

# MHH-101

# Introduction to Management



**Volume-2**

**VOLUME - II**

---

<b>Block 1</b> <b>FINANCIAL MANAGEMENT</b>	<b>3</b>
<b>Block 2</b> <b>MARKETING AND HEALTH ECONOMICS</b>	<b>115</b>
<b>Block 3</b> <b>TOTAL WORD ESSENTIALS OF LOGISTIC AND EQUIPMENT MANAGEMENT</b>	<b>179</b>

---



ignou  
THE PEOPLE'S  
UNIVERSITY

**Block**

**1**

**FINANCIAL MANAGEMENT**

---

**UNIT 13**

**Accounting Concepts and Application** **9**

---

**UNIT 14**

**Understanding Cost and their Behaviour** **39**

---

**UNIT 15**

**Budgeting** **65**

---

**UNIT 16**

**Financial Control** **84**

---

---

## CURRICULUM DESIGN COMMITTEE

---

Prof. A.K. Agarwal  
Director,  
School of Health Sciences  
IGNOU, New Delhi-68

Surg. Capt. N.A. Khan  
Academy of Hospital  
Administration, New  
Delhi-16

Dr. S.B. Arora  
Reader,  
School of Health  
Sciences, IGNOU, New  
Delhi-68

Maj. Gen. S.K. Biswas  
Academy of Hospital  
Administration, New  
Delhi-16

Dr. B. Dayal  
Part-time Consultant,  
IGNOU, New Delhi-68

---

## COURSE REVISION TEAM (1<sup>ST</sup> REVISION)

---

Prof. A.K. Sood  
Public Health Consultant  
A-18, Parijat Apartments  
Plot no. 28, Sector-4  
Dwarka, New Delhi-07

Prof. Sidhartha Satpathy,  
HOD, Dept. of Hospital  
Administration,  
AIIMS, New Delhi-29

Prof. S.B. Arora  
BU225, Vishaka  
Enclave  
Pitampura, New Delhi

Prof. Jayanta K. Das  
Former Director  
NIHFW, New Delhi-67

Dr. D. K. Sharma  
Medical Superintendent  
AIIMS, New Delhi-29

Prof. T.K. Jena  
Director  
School of Health  
Sciences  
IGNOU, New Delhi-68

Prof. A. K. Agarwal  
290, Nilgiri Apartment  
Alaknanda, New Delhi

Dr. Bidhan Das  
Managing Director,  
Octavo Solutions Pvt. Ltd.  
New Delhi-48

---

## BLOCK PREPARATION TEAM

---

### Writers

#### Unit 13, 15

Lt. Col. Pawan Kapoor (pre-revised)  
D.S. Officer Training School  
AMC Centre, Lucknow-226  
002

#### Unit 14

Dr. Kajol Goldar (pre-revised)  
CMO, ESIC Hospital, Rohini  
New Delhi-110 085

#### Unit 16

Dr. A.K. Khokkar (pre-revised)  
Dy. Medical Commissioner  
ESIC, Kotla Road  
New Delhi-110 002.

#### Unit 17

Prof. Manish Chaturvedi  
Head, MCHA, NIHFW  
New Delhi-110067

Dr. Kamal Yadav (Pre-revised)  
Reader, School of  
Management Studies, IGNOU  
New Delhi-110 068

#### Unit 20

Prof. Rajesh Harshvardhan  
HoD, Deptt. of Hospital  
Administration, SGPGI  
Lucknow, Uttar Pradesh  
226014

Surg. Cdr. R. Bhalla (Pre-revised)  
D-117, Defence Colony  
New Delhi-110 024.

#### Unit 21

Prof. Rajesh Harshvardhan  
HoD, Deptt. of Hospital  
Administration, SGPGI  
Lucknow, Uttar Pradesh  
226014

Dr. J.K. Das (Pre-revised)  
Deptt. Of Medical Care &  
Hospital Administration  
NIHFW, New Delhi-110 067

#### Editor

Prof. A.K. Sood  
Public Health Consultant  
A-18, Parijat Apartments  
Sector-4, Dwarka,  
New Delhi-7

Prof. T.K. Jena  
(format editing)  
School of Health Sciences  
IGNOU, New Delhi-68

Dr. Anika Sulania  
(format editing)  
School of Health Sciences  
IGNOU, New Delhi-68

**Unit 18**

Prof. Manish Chaturvedi  
Head, MCHA, NIHF  
New Delhi-110067

Prof. Madhulika Kaushik  
(Pre-revised)  
School of Management  
Studies  
IGNOU, New Delhi-110 068

**Unit 19**

Prof. Manish Chaturvedi  
Head, MCHA, NIHF  
New Delhi-110067

Dr. S.K. Jain (Pre-revised)  
Dy. Medical Commissioner  
ESI Corporation, Kotla Road  
New Delhi-110 002.

**Unit 22**

Prof. Rajesh Harshvardhan  
HoD, Deptt. of Hospital  
Administration, SGPGI  
Lucknow, Uttar Pradesh  
226014

Dr. Shakti Gupta (Pre-revised)  
Additional Professor  
Deptt. of Hospital  
Administration  
AIIMS, New Delhi-110 029

**Unit 23**

Prof. Rajesh Harshvardhan  
HoD, Deptt. of Hospital  
Administration, SGPGI  
Lucknow, Uttar Pradesh  
226014

Prof. A.K. Agarwal (Pre-  
revised)  
Director, School of Health  
Sciences  
IGNOU, New Delhi-110 068

---

**CO-ORDINATORS**

---

Prof. Ruchika Kuba  
Director School of Health Sciences  
Indira Gandhi National Open  
University  
New Delhi-110 068

Prof. T.K. Jena  
Programme Coordinator  
School of Health Sciences  
Indira Gandhi National Open  
University  
New Delhi-110 068

---

**PRINT PRODUCTION**

---

Mrs. Promila Soni  
Assistant Registrar  
MPDD, IGNOU, New Delhi

November, 2022

© Indira Gandhi National Open University, 2022

ISBN: 978-93-5568-606-0

*All rights reserved. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from the Indira Gandhi National Open University (IGNOU).*

*Further information about the Indira Gandhi National Open University courses may be obtained from the University's office at Maidan Garhi, New Delhi-110 068.*

**Printed and published on behalf of the Indira Gandhi National Open University, New Delhi by the Registrar MPDD .**

Part of the content of Unit 13 & 14 is adapted from the Block MMPC-004(Accounting for Managers)

**Composed & Printed by:** M/s Educational Stores, S-5 Bulandshahar Road Industrial Area, Site-1, Ghaziabad (UP)-201009.



ignou  
THE PEOPLE'S  
UNIVERSITY

---

## **BLOCK INTRODUCTION**

---

In previous block you learnt about the Human resources management in which we discussed about why it is important to management human resources and various strategies to maintain human resources in any health care facility including motivation and appropriate leadership. Carrying the topic forward in this unit we will be discussing about the 'Financial management'. For the convenience of understanding, the Block have been classified into four units which are:

Unit 13: Accounting concepts and application

Unit14: Understanding cost and their behaviour

Unit 15: Budgeting

Unit 16: Financial control

In the Unit 13 about Accounting concepts and application, we would begin by describing the process of accounting and the objectives of financial reporting and its importance. After discussing the various types of accounts and their application, you will learn something about applying the concepts practically in your health care settings. This will be followed by the Unit 14 on understanding cost and their behaviour which will deal with the various types of costs incurred on maintaining the health care facility, some basic concepts related to accounting costs and methods to do cost analysis.

Another important health care topic we will discuss is Budgeting. Running any health care facility requires a budget, considering that finance is limited resources, it is necessary to plan out the financial spending and budgeting it properly to utilize the resource. All these will be discussed in the unit 15. In the end we will discuss various factors affecting Financial system and control in Unit 16. We will learn about the auditing procedures and audit objections and certain essential do's and don'ts of financial management.

In every unit there is check your progress for your own self-assessment. See that you attempt those after every section you read. Also maps and diagrams are given at appropriate places to make to understand the topic more clearly.



ignou  
THE PEOPLE'S  
UNIVERSITY

---

# UNIT 13 ACCOUNTING CONCEPTS AND APPLICATION

---

## Structure

- 13.0 Objectives
- 13.1 Introduction
- 13.2 What is Accounting?
- 13.3 Accounting Process
- 13.4 Objectives of Financial Reporting
- 13.5 Accounting Concepts
- 13.6 Critical Appraisal of Concepts and Conventions
- 13.7 Types of Accounts and their Applications
  - 13.7.1 Classification of Accounts
  - 13.7.2 Dual Aspect Concept
  - 13.7.3 Accounting Equation Approach
- 13.8 Accounting Books
  - 13.8.1 Journal
  - 13.8.2 General Ledger
  - 13.8.3 Cash Book
  - 13.8.4 Petty Cash Book
  - 13.8.5 Subsidiary Book
- 13.9 Let Us Sum Up
- 13.10 Check Your Progress

---

## 13.0 OBJECTIVES

---

After going through this unit you should be able to:

- describe the process of accounting;
- explain the objectives of financial reporting;
- explain and apply the basic concepts of accounting in your health system; and
- distinguish between the types of accounts and their applications.

---

## 13.1 INTRODUCTION

---

It is somewhat unusual to begin a text on Financial Management with a discussion of Accounting principles and concepts and one may ask “Why do so here?” The answer quite simply, is that if hospital managers are to understand the value of financial management for improved hospital operations and feel comfortable in its use, they must have a full understanding of the financial workings of the hospital. The best way to obtain such an understanding is to begin with a review of the definition of Accounting, the objectives of financial reporting and the related Accounting concepts and

conventions. An understanding of these is critical to the knowledgeable use of financial data, for they determine the nature and character of the financial information that hospital managers receive. Therefore, if managers are to be able to understand, evaluate property and utilise financial data. They must first understand the objectives that guide the collection and presentation of these data.

---

## 13.2 WHAT IS ACCOUNTING?

---

Accounting is often called the language of business. The basic function of any language is to serve as a means of communication. In this context, the purpose of Accounting is to communicate or report the results of business operations and its various aspects. Accounting has been variously defined and one commonly accepted definition is “Accounting is the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are in part at least, of financial. character and interpreting the results thereof.”

Another less restrictive definition is “Accounting is the process of identifying, measuring and communicating economic information to permit informed judgments and decisions by the uses of information.”

---

## 13.3 ACCOUNTING PROCESS

---

The process of Accounting involves the following steps:

- a) Data creation and collection which provide the raw material for Accounting. The data collected is ‘historic’ in the sense that it refers to events that have already taken place.
- b) Recording of data, which is done in accordance with the laid down concepts and conventions of Accounting as stated later in this unit. A large number of transactions or events have to be entered in the books of original entry (journals and ledgers.) The recording and processing of information usually accounts for a substantial part of total accounting work. The processing methods employed for recording may be manual, mechanical or electronic computer are generally taking to the primary method of recording and processing.
- c) Data evaluation is regarded as the most important activity in Accounting these days. Evaluation of data includes controlling the hospital activities with the help of budgets and standard costs, analysing the flow of funds and analysing the accounting information for decision making purposes by choosing among alternative courses of action. The analytical and interpretation work of Accounting may be for internal or external use and may range from snap answers to elaborate reports. Data evaluation has another dimension and can be known as auditor work which focuses on verification of transactions as entered in the books of Account and authentication of financial statements. Auditing will be discussed separately as a different unit in this block.
- d) Data reporting consists of two parts-external and internal. External reporting refers to the communication of financial information viz.

earnings financial and funds position about the hospital to outside parties i.e. trustees, Government agencies and regulatory bodies. Internal reporting is concerned with the communication of results of financial analysis and evaluation to hospital management committee for decision making purposes.

---

## 13.4 OBJECTIVES OF FINANCIAL REPORTING

---

The objectives of financial reporting are as follows:

- a) It should provide information that is useful to present and potential investors, creditors, and other users in making national investment credit and similar decision.
- b) It should provide information about the economic resources of an enterprise, the claims to those resources and the effects of transactions, events and circumstances that change resources.
- c) It should provide information about an enterprise's financial performance during a period.
- d) It should provide information about how an enterprise obtains and spends cash, about its borrowing and repayments, about its capital transactions and about other factors that may affect its liquidity or solvency.
- e) It should provide information that is useful to managers and directors in making decision in the interest of the enterprise and the owners.

The emphasis of these objectives is on the information needs of external users common to for profit publicly held enterprise or corporate sectors. However, you may substitute the terms hospital for enterprise and community for owners and the objectives are equally applicable.

---

## 13.5 ACCOUNTING CONCEPTS

---

Any activity that you perform is facilitated if you have a set of rules to guide your efforts. When you are driving your vehicle you keep to the left, you are in fact following a standard traffic rule. Without the drivers of vehicles following this rule, there would be chaos on the roads. Similarly without general rule or guides for the recording of business activities and the preparation of accounts, it would be impossible for the accounting information to be understandable and useful to various parties. There would be no common basis for recording transactions. Similar transactions if accounting records are to be understood, must agree at least in terms of Accounting records, similar results. If this end is to be attained certain basic concepts must be used in preparing accounting records. Accounting practices have developed over a long period of years. During the time accountants have accepted and adopted several basic concepts as fundamental guides that define the manner in which accounts should be kept.

Presented below are basic accounting principles or concepts, with which hospital managers should be familiar and that they should understand if they are to be able to use accounting data and reports. It should be pointed out that accounting is not a static art, these principles are continually being questioned and reviewed and in time will be modified. However, they are

currently the accepted guidelines, and while the reader may question the propriety of some, he or she should at this point accept and attempt to understand these principles so as to be able to utilise accounting data and financial reports knowledgeably.

Earlier, we had described accounting as the language of business. As with language, accounting has many dialects. There are differences in terminology. In dealing with the framework of accounting theory, one is confronted with a serious problem arising from differences in terminology. A number of words and terms have been used by different writers to express and explain the same idea or notion. Thus, confusion abounds in the literature in so far as the theoretical framework is concerned. The various terms used for describing the basic ideas are: concepts, postulates, propositions, basic assumptions, underlying principles, fundamentals, conventions, doctrines, rules, etc. Although each of these terms is capable of precise definition, general usage by the profession of accounting has served to give them loose and overlapping meanings. The same idea has been described by one author as a concept and by another as a convention. To take another instance, the idea implied in Conservatism has been labelled by one author as a (modifying) convention, by another as a principle and yet by another as a doctrine. The wide diversity in terminology to express the basic framework can only serve to confuse the learner.

Without falling into the trap of this terminological maze, we are explaining below some widely recognised ideas and we call all of these concepts. We do feel, however, that some of these ideas have a better claim to be called 'concepts', while the rest should be called 'conventions'. Fundamental accounting concepts are broad general assumptions with underlie the periodic financial accounts of business enterprises. The reason why some of these ideas should be called concepts is that they are basic assumptions and have a direct bearing on the quality of financial accounting information. The alteration of any of the basic concepts (or postulates) would change the entire nature of financial accounting.

### **Business Entity Concept**

In accounting we make a distinction between business and the owner. All the records are kept from the viewpoint of the business rather than from that of the owner. An enterprise is an economic unit separate and apart from the owner or owners. As such, transactions of the business and those of the owners should be accounted for and reported separately. In recording a transaction the important question is how does it affect the business? For example, if the owner of a shop were to take cash from the cash box for meeting certain personal expenditure, the accounts would show that cash had been reduced even though it does not make any difference to the owner himself. Similarly, if the owner puts cash into the business, he has a claim against the business for capital brought in.

This distinction can be easily maintained in the case of a limited company because a company has a legal entity (or personality) of its own. Like a natural person it can engage itself in economic activities of producing, owning, managing, storing, transferring, lending, borrowing and consuming commodities and services. Distinction, however, is difficult in the case of

partnership, and even more so in the case of one-man business, accounting still maintains separation of business and owner. This implies that owner's personal and household expenses or obligations (e.g., expenditure on food, clothing, entertainment, debts, mortgages, etc.) will not appear in the books of account. It may be clarified that it is only for accounting purposes that partnerships and sole proprietorships are treated as separate and apart from the owners though law does not make such distinction. A creditor would be justified in looking to both the business assets and the private estate of the owner for satisfaction of his claim. One reason for this distinction is to make it possible for the owners to have an account of the performance from those who manage the enterprise. The managers are entrusted with funds supplied by owners, banks and others; they are responsible for the proper use of the funds. The financial accounting reports are designed to show how well this responsibility has been discharged.

### Money Measurement Concepts

In accounting, only those facts which can be expressed in terms of money are recorded. As money is accepted not only as a medium of exchange but also as a store of value, it has a very important advantage since a number of widely different assets and equities can be expressed in terms of a common denominator. Without these adding heterogeneous factors like five buildings, ten machines, six trucks will not have much meaning.

While money is probably the only practical common denominator and a yardstick, we must realise that this concept imposes two severe limitations. In the first place, there are several facts which, though vital to the business, cannot be recorded in the books of account because they cannot be expressed in money terms. For example, the state of health of the Managing Director of a company who has been the key contributor to the success of business is not recorded in the books. Similarly, the fact that the Production Manager and the Chief Internal Auditor are not on speaking terms, or that a strike is about to begin because labour is dissatisfied with the poor working conditions in the factory, or that a competitor has recently taken over the best customer, or that it has developed a better product and so on will not be recorded even though all these events are of great concern to the business.

From this standpoint, one could say that accounting does not give a complete account of the happenings in the business. You will appreciate that all these have a bearing on the future profitability of the company.

Secondly, use of money implies that a rupee today is of equal value to a rupee ten years back or ten years later. In other words, we assume stable or constant value of rupee. In the accounts, money is expressed in terms of its value at the time an event is recorded. Subsequent changes in the purchasing power of money do not affect this amount. You are perhaps aware that most economies today are in inflationary conditions with rising prices. The value of a rupee of 1980's has depreciated to an unbelievably low level in the 90s. Most accountants know fully well that purchasing power of rupee does change but very few recognise this fact in accounting books and make allowance for changing price level. This is so despite the fact that accounting profession has devoted considerable attention to this problem and numerous suggestions have been made to account for the effects

of changes in the purchasing power of money. In fact, one of the major problems of accounting today is to find means of solving the measurement problem, that is, how to extend the quality and the coverage of meaningful information. It will be desirable to present in a supplementary analysis the effect of price level changes on the reported income of the business and the financial position.

### **Continuity Concept**

Accounting assumes that the business (an accounting entity) will continue to operate for a long time in the future unless there is good evidence to the contrary. The enterprise is viewed as a **going concern**, that is, as continuing in operation, at least in the foreseeable future. The owners have no intention nor have they the necessity to windup or liquidate its operations.

This assumption is of considerable importance for it means that the business is viewed as a mechanism for adding value to resources it uses. The success of the business can be measured by the difference between output values (sales or revenues) and input values (expenses). Therefore, all unused resources can be reported at cost rather than at market values.

The assumption that the business is not expected to be liquidated in the foreseeable future, in fact, establishes the basis for many of the valuations and allocations in accounting. For example, depreciation (or amortisation) procedures rest upon this concept. It is this assumption which underlies the decision of investors to commit capital to enterprise. The concept holds that continuity of business activity is the reasonable expectation for the business unit for which the accounting function is being performed. Only on the basis of this assumption can the accounting process remain stable and achieve the objective of correctly recording and reporting on the capital invested, the efficiency of management, and the position of the enterprise as a going concern. Under this assumption neither higher current market values nor liquidation values are of particular importance in accounting. This assumption provides a basis for the application of **cost** in accounting for assets.

However, if the accountant has good reasons to believe that the business, or some part of it, is going to be liquidated or that it will cease to operate (say within a year or two), then the resources could be reported at their current values (or liquidation values).

### **Cost Concept**

The resources (land, buildings, machinery, property rights, etc.) that a business owns are called assets. The money values that are assigned to assets are derived from the cost concept. This concept states that an asset is worth the price paid for or cost incurred to acquire it. Thus, assets are recorded at their original purchase price and this cost is the basis for all subsequent accounting for the assets. The assets shown on the financial statements do not necessarily indicate their present market worth (or market values). This is contrary to what is often believed by an uninformed person reading the statement or report. The term 'book value' is used for amount shown in the accounting records.

In case of certain assets the accounting values and market values may be similar; cash is an obvious example. In general, the longer an asset has been

owned by the company the lesser, are the chances that the accounting value will correspond to the market value.

The cost concept does not mean that all assets remain on the accounting records at their original cost for all time to come. The cost of an asset that has a long but limited life is systematically reduced during its life by a process called 'depreciation' which will be discussed at some length in a subsequent unit. Suffice it to say at this point that depreciation is a process by which the cost of the asset is gradually reduced (or written off) by allocating a part of it to expense in each accounting period. This will have the effect of reducing the profit of each period. In charging depreciation the intention is not to change depreciation equal to the fall in the market value of the asset. As such, there is no relationship between depreciation and changes in market value of the assets. The purpose of depreciation is to allocate the cost of an asset over its useful life and not to adjust its cost so as to bring it closer to the market value.

You must be wondering as to why assets are shown at cost even when there are wide differences between their costs and market values. The main argument is that the cost concept meets all the three basic criteria of **relevance, objectivity and feasibility**.

### Accrual Concept

The accrual concept makes a distinction between the receipt of cash and the right to receive it, and the payment of cash and the legal obligation to pay it. In actual business operations, the obligation to pay and the actual movement of cash may not coincide. The accrual concept recognises this distinction. In connection with the sale of goods, revenue may be received

- (i) before the right to receive arises, or
- (ii) after the right to receive has been created.

The accrual concept provides a guideline to the accountant as to how he should treat the cash receipt and the rights related thereto. In the former case the receipt will not be recognised as the revenue of the period for the reason that the right to receive the same has not yet arisen. In the latter case the revenue will be recognised even though the amount is received in the subsequent period.

Similar treatment would be given to expenses incurred by the firm. Cash payments for expenses may be made before or after they are due for payment. Only those sums which are due and payable would be treated as expenses. If a payment is made in advance (i.e. it does not belong to the accounting period in question) it will not be treated as an expense, and the person who received the cash will be treated as a debtor until his right to receive the cash has matured. Where an expense has been incurred during the accounting period but no payment has been made, the expense must be recorded and the person to whom the payment should have been made is shown as a creditor.

### Concept of Conservatism

The concept of conservatism, also known as the concept of prudence, is often stated as "anticipate no profit, provide for all possible losses". This

means an accountant should follow a cautious approach. He should record lowest possible value for assets and revenues, and the highest possible value for liabilities and expenses. According to this concept, revenues or gains should be recognised only when they are realised in the form of cash or assets (usually legally enforceable debts) the ultimate cash realisation of which can be assessed with reasonable certainty. Further, provision must be made for all known liabilities, expenses and losses whether the amount of these is known with certainty or is at best an estimate in the light of the information available. Probable losses in respect of all contingencies should also be provided for. A contingency is a condition or a situation, the ultimate outcome of which –gain or loss–cannot be determined accurately at present. It will be known only after the event has occurred (or has not occurred). For example, a customer has filed a suit for damage against the company in a court of law. Whether the judgment will be favourable or unfavourable to the company cannot be determined for sure. Hence, it will be prudent to provide for likely loss in the financial statements. As a consequence of the application of this concept, net assets are more likely to be understated than overstated, and income is more likely to be overstated than understated. Based on this concept is the widely advocated practice of valuing inventory (stock of goods left unsold) at cost or market price whichever is lower? You will note that this convention, in a way, modifies the earlier cost concept. It should be stated that the logic of this convention has been under stress recently; it has been challenged by many writers on the ground that it stands in the way of fair determination of profit and the disclosure of true ad fair financial position of the business enterprise. The concept is not applied as strongly today as it used to be in the past. In any case, conservatism must be applied rational Y as over-conservatism may result in misrepresentation.

### **Materiality Concept**

There are many events in business which are trivial or insignificant in nature. The cost of recording and reporting such events will not be justified by the usefulness of the information derived. Materiality concept holds that items of small significance need not be given strict theoretically correct treatment. For example, a paper stapler costing Rs. 30 may last for three years. However, the effort involved in allocating its cost over the three-year period is not worth the benefit than can be derived from this operation. Since the item obviously is immaterial when related to overall operations, the cost incurred on it may be treated as the expense of the period in which it is acquired. Some of the stationery purchased for office use in any accounting period may remain unused at the end of that period. In accounting, the amount spent on entire stationery would be treated as expense of the period in which the stationery was purchased, notwithstanding the fact that a small part of it still lies in stock. The value (or cost) of the stationery lying in stock would not be treated as an asset and carried forward as a resource to the next period. The accountant would regard the stock lying unused as immaterial. Hence, the entire amount spent on stationery would be taken as the expense of the period in which such expense was incurred.

Where to draw the line between material and immaterial events is a matter of judgment and common sense. There are no hard and fast rules in this respect. Whether a particular item or occurrence is material or not,

should be determined by considering its relationship to other items and the surrounding circumstances. It is desirable to establish and follow uniform policies governing such matters.

### **Consistency Concept**

In practice, there are several ways to record an event or a transaction in the books of account. For example, the trade discount on raw material purchased may be deducted from the cost of goods and net amount entered in the books, or alternatively trade discount maybe shown as the income with full cost of raw material purchased entered in the books. Similarly, there are several methods to charge depreciation (which is a decrease in the value of assets caused by wear and tear, and passage of time) on an asset or of valuing inventory. The consistency concept requires that once a company has decided on one method and has used it for some time, it should continue to follow the same method or procedure for all subsequent events of the same character unless it has a sound reason to do otherwise. If for valid reasons the company makes any departure from the method it has been following so far, then the effect of the change must be clearly stated in the financial statements in the year of change.

You will appreciate that much of the utility of accounting information lies in the fact that one could draw valid conclusions from the comparison of data drawn from financial statements of one year with data of the other year. Compar ability is essential so that trends or differences may be identified and evaluated. Inconsistency in the application of accounting methods might significantly affect the reported profit and the financial position. Further, inconsistency also opens the door for manipulation of reported income and assets. The comparability of financial information depends largely upon the consistency with which a given class of events are handled in accounting records year after year.

### **Periodicity Concept**

Although the results of operations of a specific enterprise can be known precisely only after the business has ceased to operate, its assets have been sold off and liabilities paid off, the knowledge of the results periodically is also necessary. Those who are interested in the operating results of business obviously cannot wait till the end. The requirements of these parties therefore force the accountant to report for the changes in the wealth of a firm for short time periods. These time periods in actual, practice vary, though a year is the most common interval as a result of established business practice, tradition and government requirements. Some firms adopt calendar year, some others financial year of the government. But more and more firms are changing to the 'natural' business year the end of which is marked by relatively lower or lowest volume of business activity in the twelve-month period. The custom of using twelve-month period is applied only for external reporting. The firms usually adopt a shorter span of interval, say one month or three months, for internal reporting purposes.

The allocation of long-term costs and the difficulties associated with this process directly stem from this concept. While matching the earnings and the cost of those earnings for any accounting period, all the revenues and all the costs relating to the year in question have to be taken into account

irrespective of whether or not they have been received in cash or paid cash. Despite the difficulties that arise in locations and adjustments, short-term reports (i.e., yearly reports) are of such importance to owners, management, creditors, and other interested parties that the accountant has no option but to resolve such difficulties. Obviously, the utility of the periodic financial statements outweighs the difficulties.

While going through all these concepts, probably you have developed a feeling that they come in conflict with each other. You are right. We illustrate this by considering some of these concepts in the context of valuation of business properties. Suppose, a firm acquired a piece of land in 2017 for a price of Rs.6,00,000. Factory premises were constructed in 2018 and operations commenced in 2019. The firm has been successful in achieving desired profit for the past year. The Balance Sheet (a statement of assets and liabilities) for the year 2019 is being prepared and 'Land' is required to be valued. The estimated current market price of this land is Rs. 60,00,000.

Should you recommend that the land be valued at Rs. 60 lakhs? The answer is 'no' obviously. Land would be carried on the Balance Sheet at its original cost of Rs.6,00,000 only. This decision is supported by several of the concepts discussed in this section. In the first place, the stability of purchasing power of money implied in the **money measurement concept** prevents us from recognising accretion in values as a result of changing price levels. Then, the **realisation concept** will not allow unrealised profits to be included as long as land is held by the company and not sold away. You may note that the **continuity** or **going concern** concept makes any possible market value of land irrelevant for balance sheet because the firm has to continue in business and land will be needed by it for its own use. In this connection, it could be argued that if land were shown on the balance sheet at its estimated current market value, the owner might decide to discontinue the business, sell the land and retire. The principle of **objectivity** is now introduced into the argument. It can be easily seen that in a situation like this the cost of acquisition of land at Rs.6,00,000 in 2000 is the objective fact because it is based on a transaction that actually took place and this objective evidence is capable of being verified. In contrast, the estimate of current market value figure may be suspect. It raises many questions. Do you have a market quotation for an identical plot of land? Has a similar plot of land been sold recently and can we pick it up as verifiable evidence of the current market price? It may be said that even if market price for an identical plot of land is not available, estimates by an accredited valuer may be accepted as verifiable evidence of the market price. Further complications may be noticed if buildings and facilities have been erected on the plot of land. Is it possible to estimate the value of land without factory buildings and other facilities constructed on it? The answer is a flat 'no' and the conservatism concept will then deter you from accepting an estimate of market value since it cannot be ascertained with reasonable accuracy.

### Check your progress-1

- i. Define accounting.
- ii. Enumerate the steps involved in the process of Accounting.
- iii. List the objectives of financial reporting
- iv. Enumerate the basic Accounting Principles

---

## 13.6 CRITICAL APPRAISAL OF THE CONCEPTS AND CONVENTIONS

---

While going through all these concepts, probably you have developed a feeling that they come in conflict with each other. You are right. We illustrate this by considering some of these concepts in the content of valuation of hospital properties. Suppose a hospital acquired a piece of land in 1985 for a price of Rs. 6,00,000. Hospital premises were constructed in 1986 and the hospital operations commences in 1987. The hospital has been a great success with a profit profile for the past 12 years. The Balance Sheet for the year 1999 is being prepared and 'Land' is required to be valued. The estimated current market price of the land i.e. 60,00,000.

Should you recommend that the land be valued at Rs. 60 lakh. The answer is 'No' obviously. Land would be carried on the Balance sheet at its original costs of Rs. 6 lakh only. This decision is supported by several of the concepts discusses in this unit. In the first place, the stability of purchasing power of money implies in the *cost valuation concept* prevents us from recognising accretion in values as in result of changing price levels. The *accrual concept* will not allow unrealised profits to be included as long as the land is held by the hospital and not sold away. You may note that the continuity and the *ongoing concern concept* makes any possible market value of land for balance sheet because the hospital has to continue in business and land will be needed by it for its own use. In this connection, it could be argued that if land were shown on the balance sheet at its estimated current market value, the owner might decide to discontinue the hospital sell the land and retire, the principle of objectivity is now introduced into the argument. It can be easily seen that in a situation like this the cost of acquisition of land at Rs. 6 lakh in 1985 is the objective fact because it is based on the transaction that actually took place and this objective evidence is capable of being verified in contrast the estimate of the current market value to give may be suspect. It raises many questions. Do you have a market quotation for an identical plot of land. Has a similar plot of land been sold recently and can we pick it up as a verifiable evidence of the current market price? Further complications may be noticed if buildings and facilities have been erected on the plot of land. Is it possible to estimate the value of land without factory building and other facilities constructed on it. The answer is a flat 'no' and the *conservation concept* will deter you from accepting an estimate of market value since it cannot be ascertained with reasonable accuracy.

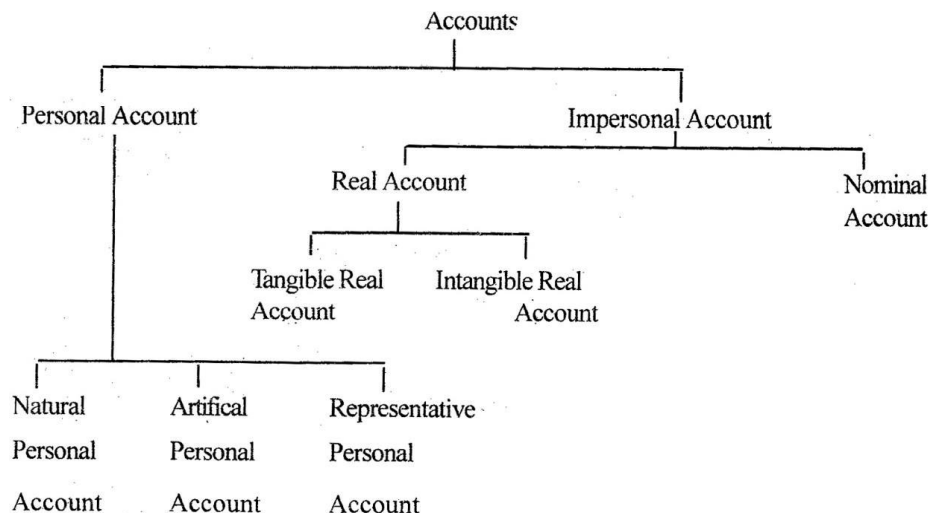
---

## 13.7 TYPES OF ACCOUNTS AND THEIR APPLICATIONS

---

Accounts are divided into two groups: personal and impersonal account. The detailed classification is given below.

13.7.1 Classification of Accounts



**(I) Personal Accounts:** Accounts which are related with accounts of individuals, firms, companies are known as personal accounts. The personal accounts may further be classified into three categories:

- (i) **Natural Personal Accounts:** Accounts of individuals relating to natural persons such as Akhil'sA/c, Rajesh'sA/c, Sohan'sA/care natural personal accounts.
- (ii) **Artificial Personal Accounts:** Accounts of companies, institutions such as Reliance Industries Ltd; Lions Club, M/s Sham & Sons, National College account are artificial personal accounts. These exist only in the eyes of law.
- (iii) **Representative Personal Accounts:** The accounts which represent some person such as wage outstanding account, prepaid insurance account, and accrued interest account are considered as representative personal accounts.

**(II) Real Accounts:** Real accounts are the accounts related to assets/properties. These may be classified into tangible real account and intangible real account. The accounts relating to tangible assets such as building, plant, machinery, cash, furniture etc are classified as tangible real accounts. Intangible real accounts are the accounts related to intangible assets such as goodwill, trademarks, copyrights, franchisees, Patents etc.

**(III) Nominal Accounts:** The accounts relating to income, expenses, losses and gains are classified as nominal accounts. For example Wages Account, Rent Account, Interest Account, Salary Account, Bad Debts Accounts.

**RULES FOR DEBIT AND CREDIT**

Type of Accounts	Rules for Debit	Rules for Credit
(a) Personal Account	Debit the receiver	Credit the giver
(b) Real Account	Debit what comes in	Credit what goes out
(c) Nominal Account	Debit all the expenses and losses	Credit all the incomes and gains

Learners who are studying accounting for the first time would find it difficult to classify the accounts on the basis explained above. You would be able to classify the account on the basis of asset, liabilities, expense and income if you understand the Dual aspect concept and accounting equation approach given below.

### 13.7.2 Dual Aspect Concept

Let us take a step further in the previous example: suppose Mr. Raghav purchased some goods (raw material) worth Rs. 10,000 in cash. This transaction will have a dual impact on the balance sheet of RT Ltd. First, the inventory will increase by Rs. 10,000 and second, the cash balance will decrease by Rs. 10,000. Similarly, if the goods were purchased by Mr. Raghav on credit for Rs. 10,000, the inventory (asset) will go up by Rs. 10,000 whereas, the creditors will also increase by Rs. 10,000. This brings us to a fundamental accounting concept known as **dual-aspect** in accounting. This concept explains that each transaction made by a business entity impacts the business in two different aspects which are equal and opposite in nature. It means that every business transaction will affect at least two accounts which imply that for every debit there is an equivalent credit and vice versa. For example, if your company borrows money from the bank, the company's asset Cash is increased (debited) and the company's liability Notes Payable is also increased (credited). It is because of this feature that both sides (assets and liabilities) of the balance sheet will always be equal. This concept forms the basis of double-entry accounting and is used by all accounting frameworks for generating accurate and reliable financial statements. The dual aspect concept is also explained in the fundamental accounting equation:

$$ASSETS = LIABILITIES + OWNERS EQUITY$$

The above accounting equation indicates that an entity's assets have to be equal to the sum of its liabilities and owner's equity. This equation is considered to be the foundation of double entry system of accounting. It ensures that every entry made on the debit side has a corresponding entry made on the credit side and vice versa. Hence, the double entry made will automatically balance the accounting equation.

To sum it up,

- An increase in assets is followed by an increase in liabilities and/or equity and vice versa.
- A decrease in assets is followed by a decrease in liabilities and/or equity and vice versa.
- An increase in an asset is followed by a decrease in another asset and vice versa.
- An increase in a liability is followed by a decrease in another liability and vice versa.

Let's consider the following series of examples to explain this concept further:

- (i) Mr. Raghav further invested cash worth of Rs. 4,00,000 into his business RT Ltd. The effect of this transaction will be as follows:

- Capital will increase by Rs. 4,00,000. (*Liabilities side*)
  - Cash will also increase by Rs. 4,00,000. (*Assets side*)
- (ii) Also, Mr. Raghav repaid the loan in cash, he took from bank for his office building worth Rs. 3,50,000. This transaction will have the following effect:
- Loan from Bank will reduce by Rs. 3,50,000. (*Liabilities side*)
  - Cash will also reduce by Rs. 3,50,000. (*Assets side*)
- (iii) Lastly, Mr. Raghav sold the investments he made in government bonds for Rs. 2,00,000 cash. In this transaction, RT Ltd. made a profit of Rs. 20,000 (as the gold bonds were purchased for Rs. 1,80,000 initially). The effect of this transaction will be shown as follows:
- Investment in Government Bonds will reduce by Rs. 1,80,000. (*Assets side*)
  - Cash will increase by Rs. 2,00,000. (*Assets side*)
  - Profits of Rs. 20,000 will be shown by an increase in Capital. (*Liabilities side*)

Hence, a balance sheet will always balance its two sides. The effect on one account will be compensated by an equal and opposite effect on another account.

### 13.7.3 Accounting Equation Approach

The basic accounting equation is

$$\text{Assets} = \text{Liabilities} + \text{Capital}$$

In this equation Assets refer to the resources owned by the business enterprise (of resources owned by the owner/s of business enterprise). These resources are expected to generate future cash flows and earnings for the business. Liabilities are the claim of the others on the assets of the business or in simple terms it is the debt outstanding expenses payable to various stakeholders.

Capital means the amount which is payable by the business enterprise to the owners of the business. In brief the assets are the resources which business enterprise owns and capital and liabilities are what business enterprise owns to others.

The above mentioned equation forms the basis of double entry system of book keeping. Every transaction recorded under this method has dual effect viz. it affects two accounts simultaneously. For example Furniture worth Rs. 5000/- is purchased is cash / credit. Now when the furniture is purchased in cash two accounts are affected. Cash which is an asset decreases by Rs. 5000/- and Furniture A/C which is an asset increases by Rs. 5000/-. In second case when furniture is bought on credit again two accounts are affected. First, Furniture A/C increased by Rs. 5000/- and a new liability of Rs. 5000/- is created, thus the increase in liability of Rs. 5000/-. Thus in nutshell every business transaction will have a twofold effect if there is an increase in a particular asset the counterpart of that transaction would be decrease in some other asset or creation of decrease in some other asset or creation of new liability. This is also known as Dual Aspect Concept.

From the above example it is clear that effect on one account will be compensated by an equal and opposite effect on another account/s.

When we use accounting equation approach for recording business transactions all accounts are divided into three categories namely:

- Asset Account
- Liability Account
- Capital Account

Now let us understand the basic rules used for recording changes in assets liabilities and capital

Rule no. 1: For recording changes in assets

Increase in assets is debited and decrease in assets is credited

Rule no. 2: for recording changes in liabilities and capital Increase in Liabilities and Capital is Credited and Decrease in Liabilities and Capital is debited

To understand this let us assume that you have started a business on 01/04/2021 with Rs. 5,00,000/- in cash through your firm M/S Myself. This transaction is analysed and recorded as follows:

Transaction	Analysis	Nature of account	Rule	Entry
Introduction of Rs. 5,00,000/- in the cash by the owner in the business	Increase of cash balance by Rs. 5,00,000/-	Asset	Debit increase in assets	Debit cash account
	Increase of liabilities (Capital) by Rs. 5,00,000/-	Capital	Credit increase in capital	Credit capital account

The Journal entry for this is going to be

Date	Particulars	L.F	Dr (Rs.)	Cr. (Rs.)
01/04/2021	Cash A/C		5,00,000/-	
	To Capital A/c			5,00,000/-

Now you are able to understand how to record transactions for change in assets and liabilities. Now we are going to discuss how to analyse and record changes in capital account.

The capital account increases due to introduction of new capita, revenue and income earned. It decreases due to with drawl of goods, cash and other assets for personal use and expenses incurred.

Recording all these transactions directly into capital account will make it cumbersome and unwieldy. In practice all the revenue and expenses are taken to profit & loss account and the net effect is transferred to capital account. In the same way cumulative effect of drawings is recorded in capital account at the end of the accounting period.

For recording the items of revenue and expenditure temporary capital accounts are created.

The reason behind calling these accounts as temporary capital account is that each of these accounts starts with a zero balance at the beginning of the accounting period and at the end of the accounting period these accounts are closed and their balance are transferred to profit and loss account and the net balance (net profit / net loss) is transferred to capital account. The temporary capital accounts include:

- (i) Revenue Account (including other income and gains)
- (ii) Expense Account (including losses)
- (iii) Drawing Account

Increase in revenue leads to increase in capital therefore revenue earned is credited to revenue account.

For example Sales of Rs. 10,000/- in cash, in this case cash account would be debited by Rs. 10,000/- and Sales A/c would be credited by Rs. 10,000/-.

Expenses decrease capital and decrease in capital is debited therefore expenses incurred are debited to expense account.

For example Purchase of Rs. 9,000/- in cash, in this case Purchase A/c would be debited by Rs. 9,000/- and cash account would be credited by Rs. 9,000/-.

In nutshell if

	Asset	Liability	Capital	Drawings	Expense	Revenue
Increase	Dr	Cr	Cr	Dr	Dr	Cr
Decrease	Cr	Dr	Dr	Cr	Cr	Dr

**Illustration 1:** Analyse transactions of M/s. Sunil & Co. for the month of March, 2021 on the basis of double entry system by adopting the following approaches:

- A) Accounting Equation Approach
- B) Traditional Approach

Transactions for the month of March, 2021 were follows:

1. Sunil introduced cash Rs. 40,000.
2. Cash deposited in the City bank Rs. 20,000.
3. Cash loan of Rs. 5,000 taken from Mr. Y.
4. Salaries paid for the month of March, 2021 Rs. 3,000 and Rs. 1,000 are still payable for the month of March, 2021.
5. Furniture purchased Rs. 5000.

What conclusions one can draw from the above analysis?

**(A) Analysis of Business Transaction: Accounting Equation Approach**

Accounting concepts and application

Transaction	Analysis	Account Affected & Nature of Account	Rule	Entry
Introduction of Rs. 40,000 cash by the Proprietor	Cash received	Cash –Asset	Debit increase in asset	Debit Cash
	Investment by owner	Capital-Capital	Credit increase in capital	Credit Capital
Cash deposited in bank Rs. 20,000	Bank balance increases	Bank-Asset	Debit increase in asset	Debit Bank
	Cash balance decreases	Cash-Asset	Decrease in asset	Credit Cash
Loan from Y Rs. 5,000	Cash balance increases	Cash- Asset	Debit increase in assets	Debit Cash
	Creates an obligation to repay Y	Y's Loan-Liability	Credit increase in liabilities	Credit Y's Loan
Salaries paid Rs. 3,000 and outstanding Rs. 1,000	Salaries for services received Rs. 4,000	Salary-Temporary capital (Expense)	Debit increase in expenses	Debit Salary (Rs. 4,000)
	Paid Rs. 3,000 Obligation to pay Rs. 1,000	Cash-Asset Salaries outstanding-Liability	Credit decrease in asset Credit increase in liabilities	Credit Cash (Rs. 3,000) Credit Salaries Outstanding (Rs. 1,000)
Furniture purchased Rs. 5,000	Increases furniture owned	Furniture-Asset	Debit increase in asset	Debit Furniture
	Cash decreases	Cash-Asset	Credit decrease in asset	Credit Cash

**B) Analysis of Business Transaction: Tradition approach**

Transaction	Analysis	Account Affected & Nature of Account	Rule	Entry
Introduction of Rs. 40,000 cash by the Proprietor	Cash is received by business	Cash – Real	Debit what comes in	Debit Cash
	Owner has given cash	Capital-Personal	Credit the giver	Credit Capital
Cash deposited in bank Rs. 20,000	Bank receives cash	Bank-Personal	Debit the receiver	Debit Bank
	Cash goes out of business	Cash- Real	Credit what goes out	Credit Cash

Loan from Y Rs. 5,000	Business gets cash Y pays cash	Cash-Real Y's loan- Personal	Debit what comes in Credit the giver	Debit Cash  Credit Y's Loan
Salaries paid Rs. 3,000 and still payable Rs. 1,000	Cost of services used Rs. 4,000 Cash goes out Rs. 3,000 Still payable or Outstanding for services received Rs. 1,000	Salary- Nominal  Cash- Real  Salary Outstanding- Personal	Debit all expenses Credit what goes out Credit the giver	Debit Salary (Rs. 4,000)  Credit Cash (Rs. 3,000) Credit Salaries Outstanding (Rs. 1,000)
Furniture purchased Rs. 5,000	Furniture is purchased Cash is paid	Furniture – Real Cash- Real	Debit-what comes in Credit-what goes out	Debit Furniture Credit Cash

**Illustration 2:** Show the classification of the following Accounts under traditional and accounting equation approach:

(a) Building; (b) Purchases; (c) Sales; (d) Bank Deposit; (e) Rent; (f) Rent Outstanding; (g) Cash; (h) Adjusted Purchases; (i) Closing Stock; (j) Investments; (k) Debtors; (l) Sales Tax Payable; (m) Discount Allowed; (n) Bad Debts; (o) Capital; (p) Drawings; (q) Provision for depreciation account; (r) Interest Receivable account; (s) Rent received in advance account; (t) Prepaid salary account; (u) Provision for Bad & doubtful debts account; (y) Stock reserve account; (z) Provision for discount on creditors account.

**Nature of Account**

S.No.	Title of Account	Traditional Approach	Accounting Equation Approach
a	Building	Real	Asset
b	Purchases	Real	Asset
c	Sales	Nominal (Revenue)	Temporary Capital (Revenue)
d	Bank Deposit	Personal	Asset
e	Rent	Nominal (Expense)	Temporary Capital (Expense)
f	Rent Outstanding	Personal	Liability
g	Cash	Real	Asset
h	Adjusted Purchases	Nominal (Expense)	Temporary Capital (Expense)
i	Closing Stock	Real	Asset
j	Investment	Real	Asset

k	Debtors	Personal	Asset
l	Sales Tax Payable	Personal	Liability
m	Discount Allowed	Nominal (Expense)	Temporary Capital (Expense)
n	Bad Debts	Nominal (Expense)	Temporary Capital (Expense)
o	Capital	Personal	Capital
p	Drawings	Personal	Temporary Capital (Drawings)
q	Provision for depreciation	Valuation (Real)	Asset
r	Interest receivable	Personal	Asset
s	Rent received in advance	Personal	Liability
t	Prepaid salary	Personal	Valuation (Asset)
u	Provision for bad & doubtful debts	Valuation (Personal)	Valuation (Asset)
v	Bad debts recovered	Nominal (Gain)	Temporary capital (Gain)
w	Depreciation	Nominal (Expense)	Temporary capital (Expense)
x	Personal Income Tax	Personal (Drawing)	Temporary capital (Drawings)
y	Stock reserve	Valuation (Real)	Valuation (Asset)
z	Provision for discount on creditors	Valuation (Personal)	Valuation (Liability)

### Check your progress-2

- i. List different types of accounts.
- ii. Describe the concept of dual-aspect in accounting.
- iii. What is basic accounting equation?

## 13.8 ACCOUNTING BOOKS

The objectives of keeping the Accounting books are to enable the hospital manager to ascertain easily and conveniently the following at a glance.

- a) The financial position of the hospital
- b) The assets and liabilities of the hospital
- c) Profit earned or loss incurred for a given period
- d) The amount owed by others to the hospital and by the hospital to others
- e) The financial requirement of the hospital

In a hospital thousands of transaction may take place every day. They are generally of a repetitive nature like pools purchase etc. They are reflected on vouchers that could be any of the following.

- a) The document which serves as evidence of the disbursement or receipt of cash e.g., Cash receipt of the hospital or cash memo for purchase note etc. or an approved invoice from supplier.
- b) The form or a voucher to which bills receipts and other evidence of purchases are often attached sharing the authority for payment, the terms for settlement etc.

These vouchers are often listed out in various books, a few of items are briefly described in succeeding paragraphs.

**13.8.1 Journal**

Journal is a historical record of business transaction or events. The word journal comes from the French word “Jour” meaning “day”. It is a book of original or prime entry. Journal is a primary book for recording the day-to-day transactions in a chronological order i.e., the order in which they occur. The journal is a form of diary for business transactions. This is called the book of first entry since every transaction is recorded firstly in the journal.

**Journal Entry**

**JOURNAL**

Date	Particulare	L.F.	Debit (Amount)	Credit (Amount)
(1)	(2)	(3)	(4)	(5)

Journal entry means recording the business transactions in the journal. For each transaction, a separate entry is recorded. Before recording, the transaction is analysed to determine which account is to be debited and which account is to be credited.

The Performa of journal is shown as follows:

Column1 (Date):The date of the transaction on which it takes place is written in this column.

Column2 (Particulars): In this column, the name of the accounts to the debited is written first, then the names of the accounts to be credited and lastly, the narration (i.e., a brief explanation of transaction) are entered.

Column3(L.F.): L.F stands for ledger folio which means page of the ledger. In this column are entered the page numbers on which the various accounts appear in the ledger.

Column4 (Dr. Amount): In this column, the amount to be debited against the 'Dr.' Account is written along with the nature of currency.

Column5(Cr. Amount):In this column the amount to be credited against the 'Cr.' Account is written along with the nature of currency.

### ***Advantages of Using Journal***

Journal is used because of the following advantages:

- A journal contains a permanent record of all the business transactions.
- The journal provides a complete chronological (in order of the time of occurrence) history of all business transactions and the task of later tracing of some transactions is facilitated.
- Complete information relating to one single business transaction is available in one place with all its aspects.
- The transaction is provided with an explanation technically called a narration.
- Use of the journal reduces the possibility of an error when transactions are first recorded in this book.
- The journal establishes the quality of debits and credits for a transaction and reconciles any problems. If a business purchases a bicycle, it is necessary to decide whether the bicycle represents ordinary goods or machinery. Further any amount paid is debited to bicycle account and credited to cash account.
- The use of journals avoids omission or duplication of transactions or parts of transaction. Without the journal the accountant would be forced to go to the individual account to enter debits and credits. Therefore, it is possible for accountant to miss part of a transaction, duplicate all or part of a transaction or incorrectly record debits and credits. Even with the Journal, it is still possible to omit transactions and make other errors. However, the Journal reduces these problems.
- Once a transaction is recorded in the journal, it is not necessary to post it immediately in the ledger accounts. In this, way, the journal allows the delayed posting.
- In connection with the journal, the following points are to be remembered:
  - For each transaction, the exact accounts should be debited and credited. For that, the two accounts involved must be identified to pass a proper journal entry.
  - Sometimes, a journal entry may have more than one debit or more than one credit. This type of journal entry is called compound journal entry. Regardless of how many debits or credits are contained in a compound journal entry, all the debits are entered before any credits are entered. The aggregate amount of debits should be equal to the aggregate amount of credits.
  - For a business, journal entries generally extend to several pages. Therefore, the total are cast at the end of each page, against the debit and credit columns, the following words and written in the particular

column, which indicates, carried forward (of the amount on the next page) “Total c/f”.

The debits and credits totals of the page are then written on the next page in the amount columns; and opposite to that on the left, the following words are written in the particulars column to indicate brought forward (of the amount of the previous page) “Total b/f”. This process is repeated on every page and on the last page, “Grand Total” is cast.

### **Journalizing**

Journalizing is the process of recording journal entries in the Journal. It is a systematic act of entering the transaction in a day book in order of their occurrence i.e., date-wise or event-wise. After analysing the business transactions, the following steps in journalising are followed:

- i) Find out what accounts are involved in business transaction.
- ii) Ascertain what is the nature of accounts involved?
- iii) Ascertain the golden rule of debit and credit is applicable for each of the accounts involved.
- iv) Find out what account is to be debited which is to be credited.
- v) Record the date of transaction in the “Date Column”.
- vi) Write the name of the account to be debited very near to the left-hand side in the ‘Particulars Column’ along with the word ‘Dr’ on the same line against the name of the account in the ‘Particulars Column’ and the amount to be debited in the ‘Debit Amount column against the name of the account.
- vii) Record the name of the account to be credited in the next line preceded by the word ‘To’ at a few spaces towards right in the ‘Particulars Column’ and the amount to be credited in the ‘Credit Amount Column’ in front of the name of the account.
- viii) Record narration (i.e., a brief explanation of the transaction) within brackets in the following line in Particulars Column’.
- ix) A thin line is drawn all through the particulars column to separate one Journal entry from the other and it shows that the entry of a transaction has been completed.

### **Goods Account**

Generally, the term goods include every type of property such as Land, Building, Machinery, Furniture, Cloth etc. However, in accountancy its meaning is restricted to only those articles which are purchased by a businessman with an intention to sell it. For example, if a businessman purchased typewriter, it will be goods for him if he deals in typewriter but if he deals in other business say clothes then typewriter will be asset for him and clothes will be goods.

### **Sub-Division of Goods Accounts**

The goods account is not opened in accounting books and it is to be noted goods includes purchases, sales, sales returns, purchases return of goods. However, purchase account, sales account, sales return account and purchase return account are opened in the books of account.

**Purchases Account:** This is opened for goods purchased on cash and credit.

**Sales Account:** This account is opened for the goods sold on cash and credit

**Purchase Returns Account or Return Outward Account:** This account is opened for the goods returned to suppliers.

**Sales Returns Account or Return Inward Account:** This account is opened for the goods returned by customers.

**Opening Entry:** In case of going concern at the beginning of the new year, new books of accounts are opened and the balances relating to personal and real Accounts appearing in the books at the close of the previous year are brought forward in new books. The entry for this purpose in the books is called opening entry.

The opening entry is passed by debiting all assets and crediting all liabilities including capital. If the amount of capital is not given then this can be found out with the help of the accounting equation:

$$\text{Assets} = \text{Liabilities} + \text{Capital}$$

$$\text{Capital} = \text{Assets} - \text{Liabilities}$$

### 13.8.2 General Ledger

This is the main or basic book of accounting. It contains a record of all transactions for the accounting period analysed under various accounting heads each referring to a separate nature of transaction. The general ledger contains all accounts: Personal, Real and Normal.

### 13.8.3 Cash Book

In any business all the transactions that affect the cash are entered in a book called the cash book which is kept separate from the other book. When cash book is maintained the cash transactions are not journalised but entered directly in the cash book and then a corresponding entry is posted in the Ledger Receipts and Payments are generally written on the opposite side of the cash book. The number of columns provided for amount depend upon the number of bank accounts being maintained at a regular basis from the receipt books, the daily collection is analysed as under.

- a) Cheques and Cash
- b) Nature of Receipts such as patient bills, donations, deposits, grants etc.

In the main cash book individual entries are made for each cheque times. Summary totals are posted in respect of cash receipts.

Let us prepare simple cash book.

#### *Example*

01-04-99	Cash in hand	Rs.	1,00,000
02-04-99	Paid rent	Rs.	1,000
03-04-99	Purchased medicine for cash	Rs.	1,000
10-04-99	Car sold scrap for cash	Rs.	800
12-04-99	Received cash from patient A	Rs.	900
14-04-99	Purchased stationery	Rs.	750
20-04-99	Paid to daily wagger	Rs.	50

24-04-99	Paid maintenance	Rs.	550
29-04-99	Paid electricity charges	Rs.	1,050
30-04-99	Paid salaries	Rs.	50,000

**Cash Book**

Receipts				Expenditure			
Date	Receipt	Folio	Amount Rs.	Date	Payment	Folio	Amount Rs.
01-04-99	To balance B/d		1,00,000	02-04-99	By Rent		1,000
10-04-99	Scrap taken		800	03-04-99	By Purchase		1,000
12-04-99	Patient		900	14-04-99	By Purchase		750
				20-04-99	By Daily wager		50
				24-04-99	By Maintenance		550
				29-04-99	By Electricity charges		1,050
				30-04-99	By Salaries		50,000
					By Balance C/d		46,300
	<b>Total</b>		<b>1,00,700</b>		<b>Total</b>		<b>1,00,700</b>

01-05-99 Balance B/d 46,300/-

**13.8.4 Petty Cash Book**

The popular system of controlling petty cash expenses is through imprest system. Under this system the petty cash is provided as a round sum in cash, turned as a float sufficient to cover the estimated petty cash expenditure from a week or a fortnight. Payments made by the cashier are entered into a petty cash book or register which has several analysis column. At periodic intervals written the cash balance with them is nearly exhausted, he prepares a petty cash voucher analysing the expenditure incurred under various head and the total expenditure incurred is down from the new cashier. This voucher is entered in the main cash book. Petty cash book is in effect a branch of the main cash book in the sense that the balance of small surgical entries are shown by it.

The format generally used for maintenance of petty cash book is as under:

Date	Particular	Cash Book Folio	Amount Received	Rate	Particular	Voucher Total	Petty Cash
------	------------	-----------------------	--------------------	------	------------	------------------	---------------

**13.8.5 Subsidiary Book**

Entries are not made directly into the General Ledger. Every entry in the Ledger should be based on an originating entry in a subsidiary book. The purpose of subsidiary book is to record the transactions as they occur and then to make the posting there from to the ledger.

They are a number of subsidiary books. These are briefly discussed below:

a) **Purchase Book**

In the purchase book only credit purchase are recorded and cash purchase are excluded. The monthly total is posted to the ledger under head purchaser A/c. The invoice number as given by the supplier is recorded in the purchase book.

Date	Particular	Invoice No.	LF	Amount
------	------------	-------------	----	--------

**Example**

01 Apr. 99	Purchased medicines from Chugh Brothers			Rs. 7,000
10 Apr. 99	Purchased Stationery from Murthy Brothers			Rs. 8,000
15 Apr. 99	Purchased Surgical Glasses from Delhi Surgical			Rs. 10,000
30 Apr. 99	Brought Stationery from Sahu by cash			Rs. 600

**Purchase Book**

Date	Particular	Invoice No.	LF	Amount
April 01	Chugh Brothers			Rs. 7000.00
April 10	Murthy Brothers			Rs. 8000.00
April 15	Delhi Surgical			Rs. 10,000.00
				<b>Rs. 25,000.00</b>

It is important to note here that the stationery purchased from Sahu by cash is not included in purchased Book can you tell why?

b) **Sale Book (Income System)**

Income Register maintained by hospital are more in the nature of statistical record rather than an Accounting book which demands considerable accuracy. The Income Register provides for analysis of Income by department without any additional clerical effort. The patient bills are entered serially. Some of them are paid in cash some after the bills are raised (almost simultaneously) and some later. They are posted to the relevant parties' accounts in the patient ledger once entries are made. Changes, therefore, made through using of credit/debit note rather than by altering figures in original books. That is so because only credit sale entries are recorded in the sales book, but in the hospital context there are very few entries of credit sales.

c) **Purchase Return Book**

Here the goods returned to the suppliers are entered. A debit note stating the details prepared are intimated to the suppliers.

- d) The other subsidiary books like cash book and petty cash books have already been discussed earlier.
- e) General Journal to record transaction not falling in out of the above categories like depreciation charges entries. After having discussed, the principles of double entry and after being acquainted with the various Accounting Books, you must briefly acquaint yourselves with journalising the various transactions. Since journal is the primary step in the Accounting principle.

**Example**

Let us journalise the following transaction

01.01.99	Commenced a nursing home with cash	Rs. 10,00,000/-
15.03.99	Deposits made in State Bank	Rs. 5,00,000/-

**Journal**

Date	Particular	LF	Debit	Credit
01.01.99	Cash Account Dr To Capital (Being the cash introduced in hospital)		10,00,000	10,00,000
15.03.99	Credit Account Dr To Cash (Being the amount deposited in Bank)		5,00,000	5,00,000

**Check your progress-3**

- List the objectives of keeping the Accounting books.
- List the types of transactions.
- List various books for recording of the vouchers.

**13.9 LET US SUM UP**

In this unit you have learnt about the concepts of accounting. The foregoing concepts and conventions have been developed primarily for use by profit making enterprises. These guidelines, however are equally applicable to hospitals and hospital accounting. Hospitals though differing in orientation from commercial enterprises are still a form of business. Therefore, the principles of sound business management as mentioned in this unit are just as applicable to hospitals as to private business enterprises. The non profit operating philosophy of most hospital should neither constitute an excuse nor be used as a justification for irresponsible management or accounting practices. Hospital accounting practices should thus be based upon the above rules and conventions.

Accounting is the language of business and the process of Accounting involves data creation, collection, evaluation and data reporting. There are several concepts and conventions of Accounting which hospital management understand as the building of any hospital Accounting system. The entity concepts makes a distinction between the business and the owner and the ongoing concern of continuity concepts. You have also learnt about the cost evaluation concept, and need for recording the costs of assets at the price incurred to acquire it, and the double entity concept. You have also learnt that on the logic of the accrual concept the matching concept evolved to match the related items of revenue and expenditure. Apart from the accounting concepts there are certain accounting conventions like reliability, materiality, consistency, conservation which a manager should be familiar with to enable him to understand the basics of accounting practices.

There are basically three types of accounts viz. Personal, Real and Nominal Accounts. The personal accounts relate to individual or organisational account, real account relates to various aspects of organisational assets and the nominal account relates to income, expenses and losses.

Subsequently you learnt that there are a variety of Accounting books which are required to be maintained in any organisation including the hospital. The General Ledger is the main or the basic book of accounting in which a record of all transactions for the accounting are recorded. The general ledger is supported by various subordinate books like the cash book, petty cash book, the purchase and sale book, the purchase return book and the general journal.

## **13.10 ANSWERS TO CHECK YOUR PROGRESS**

### **Check your progress-1**

i. Define accounting.

“Accounting is the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are in part at least, of financial. character and interpreting the results thereof.”

“Accounting is the process of identifying, measuring and communicating economic information to permit informed judgments and decisions by the uses of information.”

ii. Enumerate the steps involved in the process of Accounting.

- Data creation and collection which provide the raw material for Accounting.
- Recording of data, which is done in accordance with the laid down concepts and conventions of Accounting.
- Data evaluation is regarded as the most important activity in Accounting these days. Evaluation of data includes controlling the activities with the help of budgets and standard costs, analysing the flow of funds and analysing the accounting information for decision making purposes by choosing among alternative courses of action.
- Data reporting consists of two parts-external and internal. External reporting refers to the communication of financial information viz. earnings financial and funds position about the hospital to outside parties i.e. trustees, Government agencies and regulatory bodies. Internal reporting is concerned with the communication of results of financial analysis and evaluation to hospital management committee for decision making purposes.

iii. List the objectives of financial reporting.

The objectives of financial reporting are as follows:

- It should provide information that is useful to present and potential investors, creditors, and other users in making national investment credit and similar decision.

## Financial Management

- It should provide information about the economic resources of an enterprise, the claims to those resources and the effects of transactions, events and circumstances that change resources.
- It should provide information about an enterprise's financial performance during a period.
- It should provide information about how an enterprise obtains and spends cash, about its borrowing and repayments, about its capital transactions and about other factors that may affect its liquidity or solvency.
- It should provide information that is useful to managers and directors in making decision in the interest of the enterprise and the owners.

iv. Enumerate the basic Accounting Principles.

These are as follows:

- *Business Entity Concept*-In accounting we make a distinction between business and the owner. All the records are kept from the viewpoint of the business rather than from that of the owner. An enterprise is an economic unit separate and apart from the owner or owners.
- *Money Measurement Concepts*-In accounting, only those facts which can be expressed in terms of money are recorded. As money is accepted not only as a medium of exchange but also as a store of value, it has a very important advantage since a number of widely different assets and equities can be expressed in terms of a common denominator.
- *Continuity Concept*-Accounting assumes that the business (an accounting entity) will continue to operate for a long time in the future unless there is good evidence to the contrary. The enterprise is viewed as a going concern, that is, as continuing in operation, at least in the foreseeable future.
- *Cost Concept*-The resources (land, buildings, machinery, property rights, etc.) that a business owns are called assets. The money values that are assigned to assets are derived from the cost concept. This concept states that an asset is worth the price paid for or cost incurred to acquire it. Thus, assets are recorded at their original purchase price and this cost is the basis for all subsequent accounting for the assets
- *Accrual Concept*-The accrual concept makes a distinction between the receipt of cash and the right to receive it, and the payment of cash and the legal obligation to pay it. In actual business operations, the obligation to pay and the actual movement of cash may not coincide. The accrual concept recognises this distinction.
- *Concept of Conservatism*-The concept of conservatism, also known as the concept of prudence, is often stated as "anticipate no profit, provide for all possible losses". This means an accountant should follow a cautious approach.

- *Materiality Concept*-There are many events in business which are trivial or insignificant in nature. The cost of recording and reporting such events will not be justified by the usefulness of the information derived. Materiality concept holds that items of small significance need not be given strict theoretically correct treatment.
- *Consistency Concept*-In practice, there are several ways to record an event or a transaction in the books of account. The consistency concept requires that once a company has decided on one method and has used it for some time, it should continue to follow the same method or procedure for all subsequent events of the same character unless it has a sound reason to do otherwise.
- *Periodicity Concept*-Although the results of operations of a specific enterprise can be known precisely only after the business has ceased to operate, its assets have been sold off and liabilities paid off, the knowledge of the results periodically is also necessary. Some firms adopt calendar year, some others financial year of the government.

### Check your progress-2

- List different types of accounts.

These are:

*Personal Accounts:* Accounts which are related with accounts of individuals, firms, companies are known as personal accounts.

*Real Accounts:* Real accounts are the accounts related to assets/properties. These may be classified into tangible real account and intangible real account.

*Nominal Accounts:* The accounts relating to income, expenses, losses and gains are classified as nominal accounts.

- Describe the concept of dual-aspect in accounting.

This concept explains that each transaction made by a business entity impacts the business in two different aspects which are equal and opposite in nature. It means that every business transaction will affect at least two accounts which imply that for every debit there is an equivalent credit and vice versa.

The dual aspect concept is also explained in the fundamental accounting equation:

$$ASSETS = LIABILITIES + OWNERS EQUITY$$

- What is basic accounting equation?

The basic accounting equation is: Assets = Liabilities + Capital

### Check your progress-3

- List the objectives of keeping the Accounting books.

The objectives of keeping the Accounting books are to enable the hospital manager to ascertain easily and conveniently the following at a glance.

## Financial Management

- The financial position of the hospital
  - The assets and liabilities of the hospital
  - Profit earned or loss incurred for a given period
  - The amount owed by others to the hospital and by the hospital to others
  - The financial requirement of the hospital
- ii. List the types of transactions.

They are reflected on vouchers that could be any of the following.

- The document which serves as evidence of the disbursement or receipt of cash e.g., Cash receipt of the hospital or cash memo for purchase note etc. or an approved invoice from supplier.
  - The form or a voucher to which bills receipts and other evidence of purchases are often attached sharing the authority for payment, the terms for settlement etc.
- iii. List various books for recording of the vouchers.

These vouchers are often listed out in various books such as:

- *Journal* - It is a historical record of business transaction or events. The word journal comes from the French word "Jour" meaning "day". It is a book of original or prime entry. Journal is a primary book for recording the day-to-day transactions in a chronological order i.e., the order in which they occur.
- *General Ledger*-This is the main or basic book of accounting. It contains a record of all transactions for the accounting period analysed under various accounting heads each referring to a separate nature of transaction. The general ledger contains all accounts: Personal, Real and Normal.
- *Cash Book*-In any business all the transactions that affect the cash are entered in a book called the cash book which is kept separate from the other book.
- *Petty Cash Book*-The popular system of controlling petty cash expenses is through imprest system. Under this system the petty cash is provided as a round sum in cash, turned as a float sufficient to cover the estimated petty cash expenditure from a week or a fortnight. Payments made by the cashier are entered into a petty cash book or register which has several analysis column.
- *Subsidiary Book*-Entries are not made directly into the General Ledger. Every entry in the Ledger should be based on an originating entry in a subsidiary book. The purpose of subsidiary book is to record the transactions as they occur and then to make the posting there from to the ledger.

---

# UNIT 14 UNDERSTANDING COST AND THEIR BEHAVIOUR

---

## Structure

- 14.0 Objectives
- 14.1 Introduction
- 14.2 Costs
- 14.3 Elements of Cost
  - 14.3.1 Material
  - 14.3.2 Labour
  - 14.3.3 Expenses
- 14.4 Classification of Costs
  - 14.4.1 Variable and Fixed Costs
  - 14.4.2 Direct and Indirect Costs
  - 14.4.3 Capital and Recurrent Costs
- 14.5 Some other Concepts of Costs
  - 14.5.1 Product Costs and Period Costs
  - 14.5.2 Decision-making Costs and Accounting Costs
  - 14.5.3 Shut Down and Sunk Costs
  - 14.5.4 Controllable and Uncontrollable Costs
  - 14.5.5 Traceable, Untraceable and Joint Costs
- 14.6 Cost Accounting
- 14.7 Cost Output Relationship
- 14.8 Cost Analysis
- 14.9 Methods of Cost Analysis
- 14.10 Cost Behaviour in Relation to Hospital Output
- 14.11 Cost Volume Profit Analysis
- 14.12 Break Even Analysis
- 14.13 Let Us Sum Up
- 14.14 Answers to Check Your Progress

---

## 14.0 OBJECTIVES

---

After reading this unit you should be able to:

- classify costs and their elements;
- define cost accounting; and
- describe the various cost accounting techniques and their applications.

---

## 14.1 INTRODUCTION

---

A hospital is a complex task oriented socio.-economic system whose major objective is personalised care and professional treatment to individual

patients and ultimately providing high quality service to the community at an optimum cost.

Developing countries have invested heavily on health in recent decades. They have constructed hospitals and buildings and purchased equipment to run them and employed trained doctors, nurses, and other health care professionals and set up new systems to supply drugs, research and information. Over the years the number of hospital beds and health personnel have increased tremendously. Such investments have created new opportunities, but they have also led to various problems. Once built, hospitals are extremely difficult to close. Once trained, physicians create pressure to be employed. In virtually every developing country, facilities, equipment, human resource and drugs are skewed towards the top of the health system pyramid, i.e. the specialised hospitals. Also in our country the principal tertiary teaching hospital in the city consumes a large proportion of the total resources available for health. Hospitals absorb a significant amount of public spending on health in developing countries and various studies document that out of which about 50 - 70 per cent of the hospital budget is contributed towards salaries of health functionaries. A large amount of money is being spent on medical equipment. Efficiency losses from poor selection and maintenance of medical equipment can be very large. Equipment failed prematurely because maintenance budgets were very low. Always there is an advancement of medical knowledge in the fields earlier not known, resulting in the establishment of new disciplines in the hospital which ultimately leads to high cost of medical care.

Increasing demand for health care system in India has in its wake highlighted a number of management problems in its existing health care institutions. Since there is always scarce resource it is required to make the most economic use of the available resources. Hospitals have felt additional financial pressure as a result of international efforts to shift spending towards primary health care and reduce dominance of hospitals' share of public health budget. With rapid changes in economic structure more and more emphasis is being laid on the financial matters of hospitals so that maximum amenities can be provided at minimum cost.

The focus of this unit is on studying costs, elements of cost, methods of analysing costs of hospitals and understanding how different types of costs behave differently in different situations, and the way they change with the level of activity. This unit will also familiarise you with the concepts of cost accounting and cost volume profit analysis.

---

## **14.2 COSTS**

---

In general, people understand costs in terms of monetary prices or the amount of expenditure incurred on goods and services. But economists understand the cost as the sacrifice made in order to obtain a good or a service.

In some cases the expenditure incurred on a good or service may be good indicator of the sacrifice made to obtain the same but there are situations where it is not. For example in some situations resources used do not have monetary value, some resources do have monetary value but they cannot be exactly measured.

- some activities may have 'spillover effects'. These can be either positive or negative. Money price may reflect only the positive ones or the benefits for consumers and producers and does not reflect on the existence of benefits to the society.

---

## 14.3 ELEMENTS OF COST

---

There are three broad elements of cost:

### 14.3.1 Material

It is the substance from which the product is made. It may be raw product or product of output. It can be direct or indirect.

#### Direct Material

All material which becomes an integral part of the finished product or service and which can be easily assigned to specific physical units is termed as *direct material*. Examples are all materials purchased, produced or requisitioned from stores; primary packing material, etc. In hospitals cost of medicines, operation theatre material, x-ray plates etc. which can be identified when rendering treatment to patients could be *considered* as *direct* material.

#### Indirect Material

All material which is used for purposes ancillary to the production or service and which cannot be easily assigned to specific physical units is termed as *indirect material*. Consumable stores, oil and waste, printing and stationery material, etc. are some of the examples of indirect material.

### 14.3.2 Labour

For conversion of material into finished products or producing service outputs human effort is required. These are called *labour*. Labour can also be direct or indirect.

#### Direct Labour

Labour, which takes an active and direct part in the production of a particular commodity or in provisioning of a service is called direct labour. In hospitals physicians, nurses etc. can be considered to be direct labour while providing treatment to the patients.

#### Indirect Labour

Labour employed for the purpose of carrying out activities incidental to the goods produced or services provided is called indirect labour. It cannot be easily traced to specific units of output. Wages of storekeepers, security, management etc. are examples of indirect labour.

### 14.3.3 Expenses

These may be direct and indirect.

#### Direct Expenses

These are expenses that are directly, easily and wholly allocated to specific cost centres or cost units. Example is like hiring of some instrument for a particular purpose either diagnostic or therapeutic.

### Indirect Expenses

These are expenses that cannot be directly, easily and wholly allocated to costs centres or cost units. Examples of such expenses are rent of building, lighting, insurance etc.

The above elements of costs may be shown by means of Chart 14.1.

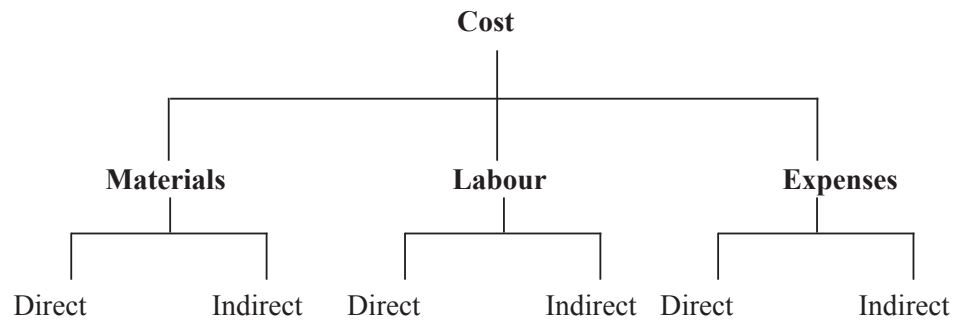


Chart 14.1: Elements of Cost

### Overheads

The term overheads includes indirect material, indirect labour and indirect expenses. Thus all indirect costs are overheads. Overheads may be of three types:

*Works or factory overheads*— where hospital operations are performed. They are:

- Indirect Material used in the hospital, e.g. lubricants, oil etc.
- Indirect Labour such as gatekeeper-salary of security officers and personnel salary.
- Indirect Expenses such as rent of hospital building, lighting of works departments etc.

*Office and administration overheads*— where hospital routine and policy matters are decided. They include:

- Indirect Material used in the offices e.g. stationery and rooms/ housekeeping material.
- Indirect Labour such as salaries payable of hospital manager, accountant, clerks etc.
- Indirect expense such as office rent, lighting etc.
- *Selling and distributing overheads*: They considered:
- Indirect Material such as printing and stationery material for hospital information system/guiding systems.
- Indirect Labour such as salaries of Public Relation Officers.
- Indirect Expense such as Advertising expenses etc.

### Understanding and Classifying Costs

- **Prime cost:** It consists of costs of direct material, direct labour, and direct expenses. It is also known as basic, first or flat cost.
- **Factory Cost:** It comprises prime cost and, in addition, works or factory overheads, which include costs of indirect material, indirect

labour and indirect factory expenses. This cost is also known as works cost, production or manufacturing cost.

- **Office Cost:** It comprises factory cost and office and administration overheads. It is also termed as the total cost of production.
- **Total Cost:** It comprises of cost of production and selling and distribution overheads. It is also termed as Cost of Sales.

Various components of the total cost can be depicted by means of Chart 14.2.

<b>Direct material</b>	
<b>Direct labour</b>	
<b>Direct expenses</b>	Prime Cost or Direct cost or First cost or Flat Cost
<b>Prime cost plus</b>	
<b>Works overheads</b>	Works or Factory cost or Production cost or Manufacturing cost
<b>Works cost plus Office and Administration overheads</b>	Office cost or Total cost of production
<b>Office cost plus Selling and Distribution overheads</b>	Cost of Sales or Total Cost

Chart 14.2: Components of Total Cost

It may be noted that some accountants do not use the term office cost at all. They prefer to use the term total cost after adding office and administration overheads and selling and distribution overheads to works cost. However, while framing Chart 14.2, we have presumed that office and administration overheads exclusively relate to production. The selling and distribution overheads are inclusive of any office and administration overheads that may have been incurred, in respect of sales.

## 14.4 CLASSIFICATION OF COSTS

Costs can be classified into different categories depending upon the purpose for which information is required. The costs can broadly be classified into Fixed, Variable, Semi-variable and Step Costs.

**Fixed Costs:** These are the costs that remain constant irrespective of the quantum of output within and up to the capacity that has been built up. Examples of such costs are rent, insurance charges, management salary, etc.

Fixed costs remain constant per unit of time. As a result, they decrease per unit with every increase in output and *vice versa*. For example, if Rs.6,000 have been paid as rent for a factory building with an output of 1,000 units, the cost of rent per unit is Rs.6. In case the output increases to 1,200 units, the cost of rent per unit will decrease to Rs.5. In case the output is reduced to 800 units, the cost of rent per unit will increase to Rs.7.50.

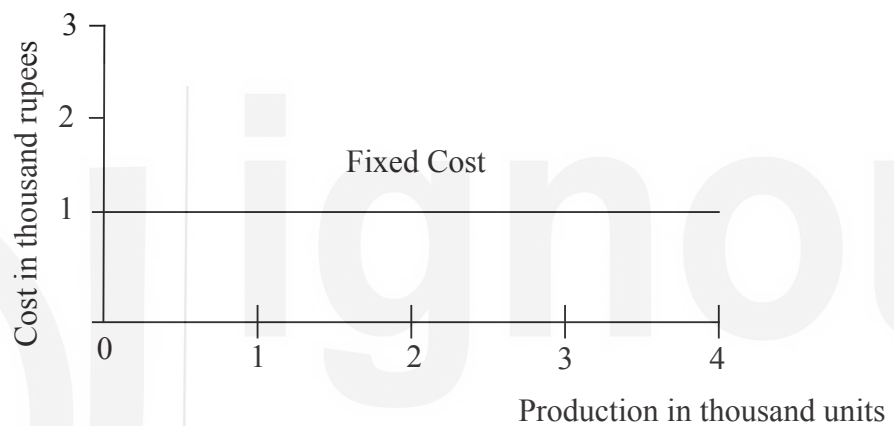
Fixed costs sometimes are also referred to as period costs. They can further be divided into (i) committed fixed costs (ii) discretionary fixed costs.

**Committed Fixed Costs** Consists primarily of those fixed costs that arise

from the possession of the plant, equipment and a basic organisational structure. For example, once a building is constructed and a plant is installed, nothing much can be done to reduce the costs such as depreciation, property taxes, insurance and salaries of the key personnel, etc., without impairing the organisation's competence to meet the long-term goals.

**Discretionary Fixed Costs** are those which are set at a fixed amount for specific time periods by the management in the budgeting process. These costs directly reflect top management policies and have no particular relationship with the volume of output. These costs can therefore be reduced or eliminated if the circumstances so require. Examples of such costs are research and development costs, advertising and sales promotion costs, donations, management consulting fees, etc. These costs are also termed as managed or programmed costs.

**Figure 14.1 shows the behaviour of fixed cost graphically.**



**Figure 14.1: Fixed Cost behaviour**

**Variable Costs:** These are the costs that vary in direct proportion to output. They increase or decrease in the same proportion in which the output increases or decreases. The examples of such costs are direct material, direct labour, power, etc.

Variable costs may be said to be constant per unit of output. For example, if a factory incurs Rs. 1,000 on raw material for an output of 1,000 units, the cost of raw material per unit would amount to Re. 1. If the output increases to 2,000 units, the cost of raw material would proportionately increase to Rs. 2,000 (i.e. Re. 1 x 2,000). Similarly, if the output decreases to 800 units, the cost of raw material would also decrease to Rs 800 (i.e. Re.1 x800)

Variable costs are also referred to as product costs. Figure 14.2 gives graphical presentation of variable costs

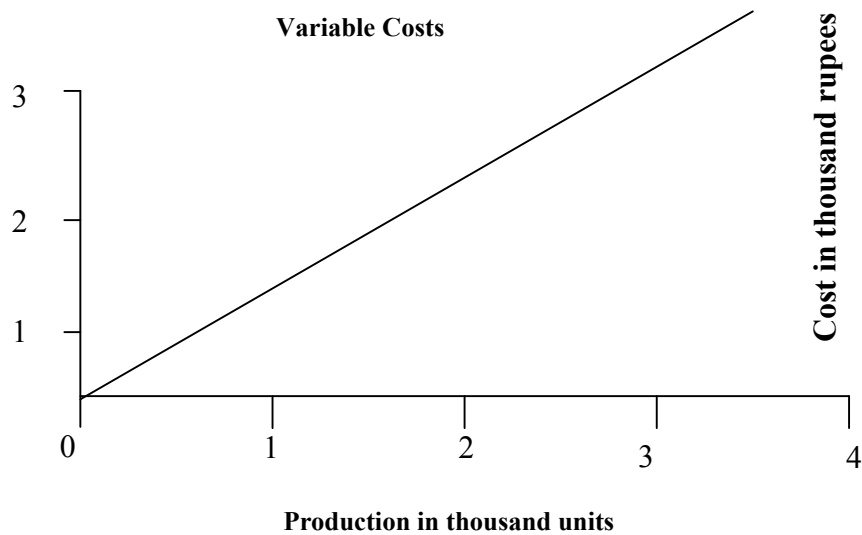


Figure 14.2: Variable Cost Behaviour

**Semi-variable Costs:** These are the costs that do vary but not in direct proportion to output. They are made up of both fixed and variable cost elements such as depreciation, repairs, light, heat, telephone, etc.

Semi-variable costs are shown graphically in Figure 14.3

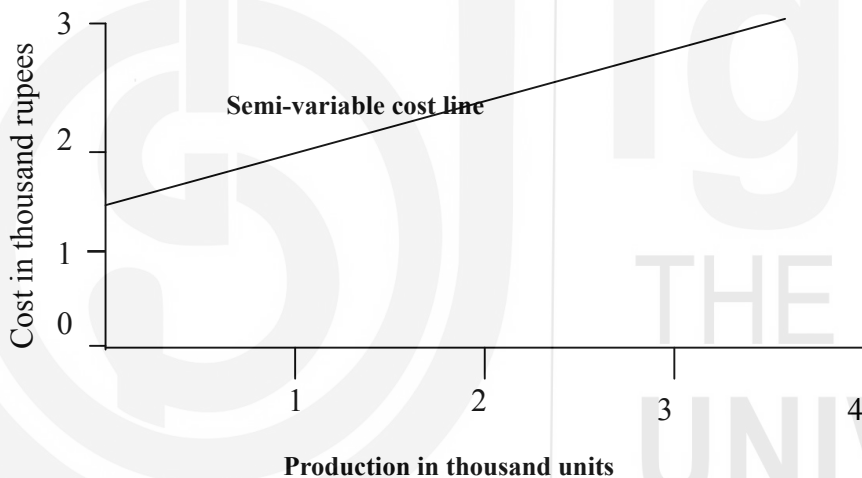


Figure 14.3: Semi-Variable Cost Behaviour

Identification of fixed and variable elements of semi-variable costs is essential for the management for planning their business activities. Different methods are available for this purpose which will be discussed in the next unit.

**Step Costs:** Fixed costs, in general, remain fixed over a range of production activity and then jump to a new level as activity changes. For example, a foreman can supervise a given number of workers. Beyond this number, it is necessary to hire a second foreman, then a third and so on. Similarly, the rental cost of delivery vehicles also follows the same pattern.

The general characteristic of fixed cost rising in steps is depicted in Figure 1

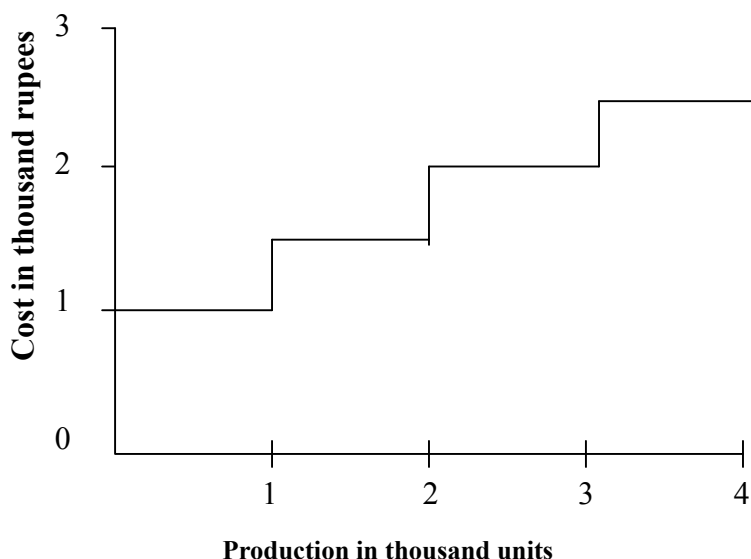


Figure 14.4: Fixed Costs rising in Steps

**Illustration 14.1**

A company has provided the following information in respect of 10,000 units of output. Let us calculate the total cost for 12,000 units of output and the cost per unit with the following information:

Variable cost	Rs.50,000
Fixed Cost	Rs.30,000
Semi-variable Cost(50%fixed)	Rs.80,000

**STATEMENT OF COST**

Output 12,000 units	Rs.	Rs.
Variable Cost @ Rs.5		60,000
Fixed cost		30,000
Semi-variable cost:		
Fixed	40,000	
Variable cost @ Rs.4	<u>48,000</u>	<u>88,000</u>
Total cost		1,78,000
Cost per unit	$= \frac{1,78,000}{12,000}$	Rs.14.83

**Direct and Indirect Cost**

**Direct Costs:** These are costs that can be directly, conveniently and wholly traced to a product, service or job. Examples of such costs are direct material, direct labour and direct expenses.

**Indirect Costs:** These are costs that cannot be directly, conveniently and wholly identified with a specific product, service or job. They include all

overhead costs such as salaries of timekeepers, stores keepers, foremen, printing and stationery costs, etc.

Indirect or overhead costs are apportioned to different jobs, products or services on a reasonable basis. For example, the indirect factory labour cost may be apportioned over different jobs according to their direct labour cost. Similarly, the selling overheads can be charged to different products according to their sales values.

It may be noted that the more the share of the direct cost in relation to the total cost of the product, the greater is the exactness in costing. The reason for this is that indirect costs are allocated (or apportioned) on an estimated basis.

### Check your progress-1

- i. Define cost.
- ii. List the elements of cost.
- iii. What are overheads?
- iv. Describe the classification of costs.
- v. Describe Fixed, Variable, Semi-variable and Step Costs.

---

## 14.5 SOME OTHER CONCEPTS OF COSTS

---

### 14.5.1 Product Costs and Period Costs

Costs which become part of the cost of product rather than an expense of the period in which they are incurred are called as product costs. Such costs are treated as assets until the goods they are assigned to are sold. They may be fixed or variable. These are cost of raw materials and direct wages, depreciation on equipment, etc.

Costs that are not associated with production are called period costs. They are treated as an expense of the period in which they are incurred. They can also be fixed or variable. These are costs of general administration, depreciation on office facilities, etc.

### 14.5.2 Decision-making Costs and Accounting Costs

Decision-making costs are special purpose costs that are applicable only in the situation in which they are incurred. They need not be included in routine financial accounts. Accounting costs are compiled primarily for financial statements. They are basically historical costs and show what has happened under an existing set of costs.

### 14.5.3 Shut Down and Sunk Costs

**Shut Down Costs:** These represent the fixed costs that have to be incurred even when a factory is shut down on account of some temporary difficulties, viz., shortage of raw materials, non-availability of requisite labour force etc. During this period, though no work is done, the fixed costs, such as rent, insurance, depreciation, maintenance, etc., for the entire plant are still to be incurred. Such costs of the idle plant are known as shut down costs.

**Sunk Costs:** These are historical or past costs or the costs incurred as a result of a decision made in the past. Such costs cannot be reversed or revised by

subsequent decisions. Investments in plant and machinery, building, etc., are some prominent examples of such costs. Sunk costs are considered not relevant for decisions concerning the increase in the present profit levels.

**Let us consider an example.**

Goa Steel Ltd purchased a machine for Rs.60,000. The machine has an operating life of five years without any scrap value. Soon after making the investment, the management felt that the machine should not have been purchased as it was incapable of yielding the operating advantage initially contemplated. Originally, it was expected to result in savings in operating costs of Rs.40,000 over a period of ten years. On the other hand, the machine can be sold immediately for a sum of Rs. 42, 000.

In deciding whether the machine should be sold or used, the relevant amounts to be compared are Rs. 40,000 in cost savings over ten years and Rs 42,000 that can be realised in case it is immediately disposed off. Rs 60,000 invested in the asset are not relevant since it is the same in both cases. This amount is sunk cost. Therefore, Goa Steels should sell the machinery for Rs. 42,000 since it will result in a gain of Rs 2,000 as compared to keeping and using it.

**14.5.4 Controllable and Uncontrollable Costs**

**Controllable Costs:** These are costs that can be influenced by the action of a specified member of an organisation. For example, the foreman of a production department can control the utilisation of power or raw materials in his department. These are, therefore, controllable costs as far as he is concerned.

**Uncontrollable Costs:** These are costs that cannot be influenced by the action of a specified member of an undertaking. For example, the foreman of a production department can control the wastage of power in his department, but he cannot control the power being wasted in the powerhouse itself, resulting in a higher cost per unit of power to him. Similarly, he cannot control the increase in the cost of materials consumed in his department if the purchasing department or the supplying department buys the materials at higher prices due to its own inefficiency. Such costs are controllable at a particular level of management while they are uncontrollable at some other level of management.

The difference between controllable and uncontrollable costs is of particular significance to the management. The executive concerned should be held responsible only for those costs which are within his control and not for costs beyond his control.

**Imputed or Hypothetical Costs:** These are costs that do not involve cash outlay. They are not included in cost accounts but are important for making management decisions. For example, interest on capital is ignored in cost accounting though it is considered in financial accounting. If two projects require unequal outlays of cash, the management must take into consideration interest on capital to judge the relative profitability of the projects.

**Differential, Incremental or Decremental Costs:** The difference in total costs between two alternatives is termed as differential cost. In case the

choice of alternative results in an increase in the total costs, such increased costs are known as incremental costs. If the choice decreases total costs, the resulting decrease is known as decremental costs. While assessing the profitability of a proposed change, the incremental costs are matched with incremental revenues. The following illustration will demonstrate the concept of incremental costs.

**Illustration 14.2**

A company is presently selling 1000 unit @ Rs. 10 per unit. The variable cost per unit is Rs 5, and the total fixed costs are Rs.4,000. The company receives an order for a supply of 200 units @ Rs.8 per unit. The execution of this export order will increase the fixed cost by Rs.200.

The cost and sales data under the existing and proposed situation can be put as under:

	<i>Existing situation</i>		<i>Proposed situation</i>		<i>Incremental</i>	
	Rs.	Rs.	Rs.	Rs.	Cost	Revenue
Sales		10,000		11,600		1,600
Less: Variable costs	5 000		6 000			
Less : Fixed costs	4,000	9,000	4,200	10,200		1,200
Profit		1,000		1,400		400

Under the existing situation, there is a profit of Rs.1,000. If the alternative proposal is considered, it would result in incremental revenue of Rs.1,600 against the incremental cost of Rs. 1,200. Hence the incremental profit will be Rs.400.

**Out-of-Pocket Costs:** Out-of-pocket cost means the present or future cash expenditure regarding a certain decision which may vary, depending upon the nature of the decision made. For example, a company has its own trucks for transporting raw materials and finished products from one place to another. It seeks to replace these trucks by employing public carriers of goods. In making this decision, of course, the depreciation of the trucks is not to be considered. However, the management must take into account the present expenditure on fuel, salary to drivers and maintenance, which have to be incurred in cash. Such costs for arriving at a decision are termed as out-of-pocket costs.

**Opportunity Costs:** Opportunity cost refers to the advantage, in measurable terms, which has been foregone on account of not using the facilities in the manner originally planned. For example, suppose an owned building is proposed to be utilised for housing a new project plant. In that case, the likely revenue that the building could fetch if rented out is the opportunity cost that should be considered while evaluating the profitability of the project.

Suppose you have a sizeable deposit in a bank that is fetching you a return of 10% per annum. When your deposit is nearing maturity (but can be

renewed), your friend approaches you with a business proposal that is likely to earn you a return of 18% (after-tax). After careful consideration of the factors relating to risk and return, you decide to go in for the proposal. Obviously, you have to give up the existing alternative in view of the limited funds you have. Thus you will no longer have the bank deposit. The sacrifice in the form of 10% interest on your deposit in the bank that you have to forego if you go in for a business proposal, is the opportunity cost for the new alternative.

#### 14.5.5 Traceable, Untraceable and Joint Costs

**Traceable Cost:** These are costs that can be easily identified or traced to specific products, services or units of the company, such as raw material and labour.

**Untraceable Cost:** These are costs that cannot be identified with a department, process or product. Such costs are also termed as common costs, as they are incurred collectively for a number of products or cost centres, e.g., overheads incurred for the factory as a whole. As such, they are apportioned among various products or cost centres using suitable criteria.

**Joint Costs:** Whenever two or more products are produced out of the same raw material or process, the cost of material purchased and the processing costs are called joint costs. Take the example of an oil refinery where a range of products such as bitumen, petrol, kerosene, diesel, are derived in the process of refining crude oil. All these products have joint costs comprising the cost of crude and the cost incurred in the course of refining. These joint costs are then apportioned to various products on some basis.

**Conversion Cost:** The cost of transforming direct materials into finished products, exclusive of direct material cost, is known as conversion cost. It is usually taken as the aggregate of the cost of direct labour, direct expenses and factory overheads.

The above classification concepts of cost help the management in the decision making process. For example, the segregation of cost into fixed and variable elements will help the management in analysing the total cost. Similarly, the segregation of costs into controllable and uncontrollable categories will help the management fix the responsibilities of the different executives for unfavourable cost variances. Numerous other examples can be given, highlighting the usefulness of the above classification of costs.

#### Check your progress-2

- i. Describe Controllable Costs, Uncontrollable Costs.
- ii. What is Opportunity Costs?
- iii. Classify each of the following as Direct or Indirect Cost (D or I) .
  - a) Cost of medicines provided for patient care
  - b) Cost of x-ray films while treating patients
  - c) Cost of lab reagents while assessing cost of patient care
  - d) Raw material for food served in a hospital
  - e) Salary of medical stores keeper

- f) Salary of a doctor
- g) Oil used for lubricating machine
- h) Cost of air conditioning plant
- i) Cost of training programmes
- j) Salary of nursing officers

---

## 14.6 COST ACCOUNTING

---

Cost accounting is a branch of accounting information system that records, measures and reports information about costs. The primary purpose of cost accounting is cost ascertainment and its use in decision-making and performance evaluation. A cost accounting system provides data for both financial accounting and management accounting. As a major financial information system for management analysis and decision making, the hospital's cost accounting system provides:

- Internal reporting to managers for use in planning and controlling routine operations.
- Internal reporting to managers for use in making non-routine decisions and formulating policies and plans for future activities.
- Information useful for external reporting to stockholders, government agencies and creditors.

The initial step in the implementation of cost accounting system is to assemble revenues, costs and standard performance criteria. Three basic methods of assembling cost accounting data are given below:

- a) **Responsibility costing** traces the costs of the individual organisational units called responsibility centres. Estimates of future responsibility centre costs are initially established during the hospital's budgeting process. A historical accounting of the actual costs incurred in a responsibility centre is used during the hospital's fiscal year to measure the performance of the responsibility centre and to analyze deviations from the approved budget. Responsibility centre reports are extremely useful for organisational control and objective settings because they present both the goals for specific production functions and centre's performance relative to these goals.
- b) **Full costing** of goods manufactured or services provided sums the direct costs related to the production process plus an allocated share of the indirect costs that the organisation incurs as overhead.
- c) **Differential costing** estimates how the costs and revenues in one situation will differ in alternative situations. It, therefore, focuses management's analysis on the incremental costs that come with adding or deleting products or programmes.

### Advantages and limitations of cost accounting system

There are various advantages and limitations of cost accounting system. An efficient cost accounting system can have the following advantages:

- a) Identification of costly activities provides an opportunity to the management for considering alternatives or modifications.

- b) Determination of standards and allow comparisons.
- c) Detailed investigations of costs in health care further lead to estimation of benefits derived from the resources spent.
- d) Reductions in cost of patient care without compromising quality.
- e) A comprehensive financial management plan of an organisation covering financial planning, budgeting and resource allocation can be developed.

Limitations of a cost accounting system could be:

- a) A costing system does not itself make an organisation more efficient, but provides information to the management to take decisions.
- b) The information supplied may refer to the costs incurred in the past i.e. historical costs. Care should be taken while planning future costs because they may not be the same.
- c) The problems of case mix because medical specialities are not homogenous and costs vary greatly between different patients, specific groups and specialities.
- d) Incompletely recorded information has its own limitations.

---

## 14.7 COST OUTPUT RELATIONSHIP

---

In studying the relationship that exists between cost and output it is useful to separate it into two components. The first looks at the physical relationship that exists between inputs and outputs (production) and the second looks at the costs attached to it. To understand it better it is important to know three measures of cost:

- 1) *Total cost* (TC) is a measure of all the costs entailed in producing a given level of output. It is derived by summing up all the costs incurred during production. An example would be the cost of providing an immunisation service.
- 2) *Average cost* (AC) is a measure of the total costs of production associated with each unit of output. Average costs indicate the resource requirement for each unit of output and are calculated by dividing total costs (TC) by the number of units of output (Q) ( $AC=TC/Q$ ). An example would be the cost per immunisation provided.
- 3) *Marginal cost* (MC) is a measure of the resources associated with a small incremental change in output. In fact, it is a measure of the change in costs associated with increasing or decreasing output by one, and is derived by calculating the change in total costs for that one unit. An example would be the incremental cost of adding an additional vaccine to the existing service, or of extending the service to an additional village.

Suppose, production consists of using two inputs to produce some good or service. As one input varies, three alternatives are possible within the quantitative relationship between inputs and outputs. Output can rise proportionately faster than the input, proportionately slower, or at the same rate.

The second part of the relationship between output and cost is the relationship between the resource inputs and price. Although it is assumed that the price of resources will remain constant as output rises, it is possible that they will not. They may fall if it is possible to negotiate discounts through bulk purchases; or they may rise if more needs to be paid to attract scarce resources as the demand for them increases.

---

## 14.8 COST ANALYSIS

---

*Cost analysis* is the process of rearranging data or information in the existing accounts to obtain the costs of the services rendered by the hospital or any health set-up. There are five prerequisites for cost analysis.

- 1) There should be an organisation chart and a chart of accounts relating to it.
- 2) There should be an identification of all cost centres as either general service cost centres or as final cost centres to which all costs are ultimately assigned.
- 3) There should be an accurate accounting system.
- 4) There should be a comprehensive information system capable of collecting nonfinancial data by cost centre and by the total hospital, providing: a) the basis for distribution of costs from general service centres to final cost centres; and b) the basis for calculating unit cost by final cost centres.
- 5) A methodology for cost analysis should be chosen that is most practicable for the situation.

There are two general approaches of cost analysis in health sector.

### 1) The Direct Accounting Approach

It makes use of accounting information and reanalysis of health or hospital service records to examine costs and performance. It focuses on the costs directly associated with a particular activity. It attempts to calculate the costs of the resources that are actually used in an activity or those that are consumed by a particular patient. In practice this often proves difficult because it is difficult to identify the resources used in many activities and to calculate what proportion of the costs of the shared items or facilities should be apportioned to individual activities. Examples of the direct accounting approach include:

- a) *Activity costing* - detailed costing of the activities of different cost centres, such as whole hospitals, speciality departments, or health centres
- b) *Disease costing* ~ attempts to identify the cost incurred in treating particular diseases, or particular types of patient, or even in carrying out certain types of procedures.

### 2) The Statistical Approach

This approach focuses on the costs associated with types of activity or types of patient and not on the costs associated with individual activities or individual patients. Rather than addressing the issue of

how much something costs and how these costs are incurred, the statistical approach addresses the issues of why costs differ, and by how much. The accounting approach can be applied to a single hospital and involves a labour intensive, detailed examination of hospital accounts, staffing pattern and admissions. Less detailed data are needed in the statistical approach, but it requires observations of costs and service use for many years.

The statistical approach can be illustrated by the following example. In studying, say, the costs associated with providing hospital care, it is very likely that there will be wide variations in cost between different hospitals. Why should this be the case? Some hospitals may be more effective or more efficient than others, or there may be other reasons why these costs vary. Hospitals may differ with respect to:

- size (number of beds)
- number of cases treated in a given time period
- case-mix
- case-severity
- quality of care
- type of treatments offered
- teaching or research activities
- age and/or location of hospital facilities
- occupancy levels
- manpower availability
- length of stay

One or more of these factors may account for differences in measured costs between hospitals.

---

## 14.9 METHODS OF COST ANALYSIS

---

There are several methods of cost analysis that are commonly used in direct accounting approach. These are as follows:

- 1) Direct apportionment
- 2) The step-down method
- 3) Double apportionment
- 4) Algebraic or multiple apportionment

### 1) **Direct Apportionment**

Allotting the cost incurred by non-revenue producing departments to revenue departments by direct apportionment can be done by any one of the several methods. The simplest and least logical way is for administration to determine arbitrarily the percentage of the nonrevenue connected expense each revenue centre has to bear. Other yardsticks can be based on the percentage each revenue department represents of the total square footage of the hospital's building or of the number of employees, payroll, pounds of laundry, patient days or number of purchase requisitions.

Direct apportionment, though administratively and clearly simple is an inappropriate cost finding methodology because, it a) ignores the exchange of services between non-revenue producing departments, and b) does not compensate for the different demands for services by revenue departments on non-revenue departments.

## 2) The Step-down Method

The step-down method is more advanced cost finding technique than direct allocation, for it involves the distribution of costs of non-revenue producing departments to other nonrevenue departments and, in turn, finally to revenue departments. The term step-down is used because of the format in which distribution of non-revenue department costs are made. The costs of non-revenue department serving the most departments (both revenue and nonrevenue) are distributed first; the non-revenue department serving the second largest number of departments is distributed next; the one serving the third largest number next, and so on.

It should be noted that the step-down method has been criticized as not allowing fully for interdepartmental charges between the different non-revenue departments.

## 3) Double Apportionment

Double apportionment or double distribution was designed to correct one of the major weaknesses of the step-down method. In double apportionment two separate cost distributions are used. In the first distribution all direct and indirect costs of all departments are distributed to the various cost centres according to the agreed upon basis of allocation. After the first distribution is completed, the costs that have been allocated to the nonrevenue departments are then redistributed to the revenue producing departments using the same basis of allocation as before (square footage, etc.).

Basically double distribution is two distribution of costs to reflect as accurately as possible the interchange of services between non-revenue departments before costs are finally allotted to the revenue producing departments.

## 4) Multiple Apportionment (Algebraic Method)

Multiple distributions are made of expenses between non-revenue departments and then, finally to revenue departments in an attempt to refine the cost analysis to the greatest possible degree of exactness. Although 10 to 12 distributions are made in some methods, it is generally agreed that after 4 distributions there is little change in the ultimate cost figure. These distributions can be done manually but from a practical standpoint double distribution remains the most feasible manual method.

This type of cost analysis is the most accurate method yet devised, but it is beyond the capabilities of the average hospital accountant. On the basis of accuracy alone, the order of preference of cost analysis would be:

- 1) multiple apportionment,

- 2) double apportionment,
- 3) step-down, and
- 4) direct apportionment.

From a practical standpoint of time and cost of the analysis, however, it would be better to consider the selection of manual method as:

- 1) Double apportionment, and
- 2) Step-down method.

### **Cost Effectiveness Analysis**

It is a form of economic evaluation where the costs are expressed in monetary terms but some of the effects are expressed in physical units (e.g. life years gained, cases detected). It is usually used to compare different ways of achieving the same objective (e.g. saving lives) and assumes the objective that is worth achieving.

Cost effectiveness analysis involves organising information so that the costs of alternatives and their effectiveness in meeting a given objective can be compared systematically. It involves three distinct sub-processes: (a) Developing comprehensive costing details and analysis of cost of each alternative; (b) An analysis of effectiveness of each alternatives; and (c) An analysis of the relationship between the costs and effectiveness of each alternative.

### **Cost Benefit Analysis**

Cost benefit analysis is an economic technique applicable to health planning, health management and evaluation. It is a form of economic evaluation where all the costs and benefits are expressed in money terms. In principle, this form of analysis enables one to assess whether a particular objective is worth achieving. However, estimation difficulties often reduce cost-benefit analysis to a consideration of those costs and benefits that are easy to express in money terms. It determines which scheme or combination of schemes will contribute most to the achievement at a given investment, or the magnitude of benefits that can result from schemes requiring the minimum investment.

Cost benefit analysis attempts to value all socially relevant outcomes in monetary terms. In day-to-day use, cost benefit analysis is primarily utilised to justify if a particular health services programme is relatively more beneficial. Although it is difficult to express all possible health and social benefits in financial terms, it helps in taking technical decisions backed by economic logic.

### **Check your progress-3**

1. Define Cost accounting.
2. List the uses of cost accounting.
3. List the advantages of cost accounting system.
4. What is cost analysis?
5. Describe the approaches to cost analysis.
6. List the methods of cost analysis used in direct accounting approach.

7. What is Cost Effectiveness Analysis?
8. What is Cost benefit analysis?

---

## 14.10 COST BEHAVIOUR IN RELATION TO HOSPITAL OUTPUT

---

Whatever method of costing is used, the unit of analysis (such as patient days, admissions or outpatient visits) and consideration of both average and marginal costs are important, because the use of any single output may produce misleading results. Recurrent hospital inpatient costs are considered to have three components:

- a) **Overhead costs:** These costs remain essentially constant regardless of whether a bed is occupied. Typically, they include items such as heating and maintenance, but for public hospitals in developing countries, personnel may be a large component of overhead costs, because it may not be possible for staff to be reduced in the short run during periods of low occupancy. The magnitude of overhead costs is related to the hospital size.
- b) **Hotel costs:** These are costs, such as catering, laundry, and linen that are incurred for each patient day in the hospital. They tend to be constant for each day of a patient day, though there will be some variations related to the diagnosis and patient characteristics.
- c) **Treatment costs:** These are case-dependent costs associated with a particular diagnostic, therapeutic and other treatment services provided to the patient. These costs tend to peak in the first few days of a patient stay, when, for example, there might be an operation, and then diminish thereafter. The actual pattern of treatment costs in any hospital will vary depending on the clinical management of the hospital.

The hospital in which the length of stay of patients is longer, other things equal, would tend to have a lower average cost per day because the treatment costs for the additional days would likely be far below the average for the case. The extra days stay in the hospital would probably contribute little to the improvement of the patient's condition, and thus the lower average cost would actually mask inefficient hospital performance.

Assuming that the treatment cost profile is similar, high occupancy rates tend to result in lower average costs per patient day because overhead costs are spread over beds that are actually filled. If high occupancy results from relatively few admissions but very long stay, however hotel costs will be high in relation to the number of patients and average cost per day per admission will be high. The expected marginal cost per bed per day will be low because the treatment costs at the end of a long hospital stay tend to be minimal. Alternatively, if the bed turnover rate is high, average cost per admission is apt to be lower because hotel costs are spread over a large number of patients, whereas the marginal cost per day will be relatively high. Increasing the bed occupancy rate through a greater number of admissions per day rather than longer stays will allow more patients to be served and thus improve hospital productivity.

Low occupancy rates are a commonly observed feature in many developing countries. Individual hospitals have a level of services, usually somewhere in the neighbourhood of 85-90 per cent occupancy at which they operate most efficiently. In the short run, a relatively small percentage of hospital costs can be varied; most costs are fixed and determined by the scale of the facility and the personnel establishment (the overhead costs). Personnel costs, which make up the bulk of fixed cost, represent a range of about 35-75 per cent of total recurrent costs. The effect of low occupancy is to spread the cost of personnel and other fixed inputs over a smaller number of service units and raise the average cost of services. Even if hospital inputs are being used with technical efficiency low occupancy implies economic inefficiency.

A high bed occupancy rate does not necessarily indicate better hospital performance. Indeed, bed occupancy rates can be too high, in the sense that the volume of services is above the design level of the hospital. The implications of high occupancy for average costs and hospital efficiency are ambiguous without information on the other service indicators. The reason for this is that a high occupancy rate may reflect a relatively efficient situation as many patients with modest lengths of stay are served (i.e. the hospital has a high bed turnover rate), or an inefficient situation, as when high proportion of filled beds largely results from long length of stay. The latter situation is signaled by a low average cost per day but a relatively high average cost per admission.

There are other reasons why a high occupancy rate does not by itself imply a relatively efficient hospital. For example, with high occupancy rates, scheduling of individual service activities, maintenance, and management becomes more difficult and are more costly. The measured average costs from accounting based studies do not provide sufficient evidence to support or reject the hypothesis that average costs are regularly lower for hospitals with extraordinarily high occupancy rates. More likely is that the quality of services is compromised as staff attention, laboratory and ancillary services are divided among a greater number of admissions that exceeds the hospital's design capacity. In addition, very high occupancy rates may reflect overcrowding, which can facilitate the spread of hospital acquired infection.

---

### 14.11 COST VOLUME PROFIT ANALYSIS

---

Cost volume profit analysis is a valuable tool of profit planning. It provides information about the following:

- 1) Cost behavior in relation to volume of production.
- 2) Break even point in relation to volume of production or sales.
- 3) Amount of profit for a projected sales volume.
- 4) Quantity of production and sales for a target profit level.

*Cost volume profit analysis* is defined as a managerial tool showing the relationship between various components of profit planning, viz. cost (both fixed and variable), selling price and volume of activity.

It is useful to the management in the following situations:

- 1) It helps in forecasting the profit fairly accurately.
- 2) It can ascertain the costs, sales and profits at different levels of activity so it is easier to set up flexible budgets.
- 3) It helps in performance evaluation for the purpose of management control.
- 4) It helps in formulating price policy.
- 5) It helps in determining the amount of overhead cost to be charged at various levels of operations.

---

## 14.12 BREAK EVEN ANALYSIS

---

Cost volume profit analysis is also popularly known as break even analysis. The difference between the two is very narrow. Cost volume profit analysis includes the entire gamut of profit planning while break even analysis is a widely used technique to study this process. *Break even point* is the point that breaks the total cost and the selling price evenly to show the level of output or sales at which there shall be neither profit nor loss. In other words it is the point where revenue and expenditure are same. If product is increased beyond this level then there shall be profit and if it is decreased then loss shall be suffered.

*Break even point* = Fixed cost divided by selling price per unit minus variable cost per unit.

Costing of various services and departmental accounting are the bases on which the structure of break even analysis can be made. Cost centre is the fulcrum for such analysis. Let us take the example of radiology department as a cost centre. With reference to the number of investigations done in the radiology department income is known. On the basis of departmental accounting the revenue and expenditure of the radiology department can be ascertained. To find out whether the department of radiology is financially viable, work out the fixed and variable cost of the cost centre. By dividing the total cost by the number of investigations done during a specific period we can find out the cost of an investigation i.e. cost per unit. The selling price of an investigation is also known. From the above equation it is possible to know the exact point from where one can make profit. Let us assume the figures as: Fixed costs =Rs. 32,00,000; variable costs per unit = Rs 200 and the selling price = Rs.1000. Break even point =  $32,00,000 \div 1000 - 200 = 4,000$  units. That means when number of investigations reach 4,000 units (tests) the break even point is reached. In other words, if the total number of investigations increase beyond 4,000 then there shall be profit and if it decreases beyond 4,000 then there shall be loss.

It will be easier to understand from the table. The bold row is the break even point.

No.of units Rs.	Fixedcost Rs.	Variablecost Rs.	Total cost Rs.	Revenue cost Rs.
1,000	32,00,000	<b>2,00,000</b>	34,00,000	10,00,000
<b>2,000</b>	32,00,000	4,00,000	36,00,000	20,00,000
3,000	32,00,000	6,00,000	38,00,000	30,00,000
<b>4,000</b>	<b>32,00,000</b>	<b>8,00,000</b>	<b>40,00,000</b>	<b>40,00,000</b>
5,000	32,00,000	10,00,000	42,00,000	50,00,000

#### Check your progress-4

- i. What is Cost volume profit analysis?
- ii. List the uses of Cost volume profit analysis.
- ii. What is Break even point?

---

### 14.13 LET US SUM UP

---

For providing high quality services in the hospital at an optimum cost it has become essential to understand the concepts of costs and the way they behave in different situations. Cost is the sacrifice made in order to obtain a good or service. There are mainly three elements of costs, viz., material, labour and expenses. All indirect costs are called overheads. Costs can be classified into variable and fixed costs, direct and indirect costs, and capital and recurrent costs. Each classification has its own significance in management decisions.

Cost accounting is a branch of accounting information system that records, measures and reports information about costs. Relationship between costs and output can be understood through total cost, average cost, and marginal cost concepts. Cost analysis is basically a technique of cost accounting. There are various methods of cost analysis. From a practical standpoint two methods of cost analysis are commonly used i.e., double apportionment and step-down method.

Cost volume profit analysis is valuable tool for profit planning. It forecasts the level of profit quite accurately. It is also popularly known as break even analysis. In fact, cost volume profit analysis includes the entire process of profit planning whereas break even analysis is a widely used technique to study this process.

---

### 14.14 ANSWERS TO CHECK YOUR PROGRESS

---

#### Check your progress-1

1. Define cost.

In general, people understand costs in terms of monetary prices or the amount of expenditure incurred on goods and services. But economists understand the cost as the sacrifice made in order to obtain a good or a service.

What has to be given up to achieve something, either:

- the value of opportunities which are forgone in order to achieve something (the economic definition);or

- the total money expenditure required to achieve something (the accounting definition).

2. List the elements of cost.

There are three broad elements of cost:

- *Material cost*-It is the substance from which the product is made. It may be raw product or product of output. It can be direct or indirect.
- *Labour cost*-For conversion of material into finished products or producing service outputs human effort is required. These are called labour cost. Labour can also be direct or indirect.
- *Expenses*-These may be direct and indirect. The direct Expenses are expenses that are directly, easily and wholly allocated to specific cost centres or cost units. Example is like hiring of some instrument for a particular purpose either diagnostic or therapeutic. Indirect Expenses are expenses that cannot be directly, easily and wholly allocated to costs centres or cost units. Examples of such expenses are rent of building, lighting, insurance etc.

3. What are overheads?

The term overheads includes indirect material, indirect labour and indirect expenses. Thus all indirect costs are overheads.

4. Describe the classification of costs.

The cost can be classified as:

- *Prime cost*: It consists of costs of direct material, direct labour, and direct expenses. It is also known as basic, first or flat cost.
- *Factory Cost*: It comprises prime cost and, in addition, works or factory overheads, which include costs of indirect material, indirect labour and indirect factory expenses. This cost is also known as works cost, production or manufacturing cost.
- *Office Cost*: It comprises factory cost and office and administration overheads. It is also termed as the total cost of production.
- *Total Cost*: It comprises of cost of production and selling and distribution overheads. It is also termed as Cost of Sales.

5. Describe Fixed, Variable, Semi-variable and Step Costs.

Costs can be classified into different categories depending upon the purpose for which information is required. The costs can broadly be classified into Fixed, Variable, Semi-variable and Step Costs.

- *Fixed Costs*: These are the costs that remain constant irrespective of the quantum of output within and up to the capacity that has been built up. Examples of such costs are rent, insurance charges, management salary, etc.
- *Variable Costs*: These are the costs that vary in direct proportion to output. They increase or decrease in the same proportion in

which the output increases or decreases. The examples of such costs are direct material, direct labour, power, etc.

- *Semi-variable Costs:* These are the costs that do vary but not in direct proportion to output. They are made up of both fixed and variable cost elements such as depreciation, repairs, light, heat, telephone, etc.
- *Step Costs:* Fixed costs, in general, remain fixed over a range of production activity and then jump to a new level as activity changes. For example, a foreman can supervise a given number of workers. Beyond this number, it is necessary to hire a second foreman, then a third and so on. Similarly, the rental cost of delivery vehicles also follows the same pattern.

### Check your progress-2

1. Describe Controllable Costs, Uncontrollable Costs.

- *Controllable Costs:* These are costs that can be influenced by the action of a specified member of an organisation. For example, the foreman of a production department can control the utilisation of power or raw materials in his department. These are, therefore, controllable costs as far as he is concerned.
- *Uncontrollable Costs:* These are costs that cannot be influenced by the action of a specified member of an undertaking. For example, the foreman of a production department can control the wastage of power in his department, but he cannot control the power being wasted in the powerhouse itself, resulting in a higher cost per unit of power to him.

2. What is Opportunity Costs?

Opportunity cost refers to the advantage, in measurable terms, which has been foregone on account of not using the facilities in the manner originally planned. For example, suppose an owned building is proposed to be utilised for housing a new project plant. In that case, the likely revenue that the building could fetch if rented out is the opportunity cost that should be considered while evaluating the profitability of the project.

3. Classify each of the following as Direct or Indirect Cost (D or I) .

- a) Cost of medicines provided for patient care
- b) Cost of x ~Ray films while treating patients
- c) Cost of lab reagents while assessing cost of patient care
- d) Raw material for food served in a hospital
- e) Salary of medical stores keeper
- f) Salary of a doctor
- g) Oil used for lubricating machine
- h) Cost of air conditioning plant
- i) Cost of training programmes
- j) Salary of nursing officers

(Answers: (a), (f), and (j) are direct: cost and others are indirect cost)

### Check your progress-3

1. Define Cost accounting.

Cost accounting is a branch of accounting information system that records, measures and reports information about costs.

2. List the uses of cost accounting.

As a major financial information system for management analysis and decision making, the hospital's cost accounting system provides:

- Internal reporting to managers for use in planning and controlling routine operations.
- Internal reporting to managers for use in making non-routine decisions and formulating policies and plans for future activities.
- Information useful for external reporting to stockholders, government agencies and creditors.

3. List the advantages of cost accounting system.

An efficient cost accounting system can have the following advantages:

- Identification of costly activities provides an opportunity to the management for considering alternatives or modifications.
- Determination of standards and allow comparisons.
- Detailed investigations of costs in health care further lead to estimation of benefits derived from the resources spent.
- Reductions in cost of patient care without compromising quality.
- A comprehensive financial management plan of an organisation covering financial planning, budgeting and resource allocation can be developed.

4. What is cost analysis?

*Cost analysis* is the process of rearranging data or information in the existing accounts to obtain the costs of the services rendered by the hospital or any health set-up.

5. Describe the approaches to cost analysis.

There are two general approaches of cost analysis in health sector.

- *The Direct Accounting Approach*-It makes use of accounting information and reanalysis of health or hospital service records to examine costs and performance. It focuses on the costs directly associated with a particular activity. It attempts to calculate the costs of the resources that are actually used in an activity or those that are consumed by a particular patient.
- *The Statistical Approach*-This approach focuses on the costs associated with types of activity or types of patient and not on the costs associated with individual activities or individual patients. Rather than addressing the issue of how much something costs and how these costs are incurred, the statistical approach addresses the issues of why costs differ, and by how much.

6. List the methods of cost analysis used in direct accounting approach. There are several methods of cost analysis that are commonly used in direct accounting approach. These are as follows:
- Direct apportionment
  - The step-down method
  - Double apportionment
  - Algebraic or multiple apportionment
7. What is Cost Effectiveness Analysis?  
It is a form of economic evaluation where the costs are expressed in monetary terms but some of the effects are expressed in physical units (e.g. life years gained, cases detected). It is usually used to compare different ways of achieving the same objective (e.g. saving lives) and assumes the objective that is worth achieving.
8. What is Cost benefit analysis?  
Cost benefit analysis is an economic technique applicable to health planning, health management and evaluation. It is a form of economic evaluation where all the costs and benefits are expressed in money terms. In principle, this form of analysis enables one to assess whether a particular objective is worth achieving.

#### Check your progress-4

1. What is Cost volume profit analysis?  
Cost volume profit analysis is defined as a managerial tool showing the relationship between the various components of profit planning, viz. cost (both fixed and variable), selling price and volume of activity.
2. List the uses of Cost volume profit analysis.  
It is useful to the management in the following situations:
- It helps in forecasting the profit fairly accurately.
  - It can ascertain the costs, sales and profits at different levels of activity so it is easier to set up flexible budgets.
  - It helps in performance evaluation for the purpose of management control.
  - It helps in formulating price policy.
  - It helps in determining the amount of overhead cost to be charged at various levels of operations.
3. What is Break even point?  
Break even point is the point that breaks the total cost and the selling price evenly to show the level of output or sales at which there shall be neither profit nor loss. In other words it is the point where revenue and expenditure are same. If product is increased beyond this level then there shall be profit and if it is decreased then loss shall be suffered.
- Break even point* = Fixed cost divided by selling price per unit minus variable cost per unit.

---

# UNIT 15 BUDGETING

---

## Structure

- 15.0 Objectives
- 15.1 Introduction
- 15.2 What is Budget
  - 15.2.1 Budget Defined
  - 15.2.2 Main Characteristics of a Budget
  - 15.2.3 How Does a Budget Help Us
- 15.3 Classification of Budgets
  - 15.3.1 Time Based Budgets
  - 15.3.2 Function Based Budgets
  - 15.3.3 Flexibility Based Budgets
- 15.4 Budget Procedures and Administration
  - 15.4.1 Prerequisites for Budgeting
  - 15.4.2 Budget Administration
  - 15.4.3 Budget Procedure
  - 15.4.4 Benefits of Budget Procedure
- 15.5 Approaches to Budgeting
  - 15.5.1 Incremental Approach
  - 15.5.2 Performance Budgeting Approach
  - 15.5.3 Zero Based Budgeting Approach
- 15.6 Let Us Sum Up
- 15.7 Answers to Check Your Progress

---

## 15.0 OBJECTIVES

---

After going through this unit you should be able to:

- explain the concept and role of budgeting in managing hospitals and health care institutions;
- describe the budgetary procedures and administration and apply them to the existing health care set-up; and
- explain various budgetary techniques and approaches.

---

## 15.1 INTRODUCTION

---

The process of managing any hospital or health care institution to achieve its objectives necessitates a systematic approach to financial planning. For financial planning reviewing the past information alone is not sufficient since as hospital and health care administrator's job involves not only predicting but also shaping the future of their organisation. This involves proper planning of all the activities of the hospital or the health care set-up. A budget is an important tool for financial planning and control. It is an integral part of management which seeks to regulate the flow of its funds to the desired ends, since inspite of a good financial plan, the desired

results may not be forthcoming if there is no effective control to ensure its implementation. The budget thus acts as a set of yardsticks or guidelines for use in controlling the internal operations of the hospital or a health care institution. The management through a budget can evaluate the performance of every department or level of utilisation of the hospital or health care set-up. The discrepancy between plan performance and actual performance can be highlighted through budgets. The organisation may also have to change the course of its operations in a particular area or revise its plans keeping in view of the changing conditions or environment. It, therefore, will be useful for you to understand the complete budgeting process and what actually a budget is?

---

## 15.2 WHAT IS A BUDGET

---

Historically the word “budget” referred to a leather pouch or the leather bag in which the chancellor of exchequer in Britain carried to parliament the statement of Government’s needs and its resources. Today, in Government, the budget refers to the statement of anticipated receipts and payments of the Government during a year and forms the basis of appropriations by the legislature. The budget of a commercial organisation has a wide connotation and we can generally equate budget with prompt planning in such organisations.

Hospital administrators are generally familiar with budgeting as an activity or exercise undertaken by their financial managers or accountants in the nature of a forecast of the income or expenses of their organisation for the ensuing financial year. In public sector or government owned hospitals, the primary purpose of the budget is to secure finances or grants from appropriate competent authorities. It is also used as an authorisation to incur expenditure on specified items or activities upto the amounts as indicated against each of them. After having understood what a budget is and what it means to different set ups we must now define a budget and identify its-main characteristics.

### 15.2.1 Budget Defined

Simply defined, a budget is a statement of plans expressed in quantitative, usually monetary terms, covering a specific period of time, usually one year. It can also be described as a financial and/or quantitative statement, prepared and approved prior to a defined period of time of the policy to be pursued during that period for the purpose of attaining that objective.

### 15.2.2 Main Characteristics of a Budget

- a) It is prepared in advance and is derived from the long-term strategy of the hospital or health care organisation.
- b) It focuses on the future i.e., it is future oriented.
- c) It is expressed in quantitative forms, physical or monetary unit or both.

### 15.2.3 How Does a Budget Help Us?

A properly planned and prepared budget helps us in the following ways :

- a) It brings about the efficiency and improvement in the working of the health care organisations.

- b) It is a way of communicating the plans to various units or subunits of the health care organisation by establishing the divisional, departmental, unit or sectional budgets, exact responsibilities for incurring expenditures or generating revenue are assigned. It thus minimises the possibilities of buck passing if budget figures are not met.
- c) It is a way of motivating various heads of health care organization, the departmental or unit heads to achieve the various goals set heads for them
- d) It serves as a benchmark for controlling ongoing operations.
- e) It helps in developing team spirit where participation in budgeting is encouraged.
- f) It helps in reducing wastages and losses by revealing them in time for corrective actions.
- g) It serves as a basis for evaluating the performance of the managers.

---

### 15.3 CLASSIFICATION OF BUDGETS

---

Budgets can be classified in different categories on the basis of time, function or flexibility :

#### 15.3.1 Time Based Budgets

These can be :

- a) Long-term budgets which contain financial estimates over a 3-5 years or even a longer period of time.
- b) Short-term budgets which have implication for one year or lesser duration of time depending over the management philosophy advance will always be there. Immediately after a month or a quarter passes, as the case may be, a new budget is prepared for a twelve month period. The figures for a month or a quarter which have rolled down are dropped and the figures for the next month or the quarter are added.

#### 15.3.2 Function Based Budgets

These can be further sub classified as under :

##### a) Capital Based or Planned Budgets

These are directed towards proposed expenditures for new projects and often require special financing e.g., setting up a MRI unit or CT Scan centre in a hospital providing tertiary level care.

##### b) Operational Budgets or Non-Plan Budgets

These are directed towards achieving short-term operational goals of the organisation. Simply put it should plan operations for the forthcoming period i.e., the finances required for running a particular health care organisation during a defined period of time.

##### c) Cash Budget

This is a summary of health care organisation's expected cash inflows and outflows over a particular period of time. In other words cash budget involves a projection of future cash receipts and cash

disbursements over a period of time intervals. The overall objective of a cash budget is to enable the health care organisation to meet all its commitments in time and at the same time prevent the accumulation of large cash balances with it. A cash budget helps the management in:

- determining the future cash needs of the health care organisation.
- planning for financing for these needs.
- exercising control over cash and liquidity of health care organisation.

**d) Sales or Revenue Budget**

This generally forms the fundamental basis on which all other budgets are built especially in case of the corporate hospitals and private nursing homes/hospitals. The budget is based upon projected revenues or sales that are to be achieved in a budget period. It is desirable to break up the entire sales budget on the basis of different departmental or services and time periods.

**e) Expenditure or Production Cost Budget**

These can be further subdivided into :

- i) Materials requirement budget
- ii) Materials procurement or purchase budget
- iii) Labour or personnel budget
- iv) Overhead including distribution overhead budget
- v) Research budget

All the budgets refer to the expenditure that is likely to be incurred under these various heads for providing health care service facilities to the designated or targeted community by a health care organisation.

**f) Master or Final Budget**

This is a summary budget which incorporates all financial budgets in a capsule form. It sets out plan of operations for all departments in considerable details for the budget period. The budget may take the form of a profit or loss account, fund flow statement and balance sheet at the end of the budget period. The master budget requires the approval of the Budget Committee, about which you will read a little later in this unit, before it is put into operation.

It may happen sometime that a number of master budgets have to be prepared before the final one is agreed upon.

**15.3.3 Flexibility Based Budgets**

**a) Fixed Budget**

A fixed budget is required to remain unchanged irrespective of the level of activity actually attained. In other words a budget prepared based on a standard or a fixed level of activity is called a fixed budget. In relation to a health care organisation which projects that it will be capable of providing appropriate services to say one lakh clientele

in a year, the budgeted requirement will be projected to meet the expenditure involved for catering to one lakh clientele only. Since the budget does not change with the change of level of activity (say one and a half lakh clientele in the aforementioned case), it becomes an unrealistic yardstick in case the level of activity actually attained does not conform to the one assumed for the budgeting purposes. The management will not be able to assess the performance of different departments on the basis of budgets prepared by them, because they can serve as yardsticks only when the actual level of activity corresponds to the budgeted level of activity.

b) Flexible Budgets

This is a budget designed to change with the level of activity actually attained. The budget prepared catering to the budgeted costs for any level of activity is known as flexible budget. For preparation of flexible budgets the fixed and variable elements of cost changes that may have to be expected for each item at various expected levels of operations are arrived at and taken into account. Let us take an example :

An x-ray machine can take out say 10,000 x-rays at 100% capacity with the cost composition of:

Fixed Rs. 5,00,000

Variable Rs. 30 per unit

Semi variable Rs. 40 per unit of which 40% i.e., Rs. 16 per unit is variable and Rs. 24 is fixed.

**Fig 15.1: Flexible Budgets**

<b>Units</b>	<b>8000</b>	<b>9000</b>	<b>10,000</b>
	<b>80%</b>	<b>90%</b>	<b>100%</b>
Fixed Costs	500000	500000	500000
Variable Costs	240000	270000	300000
Semivariable Cost-Fixed (Rs. 24@10000)	240000	240000	240000
Variable (40%) Rs. 16 per unit	128000	144000	160000
<b>Total Cost</b>	<b>1108000</b>	<b>1154000</b>	<b>1200000</b>

Within the range of 80% to 100% the computation has been given. If the increase in the actual level of activity is only 95% the computation of cost for the level of activity is easily possible as given below:

Fixed Cost Rs. 500000

Variable Cost Rs. 285000

Semivariable Cost

Fixed Cost Rs. 240000

Variable Cost Rs. 152000

Rs. 16@9500/unit)

**Total Cost Rs. 1177000**

Thus you can see that in a system of flexible budgets adjustments are provided for varied activity levels. Infact flexible budget is nothing but a series of fixed budgets catering to the estimates of revenues and costs at different activity levels. Based upon the flexible budgets the performance budgets can be prepared indicating revenues and costs for the actual level of activity.

#### **Check your progress-1**

- i. Define budget.
- ii. Describe the importance of budget.
- iii. How we can classify budget?

---

## **15.4 BUDGET PROCEDURE AND ADMINISTRATION**

---

Before we discuss the budget administration and procedure, we must be aware that if any benefits are to accrue out of budgeting, certain prerequisites are mandatory.

### **15.4.1 Prerequisites for Budgeting**

They are :

- Clear identification of financial and service goals.
- A well designed organisation structure that eliminates overlapping responsibility and clearly defines all accountability.
- Participation of the staff members in the formulation of the budget.
- An accurate accounting system capable of accumulating and appropriately assigning all financial data.
- A chart of accounts that corresponds to the organisation structure and allows for the accumulation of actual cost data by cost and responsibility centre.
- A management information system capable of collecting non-financial data relative to total volume of services demanded and per cost centre workload.
- Management determination to make the budgeting process work.

It is critical to recognise that while organisation structures, data and procedures are all necessary, they are all of secondary importance when compared to capable management. Budgeting is fundamentally a people moving as opposed to a paper moving process. If budgeting is to be successful all levels of management must understand its value and limitations, how the budget is to be developed and used and their own specific roles and responsibilities in relation to the budgeted activity/output.

### **15.4.2 Budget Administration**

The following steps are essential for administration :

#### **a) Preparation of Budget Manual**

Since a budget is formulated at the instance of top management, and details provided and compliance ensured by the subordinates, there has to be formal communication between the two. These could be

in the form of oral as well as written instructions. A budget manual is an orderly presentation of these instructions or directives. The work relating to budget manual preparation should be coordinated by the budget officer. The details should be provided by the heads of the operating departments and the final outcome approved by the management. Each subsequent change, thereafter, should be approved by the management.

A budget manual is tailored to fit the needs of each hospital or a group of hospitals or the health care organisations/unit where it is to be used. The contents of a typical budget are outlined below :

- General statement of hospital objectives and budget procedures
- Identification of persons involved in the budget exercise, and definition of their powers, duties, responsibilities and area of their operations
- Routine for departmental budget preparation, their review and approval
- Time schedule for budget preparation
- Procedure for budget revision
- Budget reports
- Performance reviews
- Feedback for future budget planning

**b) Appointment of Budget Officer**

He acts as a coordinator when the budget is being prepared. He reports monthly actual performance comparing it with the budget, analysing the variables between the two by responsibility and cost centre and organises follow up action. The budget officer works under the guidance of the budget committee.

**c) Budget Committee**

The budget committee comprises the heads of the various departments with the chief executive officer or the Director Administration or the Medical Superintendent or the Finance Manager as the chairman. The budget committee has the following responsibilities:

- Identify various opportunities and set goals.
- Set specific targets to be achieved during the course of the year.
- Provides the guidelines for the preparation of the budget.
- Set time table for the completion of the budget exercise.
- Approve the budget of the department and consolidates departmental budgets into a total master budget.
- Review actual performance.
- Establish long-term budgets.

**d) Budget Calendar**

This indicates specific dates for preparing individual parts of the budget, discussing them with the concerned department heads and getting them approved. This ensures that each of the department

receives adequate and appropriate attention and the whole exercise is completed by the due date.

**e) Budget Period**

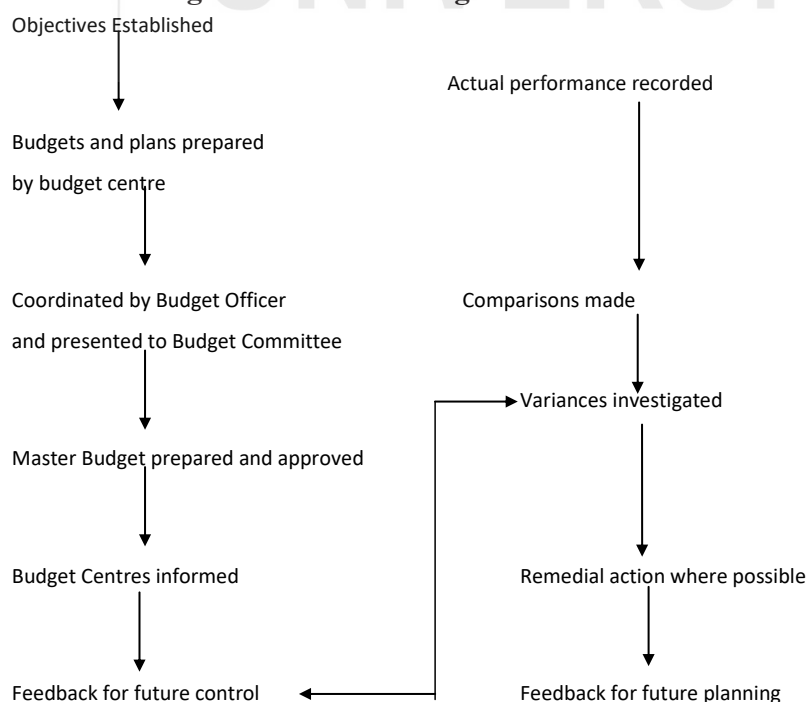
This means the period for which a budget is prepared and employed. Generally the budget period is taken to be a financial year, beginning on April 1st and ending on 31st March. The budget period can however be longer as well as shorter.

**15.4.3 Budget Procedure**

The budget manual lays down the guidelines as well as standard procedures and formats based upon which the departmental heads or budget centre heads prepare the departmental budgets keeping in view the departmental objectives which should be a part of or contribute towards the overall financial and the service objectives of the health care organisation or the hospital.

- The budget officer guides the departmental heads in budget preparation and acts as overall coordinator in the exercise.
- The budget committee receives, reviews and consolidates the departmental budgets into a total master budget, which also incorporates and is supported by important functional budgets viz. purchases, engineering etc.
- After approval of the Master Budget and on the availability of the funds the budget is allocated and appropriated to various departments.
- The performance is then compared with the budgeted allotment and wherever required a midyear review is undertaken and if there are major changes in basic parameters, suitable alterations are made and budgets are revised for the second half of the year.
- The deviations from the budget allocation are analysed and then these variations are kept in mind as a feedback for the future budget planning and control.

**Fig.15.2: Exhibit-Budget Procedure**



#### 15.4.4 Benefits of Budget Procedure

The benefits that accrue from using the budget as a management tool are :

**a) Orderliness in Planning Process**

The main budget is supported by departmental/functional budgets expressed in monetary/quantitative terms based upon use of resources, income and costs. The plans are reduced to specifics to be achieved with provisions for continue review of performance. In the process a kind of orderliness is introduced. It guards against unplanned expenditure and undue optimism.

**b) Decentralisation of Accountability**

Since departmental heads/head of budget centres have been delegated the authority for preparing their budgets, buck passing is avoided.

**c) Performance Appraisal**

The budget provides a yardstick or norms for evaluation of performance.

**d) Coordination**

The key personnel are informed about the health care organisation goals, policies and procedures as well as about the environmental and organisational changes within which the budget is framed and what is expected from the individual manager. This budget exercise serves an important instrument for interpersonal and organisational communication as well.

**e) Creation of a Database**

The exercise results in ready availability of substantial data at one point. For example it could identify departments which need investments or the data provided in the budget detail sheets could be utilised to establish trends for future growths.

After becoming aware of budget administration and budget procedures to be followed we must now determine what are the prevailing techniques or approaches that are being practised or used for budgeting.

---

### 15.5 APPROACHES TO BUDGETING

---

Various organisations use different approaches to budgeting. A few of the approaches being utilised and briefly discussed and described in the subsequent paragraphs.

#### 15.5.1 Incremental Approach

This approach is a commonly used approach by majority of the health care organisations especially by governmental and public health care systems. In this approach the previous years spending level is extrapolated to the next year and incremental estimates for salary and cost of material are made. This level is further incremented to new projects and programmes expected to be undertaken in the following year to arrive at the final requirement.

In the incremental approach only the incremental portion of the previous years allocation are justified, the assumptions made are that all old activities

are essential to achieve objectives, that these must be continued as they are more important than the new programme, that these are being performed in the most cost effective manner and would continue to be in future.

The drawbacks of the incremental budgeting approach are as under :

- a) It analyses only the financial aspects.
- b) Expenditures are not related to the intended or planned outputs (achievements).
- c) It is basically accounting oriented, does not link inputs and outputs and hence there is no information about the activities and their contribution to the objectives of the health care organisations.
- d) In the event of resource crunch, the acts are arbitrary.
- e) It assumes that the cost efficiency of past activities would continue to remain the same in future years.

The incremental budget is thus equated to “an elephant with muscles of a mouse and brains of an amoeba”. Consequently the surgeon does not know where to apply the scalpel to cut out the fat. Administrators feel frustrated as there is no relationship between expenditure and result and it does not provide adequate control over the inputs and outputs. Such a system of budgeting cannot be expected to promote operational efficiency. It may, on the other hand, create several problems for the management. Some of these are :

- Programmes and activities involving wasteful expenditure are not identified, resulting in avoidable financial and other costs.
- Inefficiencies of prior years are carried forward in determining subsequent years level of performance.
- Managers are not encouraged to identify and evaluate alternative means of achieving the same objectives.
- decision making is rendered irrational.
- Key problems and priorities are not established.
- Managers/Administrators tend to inflate their budget requests resulting in more demand for funds than their availability.

In order to correct the shortcomings of traditional or incremental approach to budgeting, performance budgeting was designed by emphasising and incorporating both financial and physical aspects.

### **15.5.2 Performance Budgeting Approach**

The technique was developed and implemented by the US government.

The performance budget lays more stress on accomplishments and generates adequate information on costs and work accomplishments for decision making at appropriate levels.

*Definition* : Performance budgeting may be defined as the process of analysing, identifying, simplifying and crystallizing specific performance objectives of a job to be achieved over a period in the framework of the organisational objectives.

### Main Objectives of Performance Budget

- To coordinate the physical and financial aspects of organisational performance.
- To improve the budget formulation, review and decision making at all levels of management.
- To facilitate better management and review by controlling authorities (Legislative, board of trustees, management boards etc.).
- To make more effective performance audit possible.;
- To measure performance in relation to long-term objectives.

### Essentials of Performance Budgets

- Formulating objectives which should be clearly defined and financially possible.
- Programme/activity classification which should be meaningful and bring out the main purpose. It is required to accomplish and should be in line with the objectives sought to be achieved through the expenditure of budgeted funds.
- Norms and standards setting is essential for establishing correlation between the physical and financial aspects of a programme of activity. The setting of physical targets for accomplishment in respect of each programme activity is mandatory to enable working out of corresponding financial estimate for incorporation in the budget.
- Appropriate norms and standards supported by adequate, data reduce subjective element and increase objectivity in framing and scrutiny of budget estimates.
- Preparation of periodic performance report comparing budget and actual data and showing variance in order to take corrective measure to avoid future deviation from the budget.

### Format for Performance Budget

- a) Introductory : It includes brief narration of the objectives and goals of the organisation in both qualitative and quantitative terms wherever possible.
- b) Financial Requirements :
  - Work programme /activity classification
  - Objective-wise classification of expenditures like salaries, materials etc.
  - Source of financing indicating demand for grants etc.
- c) Explanation of Financial Requirement : It attempts to correlate financial and physical aspects. It is to be prepared activity-wise and it should give to the extent possible workload factors, norms, standards and targets besides indicating the previous years performance and target requirements for input and detailed work plan and Schedule.

These aspects can be formatted as under :

- i) Name of activity Actual (last year) Revised Estimate (current year) Budget estimate (next year)
- ii) Name and purpose of activity
- iii) Physical works, input and outputs
  - Workload factors, norms, standards and yardsticks.
  - Progress during last and current year (Actual Vs Targets)
  - Explanation of variations
  - Targets for next year
  - Requirements for inputs including staff, training, materials and equipment
  - Detailed work plan and schedules.

### 15.5.3 Zero Based Budgeting Approach

The Zero based budgeting approach emerged as a consequence of the following :

- a) A keen desire to ensure that scarce resources are optimally utilised.
- b) Frustrations of the management as there was no relationship with expenditure and results obtained
- c) Adequate control over input was not forthcoming or available.

#### Definition of Zero Based Budgeting

It is a planning and budgeting process which requires each manager to justify the entire budget request in detail from scratch (hence zero base) and shifts the burden of proof to each manager to justify why he should spend any money at all.

In zero based budgeting all activities must be evaluated to see which of them should be eliminated, funded at reduced level or funded at similar or increased level.

#### Objectives of Zero Based Budgeting

- a) To evaluate claims on scarce resources in the light of hospital objectives.
- b) To make tradeoffs amongst current operations, developmental needs, profits and availability of resources.

#### Process of Zero Based Budgeting

The Zero based budget has four basic steps as under :

- a) **Identification of the decision content:** In the first step we have to identify the entities of the health care organisation where the managers would be responsible to take decision Budgeting on the expenditure and would prepare decision package.

A decision unit should not be at too low a level as it would increase the paper work nor it should be at too high a level as this will prevent easy access and meaningful review or dialogue. Generally it may be a unit or a department of the hospital or it may be a project or a programme or a special assignment.

Once the decision unit is identified the zero based system requires an explicit statement of the objective of the decision unit in terms of future mission and long-term goal.

- b) **Formulation of decision package:** Decision package is a document that identifies a specific activity in such a manner that management can evaluate it and rank it against other activities competing for the same or similar limited resources and decide whether to approve or disapprove it . There are two types of decision packages:
- i) *Mutually exclusive decision package:* These identify the alternative ways of performing the same function. The best alternative is chosen and other discarded. The next step is to develop incremental packages.
  - ii) *Incremental decision packages :* This analyses, identifies alternative levels of effort or spending that may be expended on performance of an activity or function. It would identify the minimum level of activity or cost levels of efforts as separate decision packages.

An example would clarify the concept better. Let us take the case of a community hospital where the following activity is identified.

“Provision of ultrasonography facility in the Radiology department for the clientele”. The mutually exclusive package or the alternative ways of achieving the same function could be:

**Package I :** Ultrasonography facility provided by a nearby diagnostic centre which will charge the hospital on the basis of services rendered or on retainer basis.

**Package II :** The hospital management provides an ultrasonography machine within the Radiodiagnosis department of the hospital itself.

Let us assume that management has done a cost-benefit analysis on the two packages and has opted for the second decision package.

The mutually exclusive decision package would require to be complemented by incremental decision package in terms of personnel, equipment and maintenance facilities. Therefore, different levels of efforts or operational efficiency would also have to be identified in terms of whether additional qualified manpower will be required or not and whether maintenance is to be done by operating staff or on the basis of an annual maintenance contract. The, financial implications, the result of financing and the consequences of non-financing at each level of effort will have to be worked out and included in the incremental decision package.

The decision package will generally contain the following items:

- i) General Information : Title or name, level of effort, department, location, manager’s name and to whom reporting.
- ii) Description of the function or the activity
  - Objective or function of the activity
  - Tangible or intangible benefits to be derived from funding
  - Consequences to result from non-funding

- Projected revenues and cost of decision packages
- Alternative approaches or packages.

Following subjects could be beneficially analysed and can be good issues for decision packages viz. cost or profit centres, people or programmes, services rendered or provided, capital expenditures, cost reduction or revenue enhancement.

c) **Ranking the Decision Packages** : This is achieved by :

- Listing all packages identified in order of decreasing benefit to the hospital or the health care organisation.
- Identifying benefit at each level of expenditure.
- Study consequences of not approving the decision package.
- Ranking of more than one decision package on the basis of perceived importance of priority for attaining the objectives.

The ranking is done at all the levels of decision units and continues till the top level, where decision package for the entire organisation are ranked in order of importance and a single consolidated list is produced.

d) **Allocation of Resources**

Once the final single consolidated ranking is done, the packages to be funded are separated from these not to be funded. The activities which are not amenable to zero base budgeting are added and the final budget prepared by allocating forecasted resources. Any increase in funding level can be done easily from the packages available which were discarded due to non-availability of funds. Reduction can be made by removing the low priority packages out of the packages in the event of resource scarcity.

Adequate feedback is also provided to the managers on the reasons for their decision packages being accepted or rejected.

#### **Limitation of Zero Based Budgeting**

- It is less applicable to those cost which have no direct cost benefit relationship.
- Greater amount of time and effort will be required in the initial stages.
- Identification and development of decision packages in case of non-quantifiable or intangible benefits would require a high degree of management expertise.
- There may be greater amount of paper work in zero based budget.

#### **Advantages of Zero Based Budget**

- a) Financial
- i) Better allocation of resources
  - ii) Improves productivity and cost effectiveness
  - iii) Helps in reducing costs

- b) Development of human skill and interpersonal relationship:
  - i) Better communication between various heads and personnels of decision units.
  - ii) Higher level of commitment to approved activities since subordinates are involved in preparing decision packages.
  - iii) Improves interpersonal relationships and esprit de corps.
  - iv) Helps in sharpening of planning and control activities.
  - v) Assists in evaluating the results of activities.

**Note:** Flexible /fixed approach to budgeting has already been discussed in section 3.3.

### Check your progress-2

- i. What are the prerequisites for budgeting?
- ii. List the steps for budget administration.
- iii. List the various approaches to budget.

---

## 15.6 LET US SUM UP

---

A budget is a quantitative statement of plan usually in financial terms covering a specific period of time. It is an important tool for financial planning and focuses on the future. It helps in uncovering inefficiencies in operations, in minimising wasteful expenditure and serves as a basis for education and evaluation of the managers.

The budget can be classified into different categories on the basis of time, or flexibility. The time based budget may be long-term, short-term or rolling budget. The based budget may be planned or unplanned budgets, cash budgets, revenue or expenditure budgets and master or final budget. The flexibility based budget may be fixed or flexible.

Certain pre-requisites are mandatory for process of budgeting. These are a well designed organisational structure, clear identification of financial and service goals, accurate accounting system, participation of staff members in budgetary formulation and commitment of top management.

The budgetary manual, which is tailored to fit the needs of each health care organisation or hospital, lays down the guidelines for budget preparation giving details of powers, duties, responsibilities and areas of operation of each executive or departmental heads in the organisation.

The departmental heads prepare the departmental budgets based upon the guidelines given in the budget manual and are assisted and guided by the budget officer. The budget committee receives, reviews and consolidates the departmental budget into a total master budget which is supported by important functional budgets viz. purchases, personnel, engineering etc.

The budget is prepared and employed for a particular period called the budget period and the budget calendar indicates the specific dates for the preparation and approval of individual parts of the budget. The actual performance against the budgetary outlays are recorded and variances are investigated to serve as future feedback devices for planning of subsequent budget. The budget procedure helps to bring about an orderliness in planning

process, decentralises accountability and assists in fostering communication, coordination, creation of a database as well as in performance appraisal.

There are various techniques available for budgeting. The incremental approach which takes the current level of operations as the basis of estimating the future level of operation suffers from several drawbacks and is gradually being replaced by more modern approach that are more focused on accomplishments or achievements made i.e., performance budgeting. Zero base budgeting is yet another technique that suggests that an organisation should not only make decisions about the proposed new programme but should also form from time to time review the appropriateness of the existing programme. Each programme whether new or existing has to be justified in its entirety each time a new budget is formulated. Zero base budget has the limitation of involving more time, effort and paperwork in the initial stages but its financial and managerial advantages far outweigh its limitations.

---

## 15.7 ANSWERS TO CHECK YOUR PROGRESS

---

### Check your progress-1

i. Define budget.

Budget is a statement of plans expressed in quantitative, usually monetary terms, covering a specific period of time, usually one year.

It can also be described as a financial and/or quantitative statement, prepared and approved prior to a defined period of time of the policy to be pursued during that period for the purpose of attaining that objective.

ii. Describe the importance of budget.

A properly planned and prepared budget helps us in the following ways :

- It brings about the efficiency and improvement in the working of the health care organisations.
- It is a way of communicating the plans to various units or subunits of the health care organisation by establishing the divisional, departmental, unit or sectional budgets, exact responsibilities for incurring expenditures or generating revenue are assigned. It thus minimises the possibilities of buck passing if budget figures are not met.
- It is a way of motivating various heads of health care organization, the departmental or unit heads to achieve the various goals set heads for them
- It serves as a benchmark for controlling ongoing operations.
- It helps in developing team spirit where participation in budgeting is encouraged.
- It helps in reducing wastages and losses by revealing them in time for corrective actions.
- It serves as a basis for evaluating the performance of the managers.

## iii. How we can classify budget?

Budgets can be classified in different categories on the basis of time, function or flexibility :

*Time Based Budgets*

- Long-term budgets which contain financial estimates over a 3-5 years or even a longer period of time.
- Short-term budgets which have implication for one year or lesser duration of time depending over the management philosophy advance will always be there. Immediately after a month or a quarter passes, as the case may be, a new budget is prepared for a twelve month period.

*Function Based Budgets*

These can be further sub classified as under :

- *Capital Based or Planned Budgets*-These are directed towards proposed expenditures for new projects and often require special financing e.g., setting up a MRI unit or CT Scan centre in a hospital providing tertiary level care.
- *Operational Budgets or Non-Plan Budgets*-These are directed towards achieving short-term operational goals of the organisation. Simply put it should plan operations for the forthcoming period i.e., the finances required for running a particular health care organisation during a defined period of time.
- *Cash Budget*-This is a summary of health care organisation's expected cash inflows and outflows over a particular period of time. In other words cash budget involves a projection of future cash receipts and cash disbursements over a period of time intervals.
- *Sales or Revenue Budget*-This generally forms the fundamental basis on which all other budgets are built especially in case of the corporate hospitals and private nursing homes/hospitals. The budget is based upon projected revenues or sales that are to be achieved in a budget period.
- *Expenditure or Production Cost Budget*- the budgets refer to the expenditure that is likely to be incurred under various heads.
- *Master or Final Budget*- This is a summary budget which incorporates all financial budgets in a capsule form. It sets out plan of operations for all departments in considerable details for the budget period.

*Flexibility Based Budgets*

- *Fixed Budget*- A fixed budget is required to remain unchanged irrespective of the level of activity actually attained. In other words a budget prepared based on a standard or a fixed level of activity is called a fixed budget.

*Flexible Budgets*-This is a budget designed to change with the level of activity actually attained. The budget prepared catering to the budgeted costs for any level of activity is known as flexible budget.

**Check your progress-2**

i. What are the prerequisites for budgeting?

They are :

- Clear identification of financial and service goals.
- A well designed organisation structure that eliminates overlapping responsibility and clearly defines all accountability.
- Participation of the staff members in the formulation of the budget.
- An accurate accounting system capable of accumulating and appropriately assigning all financial data.
- A chart of accounts that corresponds to the organisation structure and allows for the accumulation of actual cost data by cost and responsibility centre.
- A management information system capable of collecting non-financial data relative to total volume of services demanded and per cost centre workload.
- Management determination to make the budgeting process work.

ii. List the steps for budget administration.

The following steps are essential for administration :

- *Preparation of Budget Manual*-Since a budget is formulated at the instance of top management, and details provided and compliance ensured by the subordinates, there has to be formal communication between the two. These could be in the form of oral as well as written instructions. A budget manual is an orderly presentation of these instructions or directives.
- *Appointment of Budget Officer*-He acts as a coordinator when the budget is being prepared. He reports monthly actual performance comparing it with the budget, analysing the variables between the two by responsibility and cost centre and organises follow up action. The budget officer works under the guidance of the budget committee.
- *Budget Committee*-The budget committee comprises the heads of the various departments with the chief executive officer or the Director Administration or the Medical Superintendent or the Finance Manager as the chairman.
- *Budget Calendar*-This indicates specific dates for preparing individual parts of the budget, discussing them with the concerned department heads and getting them approved.

- *Budget Period*-This means the period for which a budget is prepared and employed. Generally the budget period is taken to be a financial year, beginning on April 1st and ending on 31st March.
- iii. List the various approaches to budget.
- *Incremental Approach*- In this approach the previous years spending level is extrapolated to the next year and incremental estimates for salary and cost of material are made. This level is further incremented to new projects and programmes expected to be undertaken in the following year to arrive at the final requirement.
  - *Performance Budgeting Approach*- The performance budget lays more stress on accomplishments and generates adequate information on costs and work accomplishments for decision making at appropriate levels.
  - *Zero Based Budgeting*-It is a planning and budgeting process which requires each manager to justify the entire budget request in detail from scratch (hence zero base) and shifts the burden of proof to each manager to justify why he should spend any money at all.



ignou  
THE PEOPLE'S  
UNIVERSITY

---

## UNIT 16 FINANCIAL CONTROL

---

### Structure

#### 16.0 Objectives

#### 16.1 Introduction

#### 16.2 Tools of Financial Control

##### 16.2.1 Budget

##### 16.2.2 Financial Statement Analysis and Control

##### 16.2.3 Cost Analysis and Control

##### 16.2.4 Financial Reports and Information System

##### 16.2.5 Analysis of Hospital Statistics and Cost Control

##### 16.2.6 Cost Containment

#### 16.3 Auditing

##### 16.3.1 Definitions

##### 16.3.2 Scope of Audit

##### 16.3.3 Objectives of Audit

##### 16.3.4 Limitations of Audit

##### 16.3.5 Types of Audit

#### 16.4 Vouching

##### 16.4.1 Definition

##### 16.4.2 Objectives

##### 16.4.3 Vouchers

#### 16.5 Special Points in the Audit of Hospitals

#### 16.6 Audit Objections

#### 16.7 Important Issues for Financial Control in Hospitals (Do's and Don'ts)

#### 16.8 Let Us Sum Up

#### 16.9 Answers to Check Your Progress

---

### 16.0 OBJECTIVES

---

After reading this unit, the student will be able to:

- describe various tools of financial control;
- describe auditing procedures and audit objections; and
- list do's and don'ts in financial management.

---

### 16.1 INTRODUCTION

---

Management control is the process by which the managers ensure that the resources are obtained and used economically to accomplish the organisation's objectives. It includes administrative and accounting controls. Administrative controls refer to the plan of the organisation, procedures and records that form part of decision making process and management's authorisation of specific transactions. Accounting controls ensure that the administrative controls are in their place.

Essential features of a financial control system are: (i) proper accounting system; (ii) existence of standards of performance; and (iii) regular review of actuals with what was planned. Its objectives are (i) income is properly accounted in the hospital accounting records; (ii) expenditure is genuinely incurred for hospitals activities; (iii) its resources are economically used; and (iv) the assets belonging to the hospital are in their physical custody.

For Accounting to be useful and reliable, the following are a must:

- Adoption of mercantile system of accounting (recording of income and expenditure when they occur) instead of cash basis (recognising income and expenditure when actual cash receipts and disbursements take place).
- Recognising depreciation as an item of cost.
- Preparation of Income and Expenditure Statement and Balance Sheet at more frequent intervals, say monthly, soon after the accounting period is over.
- Greater analysis of individual items of income and expenditure in Accounting books.

Hospital costs are rising in an unprecedented manner and there is a gradual realisation to make the services more cost efficient. Good financial management covers financial information, financial advice, cost analysis and cost control. The basic concepts in accounting, types of accounts and their application, account books and their maintenance, cost accounting, elements of costs, financial planning and financing and budgets have already been dealt in the previous chapters. This unit basically deals with the tools of financial controls and auditing.

## **16.2 TOOLS OF FINANCIAL CONTROL**

Some of the relevant tools and strategies for financial controls in hospitals are:

- budget,
- financial analysis and control,
- cost analysis and control,
- financial reports and information system,
- statistical analysis and cost control, and
- cost containment.

### **16.2.1 Budget**

The previous chapter has discussed at length about the definition, types, procedures for preparation, implementation and control of budgets. In spite of the various criticisms and deficiencies cited by various authorities, the financial budget continues to be a potent tool of management and financial control. As such, it acts as both an indirect and direct aid in controlling the operations within the hospital system. It provides the basis for management control by establishing the standard (the expectations) to which actual performance must be compared in order to identify out of control operational processes. It must be recognized that operational control cannot be effective,

unless there is a standard- the budget, against which actual performance can be measured and evaluated. In short the budget control can be achieved through:

- keeping a constant watch over the budget in action,
- continuously reviewing of actuals with the budget,
- analysing deviations in actual performance,
- taking remedial action where indicated,
- revising the budget if conditions warrant.

### 16.2.2 Financial Statement Analysis and Control

This makes extensive use of financial statements such as, income and expenditure, balance sheet and financial ratios such as return on investment, earning per share etc., from the statements and ratios, the financial information, and evaluates the data with respect to liquidity, profitability and potential or actual problem areas and plan the various actions accordingly.

The income and expenditure statement for hospitals, the use of balance sheet and some of the important financial ratios are given below:

#### a) Income and Expenditure Statement

Income and expenditure statement reflects the results of the hospital's operations for a stated period. Only broad classification of accounts is done. Details can be furnished in separate schedules. At times, functional indicators like income and expenditure per inpatient day, income per outpatient, etc. are given, and important statistics like admissions, discharges, fresh outpatients, repeat outpatients, patient days, etc., can also be given.

Usually, outpatient and inpatient income and expenditure are separately accounted. The income and expenditure of various departments are worked out department-wise. This is essential for the purpose of evaluating financial performance of each department, and in determination of costs of providing each service.

Income accrues from various routine medical services, support facilities, donations, grants, bank interest, investment returns, etc.

Record of expenditure for any free of cost or concessional care should be maintained separately. This is necessary to satisfy government authorities or organisations which give grants or subsidy. Cost of free and concessional care is shown as a deduction from the operating income.

Expenditures are incurred for salaries, supplies and materials, electricity, water, telephones, maintenance and contingencies, etc.

From the income and expenditure statements furnished at regular intervals, various rates and ratios can be calculated to ensure department-wise, facility-wise and operation-wise performance. A continuing decrease in incomes under certain heads calls for review of the management strategies of that department and accordingly plan the remedial measures. A continuing increase (disproportionate) in expenditure under different heads calls for evolving cost containment strategies.

There is a growing realisation amongst hospital administrators of the fact that if income and expenditures are continuously monitored, it provides the necessary information at a glance wherein the management controls are to be exercised and corrective measures required to be taken.

## b) Balance Sheet

A balance sheet represents financial position as on a specific date. It is a statement of assets and liabilities. It reflects what the hospital owns and what it owes to others. Only total figures are given against each of the main accounts. Detailed schedules can be annexed if required.

A hospital's assets and liabilities consist of, though, not limited to the following:

### Assets

1) Fixed assets: These are physical assets for long-term intended use.

- Buildings
- Land and grounds
- Plant, machines and equipment
- Furniture
- Vehicles
- Constructions in progress

2) Current assets : They consist of the following:

- Cash in hand and bank
- Short-term deposits and investments
- Accounts receivable
- Other receivables
- Inventory of supplies and materials in stock.

### Liabilities

1) Current liabilities

- Bills/Accounts payable
- Provisions for expenses

2) Long- term liabilities

- Mortgages
- Long-term loans

3) Special funds

- Emergency fund
- Endowment fund
- Training fund

The balance sheet is a cumulative record of the assets, liabilities and owners' equity of an organisation. Whereas the income statement reports on the revenues and expenses of the organisation for a period of time such

as a month or a year, the balance sheet reports on the organisation’s assets, liabilities and owner’s equity at a point in time, namely, the end of business of the last day of the accounting period. Thus, the balance sheet provides a snapshot of the organisation at a single instant, whereas the income statement provides a summary of the revenues and expenses accumulated during the period being reported. This is usually the time since the last financial statements were issued.

The format of the balance sheet follows the fundamental accounting equation:

$$\text{Assets} = \text{liabilities} + \text{owner's equity}.$$

Collectively, the current assets are called the working capital of the organisation. Working capital is used by an organisation for day-to-day operations to turn its capacity, as represented by its non-current assets, into products/services. Working capital management aims at safeguarding and controlling the hospitals’ current assets and planning for sufficient liquidity to pay current bills. Excessive idle cash is identified and invested to earn a return while care is taken to avoid the risk of inadequate cash to pay bills on time.

The major use of the balance sheet as a financial tool is as a statement of an organisation’s financial positions at a given point of time. It shows balances in permanent accounts and the effect of all accounting transactions since the first day of operation. When used in conjunction with income statement various financial ratios can be developed to gain an insight into the liquidity and management aspects of the organisation.

**c) The Statement of Cash flows**

In addition to the income statement and the balance sheet, there is a third major financial statement that must be prepared by investor-owned health care provider that is the statement of cash flow. The statement of cash flow summarises cash flows resulting from the three major management activities such as operations, investments, and financing.

A statement of cash flows for an organisation may be given as:

**Cash flows from operating activities**

Cash received from patients	Rs. 6,000	
Cash paid to suppliers	Rs. 5,000	
Cash paid for operating expenses	Rs. 2,000	
Cash paid for rent in advance	Rs. 3,000	
Net cash provided by operating activities		Rs.4,000

**Cash flows from investing activities**

Payment on note related to equipment purchase	Rs. 25,000	
Net cash used in investing activities		Rs. 25,000

**Cash flows from financing**

Owners' initial investment	Rs. 1,00,000	
Proceeds from long-term debt	Rs. 50,000	
Net cash provided by financing activities		Rs.150,000
Net increase in cash and cash equivalents		Rs. 1,21,0000
Cash and cash equivalents at beginning of year		0
Cash and cash equivalents at end of year		Rs. 121,000

In addition to the actual statement itself, preparers are required to provide two related schedules: (1) Reconciliation of net income to net cash provided by operating activities, and (2) Supplemental schedule of non cash investing and financing activities. In addition, the organisation must present a disclosure of their accounting policies regarding the determination of cash equivalents.

#### d) Financial Analysis

Financial analysis refers to the process of determining the significant operating and financial characteristics of the accounting data. Financial ratios help in financial analysis and are used to locate the symptoms of problems. Once the symptoms have been located, one has to determine the cause of the problem so that remedial measures are planned to correct the situation.

Financial ratios are useful in comparing the performance of different hospitals, different departments within the same hospital, and also in comparing the performance over different periods of time.

From all the financial accounts on the balance sheet, income statement, it is possible to formulate countless ratios. To be successful in financial analysis, the analyst must select only those ratios that provide significant information about the hospital situation.

A ratio expresses the relationship between two numbers, such as net revenues and net expenses. But it is difficult to evaluate a single ratio unless some standard or normative values are available for comparative analysis. The ratios can be useful when a combination of ratios are used to evaluate management performance.

Liquidity ratios and capitalisation ratios focus primarily on the balance sheet, whereas the performance ratios generally use data from the statement of revenue and expenses or income statement. Turnover ratios tend to use data from both balance sheet and income statement. Collectively, the ratios enable management to evaluate the financial condition of the organisation.

#### Liquidity Ratios

Current ratio is the most frequently used liquidity ratio. It relates current assets to current liabilities and is useful in identifying possible short-term liquidity problem. A ratio greater than one is considered to be a sign of prudent liquidity management, for this allows a margin of safety in an organisation's ability to meet its current obligations.

Current ratio = current assets/current liabilities

A high ratio may indicate an excessive amount of current assets and may indicate a failure to properly utilise the resources. Whereas a low ratio is an indicator of the fact that the hospital may not be able to pay its future payments in time.

The quick ratio or acid test is a more precise measure of liquidity than the current ratio because inventories, which are the least liquid of current assets, are excluded from the ratio. Quick ratio (Acid test ratio) =  $\frac{\text{Current Assets} - \text{Inventories}}{\text{Current liabilities}}$

A higher ratio than one indicates that there is excess cash or receivables, both signs of lax management. A low ratio is usually an indication of possible difficulties in prompt payment of future bills.

### Solvency Ratios

Long-term Debt to Fixed Assets =  $\frac{\text{Long-term Debt}}{\text{Net Fixed Assets}}$

Ratio of the proportion of fixed assets financed through long-term debt. The higher the ratio the less relative security perceived by a lender and the more difficult it will be for the hospital to secure future loans.

*Long -term Debt to Equity =  $\frac{\text{Long-term Debt}}{\text{Equity}}$*

Ratio of the two long-term sources of the hospital's financing. As this ratio increases the hospital becomes more highly "leveraged," and its ability to acquire future debt financing is reduced.

*Debt Service =  $\frac{\text{Net Income} + \text{Depreciation}}{\text{Debt Principal Payment} + \text{Interest}}$*

Ratio that measures the ability of the hospital to pay its debt, both principal and interest. The higher this ratio the more secure the lender and the greater the hospital's future debt capacity. This ratio identifies the relationship of debt capacity to earning and cash flow.

Commonly used variations of this ratio are:

*$\frac{\text{Net Income} + \text{Depreciation}}{\text{Interest \&}}$*

*$\frac{\text{Net Income} + \text{Depreciation}}{\text{Total Liabilities}}$*

The first is the measure of the hospital's ability to pay interest expenses and the second is an indicator of the cash available to meet all obligations.

### Activity Ratio

*Total Asset Turnover =  $\frac{\text{Total Revenue}}{\text{Total Assets}}$*

Ratio that is used to indicate the relative efficiency of the use of assets. Typically, high values for this measure are viewed as indicating higher levels of performance. The denominator of this ratio should be net of depreciation. Variations of this ratio include fixed asset turnover and current asset turnover. While these activity ratios can be used as surrogate measures of efficiency, other indexes and factors must also be considered, e.g., occupancy rates, plant age and design, payer mix.

*Inventory Turnover =  $\frac{\text{Total Operating Revenue}}{\text{Inventory}}$*

Ratio that measures the hospital's investment in inventories. Low values typically imply overstocking, an excess investment and an inappropriate use of assets.

## Operating Margin

$$\text{Operating Margin} = \frac{\text{Total Revenue} - \text{Total Expenses}}{\text{Total Revenue}}$$

Ratio of net income to total revenue. It is measure of profitability. Operating margin can be calculated in aggregate as well as for patient care services and non-patient care services (non-operating revenues). In this measure the revenue figures should reflect net revenue, that is, revenue less contractual adjustments.

$$\text{Return on Assets} = \frac{\text{Income} + \text{Interest Expense}}{\text{Total Assets}}$$

Ratio of net income to total investment in the hospital. It is measure of the relationship of operating margin (total revenue - total expense) to the assets, that is, the investment, in the hospital. Interest expense is added back to eliminate bias due to the method of financing the assets. The ratio can also be calculated net of interest expense.

$$\text{Non-operating Income Contribution} = \frac{\text{Non-operating Net Income}}{\text{Net Income}}$$

Ratio of non-patient care services (non-operating) net income to total net income. It provides a measure of the non-importance of non-operating revenues to the hospital's overall financial status. Drawn from both the income statement and the balance sheet. The purpose of operating margin ratio is to provide an indication of how effectively the hospital is making resource deployment decisions. Operating margin ratio also related to liquidity and the hospital's ability to attract and service debt (capital structure), in that as profitability increase so can liquidity and debt capacity. Conversely, as profitability erodes so do liquidity and resulting debt service capacity.

### 16.2.3 Cost Analysis and Control

The aim of cost accounting is to ascertain unit costs with a view to achieve the following objectives:

- Reducing the costs of providing high quality medical services.
- Infusing a sense of accountability amongst the various managerial personnel.
- Providing guidance for the preparation of budgets.
- Assisting management in taking future policy decisions.

One of the significant characteristics of a hospital is that it has a number of specialised departments rendering medical services to the patients, with the support of several ancillary departments. In view of this feature, costs are determined department-wise. Thus, while the financial accounts arrive at the total expenditure of the hospital as a whole, classified under various heads of account, the cost accounts Record the transactions in greater detail with a view to arriving at the total expenditure as well as the unit cost in respect of each ward, department and activity.

The commonly adopted methods for distribution of cost department-wise have already been discussed in the previous units.

### 16.2.4 Financial Reports and Information System

The hospital administrator must be conversant with the financial status on a week to week and month to month basis and in the long perspective. It is the duty of the finance officer to provide reports on financial performance and explain the situation on regular basis to the administrator.

The assessment of end results cannot be possible without accurate data provided on timely basis. Information about the actual outcomes should be available through the management information system in standardised format. Purposeful statistical data collection and reporting are essential for effective financial managerial control. Data processing services generate reports allowing monitoring of revenue and expenses, manpower control and services utilisation.

#### Daily Reports

- Inpatient census, admissions, discharges
- Outpatient visits- new and repeat
- Tests carried out in laboratory, x-ray etc.
- Daily bank and cash position.

#### Monthly Reports

- Monthly statement of income and expenditure with department-wise break-up.
- Budget versus actual cash position- detailed comparison of actual to budget sources and the application of cash.
- Free and concessional care.
- Operating indicators- this includes number of admission, discharge, patient days, outpatient visits, investigations, operation theatre utilisation, etc.

#### Quarterly Reports

- Budget performance of all departments.

#### Yearly Reports

- Balance sheet
- Income and expenditure statement
- Departmental income and expenditure statement
- Cost analysis — cost of services, unit costs.

#### Points of Control

It is impossible for one person to check each and everything. But the following points shall need attention.

- Cash receipt and payments
- Purchases, consumption and inventory of consumables
- Patient billing
- Assets accounting
- Accounts payable

- Accounts receivable
- Accounting of scrap
- Accounting of packing material
- Vehicles
- Utilisation of plant, machinery and equipment
- Payroll
- Missing charges and un-collectable patient accounts

### Check your progress-1

1. List the objectives of financial control system.
2. What are the essential features of a financial control system?
3. List the tools for financial control system.
4. Describe how budget can act as tool for financial control?
5. What is Financial Statement Analysis and Control?
6. List the aims of Cost Analysis and Control.
7. List various types of Financial Reports and Information System.

### 16.2.5 Analysis of Hospital Statistics and Cost Control

The aim of analysis of hospital statistics and control is to achieve improvements in the utilisation of the following resources:

- Manpower
- Bed capacity
- Plant and equipment
- Stores and supplies

The key statistics in a hospital is the 'patient day' which may be defined as the number of patients to whom lodging and other services have been provided in the hospital between two successive census taking, hours. The 'patient day' is a key statistic as it is used for computing the cost per patient day, which facilitates the evaluation of the performance of the hospital.

The cost per patient-day is the key financial statistic used for the evaluation of hospital performance as a whole, as well as the performance of individual departments. The cost per patient-day or bed-day for the hospital as a whole is ascertained by employing the following formula:

$$\text{Total expense in rupees} \div \text{Total number of patient-days}$$

For ascertaining the cost per patient day or daily bed cost for an individual department, the following formula may be used:

$$\text{Total departmental cost} \div \text{Number of patient-days of the department}$$

If the data pertaining to patient-days are compiled class-wise, it would be possible to arrive at the class-wise per bed/per day expenses.

*The Hospital census: The total number of in-patient occupying beds in the hospital at the census-taking hour denotes the hospital in-patient census.*

The average daily census is derived by using the following formula:

*Number of patient-days during the period* / *Number of calendar days during the period*

**Percentage of occupancy:** This is calculated by using the following formula:

$$\text{Patient Days} \div \text{Bed Days} \times 100$$

The percentage of occupancy is useful from the following points of view:

Deciding about future expansion, which would be further facilitated if a record is maintained of the number of admission refused.

### **Measuring the utilisation pattern of hospital capacity**

The endeavour of the hospital should be to maintain a uniform level of occupancy over a period of time, since a low level of occupancy would raise the daily operating cost as a substantial part of its expenses, in the form of payroll expenses, would be fixed.

**Average length of stay:** This is calculated by using the following formula:

$$\frac{\text{Total number of patient-days during a period}}{\text{Total number of discharges and deaths during the period}}$$

A comparison of the average length of stay per patient over a period of time or with other hospitals is very useful as it may reveal, for example, that patients are spending more time in the hospital than required thereby causing an insufficiency of bed capacity. The concept of average length of stay is obviously very important in a country like India, where the demand for hospital services is always much greater than the availability of the same.

Other statistical performance indicators:

- Number of patients treated per available bed.
- Staff per in-patient case (divided into principal categories of staff).
- Theatre sessions per bed.
- Energy (power) used per air-conditioned volume.

The various statistics mentioned in the foregoing paragraphs may be studied by means of trend analysis. The trend analysis usually commences with an analysis of the 'Cost per patient-day'. After ascertaining the trend in the cost per patient-day, trend in the secondary ratios may be studied in order to ascertain the causes that influenced the trend in the primary ratio (that is, the cost per patient-day). Such a trend analysis may be carried out by graphing the ratios over a period of time.

### **Check your progress-2**

1. What is the aim of analysis of hospital statistics and control ?
2. Define 'patient day', The Hospital census.
3. iii. Write the formula for calculating cost per patient-day or bed-day for hospital, individual department, average daily census, bed occupancy, Average length of stay.

### **16.2.6 Cost Containment**

With the changing technology and clientele attitudes towards better and modernised services, the nineties have witnessed an unprecedented rise in

various costs in health institutions. As on day, every type of hospital and health care institution is concerned over the rising cost of patient care.

**The key to success in cost containment lies in cost awareness, cost monitoring and cost management.**

No cost control programme can be implemented in absence of adequate data on costs incurred. A good integrated hospital information system, personnel data and quality control is a basic requirement for effective cost control activities.

It is generally expected that hospital costs could be contained with the following approaches, which may directly or indirectly influence the costs and efficiency in hospital functioning. These are:

- Creation of cost consciousness amongst functionaries of the hospital.
- Rationalisation of staffing patterns of the hospitals.
- Instituting a department-wise quarterly budget variance report to review actual to budget comparison and pinpoint problem areas.
- Computerisation of patient accounting and administrative records.
- Proper forecasting of materials, group purchases, inventory control, standardisation and value analysis in a scientific materials management.
- Preventive maintenance of buildings and equipment.
- Shutting down electricity, air conditioners, etc. when not required.
- Eliminating wastage and pilferage.
- Cost effective planning of facilities and services
- Information booklets should be supplied to all functionaries giving details about the costing of services.
- Introduction of multipurpose workers to take up various semi-skilled/unskilled jobs.
- Contractual services for security, housekeeping, laundry, CSSD, ambulances etc.
- Approaches like day care surgery, camp approach and quality management be practised.
- Proper training of staff in professional management for cost effective services.
- Management information system in hospital should aim at cost effectiveness.
- Norms and standards of staffing and equipment should be formulated based on work studies. Periodic evaluation of different activities of the hospital along with medical audit will help in cost containment and efficiency in services.
- Privatisation of certain hospital services specially those which are underutilised
- Physicians are the key persons to reduce costs through;
  - ✓ cutting down length of stay.

- ✓ cutting down unnecessary investigations
- ✓ cutting down unnecessary drugs and therapies
- ✓ economise the use of hospital supplies, facilities and manpower.

---

## 16.3 AUDITING

---

Audit is by and large a post verification based on records. The transactions appearing in accounts are judged against predetermined rules, regulations, norms, and standards.

### 16.3.1 Definitions

- *Montgomery*: Auditing is a systematic examination of the books and records of a business or other organisation, in order to ascertain or verify and to report upon the facts regarding its financial operation and the result thereof.
- *Lawrence R. Dicksee*: An audit is an examination of accounting records undertaken with a view to establishing whether they correctly and completely reflect the transactions to which they relate. In some instances, it may be necessary to ascertain whether the transactions themselves are supported by the authority.
- *M.L. Shandilya*: Auditing may be defined as inspecting, comparing, checking, reviewing, vouching, ascertaining, examining and verifying the books of accounts of a business concern with a view to have a correct and true idea of its financial state of affairs.

### 16.3.2 Scope of Audit

- To check the arithmetical accuracy of the accounts.
- To check the books of accounts with the help of all the relevant vouchers, invoices, correspondence, minute books, etc.
- To verify the assets and liabilities shown in the balance sheet,
- To report to the client on the basis of his findings.

### 16.3.3 Objectives of Audit

- Ensuring the correctness and completeness of accounts.
- Ensuring regulations of expenditure by examination of accounts.
- Looking into the honesty of financial transactions to detect errors and frauds.
- Ensuring that the funds expended by institution have produced the desired results.

### 16.3.4 Limitations of Audit

Auditor has nothing more to do than merely checking, ticking, totaling and vouching the books of accounts. The ultimate object is to detect clerical errors pertaining to the accounts.

Since the audits are based on available documents and are post facto appraisals, the circumstances of the transactions and the market conditions cannot be verified by the auditor. An auditor is to act as a watchdog on verification of statements and transactions.

Until and unless the auditor is familiar with modern changes and the technical nature of hospital job, he cannot perform his functions with ability and prudence. To perform effective audit work, coordination between hospital functionaries and auditors is very essential.

### 16.3.5 Types of Audit

The audits may be of two main categories, i.e.,

- According to the organisational structure of the undertaking.
- From practical point of view.

#### According to Organisational Structure of the Undertaking

##### i) *Statutory Audit*

It is made compulsory as per statute. Joint Stock Companies, Trusts and other corporate bodies such as Insurance Companies, Banks, Reserve Bank of India, Industrial Finance Corporation, Cooperative Societies, etc. fall under the category.

##### ii) *Private Audit*

The audit of the accounts of sole traders, partnership firms, individual institutions which are private in character get their accounts verified by some qualified auditors. Such an audit is not required by statute.

##### iii) *Government Audit*

The government maintains a separate department in the name of Accounts and Audit Department, which performs the audit of its different departments and offices. This department is headed by The Comptroller and Auditor-General of India who is assisted by different officials at various levels.

The duties and liabilities of such auditors are not defined by statute. They are not public auditors and hence, cannot be appointed auditors for public concerns. They are meant for government departments and as such, they work according to the departmental rules and instructions.

They check the sanction and expenditures, bookings, stock takings, etc. as rules and regulations laid down by the government.

##### iv) *Internal Audit*

The Institute of Internal Auditors has defined internal audit as given below:

“Internal auditing is the independent appraisal activity within the organisation for the review of the accounting, financial and other operations as a basis for protective and constructive service to the management. It is a type of control, which functions by measuring and evaluating the effectiveness of other types of controls. It deals primarily with matters of an operating nature”.

Internal audit is the examination of books of accounts, which is conducted by the salaried officials of a business concern known as internal auditors throughout the year. The scope of internal audit is a bit different. It is more closely related to managerial functions

than to accounting duties. When an outside auditor would ensure after scrutiny of accounts that such records are correct and are being maintained in conformity with the relevant law, an internal auditor, besides doing so, would see that the work of the business is going on smoothly, efficiently and economically. Internal audit is, thus, an independent appraisal of activity within an organisation for reviewing the accounting, financial and other operations. It renders a productive and constructive service to management.

**From Practical Point of View**

**i) *Continuous Audit***

A continuous audit is an audit that involves the conducting of audit of accounts throughout the year at regular intervals, fixed or otherwise, say, one month or more months. The accounts in such a case are subjected to audit as and when they are prepared. An auditor in continuous audit pays visits at regular or irregular intervals all the year round and examines the accounts. Such an audit is necessary only for big business houses and not for small ones where accounts can be audited at the close of the financial year when they are ready.

**ii) *Annual or Periodical or Final Audit***

Annual or periodical audit is done at the close of the financial or trading period when final accounts are prepared. In such a case, the auditor visits his client only once a year and checks the accounts in one visit till he is not in a position to cover the accounts pertaining to the whole of the period.

**iii) *Cash Audit***

In cash audit, the auditor is concerned with the checking of cash transactions. He has to audit entries pertaining to cash receipts and payments with the help of relevant vouchers. Since his work is done under such restrictions and limitations, he submits his report accordingly. He can mention the fact in his report.

**iv) *Cost Audit***

Cost audit is performed in some special circumstances but the purpose behind such an audit is to verify the cost accounts so as to ensure how far cost accounting plans have been adhered to.

**v) *Complete Audit***

When an auditor is appointed to check each and every transaction, total, balance, book of accounts with the help of the relevant vouchers, documents, correspondence, etc., it is said to be complete audit. Under complete audit, nothing is to be left from checking by an auditor. But complete audit is neither practicable nor feasible.

**vi) *Partial Audit***

In the case of complete audit, all the records and books of accounts are subjected to audit by the auditor but when audit is conducted on some of the records and books of a part or whole of the period, it is called partial audit. Partial audit may relate to some part of the work

for some or whole of the trading period. Partial audit is not practicable again.

vii) *Management Audit*

It is an audit conducted to examine all aspects of management of the organisation. Improvement in efficiency and maximum utilisation of resources of the organisation are the tools for its success. The management auditor has to evaluate the overall performance which include account books too and he has to submit a report stating whether the predetermined targets and objectives have been achieved or not. It is related to the process, of management. Thus this type of audit is connected with every aspect and helps in improving performance.

viii) *Propriety Audit*

During a propriety audit the auditors try to bring cases of improper or avoidable expenditure even though the expenditure may have been incurred in conformity with existing rules and regulations. Though a transaction may satisfy all the requirements of regulatory audit but as far as formalities regarding rules and regulations are concerned it may still be highly wasteful.

ix) *Performance Audit*

The focus of performance audit is to ensure whether the results achieved have been commensurate with the expenditure of resources. It is also called efficiency audit or operational audit. The basic aim being determination of efficient use of resources.

**Check your progress-3**

1. What is Cost Containment?
2. List the means for Cost Containment in a hospital.
3. Define audit.
4. List the scope & objectives of audit.
5. What are the types of audit according to organisational structure of the undertaking?

---

## 16.4 VOUCHING

---

We all know that the accountant does not enter any transaction in the books of original entry for which he has not got proper documentary evidence. If he does, it is an irregularity in the strict sense of the term and such a step of the accountant would be an example of fraud leading to some manipulation of accounts or misappropriation of cash or goods. Hence, there should be no entry in the books without a voucher and no voucher without its entry. Every voucher must also, therefore, be recorded in the books.

Thus, when an auditor verifies the authority and authenticity of transactions as recorded in the books of accounts and submits his report accordingly to the effect that the accountants are correct, complete and free from errors and fraud, he has to see that the entries passed in the books of prime entry are properly made, are supported by proper documentary evidence and are also in order. This is known as vouching.

### 16.4.1 Definition

“Vouching does not mean merely inspection of receipts with the cash books, but includes the examination of receipts with the transactions of a business, together with documentary and other evidence of sufficient validity to satisfy an auditor that such transactions are in order, have been properly authorized and are correctly recorded in the books.”- De Paula

### 16.4.2 Objectives

In vouching an auditor verifies the authority and authenticity of transactions as recorded in the financial books so that he can satisfy himself that:

- all transactions connected with the business have been recorded in the books of accounts and nothing pertaining to the business has been left as unrecorded;
- no transaction which is not connected with the business has been recorded, i.e., no extra item having no concern with the business has been entered in the books; and
- all entries for transactions, which are authorized, are genuine and supported by documentary evidences, which are available in the business.

The basic purpose of checking entries by reference to appropriate documentary evidence is to ensure that the transactions relating to a particular period have been recorded and there is no voucher left unrecorded in the financial books. Only after verifying the vouchers, the auditor can be sure of the genuineness of various financial statements. That is why vouching is said to be the backbone of auditing.

### 16.4.3 Vouchers

Vouchers are the documentary or other evidence in support of transactions entered in the books of accounts. They may be of two types:

- **Primary:** A written evidence in original is said to be the primary voucher, e.g., invoice for a purchase.
- **Collateral:** When the original voucher is not available, copies thereof are produced in support or subsidiary evidence is made available so as to remove suspicious and to satisfy the auditor. Such a voucher is usually known as a collateral voucher.

The correspondence, contracts, documents, receipts, invoices, bills, minute books for recording resolutions or any other similar document are vouchers, which are quoted wherever necessary.

While examining vouchers the following points should be noted by the auditor:

#### General

- All vouchers are serially numbered.
- The vouchers that have been examined/verified by auditors are cancelled.
- The entry of vouchers relates to particular record and that relevant entry is checked by auditor in respective books of accounts.

- As far as possible, the work relating to particular period should be finished in continuous sitting.
- The auditor should see that each and every voucher has been certified as correct by a responsible officer and his signature put on it.
- For missing vouchers, duplicates are verified by exercising due care.
- While examining vouchers, the auditor should see that they are properly entered in the proper financial books. Sometimes, proper allocation of items is not made between capital and revenue. This should invariably be done to maintain correct record and ensure faultless final accounts.
- Test checking should be resorted to only in special circumstances when the auditor is satisfied with the internal check system in operation, otherwise detailed checking should be done. After all, absolute responsibility is his.

#### **Particular (i.e., relating to the voucher itself)**

- The date, amount and name of the client should be carefully examined.
- The relevance of voucher to the business itself, i.e., goods purchased and expenses incurred during that particular period.
- The vouchers should be on printed forms of the payee and amount should be written in words and figures.
- If the voucher relates to cash payment above Rs. 500/-, it must have a revenue stamp of Rs.1/-.
- Every voucher should be signed by some responsible officer on behalf of the payee.
- The contents of a voucher should be examined with references to the particulars of the relevant entry so as to ensure that they tally as regards to the amount, date, etc.
- It has to be remembered that if some alteration is made in the voucher, it is properly initiated by the invoice clerk.

Thus, it will be seen that while comparing vouchers with the entries made in the books of account, the auditor should be able to verify the following:

- The authority of the voucher;
- The authenticity of a transaction;
- The proper classification of the account; and
- The accuracy of the amount and correctness of the details connected with an entry.

To carry on the function of vouching the auditor has to be familiar with various functions and forms of the different organisations. Since the amount of transactions in the organisations is on increase, mechanised accounting machines are used to facilitate and provide mechanism to apply controls and checks. The mechanised system has its advantage and disadvantages and the auditor has to keep himself fully conversant about the issues involved.

---

## 16.5 SPECIAL POINTS IN THE AUDIT OF HOSPITALS

---

The activities of a hospital are fundamentally different from those of any other organisation. It is, therefore, necessary to follow a specially tailored audit programme.

The auditor should examine the documents relating to the constitution of the hospital and ensure that the provisions relating to accounts and audit, incorporated therein, have been duly complied with. He should also ensure that the acquisition and disposal of fixed assets and investments, the engagement of personnel and other matters which affect substantially the finances of the hospital are properly authorized by the governing body and appropriately recorded in the Minutes Book. He should also examine the contracts and agreements affecting finance and accounting substantially.

In view of the uniqueness of the activities of a hospital, comparison of the financial figures of two periods may not necessarily be valid. Thus, the auditor cannot too much reliance on the comparative figures of two years for detecting internal irregularities, though such a comparison can certainly guide the auditor in identifying the areas where should spend more time on verifying the figures.

A hospital does not sell a commodity, but renders a service by allowing the use of beds and other specialised facilities. The control of the occupancy of such beds and the use of the special services is not easy, but is nevertheless very important. The auditor must satisfy himself that all services rendered are billed and that all bills have been recorded in the accounts correctly. For this the auditor must refer to the Bed Occupancy Summary, the Daily Admissions and Discharges Summary, the Housekeeper's Report, the Daily Summaries of Special Services Charges and the Patients' Fee Journal. If the figures appearing in the foregoing reports/records do not tally, the differences should be investigated. The auditor should make use of the statistical information compiled by the hospital for performing overall tests of revenue.

The auditor must ensure that the system of recording transactions is prompt. This is necessary because a patient may be discharged at any time and if the billing is not prompt, charges for some of the services rendered may remain uncovered. The auditor should, therefore, carefully examine the system of raising bills and test check the bills raised by referring to the Admissions and Discharges Register, the Departmental bills for Special Services and the hospital's schedule of rates. In the case of patients to whom free medical care has been provided, the auditor should ensure that this has been done in accordance with the relevant rules and regulations.

If discounts are allowed to patients, the same should be recorded separately and the revenue should be recorded at the gross figure. The auditor should examine the internal controls in respect of such allowances, which may be in the nature of charity allowances, policy discounts to employees and others, and contractual adjustments with, for example, insurance companies. The authority to allow discounts should be vested in persons who are not connected with the cash and billing functions.

The auditor should see that items 'paid-out' on account of patients are properly charged up to them and have been duly collected.

The procedures for the receipt and acknowledgement of gifts and donations should be examined.

The amounts received by way of grants should be verified by the auditor with reference to the relevant correspondence with the government /local authority and also the statutory rules relating to such grant-in-aid.

The auditor must ensure that adequate control procedures are in effect in respect of free drugs, food and other items received by the hospital.

As regards investments, the auditor should make inquiries in respect of the following matters:

- Whether the investments are made in accordance with the relevant gift deeds.
- Whether there has been any permanent fall in value of investments.
- Whether a proper procedure exists for recording investments received as gifts.

Most medicines have an 'expiry date'. The physical issue of stock should, therefore, be on a 'First-in, First-out' basis.

Cash transactions constitute a large proportion of a hospital's activities and, therefore, the auditor must pay considerable attention to the same. He must ensure that all receipts are accounted for and that all payments are properly authorized. Surprise cash counts should be conducted and bank reconciliation statements should be checked thoroughly. Internal controls in respect of all the cash collection points should be reviewed.

In respect of fund balances, the description, classification and utilization of such balances should be reviewed by the auditors in the light of the available documentary evidence. The transfers of amounts between funds should be in accordance with donor's instructions and should be appropriately authorized by the governing body of the hospital. The incomes from the related investments should be appropriately accounted for.

---

## 16.6 AUDIT OBJECTIONS

---

In the performance of various audits, certain lapses or irregularities are likely to be noticed by the auditors. A detailed para-wise report is furnished to the management to explain the lapses or to fix up responsibility on erring officials (if it is so), so that corrective measures are taken and procedures streamlined for future. The common audit objections relate to:

- The cash in hand may not tally with entries in cash book and other supportive documents.
- The expenditure incurred on any activity may not have the sanction of competent authority.
- The entries in various account books and payments made may not be supported by vouchers.
- Entries in the stock book may not tally with inspection note of goods received.

- The principle of separation i.e. separate authorities as prescribed for handling cash and stores, etc. may not be followed.
- Records of distribution of drugs and other goods may not tally.
- Proper accounting procedures and entries may not have been observed indicating certain misappropriations or frauds.
- The expenditure is not done as per allocation under different budgetary heads and as per delegation of powers.
- Normal purchase procedures are avoided by making repeated local purchases/split purchases.
- The various documents like vouchers, account books, stock books, etc. are not serially numbered.
- Payment of third party is not made as per prescribed procedures of cash is paid instead of cheque, wherever so prescribed.
- Vouchers are missing and there are no collateral documents to support expenditures.
- There may be unsigned vouchers or alterations in vouchers that have not been initiated/alterd.
- The prescribed procedure for purchase of articles (as per general financial rule/prescribed rule) has been violated.
- On physical verification of stocks shortage/surplus stocks are found.
- The medicines have expired or expired medicines are issued.
- Tender conditions with regard to submission of earnest money, samples or certificates as required are flouted.
- Items are not been issued against a proper indent from an authorized authority.
- The prescribed procedures for placement of supply orders, the risk purchases penalty to be imposed if any have not been followed.
- Condemnation of articles has not been approved by the competent authority.

In short wherever the auditors observe that the procedure followed does not confirm to the laid down procedures, rules and regulations, an audit objection shall be raised for submitting explanation/reply/fixation of responsibility, as the case may be.

---

### **16.7 IMPORTANT ISSUES FOR FINANCIAL CONTROL IN HOSPITALS (DO'S AND DON'TS)**

---

- 1) It is necessary to ensure that all cash receivable is in fact received and properly banked. Cash payments should also be made in right amounts and under proper authority.
- 2) Assets such as drugs, medical and surgical supplies and food must be adequately protected and appropriately preserved from pilferage, spoilage, wastage, destruction, etc. Suitable measures have to

be adopted for the preservation of assets such as linen, sheets and blankets, cutlery and crockery, etc.

- 3) Management information should indicate the economy and efficiency with which operations have been carried out and scarce resources utilized, so that optimum utilization of such resources can be achieved. It should provide adequate financial, statistical and costing information to facilitate proper analysis so that steps can be taken to improve performance, increase productivity and control costs.
- 4) The clerical accounting functions relating to the recording of indices, purchase bills, expense bills, cash and bank transactions, ledgers and inventory movements should be taken over by the computer.
- 5) No formal accounting entries are required to be passed in respect of Stores Requisitions. Entries will, however, be made in the Stores Ledger.
- 6) No formal accounting entries are required to be passed in respect of Stores Returned Notes.
- 7) The purchase of inventories and receipt of the same should be under the charge of different employees, whose duties should not overlap.
- 8) Similarly, the duties of receiving the inventories and the subsequent custody (storekeeping) of the same should be assigned to different persons.
- 9) Physical stock-taking should be carried out at regular intervals by employees who are not in charge of the inventory.
- 10) Inventories should be physically controlled by using appropriate locks, keys and guards and issues should be made only against proper authorization.
- 11) All documents should be pre-numbered in order to ensure their physical control.
- 12) The physically taken inventory should be compared with the inventory as per the records and an 'excess/shortage' statement should be prepared and reviewed critically.
- 13) Review procedures should be laid down to ensure that transactions are recorded in the proper period.
- 14) The values of materials received, as appearing in the stores records, should be periodically cross verified and reconciled with the corresponding purchase accounts appearing in the financial records.
- 15) Invoices should be reviewed as to services received, prices, extensions and castings by personnel who are independent of the purchasing function. Personnel holding responsible positions in the Accounts Department should grant final approval of invoices. Such approval should be granted only after it has been ensured that the required clerical work of checking and comparison has been properly performed.
- 16) Bills for Special Services should be cross checked with Special Services Requisition Forms in order to ensure that the special services

departments have in fact prepared bills for all the services rendered by them.

- 17) As regards cash receipts, the following safe-guards are recommended:
  - i) The cashier who receives cash physically should not be involved, in any way with the records relating to such cash transactions. The preparation of bank deposit slips, the banking of cash and the writing of the cash book and ledgers should be done by persons other than the receiving cashier.
  - ii) The cashier who receives cash should not be authorized to make any disbursements other than the refund of patients' deposits. The cash received should be deposited intact into the bank on the following day.
  - iii) All cash received should be first entered in a remittance book as soon as such cash is received.
  - iv) Inward mail should be opened by a person other than the receiving cashier or the person(s) responsible for writing up the ledger.
- 18) As regards cash disbursements, the following safeguards are recommended:
  - i) All cheques should have proper supporting documents duly authorized.
  - ii) When the cheque is prepared, the supporting documents should be stamped 'PAID', so that payment is not made more than once.
  - iii) All cheques should be signed by at least two responsible officers, who should also initial the cheque counterfoils.
  - iv) Cancelled cheques should be retained for the inspection by the auditors.
  - v) Cheques should be mailed directly to the payees in order to ensure that the payees and only the payees receive the disbursement.
  - vi) Only petty cash disbursements should be made in cash. All other disbursements should be made by cheque.
- 19) The office procedures should be so arranged that it should not be possible to defalcate cash without the collusion of two or more employees.
- 20) The record forms such as cash receipts, bank deposit slips, cheques and petty cash vouchers should be pre-numbered.
- 21) Bank statements, which serve as external evidence, should be reconciled every month with the Bank Book. Such reconciliation should be done by a person other than the cashier or the person responsible for writing the cash records.
- 22) In the cash receipts and payment journals, the totals of the vertical columns should be cross checked horizontally.

- 23) The balance appearing in the Patients' Account in the general ledger should be tallied with the total of the individual balances appearing in \*the accounts receivable ledger. Likewise, the balance appearing in the accounts, payable control account appearing in the general ledger should be tallied with the total of the individual balances appearing in the corresponding subsidiary ledger.
- 24) To exercise internal control for capital expenditures in hospitals, following safeguards are recommended:
- i) Capital expenditure budgets should be prepared annually.
  - ii) Written authorization should be required for incurring capital expenditure. Such authority should be restricted to specified officials, whose authority limits should be clearly defined.
  - iii) Supplementary authorization should be required if the actual expenditure exceeds the sanctioned limits.
  - iv) The purchase and receipts of capital items should be subjected to the same procedure as are applicable in case of supplies.
  - v) Procedures should be established for the recording of movement of capital items from one location to another.
  - vi) The authority for the selling/scrapping of capital items should be restricted to specified officials, whose authority limits should be clearly defined.
  - vii) Detailed memorandum records in respect of fixed assets should be maintained.
  - viii) All fixed assets should be verified periodically. A written procedure should be laid down for this purpose.
  - ix) Care should be taken to ensure that all fixed assets are adequately insured.
  - x) Capital work undertaken by the hospital itself should be monitored by preparing "A Capital Expenditure Status Report".
- 25) The investment ledger should be reviewed periodically and a statement should be prepared to ensure that all investment income has been received on the due dates.
- 26) To properly manage the budget,
- a) The hospitals' performance should be progressively monitored during the course of the budget year.
  - b) Continuous surveillance would enable management to
    - i) ensure that the actual expenditure is in accordance with the approved budget allocation.
    - ii) ensure that the actual expenditure is within the budget limits.
    - iii) take appropriate corrective action, if possible.
    - iv) use the residual budgeted funds with due economy.

#### Check your progress-4

1. Define Vouching
2. List objectives of Vouching
3. What are Vouchers?
4. List the common audit objections.

---

### 16.8 LET US SUM UP

---

Rising costs are posing a constant challenge to hospital administrators. Hospitals being a service industry, the element of public accountability demands that the limited resources are utilized in the best possible way. In spite of the fact that the value of human life cannot be measured in financial terms, the various operations of the hospitals cannot be planned in manner to maximize the use of available resources. To maximize the use of financial and other resources, requires creation of cost-consciousness, cost monitoring and cost management by the functionaries at all levels.

The chapter has focussed attention of the upcoming administrators to the basic tool of financial control that should be exercised during various operations in hospital management. The importance of certain important techniques like budget, financial statements, cost analysis, information system in finance and use of statistical reports and analysis to improve day to day performance have been discussed. A number of steps have been suggested to contain cost without sacrificing the quality of services. The integration of various tools and techniques is required to achieve the desired objectives as the emphasis on isolated activities is unlikely to yield any results.

Auditing as a tool of retrospective analysis of various financial transactions and procedures is essential to provide clues for future management of hospital activities. The basic philosophy of auditing rests with correcting the procedural errors and learn from our mistakes to ensure better forecasting, budgeting and performance of financial activities. The common audit objections raised in hospital functioning have been discussed to familiarize the students with the common types of errors in various financial operations and so as to take necessary corrective measures.

The issues related to financial transactions, proper use of assets, optimization of the use of available resources, inventory management, documentation of various activities, office procedures, internal controls for capital expenditures in hospitals, proper management of budget, etc. have dealt as do's and don'ts in financial control in hospitals.

---

### 16.9 ANSWERS TO CHECK YOUR PROGRESS

---

#### Check your progress-1

1. List the objectives of financial control system .  
Its objectives are
  - income is properly accounted in the hospital accounting records;
  - expenditure is genuinely incurred for hospitals activities;

- its resources are economically used; and
- the assets belonging to the hospital are in their physical custody.

2. What are the essential features of a financial control system?

Essential features of a financial control system are:

- proper accounting system;
- existence of standards of performance; and
- regular review of actuals with what was planned.

3. List the tools for financial control system.

Some of the relevant tools and strategies for financial controls in hospitals are:

- budget,
- financial analysis and control,
- cost analysis and control,
- financial reports and information system,
- statistical analysis and cost control, and
- cost containment.

4. Describe how budget can act as tool for financial control?

The budget control can be achieved through:

- keeping a constant watch over the budget in action,
- continuously reviewing of actuals with the budget,
- analysing deviations in actual performance,
- taking remedial action where indicated,
- revising the budget if conditions warrant.

5. What is Financial Statement Analysis and Control?

This makes extensive use of financial statements such as, income and expenditure, balance sheet and financial ratios such as return on investment, earning per share etc., from the statements and ratios, the financial information, and evaluates the data with respect to liquidity, profitability and potential or actual problem areas and plan the various actions accordingly.

6. List the aims of Cost Analysis and Control.

The aim of cost accounting is to ascertain unit costs with a view to achieve the following objectives:

- Reducing the costs of providing high quality medical services.
- Infusing a sense of accountability amongst the various managerial personnel.
- Providing guidance for the preparation of budgets.
- Assisting management in taking future policy decisions.

7. List various types of Financial Reports and Information System.

The hospital administrator must be conversant with the reports on financial performance such as:

*Daily Reports*

- Inpatient census, admissions, discharges
- Outpatient visits- new and repeat
- Tests carried out in laboratory, x-ray etc.
- Daily bank and cash position.

*Monthly Reports*

- Monthly statement of income and expenditure with department-wise break-up.
- Budget versus actual cash position- detailed comparison of actual to budget sources and the application of cash.
- Free and concessional care.
- Operating indicators- this includes number of admission, discharge, patient days, outpatient visits, investigations, operation theatre utilisation, etc.

*Quarterly Reports*

- Budget performance of all departments.

*Yearly Reports*

- Balance sheet
- Income and expenditure statement
- Departmental income and expenditure statement
- Cost analysis — cost of services, unit costs.

**Check your progress-2**

1. What is the aim of analysis of hospital statistics and control ?

The is to achieve improvements in the utilisation of the following resources:

- Manpower
- Bed capacity
- Plant and equipment
- Stores and supplies

2. Define 'patient day', The Hospital census.

The key statistics in a hospital is the 'patient day' which may be defined as the number of patients to whom lodging and other services have been provided in the hospital between two successive census taking , hours.

The Hospital census: The total number of in-patient occupying beds in the hospital at the census-taking hour denotes the hospital in-patient census.

3. Write the formula for calculating cost per patient-day or bed-day for hospital, individual department, average daily census, bed occupancy, Average length of stay.

- The cost per patient-day or bed-day for the hospital as a whole is ascertained by employing the following formula: Total expense in rupees  $\div$  Total number of patient-days.
- For ascertaining the cost per patient day or daily bed cost for an individual department, the following formula may be used: Total departmental cost  $\div$  Number of patient-days of the department.
- The average daily census is derived by using the following formula: Number of patient-days during the period  $\div$  Number of calendar days during the period
- Percentage of occupancy: This is calculated by using the following formula: Patient Days  $\div$  Bed Days  $\times$  100
- Average length of stay: This is calculated by using the following formula:
- Total number of patient-days during a period  $\div$  Total number of discharges and deaths during the period.

### Check your progress-3

1. What is Cost Containment?

It is defined as reducing the costs without compromising on quality.

2. List the means for Cost Containment in a hospital.

It is generally expected that hospital costs could be contained with the following approaches, which may directly or indirectly influence the costs and efficiency in hospital functioning. These are:

- Creation of cost consciousness amongst functionaries of the hospital.
- Rationalisation of staffing patterns of the hospitals.
- Instituting a department-wise quarterly budget variance report to review actual to budget comparison and pinpoint problem areas.
- Computerisation of patient accounting and administrative records.
- Proper forecasting of materials, group purchases, inventory control, standardisation and value analysis in a scientific materials management.
- Preventive maintenance of buildings and equipment.
- Shutting down electricity, air conditioners, etc. when not required.
- Eliminating wastage and pilferage.
- Cost effective planning of facilities and services
- Information booklets should be supplied to all functionaries giving details about the costing of services.
- Introduction of multipurpose workers to take up various semi-skilled/ unskilled jobs.
- Contractual services for security, housekeeping, laundry, CSSD, ambulances etc.

- Approaches like day care surgery, camp approach and quality management be practised.
- Proper training of staff in professional management for cost effective services.
- Management information system in hospital should aim at cost effectiveness.
- Norms and standards of staffing and equipment should be formulated based on work studies. Periodic evaluation of different activities of the hospital along with medical audit will help in cost containment and efficiency in services.
- Privatisation of certain hospital services specially those which are underutilised
- Physicians are the key persons to reduce costs through;
  - ✓ cutting down length of stay .
  - ✓ cutting down unnecessary investigations
  - ✓ cutting down unnecessary drugs and therapies
  - ✓ economise the use of hospital supplies, facilities and manpower.

3. Define audit.

- Auditing is a systematic examination of the books and records of a business or other organisation, in order to ascertain or verify and to report upon the facts regarding its financial operation and the result thereof.
- An audit is an examination of accounting records undertaken with a view to establishing whether they correctly and completely reflect the transactions to which they relate. In some instances, it may be necessary to ascertain whether the transactions themselves are supported by the authority.

4. List the scope & objectives of audit.

*Scope of Audit*

- To check the arithmetical accuracy of the accounts.
- To check the books of accounts with the help of all the relevant vouchers, invoices, correspondence, minute books, etc.
- To verify the assets and liabilities shown in the balance sheet,
- To report to the client on the basis of his findings.

*Objectives of Audit*

- Ensuring the correctness and completeness of accounts.
- Ensuring regulations of expenditure by examination of accounts.
- Looking into the honesty of financial transactions to detect errors and frauds.
- Ensuring that the funds expended by institution have produced the desired results.

5. What are the types of audit according to organisational structure of the undertaking?

These are as follows:

- *Statutory Audit*-It is made compulsory as per statute. Joint Stock Companies, Trusts and other corporate bodies such as Insurance Companies, Banks, Reserve Bank of India, Industrial Finance Corporation, Cooperative Societies, etc. fall under the category.
- *Private Audit*-The audit of the accounts of sole traders, partnership firms, individual institutions which are private in character get their accounts verified by some qualified auditors. Such an audit is not required by statute.
- *Government Audit*-The government maintains a separate department in the name of Accounts and Audit Department, which performs the audit of its different departments and offices. This department is headed by The Comptroller and Auditor-General of India who is assisted by different officials at various levels.

#### Check your progress-4

1. Define Vouching.

Vouching does not mean merely inspection of receipts with the cash books, but includes the examination of receipts with the transactions of a business, together with documentary and other evidence of sufficient validity to satisfy an auditor that such transactions are in order, have been properly authorized and are correctly recorded in the books.

2. List objectives of Vouching.

In vouching an auditor verifies the authority and authenticity of transactions as recorded in the financial books so that he can satisfy himself that:

- all transactions connected with the business have been recorded in the books of accounts and nothing pertaining to the business has been left as unrecorded;
- no transaction which is not connected with the business has been recorded, i.e., no extra item having no concern with the business has been entered in the books; and
- all entries for transactions, which are authorized, are genuine and supported by documentary evidences, which are available in the business.

3. What are Vouchers?

Vouchers are the documentary or other evidence in support of transactions entered in the books of accounts. The correspondence, contracts, documents, receipts, invoices, bills, minute books for recording resolutions or any other similar document are vouchers

They may be of two types:

- *Primary:* A written evidence in original is said to be the primary voucher, e.g., invoice for a purchase.
- *Collateral:* When the original voucher is not available, copies thereof are produced in support or subsidiary evidence is made available so as to remove suspicious and to satisfy the auditor. Such a voucher is usually known as a collateral voucher.

4. List the common audit objections.

The common audit objections relate to:

- The cash in hand may not tally with entries in cash book and other supportive documents.
- The expenditure incurred on any activity may not have the sanction of competent authority.
- The entries in various account books and payments made may not be supported by vouchers.
- Entries in the stock book may not tally with inspection note of goods received.
- The principle of separation i.e. separate authorities as prescribed for handling cash and stores, etc. may not be followed.
- Records of distribution of drugs and other goods may not tally.
- Proper accounting procedures and entries may not have been observed indicating certain misappropriations or frauds.
- The expenditure is not done as per allocation under different budgetary heads and as per delegation of powers.
- Normal purchase procedures are avoided by making repeated local purchases/split purchases.
- The various documents like vouchers, account books, stock books, etc. are not serially numbered.
- Payment of third party is not made as per prescribed procedures of cash is paid instead of cheque, wherever so prescribed.
- Vouchers are missing and there are no collateral documents to support expenditures.
- There may be unsigned vouchers or alterations in vouchers that have not been initiated/alterd.
- The prescribed procedure for purchase of articles (as per general financial rule/prescribed rule) has been violated.
- On physical verification of stocks shortage/surplus stocks are found.
- The medicines have expired or expired medicines are issued.
- Tender conditions with regard to submission of earnest money, samples or certificates as required are flouted.
- Items are not been issued against a proper indent from an authorized authority.
- The prescribed procedures for placement of supply orders, the risk purchases penalty to be imposed if any have not been followed.