normally issued to communicate the financial condition and results of the issuing entity. The frequency of issuance of these financial statements varies as per the demand of the users. For example, a public company issues general purpose financial statements once in a quarter while a lender might demand monthly statements a government might accept just annual statements.

Special purpose financial statements are those reports and information which are intended for the use of limited group of users. A special-purpose statement may accompany a complete set of financial statements that is intended for general use, or it may be presented separately. This type of statement is usually required by a government entity, and is intended

to present a specific set of information in a predetermined format. The information required and the reporting format used is laid out in a reporting framework. For example, reporting frameworks may be applied to the generation of special-purpose financial statements for tax reporting, bank reporting, and industry-specific reporting, financial reports submitted to obtain credit or loans, or government, or financial reports given to trade and industry etc. The specialized reporting frameworks on which special-purpose financial statements are based are typically promulgated by the entities that plan to use the resulting financial statements.

As mentioned above, general purpose financial statements are prepared in order to meet the common needs and requirements of large group of users. As such, sometimes, this information may not be adequate for specific users to come to a conclusion. Therefore, while preparing financial statements it may become necessary to consider the needs and requirements of such users. For example, prospectuses and computations prepared for taxation purpose which are solely meant for the purpose of taxation come under the purview of special purpose financial statements.



CHECK YOUR PROGRESS

Q.4: What do you mean by general purpose financial statements?

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Q.5: What do you mean by special purpose financial statements?

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10.7 QUALITATIVE CHARACTERISTICS OF FINANCIAL REPORTING INFORMATION

Qualitative characteristics are the attributes that make the information provided in financial statements useful to users. The four principal qualitative characteristics are understandability, relevance, reliability and comparability.

Understandability: An essential quality of the information provided in financial statements is that it must be readily understandable by users. For this purpose, it is assumed that users have a reasonable knowledge of business and economic activities and accounting and study the information with reasonable diligence. Information about complex matters that should be included in the financial statements because of its relevance to the economic decision-making needs of users should not be excluded merely on the ground that it may be too difficult for certain users to understand.

Relevance: To be useful, information must be relevant to the decision-making needs of users. Information has the quality of relevance when it influences the economic decisions of users by helping them evaluate past, present or future events or confirming, or correcting, their past evaluations. The relevance of information is affected by its materiality. Information is said to be material when it has the ability to influence the decision of the users. In other words, presentation or omission of the information will result in different decisions on the part of users. If the information is material then it is relevant to disclose.

Reliability: To be useful, information must also be reliable. Information has the quality of reliability when it is free from material error and bias and can be depended upon by users to represent faithfully that which it either purports to represent or could reasonably be expected to represent. To be reliable, information must represent faithfully the transactions and other events it either purports to represent or could reasonably be expected to represent. Thus, for example, a balance sheet should represent faithfully the transactions and other events that result in assets, liabilities and equity of the enterprise at the reporting date which meet the recognition criteria.

Comparability: Users must be able to compare the financial statements of an enterprise through time in order to identify trends in its financial position, performance and cash flows. Users must also be able to compare the financial statements of different enterprises in order to evaluate their relative financial position, performance and cash flows. Hence, the measurement and display of the financial effects of like transactions and other events must be carried out in a consistent way throughout an enterprise and over time for that enterprise and in a consistent way for different enterprises. Users wish to compare the financial position, performance and cash flows of an enterprise over time as well as with other enterprises. As such, the information provided should be such that it allows inter-firm and inter-period comparison.

Benefits of Financial Reporting: Benefits of financial reporting may be listed as follows:

1) **Economic Decision Making:** Companies compete in the stock market to obtain their capital as easily as possible. On the other hand, owners of capital attempt to maximise their own wealth and well-being for which they need adequate information for making sound economic decisions. This process is assumed to lead to the broader social goal of efficient allocation of scarce resources throughout the economy. Sound economic decisions require assessment of impact of current business activities and developments on the earning power of a company. Financial reporting can provide information important in evaluating the strength and weakness of an enterprise and its ability to meet its commitments. It can supply information about transactions within the business and factors outside the company such as taxation policy, trade restrictions, technological changes, market potentialities etc., which affect the earning power of a business enterprise.
2) **Cost of Capital:** Adequate disclosure in annual reports is expected, in the long run, to enhance market price of company's share in the investment market. Higher prices of company shares resulting from the full disclosure will have a favourable impact on the company's

cost of capital. It also enhances the future marketability of subsequent issue of company's shares. Over a period of time, good reporting leads to informed investors who, because they understand the company, will pay a fair price for its securities. Minimum or inconsistent reporting often leads to some loss of investors' confidence in the quality of company information and, ultimately, in the price they will pay in the market.

3) **Share Price Fluctuations:** Adequate disclosure will tend to minimise the fluctuations in company's share prices. Fluctuations in share prices occur because of the ignorance prevailing in the investment market. Fluctuations show an element of uncertainty in investment decisions. If the securities market is in possession of full information, the ignorance and uncertainty will be reduced and share prices will tend to maintain equilibrium.
4) **Employee Decisions:** Employee decisions may be based on perceptions of a company's economic status acquired through financial statements. In particular, prospective and present employees may use the financial reports to assess risk and growth potential of a company and therefore, job security and future promotional possibilities.Labour unions and individual employees may use financial statement data as a basis for making contractual wage and employment benefit demands.
5) **Customer Decisions:** The data presented in financial statements may affect the decision of a company's customers and hence have economic consequences. Customers, like employees, may use financial statement data to predict the likelihood and/or timing of a firm going bankrupt or being unable to meet its commitments.

To sum up, it can be said that financial reporting through the process of dissemination of necessary information helps the potential investors to make efficient decision regarding their investment decisions thereby helping the economy in efficient allocation of resources. Adequate reporting of information also helps the company to lower the cost of capital in the long run by building confidence among the investors. Full information disclosure

reduces the chances of fluctuations in share price of the company by reducing the element of uncertainty. Moreover, Financial reporting also helps the employees and customers to make informed decisions and accordingly assess and evaluate the financial health of the company.



CHECK YOUR PROGRESS

Q.6: Mention two benefits of financial reporting.

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10.8 LET US SUM UP

After going through the unit, we have come through the following:

- Corporate financial reporting is the process of communicating financial information relating to a corporate entity to various stakeholders.
- Disseminating financial information to various stakeholders forms the basic function of financial reporting.
- The stakeholders who are interested in financial information of an organisation include shareholders, investors, creditors, bank and other money lenders, employees, government, brokers and underwriters, financial analyst and above all the public at large.
- The basic objective of financial reporting is to communicate information relating to economic resources and performance of a reporting entity useful to those having reasonable rights to such information and interest in the affairs of the entity.
- Users of Financial Reporting:
  - Investors
  - Employees
  - Lenders
  - Government
  - Suppliers

- Customers
- The public
- Other users

- General purpose financial statements include a Statement of Profit and Loss, a Balance Sheet, a Statement of Owners Equity/Retained Earnings, Statement of Cash Flows and the Notes to Accounts.
- Qualitative characteristics are the attributes that make the information provided in financial statements useful to users. The four principal qualitative characteristics are understandability, relevance, reliability and comparability.



10.9 FURTHER READING

1) Khan and Jain. *Management Accounting*. Delhi: Tata Mc-graw Hills Ltd.
2) Sharma and Gupta. *Management Accounting*. Delhi: Kalyani Publishers.
3) Pillai & Bhagawathi. *Management Accounting*. Delhi: S. Chand & Co. Ltd.



10.10 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Corporate financial reporting is the process of communicating financial information relating to a corporate entity to various stakeholders. The stakeholders who are interested in financial information of an organisation include shareholders, investors, creditors, bank and other money lenders, employees, government, brokers and underwriters, financial analyst and above all the public at large. They require financial information for various decision making purposes.

Ans. to Q. No. 2: According to Institute of Chartered Accountants of India (ICAI), following are the two objectives of financial reporting:

1) The objective of financial statements is to provide information about the financial position, performance and cash flows of an enterprise that is useful to a wide range of users in making economic decisions.
2) Financial statements prepared for this purpose meet the common needs of most users. However, financial statements do not provide all the information that users may need to make economic decisions.

Ans. to Q. No. 3: Two users of financial reporting information are: (1) Investors, (2) Employees

Ans. to Q. No. 4: General purpose financial statements include a Statement of Profit and Loss, a Balance Sheet, a Statement of Owners Equity/Retained Earnings, Statement of Cash Flows and the Notes to Accounts. General purpose financial statements are meant for general purposes and are not intended for special use. They are issued to investors and creditors to help them in their decision making process.

Ans. to Q. No. 5: Special purpose financial statements are those reports and information which are intended for the use of limited group of users. A special-purpose statement may accompany a complete set of financial statements that is intended for general use, or it may be presented separately. This type of statement is usually required by a government entity, and is intended to present a specific set of information in a predetermined format.

Ans. to Q. No. 6: Two benefits of financial reporting are:

1) Economic Decision Making
2) Cost of Capital



10.11 MODEL QUESTIONS

Q.1: Discuss the objectives of corporate financial reporting.

Q.2: Who are the users of financial reporting information and why do they need such information? Explain.

Q.3: What do you mean by general purpose financial statements? What type of information is contained in such statements?

Q.4: What do you mean by special purpose financial statements? Explain with example the purpose of preparation of such statements.

Q.5: Discuss the qualitative characteristics of financial reporting information.

Q.6: Discuss the benefits of financial reporting.

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UNIT 11: RATIO ANALYSIS

UNIT STRUCTURE

11.1 Learning Objectives

11.2 Introduction

11.3 Ratio Analysis

- 11.3.1 Significance of Ratio Analysis
- 11.3.2 Types of Ratio
- 11.3.3 Limitations of Ratio Analysis

11.4 Time Series Analysis

11.5 Let Us Sum Up

11.6 Further Reading

11.7 Answers To Check Your Progress

11.8 Model Questions

11.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- define nature of ratio analysis
- explain different types of ratio analysis
- explain liquidity ratios, leverage ratios, turnover ratios and profitability ratios
- evaluate limitations of ratio analysis
- define time series analysis.

11.2 INTRODUCTION

In this unit we are going to discuss about financial statement analysis. Financial statement analysis is the process of identifying the financial strengths and weaknesses of a company by properly establishing relationships between the items of the balance sheet and profit and loss account. This analysis is mainly carried out by ratio and time series analysis. The basic objective of ratio analysis is to present to the potential user brief statements which describes the status of the company. Ratios involve

establishing a financial relationship between components of financial statement. We will explain about different types of ratios in this unit.

Financial ratios over different time periods need to be calculated for comparison, because of this we require time series analysis which gives an indication of the direction of change and reflects whether the company's financial performance has improved, deteriorated or remained constant over time. After going through this unit you will be able to analyse financial conditions of different companies.

11.3 RATIO ANALYSIS

Sometimes information or figures given in the balance sheet and profit and loss account are not enough for proper interpretation regarding the financial performance of the company. These information or figures need to be worked out to establish proper relationship between the items of balance sheet and the profit and loss account. Ratio analysis is a powerful tool of financial analysis. A ratio is defined as "the indicated quotient of two mathematical expressions" and as "the relationship between two or more things".

In financial analysis, a ratio is used as a benchmark for evaluating the financial position and performance of a firm. An accounting figure conveys meaning only when it is related to some other relevant information. For example, Rs.10 crore net profit may be considered impressive but it has to be related to the investment to find whether it is good or bad performance. Ratios help to summarize large quantities of financial data and to make qualitative judgment about the company's financial performance.

As ratio is used as a benchmark, a single ratio in itself does not indicate favourable or unfavourable condition. It needs to be compared with some standard. Standard of comparison may consist of the followings:

a) Past ratio i.e. ratios calculated from the past financial statements of the same company.

b) Competitors' ratios i.e. ratios of some selected firms, especially the most progressive and successful competitor at the same point of time.

c) Industry ratios, i.e. ratios of the industry to which the company belongs and

d) Projected ratios i.e. ratios developed using the projected financial statements of the same company.

11.3.1 Significance of Ratio Analysis

The significance of ratio analysis as a technique of financial management arises because of the following facts:

a) Simplifying Financial Information: Ratio analysis helps to simplify and summarise various complex data contained in the financial statements.

b) Helps in Control: Ratio analysis helps in bringing about effective control of the concern. Industry ratios are used for comparing the ratios of individual company.

c) Helps in Decision Making: Ratio analysis helps in making decision from the information given in the financial statements. For example, like to know the liquidity, profitability and long-term solvency of a company before investing in it.

d) Help in Inter-Company Comparison: Ratio analysis helps to make an inter-company comparison either between the different departments of a company or between two companies having identical business.

11.3.2 Types of Ratio

Normally, ratios are grouped into four categories. These ratios serve the different purpose for different parties; like the trade creditors are interested in the liquidity ratios as these represent the company's liquidity position, whereas investors are interested to know the company's long term solvency, earnings growth and future profitability and these are represented by the leverage and profitability ratios. The four types of ratios are given below:

a) Liquidity Ratios

b) Leverage Ratios

c) Turnover Ratios

d) Profitability Ratios

A) Liquidity Ratios: Liquidity refers to the ability of a company to meet its obligations in the short run, usually one year. Liquidity is essential to conducting business activity, particularly during shut down or strike or recession. If liquidity is insufficient to cushion such losses, serious financial difficulty may arise. A company should ensure that it does not suffer from lack of liquidity at any time, and also that it does not have excess liquidity as it will affect profitability. If the company fails to meet its short term obligations due to lack of sufficient liquidity, then it will result in poor creditworthiness and loss of creditors' confidence. The important liquidity ratios are (a) Current Ratio, (b) Quick or acid-test ratio (c) Cash ratio, (d) Net Working Capital ratio.

a) Current Ratio: It is calculated by dividing current assets by current liabilities. Current assets include cash, current investments, debtors, inventories (Stocks), loans, advances and pre-paid expenses. Current liabilities represent liabilities that are expected to mature in the next twelve months and comprise of (i) Loans, secured or unsecured and (ii) Current liabilities and provisions.

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

The current ratio indicates the availability of current assets in rupees for every one rupee of current liability. A ratio of greater than one means that the company has more current assets than current obligations or claims. As a conventional rule, a current ratio of 2:1 is considered satisfactory. A current ratio of 2.0, means that the company can cover its current liabilities even if its current assets reduce by 50%.

b) Quick Ratio: The quick or acid-test ratio establishes relationship between quick or liquid assets and current liabilities. An asset is liquid if it can be converted into cash immediately without

a loss of value. The components of liquid assets are cash, debtors and bills receivables and marketable securities. As mentioned earlier, to compute quick ratio, inventories and pre-paid expense (if exist) are to be deducted from current assets.

The quick ratio is found out by dividing quick assets by current liabilities.

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}}$$

Normally, a quick ratio of 1:1 is considered to represent a satisfactory current financial condition. However, a quick ratio of 1:1 does not necessarily mean sound liquidity position. This ratio needs to be compared with debtors' turnover ratio and inventory turnover ratio for better interpretation of the liquidity position.

c) **Cash Ratio:** It gives the amount of cash available in terms of liquidity. The ratio is calculated by dividing cash and marketable securities by current liabilities. This ratio measures the amount of cash and near cash items the company has in terms of its current liabilities.

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

d) **Net Working Capital Ratio:** The difference between current assets and current liabilities excluding short term bank borrowing is called net working capital. Net working capital to total assets measures the company's potential reservoir of funds.

$$\text{Net Working Capital Ratio} = \frac{\text{Net Working Capital}}{\text{Total Assets}}$$

B) **Leverage Ratio:** A company has long-term creditors like debenture holders, financial institutions, who are interested to know the company's long-term financial strength. In general, everybody is concerned with long-term debts, because these

commit the company to paying interest, and eventually the principal, over the long run. Moreover as creditors' claims must be satisfied before earnings can be distributed to shareholders, present and prospective shareholders pay close attention to the degree of indebtedness and ability to repay debts.

This long-term financial strength of a company can be judged by using leverage ratios. There are mainly two types of leverage ratios: one measures the degree of indebtedness and the other measures the ability to service debts. The degree of indebtedness measures the amount of debt relative to other significant balance sheet amounts. This is commonly measured by the **Debt-Equity Ratio** and **Debt Ratio**.

The second type of debt measure, the ability to service debts, assesses a company's ability to make the contractual payments required on a scheduled basis over the life of a debt. The company's ability to pay certain fixed charges is measured using coverage ratios. The most common coverage ratio is the **Interest Coverage Ratio**.

a) Debt-Equity Ratio: This ratio can be calculated by dividing total debt by net worth.

$$\text{Debit-Equity Ratio} = \frac{\text{Total Debt (TD)}}{\text{Net Worth (NW)}}$$

Total debt includes short-term as well as long-term debt. Net worth includes equity capital and reserves and surplus. A simple variant of the debt-equity ratio is calculated by the following formula:

$$\text{Debt-Equity Ratio (D/E)} = \frac{\text{Long-Term Debt}}{\text{Equity Capital}}$$

b) Debt Ratio: This ratio is calculated by dividing total debt (TD) by capital employed (CE). Total debt includes short and long-term borrowings from financial institutions, debentures/bonds, bank borrowings, public deposits and any other interest-bearing loan. Capital employed includes Net fixed assets (NFA)

and net current assets (NCA). Net current assets are current assets (CA) less current liabilities (CL) excluding interest-bearing short-term debt for working capital.

$$\text{Debt Ratio} = \frac{\text{Total Debt (TD)}}{\text{Capital Employed (CE)}}$$

The debt-equity and debt ratio show how excellently debt financing has been used in the business. A high ratio for both the case means that claims of creditors are greater than those of owners. A high level of debt introduces inflexibility in the firm's operations due to the interferences from creditors. But a low debt-equity ratio implies a greater claim of owners than creditors. From the point of view of creditors, it represents a satisfactory situation since a high proportion of equity provides a larger margin of safety for them. Together with the level of indebtedness, the company's capacity to bear interest needs to be measured.

c) **Interest Coverage Ratio:** The interest coverage ratio, measures the company's ability to make contractual interest payments. The higher the value of this ratio, the better is the ability of the company to fulfil its interest obligations. It is calculated by dividing Profit before Interest and Taxes by Interest amount.

$$\text{Interest Coverage Ratio} = \frac{\text{Profit before Interest and Taxes}}{\text{Interest}}$$

C) **Activity Ratios/Turnover Ratios:** Activity or turnover ratios measure the speed with which accounts are converted into sales or cash. These ratios are employed to evaluate the efficiency with which a company manages and utilises its assets. These ratios involve a relationship between sales and assets. The common Activity or Turnover ratios are discussed below:

a) **Inventory Turnover Ratio:** This ratio shows how rapidly the inventory is turning into cash or receivables through sales. It measures the activity, or liquidity, of a company's inventory.

It is calculated by dividing the cost of goods sold by sales. If the cost of goods sold figure is not available to outside analyst then it is computed by taking sales figure instead of cost of goods sold.

$$\text{Inventory Turnover} = \frac{\text{Sales}}{\text{Inventory}}$$

or,

$$\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Inventory}}$$

Generally, a high inventory turnover is indicative of good inventory management i.e. products being manufactured are sold at a fast rate. A low inventory turnover implies excessive inventory levels than warranted by production and sales activities. This ratio needs to be compared with the current ratio to judge a company's liquidity position.

b) **Debtors (Accounts Receivable) Turnover:** A company sells goods for cash and credit. When the company extends credits to its customers, debtors (accounts receivables) are created in the company's accounts. Debtors are convertible into cash over a short period, hence are included in current assets. This ratio has to be compared together with the other liquidity ratios to assess the liquidity position of the company. It is calculated by dividing credit sales by accounts receivables or debtors amount.

$$\text{Debtor Turnover} = \frac{\text{Credit Sales}}{\text{Debtors}}$$

This turnover ratio indicates the number of times receivables are turned over each year. The higher the value of this ratio, the more efficient is the management of credit.

c) **Total Assets Turnover Ratio:** This ratio indicates the efficiency with which the company uses its assets to generate sales. Generally, the higher a company's total assets turnover, the more efficiently its assets have been used. It is calculated

by dividing sales by total assets. This measure is probably of greater interest to management as it indicates whether the company's operations have been financially efficient.

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

Some analyst exclude intangible assets like goodwill, patents etc, while computing total assets turnover. Similarly, fictitious assets, accumulated losses or deferred expenditures may also be excluded for calculating total asset turnover ratio.

d) Fixed Asset Turnover Ratio: Sometimes, analyst wants to measure the efficiency only with respect to fixed assets. This ratio measures sales per rupee of investment in fixed assets. A high ratio indicates a high degree of efficiency in asset utilisation and a low ratio reflects inefficient use of assets. However, while interpreting this ratio, one has to examine the quality of the asset, as old and substantially depreciated fixed assets would tend to show a high turnover ratio.

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

D) Profitability Ratios: Profitability ratios measure the capability of a company to survive and grow over a long period of time. As a group, these measures evaluate the company's earnings with respect to a given level of sales, a certain level of assets, the owners' investment, or share value. Management of the company, creditors, owners are all interested in the profitability of the company. Creditors are interested in getting back their interest and repayment of principal in time. Owners want to know the required rate of return on their investment. These can be evaluated by the profitability ratios.

Usually two types of profitability ratios are calculated: (a) profitability in relation to sales and (b) profitability in relation to investment.

The popular ratios of the first group are the **Gross Profit Margin**, **Net Profit Margin** and **Operating Ratio**.

The common ratios for the second group are **Return on Investment**, **Return on Equity**, **Earnings Per Share** and **Price-Earnings Ratio**.

a) **Gross Profit Margin:** The gross profit margin measures the percentage of each sales remaining after the company has paid for its goods. Gross profit is defined as the difference between sales and cost of goods sold. It is calculated by dividing gross profit by sales.

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Sales}}$$

This ratio indicates the average spread between the cost of goods sold and the sales revenue. The higher the gross profit margin, the better the profitability of the company. Whereas a low gross profit margin may reflect poor profitability, which may be due to higher, cost of goods sold or inefficient use of plant and machinery resulting in higher cost of production.

b) **Net Profit Margin:** Net profit is obtained when operating expenses, interest and taxes are subtracted from the gross profit. This ratio establishes a relationship between net profit and sales and indicates management's efficiency in manufacturing, administering and selling the products. This ratio is measured by dividing profit after tax by sales.

$$\text{Net Profit Margin} = \frac{\text{Profit After Tax}}{\text{Sales}}$$

A company with a high net profit can survive in the face of falling selling prices, rising costs of production or declining demand for the product but it would not be possible for a low net profit margin company to withstand these adversities.

c) **Operating Expense Ratio:** The operating expense ratio explains the changes in the profit margin ratio. This ratio is computed by dividing operating expenses i.e. cost of goods sold plus selling expenses and general and administrative expenses (excluding interest) by sales.

$$\text{Operating Expense Ratio} = \frac{\text{Operating Expense}}{\text{Sales}}$$

A high operating expenses ratio is unfavourable to a company as it means high cost of goods sold or high general and selling expenses. A high operating ratio will leave a small amount of gross profit to pay interest, dividends etc. A company desires a low operating ratio as it is a yardstick of operating efficiency.

d) **Return On Investment:** The Return on Investment also called as Return on Asset, measures the company's overall effectiveness in generating profits with its available assets. The higher the company's return on total investment, the better is the profitability. It is calculated by dividing profit after tax by total asset.

$$\text{Return on Investment} = \frac{\text{Profit After Tax (PAT)}}{\text{Total Assets}}$$

e) **Return on Equity:** The return on equity examines the profitability of owners' investment. This ratio measures the return earned on the owners' investment. Every company has the objective of getting high return on the shareholders equity or fund. This reflects the extent to which this objective has been accomplished. It is calculated by dividing profit after taxes by net worth or equity capital. Net worth consists of paid-up share capital, share premium and reserves and surplus less accumulated losses.

$$\text{Return on Equity} = \frac{\text{Profit After Tax (PAT)}}{\text{Net Worth}}$$

or,

$$\text{Return on Equity} = \frac{\text{Profit After Tax (PAT)}}{\text{Equity Capital}}$$

f) **Earnings Per Share:** The earnings per share represent the number of rupees earned on behalf of each outstanding equity share. It is computed by dividing the profit after taxes by the total number of equity shares.

$$EPS = \frac{\text{Profit After Tax (PAT)}}{\text{Number of Share Outstanding}}$$

The EPS shows the profitability of the firm on a per-share basis and as a profitability index it is a valuable and widely used ratio.

g) **Price/Earnings (P/E) Ratio:** The P/E ratio measures the amount investors are wiling to pay for each rupee of the company's earnings. This ratio indicates the degree of confidence that investors have in the company's future performance. The higher the P/E ratio, the greater is the investors' confidence. It is calculated by dividing market price by EPS.

$$P/E = \frac{\text{Market Price}}{\text{EPS}}$$

11.3.3 Limitations of Ratio Analysis

Although ratio analysis is useful, it has its limitations, some of which are listed below:

a) Operating and accounting practices differ from company to company, which can distort the ratios and make comparisons meaningless. For example, the use of different inventory valuation methods (LIFO versus FIFO) and different depreciation methods would affect inventory and asset turnover ratios.

b) Financial statements are based on historical costs and do not take inflation into account.

c) A ratio does not describe the quality of its components. For example, the current ratio may be high but inventory may consist of obsolete goods.

d) Ratios are static and do not consider future trends.

e) Ratio analysis is only a beginning as it gives only a little information for the purpose of decision making.



CHECK YOUR PROGRESS

Q.1: Fill in the blanks with appropriate words:

i) A ratio is defined as "the indicated quotient of two ..... expressions".

ii) Current ratio is calculated by dividing ..... by current liabilities.

iii) The difference between current assets and current liabilities excluding short term bank borrowing is called net ..... capital.

iv) The ..... measures the percentage of each sales remaining after the company has paid for its goods.

Q.2: Write the components of Quick Assets.

.....

.....

Q.3: Write the formula of P/E ratio.

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.....

Q.4: Name the different profitability ratios.

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11.4 TIME SERIES ANALYSIS

A single ratio by itself does not indicate favourable or unfavourable condition. Financial ratios over different time periods need to be calculated for comparison. This is known as time series analysis which gives an indication of the direction of change and reflects whether the company's financial performance has improved, deteriorated or remained constant over time. Time series analysis is done by using two methods: (i) Horizontal analysis and (ii) Vertical analysis.

i) **Horizontal Analysis:** Horizontal analysis is used to evaluate the trend in the accounts over the years. Horizontal analysis examines the trends of the various accounts and it reveals the areas of wide divergence that require further attention. When an analysis covers a span of many years, comparative financial statements may become cumbersome. To avoid this, the results of horizontal analysis may be presented by showing trends relative to a base year. In this method, a year representative of the company's balance sheet and profitability statement is chosen as the base. Each account of the base year is assigned an index of 100.The index for each respective account in succeeding years is found by dividing the account's amount by the base year and multiplying by 100.

ii) **Vertical Analysis:** In vertical analysis, a significant item on a financial statement is used as a base value, and all other items on the financial statement are compared to it. In performing vertical analysis for the balance sheet, total asset is assigned 100 percent. Each asset account is expressed as a percentage of total assets. Total liabilities and equity capital is assigned 100 percent. Each liability and equity account is then expressed as a percentage of total liabilities and equity capital. In the income statement, net sale is given the value of 100 percent and all other accounts are evaluated in comparison to net sales. The resulting figures are then given in a common size statement.

Further, to determine the financial performance of a company, its ratios need to be compared with average ratios of the industry. These industry ratios provide benchmark for comparing a company's performance with that of the industry. This analysis is known as industry analysis .These industry ratios are calculated by averaging the important ratios of a few selected companies within the industry. Industry ratios are important standards as each industry has distinct characteristics.

Another way of comparison is to compare ratios of one company with selected companies in the same industry at the same point in time. This inter-company analysis indicates the relative financial position and

performance of the company. In most cases, it is more useful to compare the company's ratios with ratios of a few selected companies belonging to the same industry for analysing the performance of the particular company in relation to the others.

EXERCISE 11.1



MM Ltd. provides the following comparative income statement:

Metford Ltd.

Comparative Income Statement, for the year ended March 31,2007 and 2006.

Particulars	2007 Rs.	2006 Rs.
Sales	4,70,000	5,80,000
Less: Cost of goods sold	2,00,000	1,70,000
Gross Profit	2,70,000	4,10,000
Less: Operating expenses	1,00,000	2,10,000
Profit Before Interest and Tax (PBIT)	1,70,000	2,00,000

a) Calculate the percentage change using horizontal analysis.

b) Evaluate the results.

Solution: a) MM Ltd. Comparative Income Statement, for the years ended March31, 2007 and 2006.

Particulars	2007 (Rs.)	2006 (Rs.)	% Increase or (Decrease)
Sales	4,70,000	5,80,000	(18.9)
Cost of goods sold	2,00,000	1,70,000	(17.6)
Goss Profit	2,70,000	4,10,000	(34.1)
Operating expenses	1,00,000	2,10,000	(52.4)
Profit Before Interest and Taxes	1,70,000	2,00,000	(15.0)

b) Gross profit declined 34.1 percent due to the combined effects of lower sales and higher cost of goods. However, operating expenses were reduced. This kept the decline in net income to only 15 percent.

EXERCISE 11.2



The following is the Balance Sheet and Statement of Profit for the year ended March 31, 2006 of North East Chemicals Ltd.

Balance Sheet as on March 31, 2006

Liabilities	**(Rs.)**	**Assets**	**(Rs.)**
Equity Share Capital	10,00,000	Plant and Equipment	6,40,000
(Rs. 100 each)		Land & Building	80,000
Reserves & Surplus	3,68,000	Cash	1,60,000
Creditors	1,04,000	Debtors	3,20,000
Bills payable	2,20,000	Inventory	4,92,000
Total	**16,92,000**	**Total**	**16,92,000**

Statement of profit for the year ended March 31, 2006

Particulars	**(Rs.)**
Net Sales	40,00,000
Less: Cost of goods sold	30,80,000
Gross Profit on Sales	9,20,000
Less: Operating expenses	6,80,000
Net Profit	2,40,000
Less: taxes @ 50%	1,20,000
Net Profit After Taxes	1,20,000

Solution: Determine the following ratios for North East Chemicals: Current ratio, Quick ratio, Inventory Turnover ratio, Receivables Turnover ratio, Gross Profit ratio, Net Profit ratio, Operating ratio, Earnings Per Share, Return on Equity Capital and P/E ratio.

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

$$= \frac{\text{Cash + Debtors + Inventory}}{\text{Creditors + Bills Payable}}$$

$$= \frac{\text{Rs. 1,60,000 + Rs. 3,20,000 + Rs. 4,92,000}}{\text{Rs. 1,04,000 + Rs. 2,20,000}}$$

$$= \frac{\text{Rs. 9,72,000}}{\text{Rs. 3,24,000}} = 3 : 1$$

$$\textbf{Quick Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

$$= \frac{\text{Current Assets} - \text{Inventory}}{\text{Current liabilities}}$$

$$= \frac{\text{Rs. 9,72,000} - \text{Rs. 4,92,000}}{\text{Rs. 3,24,000}}$$

$$= \frac{\text{Rs. 4,80,000}}{\text{Rs. 3,24,000}} = 1.48 : 1$$

$$\textbf{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Inventory}}$$

$$= \frac{\text{Rs. 30,80,000}}{\text{Rs. 4,92,000}} = 6.3 : 1 \text{ times}$$

$$\textbf{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100\%$$

$$= \frac{\text{Rs. 9,20,000}}{\text{Rs. 40,00,000}} \times 100\% = 23\%$$

$$\textbf{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Sales}} \times 100\%$$

$$= \frac{\text{Rs. 1,20,000}}{\text{Rs. 40,00,000}} \times 100\% = 3\%$$

$$\textbf{Operating Ratio} = \frac{\text{Cost of goods sold} + \text{Operating expenses}}{\text{Sales}} \times 100\%$$

$$= \frac{\text{Rs. 30,80,000} + \text{Rs. 6,80,000}}{\text{Rs 40,00,000}} \times 100\% = 94\%$$

$$\textbf{Earnings Per Share (EPS)} = \frac{\text{Net Profit}}{\text{Number of Equity Shares}}$$

$$\textbf{Number of Equity Shares} = \frac{\text{Equity Capital}}{\text{Par Value}}$$

$$= \frac{\text{Rs. 10,00,000}}{\text{Rs. 100}} = 10000$$

Earnings Per Share (EPS) = $\frac{\text{Rs. 1,20,000}}{\text{Rs. 10,000}}$ = Rs. 12

Rate Of Return on Equity Capital = $\frac{\text{Net Profit}}{\text{Equity Capital}} \times 100\%$

= $\frac{\text{Rs. 1,20,000}}{\text{Rs. 13,68,000}} \times 100\%$

Earnings Per Share (EPS) = 8.8%

EXERCISE 11.3



The following is the Balance Sheet of ABC Ltd. for the year ending 31st December 2007.

Liabilities	**(Rs.)**	**Assets**	**(Rs.)**
10% Preference Share Capital	3,00,000	Good will	1,00,000
Equity Share Capital	12,00,000	Land & Building	5,00,000
8% Debentures	1,50,000	Plant & Machinery	9,50,000
Long-term Loans	1,50,000	Furniture & Fixtures	1,50,000
Sundry Creditors	50,000	Bills Receivable	90,000
Bills Payable	80,000	Sundry Debtors	80,000
Bank Overdraft	50,000	Bank Balance	55,000
Outstanding Expenses	5,000	Short-term Investment	25,000
		Pre-paid Expenses	10,000
		Stocks	25,000
	19,85,000		19,85,000

Calculate: a) Write the components of Current Assets.

b) Write the components of Current Liabilities.

c) Find (i) Current Ratio, (ii) Quick Ratio

Solution:

a) **Components of Current Assets**: Bills Receivable, Sundry debtors, Bank Balance, Short-term Investment, Pre-paid Expenses.

b) **Components of Current Liabilities**: Sundry Creditors, Bills Payable, Bank Overdraft, Outstanding Expenses.

c) i) $\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$

Current Assets = 90,000 + 80,000 + 55,000 + 25,000 + 10,000 + 25,000

= Rs. 2,85,000

Current Liabilities = 50,000 + 80,000 + 50,000 + 5,000

= 1,85,000

$\text{Current Ratio} = \frac{2,85,000}{1,85,000} = 1.54$

ii) $\text{Acid test Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$

Liquid Assets = Current Assets – Inventory – Prepaid expenses

= Rs. 2,85,000 – Rs. 25,000 – Rs. 10,000

= Rs. 2,50,000

(Stock and Pre-paid expenses have been excluded from current assets with a view to arriving at liquid assets.)

Current Liabilities = Rs. 1,85,000

$\text{Acid-Test Ratio} = \frac{2,50,000}{1,85,000} = 1.35$



EXERCISE 11.4

The capital of XY Ltd. is as follows:

1,00,000 Equity Shares of Rs. 10 each	Rs.	10,00,000
10% 50,000 Preference Shares of Rs. 10 each	Rs.	5,00,000

The following information is obtained from the books of the company:

Profit after tax at 50%	Rs.	3,00,000
Depreciation	Rs.	70,000
Equity Dividend paid	Rs.	20%
Market Price of Equity Share	Rs.	50

Calculate:

i) Dividend yield on equity share.

ii) Earnings per share

iii) The price-earning ratio

Solution:

i) Dividend yield on Equity Share $= \frac{\text{Dividend per Share}}{\text{Market Price per Share}} \times 100$

$= \frac{2}{50}$

$= 0.04$ or say 4%

[Dividend per share = 0.20 × Rs 10 = Rs 2]

ii) Earnings Per Share $= \frac{\text{Profit After Tax and Preference Divident}}{\text{Number of Equity Shares}}$

$= \frac{2,50,000 \text{ (i.e. } 3,00,000 - 50,000)}{1,00,000}$

= Rs. 2.5

iii) Price-Earning Ratio $= \frac{\text{Market Price per Share}}{\text{Earning per Share}}$

$= \frac{50}{25}$

= 20 : 1



CHECK YOUR PROGRESS

Q.5: From the following information of Watson Ltd., determine: (i) gross profit margin and (ii) net profit margin.

Sales = Rs. 2,00,000

Cost of goods sold = Rs. 1,00,000

Other operating expenses= Rs. 50,000

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Q.6: The credit sales of HHL in a year amount to Rs. 12,00,000. The outstanding amounts of debtors at the beginning and

end of the year were Rs. 1,40,000 and Rs. 1,60,000 respectively. Determine the debtor turnover ratio and the average collection period.

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Q.7: A company's sales are Rs. 4,50,000, cost of goods sold is Rs. 2,40,000 and inventory is Rs. 90,000. What is its turnover? Also calculate the gross margin.

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11.5 LET US SUM UP

In this unit we have discussed the following:

- Ratio analysis is a widely used tool of financial analysis.
- It is defined as the systematic use of ratio to interpret the financial statements so that the strengths and weaknesses of a company, as well as its historical performance and current financial condition, can be determined.
- Ratios make the related information comparable as these are relative figures reflecting the relationship between related variables.
- Ratios can be compared by using trend analysis, inter-company comparison and comparison with standards or industry average.
- Ratios are broadly categorised into four groups: liquidity ratios, leverage ratios, turnover ratios and profitability ratios.
- Liquidity ratios measure the company's ability to meet current obligations, whereas the leverage ratios measure the proportion of outsiders' capital in financing the company's assets.
- Activity ratios reflect the company's efficiency in utilising its assets in generating sales, whereas the profitability ratios measure the overall performance of the company by determining the effectiveness of the company in generating profit.



11.6 FURTHER READING

1) Chandra, Prasanna. *Financial Management Theory and Practice*.
2) Khan, M. Y. and Jain, P. K. *Financial Management*.
3) Pandey, I. M. *Financial Management*.



11.7 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: i) mathematical, ii) current assets, iii) working, iv) gross profit margin.

Ans. to Q. No. 2: The components of quick assets are cash, debtors, bills receivables and marketable securities.

Ans. to Q. No. 3: Market price
Earning Per Share

Ans. to Q. No. 4: The Gross profit margin, Net profit margin, Operating ratio, Return on Investment, Return on Equity, Earning Per Share and Price-Earnings Ratio.

Ans. to Q. No. 5: i) Gross profit margin = 50%
ii) Net profit margin = 25%

Ans. to Q. No. 6: Debtors turnover ratio = 8 times,
Average collection period = 1.5 months.

Ans. to Q. No. 7: Inventory turnover ratio = 2.67 times,
Gross profit margin = 46.7%.



11.8 MODEL QUESTIONS

Q.1: What do you mean by ratio analysis? Explain with example.

Q.2: What is the importance of ratio analysis?

Q.3: Briefly discuss the importance of the following ratios:
(a) Liquidity ratios and (b) Leverage ratios.

Q.4: Why are the activity ratios calculated? What activity ratios help in understanding of the liquidity position of a company?

Q.5: What do you mean by time series? What are the two methods of time series analysis?

Q.6: Write the limitations of ratio analysis.

Q.7: The total sales of a company are Rs. 5,00,000. It has a gross profit margin of 20 percent. If the company has an inventory of Rs. 60,000, determine the inventory turnover.

*** ***** ***

UNIT 12: ENVIRONMENTAL ACCOUNTING– REPORTING AND AUDIT

UNIT STRUCTURE

12.1 Learning Objectives

12.2 Introduction

12.3 Definition and Meaning

12.4 Evaluation of Natural Resources– Aims and Benefits

12.5 Objectives of Environmental Accounting

12.6 Limitations of Environmental Accounting

12.7 Basic Dimensions of Environmental Accounting

12.8 Environmental Acts in India

12.9 Let Us Sum Up

12.10 Further Reading

12.11 Answers to Check Your Progress

12.12 Model Questions

12.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- explain the meaning and concept of Environmental Accounting
- discuss the objectives and limitations of Environmental Accounting
- discuss the basic dimensions of Environmental Accounting
- understand the various Environmental Acts in India.

12.2 INTRODUCTION

The development of a country depends on the level of economic activities undertaken by the country. Higher the level of economic activities higher is the level of economic development of that country. On the other hand, the economy of a country is dependent on the availability of resources especially the environmental resources. Every organization uses the resources available in a nation for conducting their business. Thus, it is important for every organization using these resources directly or indirectly to keep track

of its uses and maintaining necessary accounts recording the same. These accounts should take into consideration the degradation and depletion of environmental resources arising out of the economic activities of the organizations. Organizations work within the broad framework of internal and external setting. Some of the factors of the environment have a long term impact on the existence of the organization especially the external factors. One such external factor is the environment.

12.3 DEFINITION AND MEANING

According to the OECD, environmental accounting refers to 'physical and monetary accounts of environmental assets and the costs of their depletion and degradation' (national accounting) and the term usually refers to environmental auditing, but may also include the costing of environmental impacts caused by the corporation (corporate accounting). Environmental accounting may be defined as the identification, collection, analysis, dissemination and use of physical flow information like materials, energy and water flows, environmental cost information and other monetary information for both conventional and environmental decision-making within an organization. Environmental accounting is the practice of using traditional accounting and finance principles to calculate the costs that business decisions will have on the environment. Environmental accounting can be implemented by businesses of all sizes. It includes information on physical flows and use of materials, water, and energy, as well as cost information. However, the amount and type of information will vary from varying decision making and reporting requirements.

12.4 EVALUATION OF NATURAL RESOURCES-AIMS AND BENEFITS

The need for environmental accounting, reporting and audit can be best understood through the constitutional framework of India and also in the international commitments of India. The Constitution under Part IVA (Art 51A-Fundamental Duties) casts a duty on every citizen of India to protect

and improve the natural environment and to have compassion for living creatures. Further, the Constitution of India under Part IV (Article 48A, Directive Principles of State Policies) stipulates that the State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country. In addition to this, environmental accounting plays an important role in determining measures to promote sustainable environmental management in the following ways:

1) It emphasizes on the identification of environmental costs, including the costs of producing waste.
2) It identifies costs and benefits of environmental conservation activities, and provides the best possible means of quantitative measurement and supports communications.
3) Evaluation of natural resources is fundamental to identifying change, supporting an adaptive approach that is flexible enough to meet the challenge of change, and enabling learning at individual, community, institutional and policy levels.

Environmental accounting is useful for both internal users and external users. It works as a corporate management tool for internal users like the management, related departments and employees. The external users like the consumers, business partners, financial institutions, investors, government and government agencies and common citizens use environmental accounting as a means of communication of their accountability towards them.



CHECK YOUR PROGRESS

Q.1: Define Environmental Accounting.

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12.5 OBJECTIVES OF ENVIRONMENTAL ACCOUNTING

The objectives of environmental accounting can be studied broadly under two categories: at corporate level and at national level.

At the corporate level, proper environmental accounting has the primary objective of showing the company's ability to meet the regulatory requirements in terms of:

1) Devising ways for proper disposal of hazardous materials,
2) Enabling proper disclosure of current, previous and future preventive measures to control pollution,
3) Having a proper waste management system,
4) Preventing future damages to the environment and
5) Creating a sustainable environment.

At the national level, following are the objectives of environmental accounting:

1) To take the total stock of assets related to environment and changes therein,
2) To estimate the total expenditure incurred in protection or enhancement of environment, including the defensive expenditure,
3) To assess the environmental costs and related benefits,
4) To assess the depletion in natural resources due to their use in production, changes in environmental quality resulting from pollution,
5) To plan the use of resources by reducing waste to attain sustainable development.

12.6 LIMITATIONS OF ENVIRONMENTAL ACCOUNTING

Inspite of all its advantages, environmental accounting also has certain limitations. Some of them are:

1) Environmental accounting is not based on a standard accounting system. This may not help in proper comparison of data between two nations or even between two organizations.

2) Environmental accounting is difficult as it is not easy to measure accurately the benefits and costs or losses made to the environment by an organization exactly in monetary terms.
3) Many organizations do not have well managed tracking system to track the use of environmental resources by an organization.
4) Environmental accounting mainly focuses on the costs incurred by the company but does not study the related costs that had to be incurred by the society as a whole.
5) There are various laws, rules and regulations concerning the environment and the preparer of environmental accounts should have adequate knowledge about all such legislations. This also becomes expensive and small organizations cannot afford to bear such expenses and as such the impact of smaller organizations activities on the environment remains unaccounted for.

12.7 BASIC DIMENSIONS OF ENVIRONMENTAL ACCOUNTING

Environmental Accounting and reporting should have the following basic dimensions:

1) Relevance: Information provided should be relevant to the environmental costs and benefits of the organisation. It should also be material and significant expressed in terms of quantitative impact the data have on the present and future of the environmental conservation.
2) Reliable: The data provided should be reliable and should be able to build trust among the stakeholders. Environmental accounts should have faithful representation of fair, complete and accurate facts. The organization may even determine an appropriate method of disclosure, whenever needed, to provide a better understanding of the reality.
3) Understandable: Environmental accounting information should be provided in easy and simple language in order to eliminate the possibility of any mistaken judgment.

4) Comparable: The data provided should be comparable between different financial years and also in the same year with another organization or organisations.

5) Verifiable: Environmental accounting information should be based on certain valid premises so that it may be verified at any point of time.

Economists have developed a number of concepts or methods to evaluate the market and non-market value of natural resources. These include, among others, travel cost models, random utility models, hedonic pricing methods, contingent valuation, natural resource damage assessment, and sustainable development assessment. In addition, one of the most common decision-making methods is a benefit-cost analysis. Information obtained from environmental accounting by companies is given in two forms: monetary value and physical units. Environmental accounting, as described within the environmental guidelines, is composed of environmental conservation cost, environmental conservation benefits and the economic benefit associated with environmental conservation activities. Benefit-cost analysis is a systematic method that compares the accumulative social benefits with the opportunity costs. This analysis is easier to use when a market value can be attached to each component of a particular project. Benefit-cost analysis can be more difficult to apply when the benefits or cost do not have a market value.

12.8 ENVIRONMENTAL ACTS IN INDIA

After the liberalization process of 1991, industrial licensing took the backstage and environmental clearance from various government authorities has now taken the center stage for most of the organizations. Increasing concern with the protection of the environment and taking anti-pollution measures have become major concern all over the world in the last two decades. Ministry of Environment and Forests (MoEF), established in 1985, is the apex administrative body in the country for regulating and ensuring environmental protection and lays down the legal and regulatory framework for the same. Since the 1970s, a number of environment legislations have been put in place. The MoEF and the Central Pollution Control Board and State Pollution Control Boards together form the regulatory and

administrative core of the sector. Some of the important legislations for environment protection are as follows:

- The National Green Tribunal Act, 2010
- The Air (Prevention and Control of Pollution) Act, 1981
- The Water (Prevention and Control of Pollution) Act, 1974
- The Environment Protection Act, 1986
- The Hazardous Waste Management Regulations, etc.
- The Wildlife Protection Act, 1972
- The Forest Conservation Act, 1980
- Public Liability Insurance Act, 1991
- The Biological Diversity Act, 2002
- Coastal Regulation Zone Notification
- Recycled Plastics, Plastics Manufacture and Usage Rules, 1999

A Gazette Notification on Environmental Audit issued by the Ministry of Environment and Forests in 1992 (amended vide notification GSR 386 (E), date, 22-04-1993), under the Environmental (Protection) Act, 1986 has made it mandatory for all the industrial units to submit an environmental statement to the concerned State Pollution Control Boards, while seeking consent to operate under the relevant environmental norms. The Environment Statements enable the units to take a comprehensive look at the industrial operations, facilitate the understanding of material flows and help them to focus on areas where waste reduction and consequently saving in material cost, is possible. The Companies Act, 2013 also requires to include in Director's report environment related policies/problems and annexure details of energy consumption energy conservation. Cost Accounting record rules for various industries made by the Central Government also require disclosing monetary and quantitative values in Cost Accounting. The central government and state government have passed various statues to contain and control the problem of environmental pollution and ecological imbalances.



CHECK YOUR PROGRESS

Q.2: Mention two corporate level objectives of Environmental Accounting.

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Q.3: State two limitations of Environmental Accounting.

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Q.4: Mention two important legislations for environmental protection in India.

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12.9 LET US SUM UP

In this unit we have discussed the following:

- Environmental accounting is the practice of using traditional accounting and finance principles to calculate the costs that business decisions will have on the environment.
- The Constitution under Part IVA (Art 51A-Fundamental Duties) casts a duty on every citizen of India to protect and improve the natural environment and to have compassion for living creatures.
- Environmental accounting is not based on a standard accounting system.
- Environmental Accounting and reporting should have the following basic dimensions:

- Relevance
- Reliable
- Understandable
- Comparable
- Verifiable

- The Companies Act, 2013 also requires to include in Director's report environment related policies/problems and annexure details of energy consumption energy conservation.
- The central government and state government have passed various statues to contain and control the problem of environmental pollution and ecological imbalances.



12.10 FURTHER READING

1) Jain, S. P., Narang, K. L., Agrawal, Simmi. (2012). *Advanced Cost Accounting (Cost Management)*. New Delhi: Kalyani Publishers.



12.11 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: According to the OECD, environmental accounting refers to 'physical and monetary accounts of environmental assets and the costs of their depletion and degradation' (national accounting) and the term usually refers to environmental auditing, but may also include the costing of environmental impacts caused by the corporation (corporate accounting).

Ans. to Q. No. 2: 1) Devising ways for proper disposal of hazardous materials.

2) Enabling proper disclosure of current, previous and future preventive measures to control pollution.

Ans. to Q. No. 3: 1) Environmental accounting is not based on a standard accounting system. This may not help in proper comparison of data between two nations or even between two organizations.

2) Environmental accounting is difficult as it is not easy to measure accurately the benefits and costs or losses made to the environment by an organization exactly in monetary terms.

Ans. to Q. No. 4: 1) The National Green Tribunal Act, 2010

2) The Air (Prevention and Control of Pollution) Act, 1981.



12.12 MODEL QUESTIONS

Q.1: Define Environmental Accounting.

Q.2: What are the objectives of environmental accounting at the corporate level?

Q.3: Mention any five environment related Acts operating in India.

Q.4: State the objectives of Human Resource Accounting. Explain the value based models of Human Resource Accounting.

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UNIT 13: HUMAN RESOURCE ACCOUNTING (HRA) AND REPORTING

UNIT STRUCTURE

13.1 Learning Objectives

13.2 Introduction

13.3 Cost and Expenses of Human Resources

13.4 Aims and Objectives of HRA

13.5 Importance or Benefits of Human Resource Accounting

13.6 Limitations of Human Resource Accounting

13.7 HR Evaluation Methods and Models

13.8 HR Evaluation and Reporting-Indian Scene

13.9 Let Us Sum Up

13.10 Further Reading

13.11 Answers To Check Your Progress

13.12 Model Questions

13.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- discuss the meaning and concept of Human Resource Accounting
- discuss the aims and objectives of Human Resource Accounting
- discuss the various HR evaluation methods and models
- discuss the HR evaluation and reporting scenario of India.

13.2 INTRODUCTION

Human Resource accounting (HRA) is a comparatively newer branch of accounting which considers accounting of people as the organisation's resource. Man, Material, Machine and Money (4 Ms) are the important requirements for any organization. Out of all these four Ms, the most important one, which drives all the others, is Man or Human Resources. An organization may have all physical resources, finance and latest technology but without the right people it will not be able to manage its affairs efficiently.

HRA is the process of identifying and measuring data about human resources and communicating this information to various interested parties.

13.3 COST AND EXPENSES OF HUMAN RESOURCES

Human Resources are also considered as assets but are different from physical assets in various aspects. HRA means accounting for people as the organizational resources. It is the measurement of the cost and value of people to organizations. It involves measuring costs incurred by private firms and public sectors to recruit, select, hire, train and develop employees and judge their economic value to the organization.

13.4 AIMS AND OBJECTIVES OF HRA

The following are the objectives of HRA:

1) To furnish cost value information for making management decisions about acquiring, allocating developing and maintaining human resources in order to attain cost effective organization objectives;
2) To allow management personnel to monitor effectively the use of human resources.
3) To understand the status of human asset control, i.e., whether assets are conserved, depleted or appreciated.
4) To recognize the nature of all resources used and improvement of the management of human resources so that the quality and quantity of goods and services are increased.
5) To facilitate the effective and efficient management of human resources.

13.5 IMPORTANCE OR BENEFITS OF HUMAN RESOURCE ACCOUNTING

HRA helps in generating data about human resources and to present human assets in the Balance Sheet.

1) It helps in ascertaining the amount spent on employees and how much return can be expected from such expenditure.

2) It provides a basis for planning physical assets in relation to human assets.
3) It also provides necessary information to prospective as well as existing investors on long term sustainability of the organization based on HRA.
4) It helps in determining whether the organization is labour intensive or capital intensive.

13.6 LIMITATIONS OF HUMAN RESOURCE ACCOUNTING

1) There are no specific guidelines for finding cost and value of human resources of an organization.
2) The life of human resources is uncertain and there valuation seems unrealistic.
3) Human assets cannot be owned or used at the pleasure of the organization unlike physical assets.
4) There is no recognition of human resources in the tax laws of the country. This leads to difference in computation of asset position of the organization.



CHECK YOUR PROGRESS

Q.1: Write the meaning of Human Resource Accounting.

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Q.2: Mention two objectives of HRA.

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Q.3: State two benefits of HRA.

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Q.4: Mention two limitations of HRA.

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13.7 HR EVALUATION METHODS AND MODELS

The important approaches for valuation of human resources can be broadly classified into two: Cost Based Models and Value Based Models. Some of the methods of valuation of human resources under these models are explained below:

A) **Cost Based Models:** Some of the methods of valuation of human resources based on cost are:

1) *Capitalisation of Historical Costs Model:* Under this method the sum of all costs related to human resources is taken together and the value is amortised annually over the length of the service period of the individual employees and the unamortized portion is shown as investments in human assets. However, this method ignores the future expected costs to be incurred in maintenance of human assets which acts as the major limitation of this method.

2) *Replacement Costs Model:* This method considers the costs that would be incurred to replace its existing human assets by an identical one. It has individual replacement cost which are the costs that have to be incurred to replace an individual by a substitute who can provide the same set of services that the individual who is replaced was providing. It also has positional replacement costs which refer to the costs of replacing the set

of services referred by an incumbent in a defined position. However, determining replacement costs is highly subjective and difficult. The exit of a popular top official may significantly influence the human assets value of the organization.

3) *Opportunity Cost Model:* According to this method, opportunity cost is the value of an employee in his alternative use. This method was first advocated by Hc Kiman and Jones. There is no opportunity cost for those employees that are not scarce and also those at the top will not be available for auction. As such, only scarce people should comprise the value of human resources. The major limitation of this method is that it has specifically excluded from its purview the employees who are not scarce and the valuation on the basis of opportunity cost is restricted to alternative use only within the organization. Also, it excludes the employees who can readily be hired from outside the organization.

B) Value Based Models: Some of the value based models are:

1) *Present Value of Future Earnings:* This model was developed by Brauch Lev and Aba Schwartz in 1971. They consider that determination of the total value of a firm's labour force is a straight forward extension of the measurement procedure of an individual value to an organization. They have divided the whole labour force into certain homogeneous group such as unskilled, semi-skilled, technical staff, managerial staff, etc. and in accordance with different classes and age groups. Average earnings stream for different classes and age groups are prepared for each group separately. And the present value for the human capital is calculated. The aggregate present value of different groups represents the capitalized future earnings of the firm as a whole. They have advocated the use of cost of capital rate for the purpose of capitalizing the present value of the future earnings of the employees. The following formula is used to calculate the value of an individual:

$$V_r = \frac{I(t)}{(I+R)^{t-r}}$$

V_r = Value of an individual r years old

I(t) = the individual's annual earnings upto retirement

R = Discount rate

t = Retirement age

The method suffers from certain limitations:

a) a person's value to an organization is not determined only by his inherent qualities, traits and skills but also by the organizational role in which the individual is placed.

b) The model ignores the possibility and probability of an individual leaving the organization for reasons other than death or retirement.

c) The assumption that people will not make role changes during their career al seems to be unrealistic.

d) The model does not reflect the contribution of the team work as a whole.

e) This model ignores security, bargaining capacity, skill and experience which may affect the payment of higher or lower salaries.

2) *Rewards Valuation or Flamholtz Model:* This model was suggested by Flamholtz. It identifies the major variables that determine an individual's value to an organization or his expected realizable value. The expected realizable value of an individual is the present worth of future services expected to be provided during the period he is expected to remain in the organisation. This method assumes that a person's value to an organization depends upon the positions to be occupied by him in the organization. As people move and occupy different organizational roles, they render services or rewards to the organization. However, the roles they will occupy in future will have to be determined probabilistically for each individual. The five steps suggested by this model for assessing the value of an individual to an organization are given below:

a) Forecasting the period a person will remain in the organsiation, i.e., his expected service life.
b) Identifying the services states, i.e., the roles that he may occupy including the time at which he will leave the organsiation.
c) Estimating the value derived by the organsiation when a person occupies a particular position for a specified time period.
d) Estimating the probability of occupying each possible mutually exclusive state at specified future times.
e) Discounting the value at a predetermined rate to get the present value of human resources.

The model is an improvement over the Lev and Schwartz Model. However it falls short of a practical value due to the estimation of probabilities of each individual occupying various service states. It is also expensive to predict career movements or exit probabilities on an individual basis.

3) *Valuation on Group Basis:* In this method, the contribution of the individuals as a group are taken into consideration. An individual's expected service tenure in the organization is difficult to predict but on a group basis it is relatively easier to estimate the percentage of people who are likely to leave the organisation in the future. This model attempted to calculate the present value of all existing employees in each such rank. It is estimated with the help of following steps:
   a) Ascertain the number of employees in each rank.
   b) Estimate the probability that an employee will be in his rank within the organization or will be terminated in the next period.
   c) Ascertain the economic value of an employee in a specified rank during each time period.
   d) The present value of existing employees in each rank is obtained by multiplying the above three factors and applying an appropriate discount rate.

However, this method ignores the exceptional qualities of certain skilled employees. Thus, the performance of a group may be seriously affected in the event of exit of a single individual.

13.8 HR EVALUATION AND REPORTING-INDIAN SCENE

The Companies Act, 2013 does not demand furnishing of HRA related information in the financial statements of the companies. The Institute of Chartered Accountants of India has not brought out any definitive standard or measurement in the reporting of human resources costs. While qualitative pronouncements regarding the importance of Human Resources is often made by the chairman, quantitative information about their contribution is rarely recorded or communicated. There are a few organizations, however, that recognizes the value of their human resources, and furnish the related information in their annual reports. In India, some of these companies are: Oil and Natural Gas Commission, Cement Corporation of India Ltd., Hindustan Petroleum Corporation Limited, etc.



13.9 LET US SUM UP

In this unit we have discussed the following:

- HRA is the process of identifying and measuring data about human resources and communicating this information to various interested parties.
- The important approaches for valuation of human resources can be broadly classified into two: Cost Based Models and Value Based Models.
- The Companies Act, 2013 does not demand furnishing of HRA related information in the financial statements of the companies.
- HRA helps in generating data about human resources and to present human assets in the Balance Sheet

- HRA is the measurement of the cost and value of people to organizations. It involves measuring costs incurred by private firms and public sectors to recruit, select, hire, train and develop employees and judge their economic value to the organization.
- The Companies Act, 2013 does not demand furnishing of HRA related information in the financial statements of the companies.



13.10 FURTHER READING

1) Jain, S. P., Narang, K. L., Agrawal, Simmi. (2012). *Advanced Cost Accounting (Cost Management)*. New Delhi: Kalyani Publishers.



13.11 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: HRA is the process of identifying and measuring data about human resources and communicating this information to various interested parties.

Ans. to Q. No. 2: 1) To furnish cost value information for making management decisions about acquiring, allocating developing and maintaining human resources in order to attain cost effective organization objectives;

2) To allow management personnel to monitor effectively the use of human resources.

Ans. to Q. No. 3: 1) It helps in ascertaining the amount spent on employees and how much return can be expected from such expenditure.

2) It provides a basis for planning physical assets in relation to human assets.

Ans. to Q. No. 4: 1) There are no specific guidelines for finding cost and value of human resources of an organization.

2) The life of human resources is uncertain and there valuation seems unrealistic.



13.12 MODEL QUESTIONS

Q.1: Discuss the aims and objectives of Human Resource Accounting.

Q.2: Discuss the benefits of Human Resource Accounting.

Q.3: Explain the limitations of Human Resource Accounting.

Q.4: Discuss the various models for valuation of Human Resources.

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Dear Learner,

Regarding the course as mentioned above, we would like to know your opinions and comments so as to improve the quality of self learning materials in future. Please respond to the following statements by ticking the number you feel most reflect your opinion. After completion of the additional comments, please detach the page and send/mail the same to us at the address given below.

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1) Approximately how many hours did you spend for studying the units in the course? ☐☐☐

2) Please give your opinions (by ✓ mark) to the following items based on your reading of the block:

Sl. No.	Statements	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I)	The SLMs of the course fulfil the learning objectives set out in the beginning of each unit					
II)	The units of the SLM could satisfy my academic needs and expectations					
III)	The Unit writers have excellent knowledge about the course contents					
IV)	Language and contents of the units were presented at a level which I could readily understand					
V)	Ample opportunity for participation in the activities provided in the units					
VI)	Used enough Illustrations (Diagrams, tables etc.) for conceptual clarity					
VII)	Quality of content is engaging, relevant, and up-to-date					
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IX)	The Possible/model questions and the answers to check my progress have benefited me a lot					

Additional Comments: *(Please feel free to provide your open comments)*

1) Which aspects of the SLM, according to you, worked well?

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2) What sort of changes/improvements do you feel KKHSOU could implement to improve the overall quality of the SLM?

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Thank you for taking the time to complete this form.