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BBA
BACHELOR OF BUSINESS ADMINISTRATION

BBAR-602
Management Accounting

MANAGEMENT ACCOUNTING

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ROLE OF SELF INSTRUCTIONAL MATERIAL IN DISTANCE LEARNING

The need to plan effective instruction is imperative for a successful distance teaching repertoire. This is due to the fact that the instructional designer, the tutor, the author (s) and the student are often separated by distance and may never meet in person. This is an increasingly common scenario in distance education instruction. As much as possible, teaching by distance should stimulate the student's intellectual involvement and contain all the necessary learning instructional activities that are capable of guiding the student through the course objectives. Therefore, the course / self-instructional material are completely equipped with everything that the syllabus prescribes.

To ensure effective instruction, a number of instructional design ideas are used and these help students to acquire knowledge, intellectual skills, motor skills and necessary attitudinal changes. In this respect, students' assessment and course evaluation are incorporated in the text.

The nature of instructional activities used in distance education self- instructional materials depends on the domain of learning that they reinforce in the text, that is, the cognitive, psychomotor and affective. These are further interpreted in the acquisition of knowledge, intellectual skills and motor skills. Students may be encouraged to gain, apply and communicate (orally or in writing) the knowledge acquired. Intellectual- skills objectives may be met by designing instructions that make use of students' prior knowledge and experiences in the discourse as the foundation on which newly acquired knowledge is built.

The provision of exercises in the form of assignments, projects and tutorial feedback is necessary. Instructional activities that teach motor skills need to be graphically demonstrated and the correct practices provided during tutorials. Instructional activities for inculcating change in attitude and behavior should create interest and demonstrate need and benefits gained by adopting the required change. Information on the adoption and procedures for practice of new attitudes may then be introduced.

Teaching and learning at a distance eliminates interactive communication cues, such as pauses, intonation and gestures, associated with the face-to-face method of teaching. This is particularly so with the exclusive use of print media. Instructional activities built into the instructional repertoire provide this missing interaction between the student and the teacher. Therefore, the use of instructional activities to affect better distance teaching is not optional, but mandatory.

Our team of successful writers and authors has tried to reduce this.

Divide and to bring this Self Instructional Material as the best teaching and communication tool. Instructional activities are varied in order to assess the different facets of the domains of learning.

Distance education teaching repertoire involves extensive use of self- instructional materials, be they print or otherwise. These materials are designed to achieve certain pre-determined learning outcomes, namely goals and objectives that are contained in an instructional plan. Since the teaching process is affected over a distance, there is need to ensure that students actively participate in their learning by performing specific tasks that help them to understand the relevant concepts. Therefore, a set of exercises is built into the teaching repertoire in order to link what students and tutors do in the framework of the course outline. These could be in the form of students' assignments, a research project or a science practical exercise. Examples of instructional activities in distance education are too numerous to list. Instructional activities, when used in this context, help to motivate students, guide and measure students' performance (continuous assessment)

PREFACE

We have put in lots of hard work to make this book as user-friendly as possible, but we have not sacrificed quality. Experts were involved in preparing the materials. However, concepts are explained in easy language for you. We have included many tables and examples for easy understanding.

We sincerely hope this book will help you in every way you expect. All the best for your studies from our team!

MANAGEMENT ACCOUNTING

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BBAR-602

MANAGEMENT ACCOUNTING

BLOCK-1 INTRODUCTION TO MANAGEMENT AND FINANCIAL ACCOUNTING

UNIT 1

FUNDAMENTALS OF MANAGEMENT ACCOUNTING

UNIT 2

FINANCIAL ACCOUNTING

UNIT 3

TOOLS AND TECHNIQUES OF MANAGEMENT ACCOUNTING

BLOCK 1 : INTRODUCTION TO MANAGEMENT AND FINANCIAL ACCOUNTING

Block Introduction

In today's 'hi-tech' competitive world or real business, finance and accounting have assumed critical importance. Accounting is not merely a reckoning of a debit or credit or narration of the profit and loss of an organization. It is much more. In any business venture, correct analysis of financial indicators is crucial to successful decision making. This is only possible if the accounts are maintained and recorded well, properly verified are up-to-date and accurate, and the financial information is presented neatly and without confusion, even a small error in the presentation of a financial report could sometimes leads to a wrong business decision.

The main objective of accounting is to ascertain profit or loss during a specific period and determine financial position of a business enterprise on a particular date. Accounting is the art of recording, classifying and summarizing the financial transactions and interpreting the result to meet the above objective besides, it provides necessary business information to the interested parties. The following approaches are followed to achieve the objectives:

1. Recording of business transactions either in journal or subsidiary books.
2. Classifying business transactions by posting them to ledger Accounts.
3. Closing the ledger accounts and preparation of summary of all ledger accounts called Trial Balance
4. Preparation of final accounts viz. Trading Account, Profit and Loss Account and Balance Sheet.

During the nineteenth century, the volume of transactions of all the business houses rose to a great extent and it became clear that the journal was inadequate as the sole book of original entry. In order to save time, efforts and avoid inconvenience of classifying transactions for posting purposes, similar types of transactions are recorded in special journals called subsidiary books. This would facilitate not only the division of journals but it would also make easier the job of posting in the ledger as the posting are done in the form of totals being transactions of similar nature. The various subsidiary books are as follows:

1) Purchase Book
2) Sales Book
3) Purchase Returns Book
4) Sales Returns Book
5) Cash Book, Petty Cash Book
6) Bills Receivable Book
7) Bills Payable Book
8) Journal Proper

Objective of financial management should be the maximization of shareholders wealth and necessarily the profit of the business. Three basic function of financial management are

a. financial function

b. Investment function

c. dividend function

Finance is an integral part of the overall management rather than the fund raising activities. It is connected with all financial activities of planning, raising, allocating and controlling; the scope of financial management is very wide

Financial statement analysis is important in field of accounting and finance as it measures actual performance of business. Analysis of financial statement is considered as important aspect of accounting and finance as measures actual performance of business.

In this block student will study detail about financial accounting and will get knowledge related to management accounting. Students will be able to have sufficient knowledge on financial statement analysis and further will understand current and past financial positions and results of operation of an enterprise.

The block will focus on role and importance of financial statements and how they help in making analysis. The block explains about ratio analysis which serves as quantitative analysis tool that interpret financial statements using operating performance and financial position of a firm.

Block Objective

After completing this block, students will be able to:

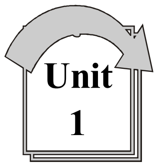
- Knowledge about Management Accounting
- Understanding the role of Financial Statements
- Study the different aspects of Financial Statements Analysis
- Know about challenges in Financial Statements Analysis
- Understanding about key areas of Management Accounting

Block Structure

Unit1: Fundamentals of Management Accounting

Unit2: Financial Accounting

Unit 3: Tools and Techniques of Management Accounting, Introduction to Management and Financial Accounting



FUNDAMENTALS OF MANAGEMENT ACCOUNTING

: UNIT STRUCTURE :

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1.1 Introduction

1.2 Meaning

1.3 Definition of Administration(Management) Accounting

1.4 Nature and Scope of Administration (Management)Accounting

1.5 Objectives of Administration(Management) Accounting

1.6 Let Us Sum Up

1.7 Answer for Check Your Progress

1.8 Glossary

1.9 Assignment

1.10 Activities

1.11 Case Study

1.12 Further Readings

1.0 Learning Objectives

After reading this unit, you will be able to understand:

- Meaning of Management in Accounting.
- Objectives of Management Accounting.
- Analysis of Financial Statements

1.1 Introduction

Management accounting is the introduction of book-keeping data in such a how to help administration in creation of arrangement and day to day operation of an undertaking. Management accounting's most recent inquire about was begun since 1950 and after 60 a long time, its research about has come to at the best level and finance related statement analysis, proportion investigation, fund flow investigation, statement of cash flow investigation, working capital investigation, investment analysis etc. are its fundamental method to analyze company and its income and budgetary position and on these premise, administration takes the choice whether company contribute his cash in that specific company or not.

1.2 Meaning

The accounting action can be classified into two parts, Financial Accounting and Management Accounting. In spite of the fact that both of them are inter linked, Management accounting is future situated, energetic and is made to be unequivocal and control significant. So it is subjective. International Federation of Accountants (IFAC) characterized Management Accounting pre-

pare as "The process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information both financial and operating used by management to plan, evaluate and control inside an association and to guarantee utilize of and responsibility for its resources"

Management accounting is the broadest area of accounting it is subjective and includes tax accounting, financial accounting, managerial accounting and internal auditing. Management accounting produces information for internal decision makers, as opposed to the aim of financial accounting, which is to satisfy the informational needs of external stakeholders. Hence, management accounting information must mirror the strategic relevance of the decisions it is aimed at supporting. It must reach the decision makers to facilitate the decision-making process, and it must contain adequate detail to allow an informed decision. It is a detailed and potentially much more varied than financial accounting because it is supposed to respond to specific information requests rather than follow the general reporting standards that are valid for different types of organizations.

As per the report of Anglo-American Council of Productivity in 1950, management accounting has been broadly acknowledged where the presentation of accounting information is made in such a way as to help the administration in creation of approach and the day to day operation of an undertaking". The thinking included to this explanation was, "the strategy of accounting is of extraordinary importance because it works within the most about all inclusive medium accessible for the expression of realities, so that facts of awesome differences can be spoken to within the same picture.

Management accounting involves preparing and providing timely financial and statistical information to business managers. So that they can make day-to-day and short-term managerial decisions Management accounting (also known as managerial or cost accounting) differs from financial accounting in that it produces reports for a company's internal stakeholders as opposed to external stakeholders. It includes collaborating in management decision making, formulating arranging and execution administration frameworks with certain ability in money related detailing and controls to assist management in formulation and execution of an organization's methodology.

Broadly it is classified as shown in fig1.1.

Fundamentals of Management Accounting

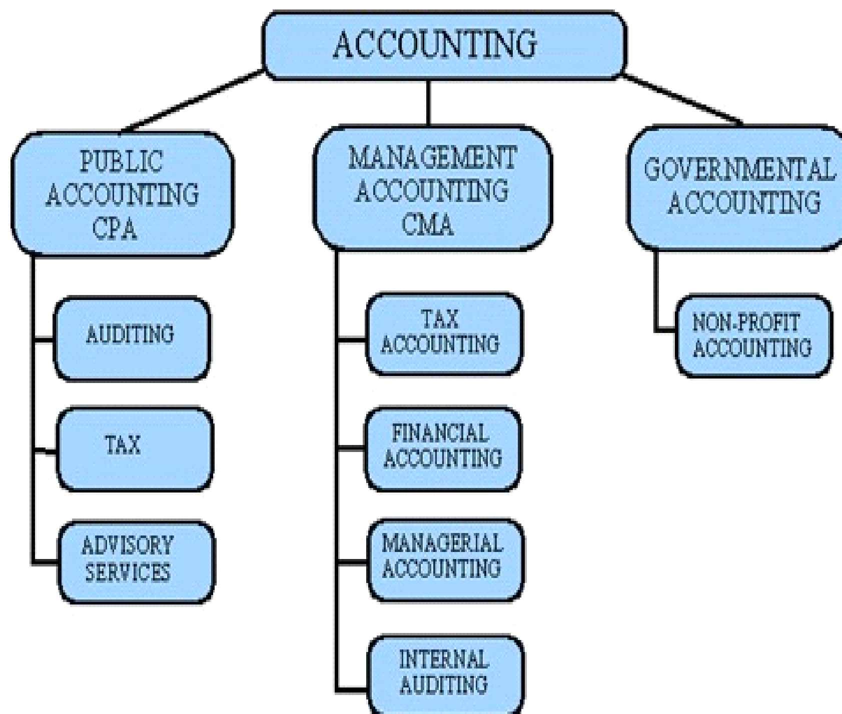

Fig 1.1 Management Accounting Classifications

Check your progress 1

1. The term management accounting was first coined in
   a. 1960
   b. 1950
   c. 1945
   d. 1955
2. Management accounting is
   a. Subjective
   b. Objective
   c. Both a and b
   d. Neither a nor b

1.3 Definition of Management Accounting

Management accounting includes measuring and detailing of data related to financial action in organizations which can be connected by supervisors in arranging, execution assessment and operational control. It includes:

- **Planning:** This relates to taking choices on sort of items to be created with area and time of advancement of item. It includes finding materials, work and assets which are required to urge the required yield. In not-for-profit organizations, choosing which programs to support.
- **Performance evaluation:** It relates to evaluating of profitability of individual products and product lines by showing relative contribution of many managers along with other areas in an organization. In case of a not- for-profit organizations, evaluating of effectiveness of managers, departments and programs is required.

- **Operational control:** This involves knowing about how much work-in- process is on factory floor, and at what stages of completion, to assist the line manager in identifying bottlenecks and maintaining a smooth flow of production.

The management accounting system usually feeds into the financial accounting system. In particular, the product costing system is usually used to help determine inventory balance sheet amounts, and the cost of sales for the income statement. The information is usually financial in nature and dollar-denominated, although increasingly, management accounting systems collect and report nonfinancial information as well. The mechanical process of collecting and processing information poses substantial and interesting challenges to large organizations. Also, there are important conceptual issues about how to aggregate information in order to measure, report, and analyze costs. Issues of how to allocate costs across products, services, customers, subunits of the organization, and time periods, raise questions of substantial intellectual content, to which there are often no clear answers.

Check your progress 2

1. The management accounting can be stated an extension of

   A) Cost Accounting

   B) Financial Accounting

   C) Responsibility Accounting

   a. Both A and B

   b. Both A and C

   c. Both B and C

   d. All of above

1.4 Nature and Scope of Management Accounting

The nature of management accounting makes a difference in understanding the most characteristics of management accounting. Taking after are fundamental focuses which appears the nature of management accounting:

1. No Fixed Norms Followed

In financial accounting, we take after diverse standards and rules for making records and other account books. But there’s no need to take after fixed standards in management accounting. Management accounting instrument may be distinctive from one organization to other organization. Utilizing of diverse devices of management accounting is completely subordinate on the people who are utilizing it. So, commerce approach of each organization influences rules and control of applying management accounting.

2. Increase in Efficiency

It is the nature of management accounting that it is utilized for expanding within the productivity of organization. It looks the focuses of wastefulness through examination of accounting data. By taking activity for progressing, organization can increase the efficiency.

3. Supplies Information not Decisions

Management accountant supplies accounting facts and information and also provides interpretation, but decision making is fully dependent on higher authorities. Management accounting is just guide.

4. Concerned with Forecasting

It is the personality of management accounting that it is completely concerned with estimating. In management accounting, verifiable accounting data is dissected through common estimate financial statement, ratio investigation, fund flow investigation and accounting information propensity for knowing the probability of another truth. So, all these things are particularly valuable for forecasting.

These forecasting may be related with following things

- Sales Forecasting
- Production Forecasting
- Earning Forecasting
- Cost Forecasting

Scope

The scope or field of management accounting is wide and wide which covers numerous perspectives of trade operations. The most point of management accounting is to assist administration in its capacities of arranging, coordinating, controlling and ranges of specialization included inside concede of management accounting. The scope of management accounting can be examined as follows:

a. Financial Accounting

Financial accounting shapes the premise for investigation and translation for outfitting significant information to the management. The control viewpoint is based on financial information and execution assessment, on recorded actualities and figures. So, management accounting is closely related to financial accounting in numerous respects.

b. Cost Accounting

Cost accounting is the method and procedures of finding out cost. Planning, choice making and control are the fundamental managerial functions. The cost accounting framework gives the fundamental instrument for carrying out such functions effectively. The instruments incorporate standard costing, stock management, variable costing etc.

c. Budgeting and Forecasting

Budgeting implies communicating the plans, arrangements and objectives of the firm for a positive period in future. Determining on the other hand, could be a forecast of what will happen as a result of a given set of circumstances. Estimating may be a judgment while the budgeting is an organizational protest. These are valuable for management accounting in planning.

d. Inventory Control

Inventory is fundamental to control from the time it is obtain till its last transfer because it includes huge sum. For controlling stock, administration ought to decide distinctive level of stock. The inventory control procedure will be supportive for taking administrative decisions.

e. Statistical Method

Statistical instruments not as it were make the data more noteworthy, comprehensive and comprehensibly but moreover are profoundly valuable for planning and forecasting.

f. **Interpretation of Data**

Investigation and elucidation of monetary explanations is imperative portion of management accounting. After analyzing the monetary explanations, the translation is made and the reports drawn from this investigation are displayed to the management. Translating the accounting information to the authorities within the administration is the principal assignment of management accounting

g. Reporting To Management

The translated information must be communicated to those who are curious about it. The report may cover profit and loss Account, Statement of Cash Flow and Funds Flow statements etc.

h. Internal Audit and Tax Accounting

Management accounting thinks about all the charge matters to help the administration in investment choices vis-a-vis assess planning as an asset to appreciate tax relief. Internal review framework is fundamental to judge the execution of each division. Administration is able to know deviations in execution through inside review. It moreover helps administration in settling duty of distinctive individuals

i. Methods of Procedures

This incorporates upkeep of appropriate information preparing and other office management services. It ought to deal with recording, copying, duplicating, communicating and management data framework additionally may have to be report approximately the utility of diverse office machines.

Check your progress 3

1. Administrative (Management) accounting assists the management
   - a. In control
   - b. In direction
   - c. In planning
   - d. All of above

1.5 Objectives of Management Accounting

The essential objective of management accounting is to help the management in performing its capacities viably. The capacities of the management are planning, organizing, coordinating and controlling. Management accounting helps within the execution of each of these functions within the following ways:

Provides data:

Management accounting serves as an imperative source of information for management arranging. The accounts and reports are a store-house of an endless amount of information around the past advance of the endeavor, encouraging figures for the future.

Modifies data:

The accounting information required for administrative decisions is legitimately collected and classified. For illustration, buy figures for diverse months may be classified to know add up to buys made amid each period product-wise, supplier-wise and territory-wise.

Analyses and interprets data:

The accounting information is examined genuinely for viable planning and decision-making. For this reason the information is displayed in a comparative form. Proportions are calculated and likely trends are projected.

Means of communication: Management accounting gives a means of communicating administration plans upward, descending and outward through the organization. At first, it implies distinguishing the achievability and consistency of the different portions of the arrange. At afterward stages it keeps all parties educated almost the plans that have been concurred upon and their parts in these plans.

Facilitates Control: Management bookkeeping makes a difference in interpreting given targets and methodology into indicated objectives for achievement by an indicated time and secures successful achievement of these objectives in a productive way. All this can be made conceivable through budgetary control and standard costing which is an fundamentally portion of administration accounting

Introduction to Management and Financial Accounting

Uses qualitative information:

Management accounting does not confine itself to monetary information for making a difference the management in choice making but too employments such data which may not be competent of being measured in financial terms. Such data may be collected form uncommon overviews, measurable compilations, designing records, etc.

Check your progress 4

1. Which of the following are tools of management accounting?

A) Decision accounting

B) Standard costing

C) Budgetary control

D) Human Resources Accounting

   a. A, B and D
   b. A, C and D
   c. A, B and C
   d. A, B , C,D

2. Management accountancy is a structure for

   a. Costing
   b. Accounting
   c. Decision making
   d. Management

1.6 Let Us Sum Up

In this unit we have learnt that management accounting serves as wide area of accounting which covers taxing, financials, managerial and internal auditing.

Management accounting obtains information for internal decision makers, as opposed to the aim of financial accounting, which is to satisfy the informational needs of external stakeholders.

We see that scope of management accounting is wide and broad which covers many aspects of business operations and deals with study of tax matters that supports management in investment decisions.

Internal audit framework is required to discover the execution of a office where administration get thought almost deviations in execution through internal review in this manner making a difference administration in fixing responsibility of different individuals.

1.7 Answer for Check Your Progress

Check your progress 1

Answers: (1-b), (2-a)

Check your progress 2

Answers :(1-d)

Check your progress 3

Answers :(1-d)

Check your progress 4

Answers: (1-c), (2-c)

1.8 Glossary

1. **Asset -** This is anything having value owned by an individual, institution or business.
2. **Bond -** It is a type of debt security issued by corporations, government agencies, municipalities and states for issuer to pay bondholder principal amount at maturity.

1.9 Assignment

List some qualities of management accounting.

1.10 Activities

Collect information on scope of management accounting.

1.11 Case Study

Discuss about role of managers in management accounting.

1.12 Further Readings

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FINANCIAL ACCOUNTING

: UNIT STRUCTURE :

2.0 Learning Objectives
2.1 Introduction
2.2 Meaning and definition of Financial Accounting
2.3 Analysis of Financial Statements and Ratio Analysis
2.4 Limitations of Financial Statements Analysis
2.5 Let Us Sum Up
2.6 Answer for Check Your Progress
2.7 Glossary
2.8 Assignment
2.9 Activities
2.10 Case Study
2.11 Further Readings

2.0 Learning Objectives

After reading this unit, you will be able to understand:

- Need of Financial Accounting
- Users of Financial Accounting
- Analysis of Financial Statements

2.1 Introduction

Accounting is as old as money itself. However, the act of accounting was not as developed as it is today because in the early stages of civilization, the number of transactions to be recorded was so small that each businessman was able to record and check for himself all his transactions. Accounting was practiced in India twenty three centuries ago. However, the modern system of accounting based on the principles of double entry system owes it origin to Luca Pacioli who first published the principles of Double Entry System in 1494 at Venice in Italy.

Thus, the art of accounting has been practiced for centurys but it is only in the late thirties that the study of the subject 'accounting' has been taken up seriously.

2.2 Meaning and definition of Financial Accounting

The main purpose of accounting is to ascertain profit or loss during a specified period, to show financial condition of the business on a particular date and to have control over the firm's property. Such accounting records are required to be maintained to measure the income of the business and communicate the information so that it may be used by managers, owners and other

interested parties. Accounting is a discipline which records, classifies, summaries and interprets financial information about the activities of a concern so that intelligent decisions can be made about the concern. The American Institute of Certified Public Accountants has defined the Financial Accounting as "the art of recording, classifying and summarizing in as significant way and in terms of money exchanges and occasions which in portion, at least of a monetary character, and interpreting the results there of". American Bookkeeping Affiliation characterizes bookkeeping (accounting) as

"The process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information".

Financial accounting generates some key documents, which includes profit and loss account, patterning the method of business traded for a specific period and the balance sheet that provides a statement, showing mode of trade in business for a specific period. It records financial transactions showing both the inflows and outflows of money from sales, wages etc. Financial accounting empowers the managers and aids them in managing more efficiently by preparing standard financial information, which includes monthly management report tracing the costs and profits against budgets, sales and investigations of the cost.

Benefits:

Maintaining systematic records: It is the main function of accounting as it helps in keeping proper and chronological record of transactions and events that helps in processing and proof for checking and verification purposes. It embraces writing in the original/subsidiary books of entry, posting to ledger, preparation of trial balance and final accounts.

Meeting legal requirements: It helps to comply with different legal requirements. It is mandatory for joint stock companies to prepare and present their accounts in a prescribed form. Various returns such as income tax, sales tax are prepared with the help of the financial accounts.

Protecting and safeguarding business assets: Records serve a dual purpose as evidence in the event of any dispute regarding ownership title of any property or assets of the business. It helps in preventing unwarranted and unjustified use which is important for making best use of available resources.

Facilitating rational decision-making: With accounting, it is ease to take any decisions as managerial decisions are based on facts and figures which helps the organization to achieve success. An effective price policy, satisfied wage structure, collective bargaining decisions, competing with rivals, advertisement and sales promotion policy etc all owe it to well set accounting structure. Accounting provides the necessary database on which a range of alternatives can be considered to make managerial decision-making process a ration alone.

Communicating and reporting: The individual events and transactions recorded and processed are given a concrete form to convey information to others.

Check your progress 1

1. All financial accounting procedures should ____ and strictly followed.
   a. Be Clear
   b. Hidden
   c. Complex
   d. Hard
2. Financial accounting does not take in to account the ______ facts.
   a. Monetary
   b. Non-Monetary
   c. None

2.3 Analysis of Financial Statements and Ratio Analysis

Government legislations require certain organizations like limited companies, public utilities, and co-operative to maintain proper account and draw financial statement. Public can understand from the financial statement the extent to which a company is discharging its social responsibilities. While issuing shares, Bonds, financial statement become necessary as prospective investors can judge whether to buy the share or bonds, from the information regarding the financial soundness, gathered from the financial statement. Workers union may study the financial statement and ascertain whether they can enforce their demand. Within an organization also, financial statement assist the management in taking various decisions. Consumer, all over the world, are becoming increasingly aware of their right and are using financial statement extensionally today to find out the degree of exploitation by the industries. Tax legislature makes it obligatory on the part of business entities to draw fair and objective financial statement. The financial statement serves as instruments to regulate equity and debentures issued by companies.

Financial statement analysis is a judgmental process which aims to estimate current and past financial positions and the results of the operation of an enterprise, with primary objective of determining the best possible estimates and predictions about the future conditions. It essentially involves regrouping and analysis of information provided by financial statements to establish relationships and throw light on the points of strengths and weaknesses of a business enterprise, which can be useful in decision-making involving comparison with other firms and with firms own performance, over a time period.

Financial statements are very useful as they serve varied affected group having an economic interest in the activities in the business entity. It has following features:

- It communicates to interested users, quantitative and objective information is useful in making economic decisions.
- It meets specialized needs of conscious creditors and investors.
- It is prepared to give reliable information about earning of business enterprise and it ability to operate of profit in future.
- In this, users who are interested are investors, creditors, suppliers and employees.

- It provides base for tax assessments.
- It is prepared so as to predict future earning power of an enterprise.
- It provide reliable information about the changes in economic resources.
- It gives information about changes in net resources of an organization which results from profit directed activities.
- It satisfies information needs of broader cross-section of society comprising of corporate managers, executives, bankers, creditors, shareholders investors, laborers, consumers, and government institution.
- It is a simple statements based on historical records of facts and figures.
- It reflects judicious combination of recorded facts, accounting principles, concepts and conventions, personal judgments and sometimes estimates.

Financial statements are affected by three factors:

- recorded facts
- accounting conventions
- personal judgments

Recorded facts is collection of data in a statement which have already been recorded in accounting records such as cash in hand at bank, cost of fixed assets, amounts due from customers and due to suppliers of goods.

Financial statements are prepared by adhering to certain concepts and established conventions. In agreement with recorded facts and accounting concepts and conventions, the role of personal judgments, estimates and opinions, are to be emphasized especially when two or more alternative procedures are available and which acceptable are equally.

Ratio analysis

Ratio Analysis is a quantitative tool that allows analysis to have quantitative answers such as adequate net profits, using of assets efficiently, meeting current obligations by the company and so on. Calculation of mere ratios does not serve any purpose, unless several appropriate ratios are analysed and interpreted. The following are the steps involved in the ratio analysis:

(i) Selecting required data from financial statements as per objective of analysis.

(ii) Calculating required ratios from data.

(iii) Comparing calculated ratios with ratios of a particular firm, or ratios prepared from projected financial statements and ratios of other firms or comparison with ratios of industry to which the firm belongs.

The interpretation and calculation of ratios are important factor as it is only clerical work and needs skills, intelligence and foresightedness. The interpretations of the ratios can be done in the following ways:

1. **Single Absolute Ratio:** Generally speaking one cannot draw meaningful conclusions when a single ratio is considered in isolation. But single ratios may be studied in relation to certain rules of thumb which are based upon well proven contentions as for example 2:1 is considered to be a good ratio for current assets to current liabilities.

2. **Groups of Ratio:** Ratios may be interpreted by calculating a group of related ratios. A single ratio supported by related additional ratios becomes more understandable and meaningful.
3. **Historical Comparisons:** One of the easiest and most popular ways of evaluating the performance of the firm is to compare its present ratios with the past ratios called comparison over time.
4. **Projected Ratios:** Ratios can also be calculated for future standard based upon the projected financial statements. Ratio calculation on actual financial statements can be used for comparison with the standard ratios to find out variance, if any. Such variance helps in interpreting and taking corrective action for improvement in future.
5. **Inter-firm Comparison:** Ratios of one firm can also be compared with the ratios of some other selected firms in the same industry at the same point of time.

Check your progress 2

1. Financial__________analysis is a judgmental process which aims to estimate current and past financial positions.
   a. statement
   b. books
   c. None of the above
2. _______are very useful as they serve varied affected group having an economic interest in the activities in the business entity.
   a. Balance sheets
   b. Financial statements
   c. None of the above
3. ________provide sufficient accounting information to the executives and managers to enable them to decide on important issues facing them.
   a. Financial statements
   b. Ratio analysis
   c. None of the above
4. Financial statements are regarded as_______of an enterprises performance.
   a. measure
   b. Indices
   c. None of the above
5. All____transactions are quantified, measured and related in monetary terms.
   a. Business
   b. personal
   c. None of the above

2.4 Limitations of Financial Statements Analysis

Financial explanation analysis is characterized as the method of distinguishing monetary strengths and weaknesses of the firm by appropriately building

up relationship between the things of the balance sheet and the profit and loss account.

There are various methods or techniques that are used in analyzing financial statements, such as comparative statements, schedule of changes in working capital, common size percentages, funds analysis, trend analysis, and ratios analysis. Financial statements are prepared to meet external reporting obligations and also for decision making purposes. They play a dominant role in setting the framework of managerial decisions. Following are the limitations of financial statements:

- The information being of historical nature does not reflect the future.
- It is the outcome of accounting concept, convention combined with personal judgments.
- The statement portrays the position in monetary term. The profit or loss position excludes from their purview things which cannot be expressed or recorded in term of money.

As the information provided in the financial statements is not an end in itself as no meaningful conclusions can be drawn from these statements alone. However, the information provided in the financial statements is of immense use in making decisions through analysis and interpretation of financial statements. To overcome from the limitations it becomes necessary to analyse the financial statements. The analytical tools generally available to an analyst for this purpose are:

Comparative Financial and Operating Statement:

Comparative financial statement are of financial position of a business so designed as to provide time perspective to the Consideration of various element of position embodied in such statement The balance sheet and Income Statement i, e. Profit and loss account are prepared in a Comparative from as the impact of the conduct of business is brought to bear on the Balance Sheet, Comparative statement are made to show –

- Absolute date (money values or rupee amount).
- Increases and decreases in absolute data in term of money values.
- Increases or decreases in absolute data in term of percentage.
- Comparisons expressed in ratio.
- Percentage of total.

Comparative financial statements are very useful to the analyst as they Provide information necessary for the study of financial and operating trend over a period of years. They indicate the duration of the movement with respect of the financial position and operating results financial data become more meaningful. When compared with similar data for a previous period or a number of prior periods such statements are very helpful in measuring the effect of the conduct of a business during the period under consideration. The comparative profit and loss account will present a review of operating activities of the business. The comparative balance sheet shows the effect of

operations on the assets and liability i.e. changes in the financial position during the period under consideration. Comparisons loss their significant and tend to become misleading if the date being compared do not reflect the consistent application of generally accepted accounting principles from date to date or period to period.

Common size Statement:

Comparative statements that give only the vertical percentage or ratio for financial data without giving rupee value are known as common size statement. A comparison of two years figures of a concern can be easily made under the companies Act. Companies must Show in their profit and loss account and balance sheet the corresponding figures for the previous year. Sometime, however, the figures do not signify anything as the heads of items are regrouped and are in comparable; they should precisely have the some meaning from one year to another.

It is superior to work out the proportion of different things to deals in term of percentage and enter these too within the explanation. As common estimate articulation are most important in promoting Comparisons between the companies within the a few industries. A common size statement shows the connection of each component to the whole. It is valuable in vertical financial examination and comparison of two commerce ventures at a certain date.

Trend Analysis:

The analysis is an important and useful technique of analysis and interpretation of financial statement under the technique the ration of different items for various periods are calculate for the company over a definite period of time say three to five years and then we can analysis trend highlighted by this ratio Trend analysis can be done in three following way.

- Trend percentage
- Trend ratio
- Graphic and diagrammatic representation Utility of Trend Analysis:
- It is a simple technique which does not involve hard calculation and required trained experts
- It is brief method to indicate the future trend
- It is reduces the chances of errors as it provides the opportunity to compare the percentage with absolute figures

Average Analysis:

It is important over trend analysis where trend ratio is determined and figure are compared with industry averages. Such trend is shown on graph paper with shape of curve where comparison becomes comprehensive and impressive.

Statement of changes in Working Capital :

To know an increase or decrease in working capital over a period of time, the preparation of a statement of change in Working Capital is also very useful. The statement gives an accurate summary of the events. That affected the

amount of working capital. The total working capital as determined by deducting the total of current liability from the total of the current assets. It is a rough estimated which may be arrived at by using balance sheet data only. But it does not explain the detailed reasons for the changes in working capital and methods of financing additional requirement of working capital. Hence the preparation of fund flow statement becomes necessary.

Funds flow and Cash flow Analysis :

The statement of sources and application of funds also called were got were gone statement provides the missing link in the complement of final account statement. It demonstrates the manner by which periods activities call upon and generate the financial resources of the business unit and the resultant ebb and flow of these resources through the temporary reservoirs of firm assets. In the process, it highlights the changes in the financial structure of an undertaking funds flow analysis is a valuable aid to the financial executive and creditor for evaluating the use of funds by the firm and determining how these uses we refinanced.

Ratio Analysis:

Ratios in accounting are expressed in mathematical terms between figures that carries cause an effect relationship that are connected with each other in some manner or no purpose will be served by working out ratio between entirely unrelated figure such as discount on debenture and sales ratio may be worked out on the basis of figure contained in the financial statement and, therefore, may be classified as follows:

(a) Income statement ratio

(b) Position statement ratio

(c) Inter-statement ratio as tools for establishing true profitability and financial position of a company may be classified as:

- Profitability ratios.
- Turn over ratios
- Financial ratio

Check your progress 3

1. Statements that give only the vertical percentage or ratio for financial data without giving rupee value are known as common size statement.
   a. Comparative
   b. Income
   c. Finance
   d. Analysis
2. As________ statement are most valuable in marketing comparisons among the companies in the some industry.
   a. income
   b. common size
   c. data
   d. user

2.5 Let Us Sum Up

In this unit we have learnt that accounting can be understood as language of financial decisions which is an on-going process of performance measurement and reporting of results to decision makers.

We see that it is a discipline of accounting that can be traced back to very early times of human civilization.

With advancement of industry, modern day accounting has become formalized and structured where a person who maintains accounts is an account.

It is noted that the information generated by accounting issued by various groups as individuals, managers, investors, creditors, government, regulatory agencies, taxation authorities, employee, trade unions, consumers and general public.

As per the purpose and method, accounting is broadly categorised as financial accounting, cost accounting and management accounting.

Financial accounting is concerned with the preparation of financial statements that is applied on well-defined concepts and conventions for framing broad financial policies.

An analysis of financial statements is the process of critically examining in detail accounting information given in the financial statements.

Analyzing financial explanations could be a handle of assessing relationship between component parts of financial explanations to get a better quality; stronger; an improved a much better understanding of firm's position and execution.

Ratio analysis is a quantitative analysis tool used to interpret the financial statements in terms of the operating performance and financial position of a firm.

2.6 Answer for Check Your Progress

Check your progress 1

Answers: (1-a), (2-b)

Check your progress 2

Answers: (1-a), (2-b), (3-a), (4-b), (5-a)

Check your progress 3

Answers: (1-a), (2-b)

2.7 Glossary

1. **Accounting -** It is the means of collecting, summarising and reporting in monetary terms, information about the business.
2. **Financial accounting -** Financial accounting deals with the maintenance of books of accounts with a view to ascertain the profitability and the financial status of the business.
3. **Financial statement -** Financial statements refer to formal and original statements which are prepared to disclose financial health in the terms of profits, position and prospects as on a certain data.

4. **Trend analysis -** Trend analysis can be defined as the index numbers of the movements of the various financial items on the financial statement for a number of periods.

2.8 Assignment

Define accounting. Discuss the objectives of accounting.

2.9 Activities

What do you mean by analysis of financial statements?

2.10 Case Study

What are trailing ratios? Discuss.

2.11 Further Reading

1. Aggarwal and Jain Advanced Financial Accounting.
2. S.N. Maheshwari, Introduction to Accounting.
3. R.L.Gupta, Advanced Accountancy.

TOOLS (DEVICES) AND TECHNIQUE OF MANAGEMENT ACCOUNTING

: UNIT STRUCTURE :

3.0 Learning Objective
3.1 Introduction
3.2 Significance of Management Accounting
3.3 Devices and Technique of management Accounting
3.4 Highlights of management Accounting Devices and Technique
3.5 Points of interest of management Accounting Devices and Technique
3.6 Restrictions of management Accounting Devices and Technique
3.7 Let Us sum up
3.8 Answer for check Your Progress
3.9 Glossary
3.10 Assignment
3.11 Case Study
3.12 Further Reading

3.0 Learning Objective

After reading this unit, you will be able to understand:

- Significance(Meaning) of Management Accounting
- Devices and Technique of management Accounting
- Features of Management Accounting
- Points of interest and Restrictions of Management Accounting

3.1 Introduction

A number of modern tools and techniques have been created to meet wants of present day trade, which works in complex environment; a number of ancient sciences have been created on new lines to meet the prerequisites of modern business. Management Accountancy is in this way, a unused frame of the ancient science of financial accounting, which has been so formed as to suit the energetic environment of modern business. Fair some decades back, business worked under straight forward conditions and financial accounting may satisfy its necessities. It had basically to record money related exchanges in books of accounts and display the Profit and Loss Account as well as Balance Sheet some time recently the proprietors of the business for decades in this manner accounting implied as it were introduction of financial transactions in this way and accounting created on this simple line only.

The modern business has, however expended to such limits that it is beyond the capacity of few persons to control all its aspects. Control and co-ordina-

tion of various activities of business now requires accurate data on the basis of which action can be taken. Old technique of decision making on the basis of intuition only is now out-of-date. Accounting is a mine of precious information which can guide management in taking policy decision and in discharging its functions of co-ordination and control effectively. The function of Management Accounting is to present the accounting data in suitable forms of assist the management in this direction.

Check your progress 1

1. Managementment Accountancy…..

   (a) Depends on Financial Accountancy

   (b) Depends on Cost Accountancy

   (C) Depends on both Financial Accountancy & Cost Accountancy

   (d) None

3.2 Significance of Management Accounting

Management Accountancy, is essentially, may be portrayed as accountancy situated to help management by displaying accounting data in a appropriate manner. The report of Anglo-American Committee of Efficiency (1950) has characterized as "Management Accountancy is the introduction of accounting data in such a way as to help the management in creation of policy and the day to day operation of an undertaking." The definition recommends that the management is in need of data for superior choice making additionally it requires data for working out viable control. The management data is within the form of reports. To meet desires of modern commerce administration, get viable Data with the assistance of different tools and techniques.

Check your progress 2

1. Management Accounting is simply means…..

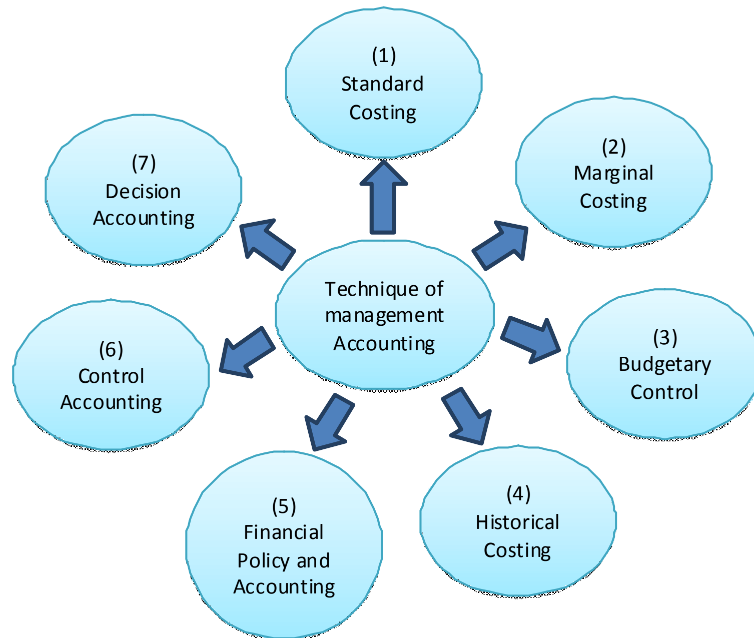
   (a) May be described as accountancy oriented

   (b) Assist management by presenting accounting info.

   (c) Accounting information in a suitable manner.

   (d) All of the above

3.3 Devices (Tools) and Techniques of Management Accounting:



Devices (Tools) and Techniques used in management accounting explained in brief as under:

1. **Standard Costing**: The standard costing framework could be a strategy of costing in which benchmarks or pre-determining costs are settled for each thing of cost and they are compared with genuine execution and changes or differences are found out to see how actual contrast from standards. Fluctuations are discovered through which control function gets to be effective.

2. **Marginal Costing**: It could be a modem procedure of deciding cost in which costs are partitioned into fixed and variable. Fixed costs are not included as a portion of a cost of generation but recovered from the margin between sales price and variable cost. The framework is greatly valuable in showing information some time recently management with regard to cost, revenue and profits.

3. **Budgetary Control:** Business policies and plans expressed in financial terms under the system of budgetary control. Budgets are prepared covering every aspect of business. Actual performance is compared with budgeted figures and co-ordination and control are made effective through budget reports.

4. **Historical Costing:** Historical costing is concerned with recording and ascertaining cost after they have been incurred. As against that in standard costing, standards for cost are set for each element of cost in advance before manufacturing is undertaken. Historical costing is not of much use to management but may provide basis for future planning.

5. **Financial Policy and Accounting:** Financial policy in concerned with determining how business is to be financed, what type of securities are to be issued and what should be the sources of long term and short term borrowings. Financial accounting is the Basis of management account-

ing. Besides, it is compulsory for joint stock companies to publish final accounts.

6. **Control Accounting:** It is a technique used in different systems. For example, variance analysis in a standard costing, System of statement and report in a Budgetary Control, Internal check and internal audit etc., are the techniques of control accounting. It is in a presentation of data in this respect that the management accountant can show his ingenuity in analysis and interpretation of data.

Check your progress 3

1. Which of the following tools and techniques are not used by management account ?

   (a) Standard Costing (b) Budgetary Control

   (c) Operating Costing (d) Marginal Costing

Decision Accounting: The management accountant recommends elective courses of activity on a specific extend, based on the information outfitted by over frameworks. When choice with respect to selecting a capital use venture to be taken up or in case of make or purchase a choices, estimating choices etc. the management accountant presents the information, in explanatory frame and proposes the profitable course of activity within the given circumstances. The management doors significant offer assistance in making choice on the premise of such information. In Expansion, the management accountant makes utilize of other strategies like, return on capital employed technique, break even analysis, inter-firm comparison, operations research etc.

3.4 Highlights of management Accounting Devices (Tools) and Technique

Highlights of Management Accountancy Tools and Techniques may be expressed as follows:

(1) It is an accounting framework which is supportive to the management in taking imperative trade decisions.

(2) It is based on accounting data. It begins working as it were after the accounting work is over.

(3) It is concerned with investigation of all accounting data which may be valuable to the management.

(4) It is concerned with planning of budgets and budgetary control.

(5) It presents accounting data in such a way where within the real execution is compared with standards as laid down in budgets.

(6) It is concerned with introduction of accounting information at standard interims within the form of reports before the management

Check your progress 4

1. Which of the features are not included in management accountancy?

(a) It is an accounting system which is helpful to the management in taking important business decisions.

(b) It starts working only after the accounting work is over.

(c) It is concerned with analysis of all accounting information

(d) The budgets are not the bases, which are used to control the business activities by the management.

3.5 Point of interest (Advantages) of management Accounting Devices and Technique

Management Accounting is useful in following manner:

(1) Helpful in Formulating Budgets: The budgets are the bases, which are utilized to control the trade exercises by the management. It is the Work of management accountant to plan different budgets, like a planning deals budget on the premise of past figures of deals and shrewdly determining, planning generation budget on the basis of deals estimates and generation offices available, defining material, work and overhead budgets, planning cash budget, capital budget, etc. This requires deciding trade goals, selecting legitimate methodology for accomplishing the objectives.

(2) Easy for Classification and Arrangement of Data: The accounting data has to be classified and properly arranged for presentation before the management. e.g. figures of purchase and sales product-wise, region-wise and period-wise have to be arranged in a proper form. The formats of regular reports must be prepared in advance, so that they may be presented regularly before management as per their requirements.

(3) Assist in Presentation and Interpretation of Accounting Data: The accounting data must be presented before the management in its proper perspective, so that it becomes meaningful. The interpretation of accounting data by means of accounting ratios, cash flow statements, charts, graphs etc. must be made so that the attention of management. It leads to 'management by exception'.

(4) Preparation of Routine Reports and Special Reports the management accountant is required to show two sorts of reports before the management, Routine reports and special reports. When a few important alter is to be made within the trade, the management accountant is called upon to show an extraordinary report on the impacts of such a alter on benefits and money related position. e.g. in case a modern machine costing Rs. 20 lakhs is to be introduced for supplanting to ancient machine, at that point its impacts on a benefit, cash presently, financial position. The source of finance getting etc. should be calculated and special report consequently should be displayed by the management accountant. Furthermore, week after week, month to month

or quarterly schedule reports are to be displayed some time recently different levels of management. e.g. every day report of utilization of material and work fetched arranged by the foremen and to be displayed some time recently production management etc.

(5) Making Management Control Effective: The top management cannot pay attention to minute details of everything that is going on in the business. Hence, then attention must be drawn to this activities only which are not proceeding as planned. This is called 'Management by exception'. This will save a lot of time and tension of the management. It is responsibility of the management accountant to interpret the accounting data and draw the attention to only such activities.

6) **Assisting in Assessment of Capital Projects**: Capital projects like a substitution of ancient machines by modern machines, plot for extension of trade, etc. include impressively expansive sums of capital expenditure. The management accountant is called upon to assess such a projects in terms of benefit necessities of extra reserves, the sources from which they can be obtained etc. Elective projects are compared and assessed and management accountant makes a difference in selecting one project.

Check your progress 5

1. Management Accounting is useful in following manner:
   (a) Helpful in Formulating Budgets
   (b) Easy for Classification and Arrangement of Data
   (c) Preparation of Routine Reports and Special Reports
   (d) All of above

3.6 Restrictions (Limitations) of Management Accounting Devices (Tools) and Techniques

The management accountancy involves a put of ride among advanced efficiency methods; after talking its limitations following points, one must to be kept in mind:

(1) Depends on Financial Accounting: Data essential for the reason of management accountancy is determined from monetary and cost accountancy. Hence, on the accuracy of the monetary and the cost information. The productivity of management accountancy depends. In case the monetary records turn out to be inadequate the reports arranged by management accountant on such a basis ought to too be defective.

(2) Expectation of knowledge of other Subjects: Management accounting makes us techniques of number of subjects like economics, financial accounting, statistics etc. If the management lacks should knowledge of any of them, it will affect the utility of reports and the ultimate solution of problems.

(3) Figures in Money only: Management accountancy provides useful accounting data for policy decisions, but the data so presented are only the form of money figures. Management accountant becomes helpless

in case of events not capable of being expressed in figures. For example, he is able to compute the profitability or otherwise of the new project, but effects on the moral of the employees cannot be measured.

(4) Expensive: Adoption of management accountancy requires a large number of trained and highly educated officers and other employees, in addition to preparation of numerous records. It therefore, requires an elaborate organization, which makes it very expensive to install management accountancy system and only big firms can afford it.

(5) Decision by Management: Management accountancy is only a tool of management for decision making. It provides such a data as would be useful to management, but the decision are ultimately to be taken by management and not the management accountant. It spite of its rapid progress in the developed countries like the U.S.A. the decision are taken by top management which many times go against the reports presented by the management accountant.

(6) Restriction against New System: Management accountancy could be a modern and creating teach and involves a part of moving and changes within the set up design of organization. Consequently, it is bound to meet with opposition from a few quarter or the other. It has been a despondent involvement of human history that changes and enhancements have continuously met with hardened resistance within the beginning stages, which would be softened to a certain extent latter.

Check your progress 6

1. Which of the following point is not correct in limitations of management accountancy ?

(a) It is not very expensive.

(b) Management accounting makes use of techniques of number of subjects.

(c) Management accountancy is only a tool of management for decision making.

(d) Management accountancy provides useful accounting data for policy decisions.

3.7 Let Us Sum Up

The importance of Tool and Techniques in Management Accounting lies not so much in collecting and furnishing the data but analysing and presenting the data in a meaningful and purposeful way to various authorities in the organization and help in effective management decision and control

3.8 Answer for Check Your Progress

Check your progress 1

Answer: (1 - c)

Check your progress 2

Answer: (1 - d)

Check your progress 3

Answer: (1 - c)

Check your progress 4

Answer: (1 - d)

Check your progress 5

Answer: (1 - d)

Check your progress 6

Answer: (1 - a)

3.9 Glossary

1. **Standard Costing:** standards or pre-determining costs are fixed for each item of cost and they are compared with actual performance and variances or differences are found out to see how actual differ from standards.
2. **Marginal Costing:** in which costs are divided into fixed and variable. Fixed costs are not included as a part of a cost of production but recovered from the margin between sales price and variable cost. The system is extremely useful in presenting information before management with respect to cost, revenue and profits.
3. **Historical Costing:** Historical costing is concerned with recording and ascertaining cost after they have been incurred.
4. **Budgetary Control:** Business policies and plans expressed in financial terms under the system of budgetary control.
5. **Decision Accounting:** When decision regarding selecting a capital expenditure project to be taken up or in case of make or buy a decisions, pricing decisions etc. the management accountant presents the data, in analytical form and suggests the profitable course of action in the given circumstances. The management gates considerable help in making decision on the basis of such information.

3.10 Assignment

List various Tools and Technique of management Accounting

3.11 Case Study

Discuss the techniques and tools of Management Accountancy.

Discuss usefulness and limitation of Management Accountancy.

3.12 Further Reading

1. Advanced Management Accounting Ravi Kishore 1997
2. Management Accounting by R.S.N.Pillai & Bagavathi S.Chand
3. Accounting for Managers by Sudhir Prakashan

BLOCK SUMMARY

This block give detailed information about accounting and financial statements. Introductory portion of both the topics have been covered over here in this block. Accounting is a continuous process of performance measurement and reporting the results to decision makers. The block explained more about analysis of financial statements along with details related to internal audit system and management accounting principles.

After studying this block, proper analysis of financial statements various tools and techniques are available to us and of which we suit according to our need and convenience. Students will be well known with concept of ratio analysis which serves as quantitative tool. The various calculations of required ratios from data are well detailed.

BLOCK ASSIGNMENT

Short Answer Questions

1. List few financial services?
2. What is Inter-firm Comparison Ratios?
3. State the importance of Financial Accounting?
4. How to calculate required ratios from data?
5. What is Common size Statement?

Long Answer Questions

1. Discuss the scope of management accounting.
2. What is the basic objective of management accounting?
3. Compare financial instruments and financial services?
4. Introduction to Management and Financial Accounting

Enrolment No [ ]

1. How many hours did you need for studying the units ?

Unit No	1	2	3
Nos. of Hrs			

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	☐	☐	☐	☐	________
Language and Style	☐	☐	☐	☐	________
Illustration used (Diagram, tables etc)	☐	☐	☐	☐	________
Conceptual Clarity	☐	☐	☐	☐	________
Check your progress Quest	☐	☐	☐	☐	________
Feed back to CYP Question	☐	☐	☐	☐	________

3. Any Other Comments

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MANAGEMENT ACCOUNTING

BLOCK-2 CASH FLOW, RATIO ANALYSIS AND COMMON SIZE FINANCIAL STATEMENT

UNIT 1

STATEMENT OF CASH FLOW (IND AS 7)

UNIT 2

RATIO ANALYSIS

UNIT 3

COMMON SIZE FINANCIAL STATEMENT

BLOCK 2 : CASH FLOW, RATIO ANALYSIS AND COMMON SIZE FINANCIAL STATEMENT

Block Introduction

Cash is the most liquid assets of a business. All business transactions ultimately result in to cash inflow or cash outflow. The business should have sufficient cash on hand, so that the liability can be paid as and when they fall due. The cash on hand should not be excessive, otherwise the cash would remain idle, which reduces the overall profitability Statement if Cash Flow is a historical statement and shows what was the cash inflow and cash outflow during the last year and what was the actual cash balance on hand at the end of the last year. Fund flow statement shows the changes in the net working capital of business. While Statement of Cash Flow shows the inflow and outflow of cash only

The financial statements as prepared and presented annually are of little use for guidance of prospective investor, creditors and even management. The function of the accountant does not end at this stage. He should be able to analysis and interpret the figures as disclosed by this statement to gauge accurately the financial health of the enterprise. Ratio Analysis is a quantitative tool that allows analysis to have quantitative answer such as adequate net profits, using of assets efficiently, Calculation of Ratio does not serve any purpose, unless several appropriate ratios are analyzed and interpreted.

Common-size statements that give only the vertical percentage or ratio for financial data without giving rupee value are known as common size statement. A comparison of two years figures of a concern can be easily made under the companies Act. Companies must shows in their profit and loss account and balance sheet the corresponding figures for the previous year.

In this block, students will get knowledge about Statement of Cash Flow involving alterations in inflow & outflow of cash during certain period. The block will detail about related key aspect of Ratio analysis and common size statement.

After studying this block, students will be able to understand correctly about Cash Flow Statement, Ratio Analysis and common size statement.

Block Objective

After completing this block, students will be able to:

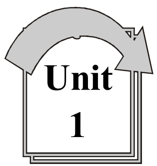
- Knowledge about Statement of Cash Flow
- Understanding the role of Statement of Cash Flow Statement
- Study the different types of Ratio
- Know about the common size statement.

Block Structure

Unit1: Statement of Cash Flow

Unit2: Ratio Analysis

Unit 3: Common Size Financial Statement



STATEMENT OF CASH FLOW

: UNIT STRUCTURE :

1.0 Learning Objectives

1.1 Introduction

1.2 Statement of Cash Flow

1.3 Analysis of Statement of Cash Flow

1.4 Steps in Statement Of Cash Flow and Practical Example

1.5 Let Us Sum Up

1.6 Answer for Check Your Progress

1.7 Glossary

1.8 Assignment

1.9 Activities

1.10 Case Study

1.11 Further Readings

1.0 Learning Objectives

After reading this unit, you will be able to understand:

- Meaning of Statement of Cash Flow.
- Significance of Statement of Cash Flow.

1.1 Introduction

A Statement of Cash Flow is a financial report that describes the sources of a company's cash and how that cash was spent over a specified time period. It does not include non-cash items such as depreciation. This makes it useful for determining the short-term viability of a company, particularly its ability to pay bills. Because the management of cash flow is so crucial for businesses and small businesses in particular, most analysts recommend that an entrepreneur study a Statement of Cash Flow least every quarter.

The Statement of Cash Flow is similar to the income statement in that it records a company's performance over a specified period of time. The difference between the two is that the income statement also takes into account some non-cash accounting items such as depreciation. The Statement of Cash Flow strips away all of this and shows exactly how much actual money the company has generated. Cash flow statements show how companies have performed in managing inflows and outflows of cash. It provides a sharper picture of a company's ability to pay creditors, and finance growth. so we say Profit & loss account and Balance sheet provide book value whereas cash flows statement provides cash value.

In order to bring uniformity in the presentation of accounts of all companies and other firms International Accounting Standards are prepared. On that

basis, The Institute of Chartered Accounts of India is also preparing Accounting Standard to bring uniformity in preparing and presenting accounts in India. The Institute had prepared Accounting Standard -7 for preparation of cash flow statement. It is perfectly possible for a company that is shown to be profitable according to accounting standards to go under if there isn't enough cash on hand to pay bills. Comparing amount of cash generated to outstanding debt, known as the "operating cash flow ratio," illustrates the company's ability to service its loans and interest payments. If a slight drop in a company's quarterly cash flow would jeopardize its ability to make loan payments that company is in a riskier position than one with less net income but a stronger cash flow level.

Unlike the many ways in which reported earnings can be presented, there is little a company can do to manipulate its cash situation. Barring any outright fraud, the Statement of Cash Flow tells the whole story. The company either has cash or it does not. Analysts will look closely at the Statement of Cash Flow of any company in order to understand its overall health.

Check your progress 1

1. **Which items is not included in Statement of cash flow?**
   (a) Depreciation
   (b) Salary paid
   (c) Rent Received
   (d) None of above
2. **Statement of Cash flow show how companies have performed in managing…**
   (a) Only inflow of cash
   (b) Only outflow of cash
   (c) Inflows and outflows of cash both
   (d) None of above

1.2 Statement of Cash Flow

A statement showing Inflow of cash and Outflow of Cash during the last year and a result the balance of cash at the end of the year, is known as "Statement of Cash Flow" This statement helps management to know the actual liquid position or position of cash on hand and also to ascertain whether the business is able to get enough cash to meet the liability as and when they arise.

Cash flows are either receipts (i.e. cash inflows and so are represented as a positive number in a statement of cash flows) or payments (i.e. cash out flows and so are represented as a negative number using brackets in a statement of cash flows). Cash flows are usually calculated as a missing figure. For example, when the opening balance of an asset, liability or equity item is reconciled to its closing balance using information from the statement of profit or loss and/or additional notes, the balancing figure is usually the cash flow. Common cash flow calculations include the tax paid, which is operating activity cash out flow, the payment to buy property plant and equipment (PPE)

which is investing activity cash out flow and dividends paid, which is financing activity cash out flow. The following examples illustrate all three of these examples.

A statement of cash flow classifies and presents cash flows under three headings:

(i) Operating activities

(ii) Investing activities

(iii) Financing activities

(i) Operating activities: The most important source of cash inflow is that which is generated by business operations. This includes two items (I) Profit from operations and (ii) Cash flow from changes in current assets and current liabilities.

Profit from business operations shown by Profit and loss Account does not show inflow of cash to ascertain the net cash flow due to operations, the non-cash items debited must be added back to the profit e.g. Depreciation, written off intangible assets and fictitious assets, Goodwill written off Preliminary expenses written off. Cash flow is affected due to change in current assets like debtors, Bills receivable etc.

"Cash flow decreases due to increase in current assets and Cash flow increase due to decrease in current assets."

There is an inverse proportion between current assets and cash flow We say about current liabilities like creditors, Bills payable etc.

"Increase in current liabilities increase cash flow and Decrease in current liabilities decreases cash flow"

Operating activities are main revenue-earning activities of an enterprise. Operating activities can be presented in two different ways. The first is the direct method which shows the actual cash flows from operating activities for example, the receipts from customers and the payments to suppliers and staff. The second is the indirect method which reconciles profit before tax to cash generated from operating profit. Under both of these methods the interest paid and taxation paid is presented as cash outflows.

(ii) Investing Activity: Investing activities are the securing and transfer of long-term assets and other venture (Investment) not included in cash equivalents investing activity cash flows are those that relate to non-current resources (assets). Illustrations of contributing cash flows incorporate the cash outflow on buying property plant and equipment, the sale continues on the transfer of non-current resources and any cash returns received emerging from ventures.

(iii)Financing activities: Financing activity cash flows relate to cash flows arising from the way the entity is financed. Entities are financed by a mixture of cash from borrowings from third parties (debt) and by the shareholders (equity). Examples of financing cash flows include the cash received from new borrowings or the cash repayment of debt as well as the cash flows

with shareholders in the form of cash receipts following a new share issue or the cash paid to them in the form of dividends.

Check your progress 2

1. The accounting standard certifies Statement of Cash Flowas:
   a. Operating activities and investingactivities
   b. Investing activities and financing activities
   c. Operating activities and financing activities
   d. Operating activities, financing activities and investing activities

1.3 Analysis of Statement of Cash Flow

Statement of Cash Flow is one of the most important financial statements for a project or business. The statement can be as simple as a one page analysis or may involve several schedules that feed information into a central statement.

A Statement of Cash Flow is a listing of the flows of cash into and out of the business or project. Think of it as you are checking account at the bank. Deposits are the cash inflow and withdrawals (checks) are the cash outflows. The balance in your checking account is your net cash flow at a specific point in time.

A Statement of Cash Flow is a listing of cash flows that occurred during the past accounting period. A projection of future flows of cash is called a cash flow budget. You can think of a cash flow budget as a projection of the future deposits and withdrawals to your checking account.

A Statement of Cash Flow is not only concerned with the amount of the cash flows but also the timing of the flows. Many cash flows are constructed with multiple time periods. For example, it may list monthly cash inflows and outflows over a year’s time. It not only projects the cash balance remaining at the end of the year but also the cash balance for each month.

The purpose of the Statement of Cash Flow is to show where an entities cash is being generated (cash inflows), and where its cash is being spent (cash outflows), over a specific period of time (usually quarterly and annually). It is important for analyzing the liquidity and long term solvency of a company. The Statement of Cash Flow uses cash basis accounting instead of accrual basis accounting which is Used for the balance sheet and income statement by most companies. This is important because a company may accrue accounting revenues but may not actually receive the cash. This could produce profits and taxes payable but not provide the resources to stay solvent.

Working capital is an important part of a cash flow analysis. It is defined as the amount of money needed to facilitate business operations and transactions, and is calculated as current assets less current liabilities (liabilities due during the upcoming accounting period). Computing the amount of working capital gives you a quick analysis of the liquidity of the business over the future accounting period. If working capital appears to be sufficient, developing a cash flow budget may not be critical. But if working capital appears

to be insufficient, a cash flow budget may highlight liquidity problems that may occur during the coming year.

Most statements are constructed so that you can identify each individual inflow or outflow item with a place for a description of the item. Statements like Decision Tool Cash Flow Budget provide a flexible tool for simple cash flow projections.

A Statement of Cash Flow is only one of several financial statements that can be used to measure the financial strength of a business. Other common statements include the balance sheet or Net worth Statement and the Income Statement, although there are several other statements that may be included.

These statements fit together to form a comprehensive financial picture of the business. The balance sheet or net worth statement shows the solvency of the business at a specific point in time. Statements are often prepared at the beginning and ending of the accounting period. The statement records the assets of the business and their value and the liabilities or financial claims against the business, i.e. debts. The amount by which assets exceed liabilities is the "net worth" of the business. The net worth reflects the current value of investment in the business by the owners.

Check your progress 3

1. The idea of Statement of Cash Flow is to:

A) Analyze cash position

B) Short-term cash planning

C) Evaluate liquidity

D) Comparing operating Performance

   a. Both A and B
   b. Both A and C
   c. Both B and D
   d. A, B, C,D

1.4 Steps in Statement of Cash Flow and Practical Example

Statement of Cash flow contains information about flows of cash in and out of a firm with usage to which cash is put. The statement has following sections in which the cash flows are shown which occurred during reporting period:

- Operating activities
- Investing activities
- Financing activities

Statement of cash flows is part of financial statements which provides details on incoming and outgoing cash transactions with details net increases or decreases in cash. Such statements generate cash which includes operations, investments and financing. There are basic step processes which lead to preparation of such statements like:

Calculation of New Cash Balance

We see that a business will start and end in a year with cash surplus or deficit. On subtracting annual beginning and ending cash in one year becomes beginning balance for next year. The idea of such Statement of Cash Flow is to show reduction in cash by analyzing cash transactions with proper planning for a year.

Calculating Operating Activities

To start with net income and adding of depreciation which was deducted as non-cash transaction on income statement will get account for with incoming and outgoing of cash activities. Operating activities are the actions the business undertakes as a normal course of doing business.

Calculating Investing Activities

In this certain investing activities like buying and selling of securities and property, plant, equipment's etc.

Calculating Financing Activities

Many businesses opt for loans to finance the initial costs or to buy equipment, buildings, vehicles, trucks, or inventory. Financing activities involve in borrowing cash

There are two methods of showing cash flows from operating activities

(i) Direct Method (ii) Indirect Method

(i) Direct Method

Under this method, the cash inflow from operating activities and cash out flow from operating activities are separately shown. The cash received directly from sales is shown as Cash inflow and cash paid to suppliers for purchases and also to employees towards salaries are shown as cash outflow. The difference between these two is net cash inflow

Particulars	Amount ₹
Cash-Flow from operating Activities:	
Cash received from customers	
Less: Cash paid to suppliers	
Cash paid to Employees	
Cash generated from Operations	
Less: Income-taxes paid	
Cash flow from extra-ordinary item	
Cash flow from Operating Activities	

(ii) Indirect Method: Under indirect method the cash flow from operating activities are not shown as direct from sales, purchase, payment to employee etc. But indirectly, it starts with profit. Profit as shown in Profit and loss Account arises due salary, purchase, payment to employees etc. But the profit shown by Profit and Loss Account has to be adjusted for non-cash items. Like depreciation, written off of factitious assets. So the actual cash inflow and out flow will be ascertained.

CASH FLOW STATEMENT

(For the year ended 31-03-2020)

Particulars	Amount ₹	Amount ₹
(A) Cash flow from Operating Activities:		
Net Profit before Extraordinary items, other Adjustments and Taxation		
+ Depreciation		
+ Fictitious assets Written off		
± Change in Current Assets (e.g. Stock, Debtors etc.)		
± Change in Current Liabilities (e.g. Creditors)		
Cash flow from Operating Activities		
- Income-tax paid		
Net Cash flow from Operating Activities		
(B) Cash flow from Investing Activities:		
+ Sales of fixed Assets		
+ Sales of investment		
Less: Purchased of Fixed Assets		
Purchase of Investment		
Add : Interest and Dividend Received		
Net Cash flow from Investing Activities		
(C) Cash flow from Financing Activities:		
Add : Issue of Shares or Debentures		
: Loan Taken		
Less : Repayment of loan		
: Interest and Dividend paid		
Net Cash Flow from Financing Activities		
Net Increase or decrease in cash and Cash equivalents		
+ Opening cash balance		
Closing Cash Balance		

Some important point to keep in mind

I. Ind AS 7 Bank borrowings are for the most part considered as a portion of financing activities. Be that as it may, Ind AS 7 requires the bank overdraft, which is repayable on request, to be considered as a portion of cash and cash equivalents, rather than classifying it as cash flow from financing activity. AS 3 is noiseless on this matter.

II. Ind AS 7 requires more divulgences (disclosures) as compared to AS 3.

III. AS 3 uses the term **"Reporting Currency"** Ind AS 7 uses the term "functional currency" instead of **"Reporting Currency".**

IV. AS 3 does not bargain with cash flows emerging from foreign subsidiaries, Ind AS 7 bargains with interpretation of cash flows emerging from foreign subsidiaries.

V. A few substances buy the assets and after that provide such assets on lease (resources held for rental) and later on, offer such assets within the ordinary course of trade. Ind AS 7 requires the classification of cash flows from such movement (e.g.: installments made to buy or

make the assets and cash receipts from leasing out and sale of such assets) to be appeared as cash flows from operating activities. AS 3 is silent on this aspect.

VI. Ind AS 7 gives a few unused cases of cash flows from financing activities like

• Cash installments to the proprietors to obtain or redeem entity's shares.

• Cash receipts from mortgages

• Cash installments made by tenant, for decrease of the extraordinary risk, in a finance lease.

VII. Under Ind AS 7, the net cash flow from operating activities, utilizing the indirect strategy, is decided by altering profit or loss for the impacts of undistributed profits of partners and non-controlling interests AS 3 does not particularly given for the same.

VIII. Cash flows emerging as a result of alter in ownership interest, held in a subsidiary company might be classified as cash flows from financing activities, in case it does not result into loss of control. Cash flows emerging from alter in ownership interests held in an auxiliary company might be classified as cash flows from investing activities.

IX. IND AS 1 forbids introduction of anything of income or expense as exceptional thing and thus Ind AS 7 does not bargain with the presentation of cash flows from additional ordinary items. As per AS 3, the cash flows from additional ordinary activities might be classified as cash flows from operating or investing or financing activity, as the case may be, depending on the nature of such uncommon thing.

No exception has been given in Ind AS 7 with respect to its appropriateness as given in AS 3. So, companies which are able be required to plan financial statements as per Ind AS will be required to get ready statement of cash flows as per Ind AS 7.

Practical Examlpe-1

From the following information Prepare Statement of Cash Flow of Kavisha Ltd.
(Calculate both method Indirect Method and Direct Method)

Statement of Profit and Loss for the year ended 31-03-2020

Particulars		Amount ₹	Amount ₹
Sales			3,00,00,000
Cost of Sales			2,60,00,000
Gross Profit			40,00,000
Less :			
Depreciation		4,50,000	
Administrative and selling expenses		9,10,000	
Interest Expenses		4,00,000	
			17,60,000
			22,40,000
Add :			
Interest income		3,00,000	
Dividend Income		1,60,000	4,60,000
Net Profit before taxation			27,00,000
Less : Income-tax			1,80,000
Net Profit			*28,80,000*

The Balance sheet of Kanvisha Ltd. as on 31-03-2020 are given below

Particulars	Note	31-03-2020 Amount ₹	31-03-2019 Amount ₹
I EQUITY AND LIABILITIES :			
(1) Shareholders' Funds :			
(a) Share Capital Fully paid Shares of ₹ 10 each		15,00,000	12,50,000
(b) Reserve and Surplus : General Reserve		34,50,000	13,80,000
(2) Non-Current Liabilities			
(a) Long term Borrowings : 12% Debentures		11,10,000	10,40,000
(3) Current Liabilities			
(a) Trade Payable :Creditors		1,50,000	18,90,000
(b) Other Current Liabilities			
Interest Payable		2,30,000	1,00,000
Income-tax payable		4,00,000	10,00,000
		68,40,000	66,60,000
II Assets			
(1) Non- Current Assets			
(a) Fixed assets at cost 21,80,000 19,10,000			
Less : Depreciation Fund 14,50,000 10,60,000		7,30,000	8,50,000
(b) Non-Current Investment		25,00,000	25,00,000
(2) Current Assets :			
(a) Inventories : Stock		9,00,000	19,50,000
(b) Trade Receivable: Debtors		17,00,000	12,00,000
(c) Cash and Cash Equivalents :			
Cash and Bank Balance		9,10,000	1,60,000
(d) Other Current Assets: Interest receivable		1,00,000	
		68,40,000	66,60,000

Additional Information:

(1) An amount of ₹ 2,50,000 was raised from issue of share capital and further ₹ 2,50,000 Was raised from long-term borrowings.

(2) Interest expenses were ₹ 4, 00,000 of which ₹ 1, 80,000 was paid during the period.

₹ 90,000 relating to interest expenses of the prior period was also paid during the year.

(3) Dividend paid were ₹ 12,00,000

(4) During the year, the enterprise purchased fixed assets for ₹ 3,50,000 by cash

(6) Plant with the original cost of ₹ 80,000 and accumulated depreciation of ₹ 60,000 was Sold for ₹ 20,000.

(7) Debtors and creditors include amount relating to credit sales and credit purchases only

Answer : Working notes.(First find out missing figure)

Dr.	Share Capital A/c		Cr.
		By Bal B/d	12,50,000
To Bal C/d	15,00,000	By Cash	2,50,000
	15,00,000		15,00,000

Dr.	Reserve & Surplus A/c		Cr.
To Dividend	12,00,000	By Bal B/d	13,80,000
To Bal C/d	34,50,000	By Cash	32,70,000
	46,50,000		46,50,000

Dr.	Long term Debt. A/c		Cr.
To Bank A/c	1,80,000	By Bal B/d	10,40,000
To Bal C/d	11,10,000	By P & L A/c	2,50,000
	12,90,000		12,90,000

Dr.	Interest Receivable. A/c		Cr.
To B/d A/c	---	By Cash A/c	2,00,000
	3,00,000	To Bal C/d	1,00,000
	3,00,000		3,00,000

Dr.	Debtors A/c		Cr.
To Bal B/d	12,00,000	By cash/ Bank A/c (?)	2,95,00,000
To Credit Sales	3,00,00,000	To bal. c/d	17,00,000
	3,12,00,000		3,120,0,000

Dr.	Creditors A/c		Cr.
To Cash/Bank A/c (?)	2,66,90,000	To B/d	18,90,000
To Bal c/d	1,50,000	To Credit Purchase	2,49,50,000
	2,68,40,000		2,68,40,000

Dr.	Interest Payable A/c		Cr.
To Cash A/c	2,70,000	By Bal B/d	1,00,000
To Bal C/d	2,30,000	By P & L A/c	4,00,000
	15,00,000		5,00,000

Dr.	Income-tax payable A/c		Cr.
To Bank A/c	8,60,000	By Bal B/d	10,00,000
To Bal C/d	4,00,000	By P & L A/c	2,60,000
	12,60,000		12,60,000

Dr.	Assets A/c		Cr.
To B/d	19,10,000	By Cash A/c (Sale of plant)	20,000
Cash A/c	3,50,000	To Dep. Fund A/c	60,000
		To bal. c/d	21,80,000
	22,60,000		22,60,000

Dr.	Depreciation fund A/c		Cr.
To Plant	60,000	To B/d	10,60,000
To Bal c/d	14,50,000	To P& L A/c	4,50,000
	15,10,000		15,10,000

Cost of sales =

Opening Stock …

+ Purchase …

- Closing Stock …

2,60,00,000 = 19,50,000 + Purchase - 9,00,000

2,60,00,000 - 19,50,000 + 9,00,000 = Purchase

Credit Purchase = 2, 49, 50,000

Statement of Cash Flow of kavisha Ltd. (Direct Method)

	Particulars	Amount ₹	Amount ₹
I	**Cash flow from operating Activities:**		
	Cash receipt from customer		2,95,00,000
	Less : Cash paid to supplier (Creditors)	2,66,90,000	
	Less: Cash paid to employees (Administrative Exp.)	9,10,000	-2,76,00,000
	Cash generated from operation		19,00,000
	Less: Income tax paid		-7,80,000
II	**Net cash flow from operating activities:**		**11,20,000**
	Net cash flow from Investing Activities:		
	I Purchase of fixed assets	-3,50,000	
	ii Sale of Plant	20,000	
	iii Interest Received	2,00,000	
	iv Dividends received	1,60,000	30,000
	Net Cash from Investing activities		11,50,000
III	**Cash flow from financing Activities :**		
	I Issue of share capital	2,50,000	
	ii Long-term borrowings raised	2,50,000	
	iii Repayment of long -term borrowings	-1,80,000	
	iv Interest paid	-2,70,000	
	v Dividend paid	-9,00,000	-8,50,000
	Net cash flow from financing activities		3,00,000
	Cash and Cash equivalents at beginning of year		1,60,000
	Cash and Cash equivalents at the end of year		4,60,000

Statement of Cash Flow of Kavisha Ltd. (Indirect Method)

	Particulars	Amount ₹	Amount ₹
I	**Cash flow from operating Activities:**		
	Net Profit before taxation		27,00,000
	Add:		
	I Depreciation Fund	4,50,000	
	ii Interest Expenses	4,00,000	8,50,000
			35,50,000
	Less:		
	iii Interest Income	3,00,000	
	Iv Dividend Income	1,60,000	- 4,60,000
	Operating Profit before working capital Changes		30,90,000
	I Increase in debtors	-5,00,000	
	ii Decrease in Stock	10,50,000	
	iii Decrease in creditors	-17,40,000	-11,90,000
	Cash generated from operation		19,00,000
	Less: Income tax paid		7,80,000
	Net cash flow from operating activities:		**11,20,000**
II	**Net cash flow from Investing Activities:**		
	I Purchase of fixed assets	-3,50,000	
	ii Sale of Plant	20,000	
	iii Interest Received	2,00,000	
	iv Dividends received	1,60,000	30,000
	Net Cash from Investing activities		11,50,000
III	**Cash flow from financing Activities :**		
	I Issue of share capital	2,50,000	
	ii Long-term borrowings raised	2,50,000	
	iii Repayment of long -term borrowings	-1,80,000	
	iv Interest paid	-2,70,000	
	v Dividend paid	-9,00,000	-8,50,000
	Net cash flow from financing activities		3,00,000
	Cash and Cash equivalents at beginning of year		1,60,000
	Cash and Cash equivalents at the end of year		4,60,000

Check your progress 4

1. In cash flow statment, the item of interest is shown in

(A) Operating Activities

(B) Financing Activities

(C) Investing Activities

(a) Both A and B

(b) Both A and C

(c) Both B and C

1.5 Let Us Sum Up

In this unit we have learnt that Statement of cash flow is financial statement which describes how changes in balance sheet accounts and income affect cash and cash equivalents which breaks analysis down to operating, investing and financing activities.

We see that Statement of Cash Flow is a financial statement that deals in incoming and outgoing of cash which shows net detail about increases or decreases in cash and helps in generating cash for operations, investments and financing.

1.6 Answer for Check Your Progress

Check your progress 1

Answers : (1-a) ;(2-c)

Check your progress 2

Answers :(1-d)

Check your progress 3

Answers :(1-d)

Check your progress 4

Answers :(1-c)

1.7 Glossary

1. **Cash -** It is cash on hand and demand deposits with banks.
2. **Cash equivalent -** A short term liquid investments which is convertible into known amounts of cash subject to insignificant risk of changes in value.
3. **Cash flows -** Inflows and outflows of cash and cash equivalents.
4. **Investing activities -** Acquisition and disposal of long-term assets and other investments not included in cash equivalents.
5. **Acquisition** -Procurement of assets
6. **Disposal**- Sales of property or other assets.

1.8 Assignment

List some importance of cash flow statements.

1.9 Activities

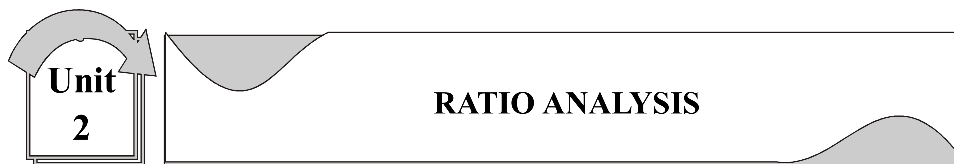
Collect information on investing activities.

1.10 Case Study

Discuss the implications of Statement of cash flow.

1.11 Further Readings

1. Brahmasrene, Tanta tape, and C. David Strupeck, Donna Whitten. "Examining Preferences in Statement if Cash Flow Format." October2004.
2. Hey-Cunningham, David. Financial Statements Demystified. Allen & Unwin, 2002. O'Connor, Tricia. "The Formula for Determining Cash Flow." 2000.



RATIO ANALYSIS

: UNIT STRUCTURE :

2.0 Learning Objective
2.1 Introduction
2.2 Accounting Ratios
2.3 Characterization Of Accounting Ratios
2.4 Advantages (Utility) Of Ratio Analysis
2.5 Restrictions Of Ratio Analysis
2.6 Practical Example
2.7 Let Us Sum Up
2.8 Answer for Check Your Progress
2.9 Glossary
2.10 Assignment
2.11 Activities
2.12 Case Study
2.13 Further Reading

2.0 Learning Objective

After reading this unit, you will be able to understand:

- Ratio is defined as the indicated quotient of two mathematical expressions' and as 'the relationship between two or more things',
- Accounting ratios compute the relationships between two interrelated accounting figures from balance sheet and Profit and Loss Account
- Advantage and limitation of Ratio Analysis

2.1 Introduction :

Our study of accounting So far has been restricted to recording of business transactions in books of accounts,

- Preparing a trial balance to check the arithmetical accuracy of accounts
- Preparing profit and loss account and
- balance sheet

With view to ascertaining trading results of a specified period and financial position of the business on a specified date respectively. The functions of accountant do not end at this stage. He should be able to analyses and interpret the figures as disclosed by these statements to gauge accurately the financial health of the enterprise. The Students of accountancy are frequently called upon to advise the prospective investors and should be able to analyses the accounts and say whether it is advisable for him to risk his savings in a particular enterprise. He may be consulted by a creditor to go through the

accounts of an enterprise and opine whether it is safe for him to lend money. At times, he may have to examine the accounts from viewpoint of employees and consumers to give his views on the earning capacity and financial position of the business. The study of the methods of analysis and interpretation of accounts would therefore, be interesting and useful. The following pages are devoted to the study of a technique of analysis through accounting ratio.

Check your progress 1

1. Study of accounting So far has been restricted to recording of business transactions in books of accounts

(a) Preparing a trial balance to check the arithmetical accuracy of accounts

(b) Preparing profit and loss account

(c) Preparing balance sheet

(d) Preparing all above option

An investor is interested in information regarding the exact financial position of the business, its earning capacity, and the present position with regard to profitability and future possibilities. He has only the published accounts of the company before him which would enable him to take any decision with respect to investing his money. The published accounts contain Profit and loss accounts, Balance sheet, Director's Report, Auditor's Report and Chairman's Speech. The earning capacity and the past results could be ascertained from the profit and loss accounts. An idea about the financial position can be had from the balance sheet. The Director's Report and Chairman's speech would assist him in foreseeing the future prospects of the company. However, accurate conclusions cannot be drawn from the mass of figures included in these financial statements. Hence they are to be analyzed and interpreted with the help of a number of devices. Let us at this stage, clarity the meaning of important terms useful in our study of analysis of accounts.

2.2 ACCOUNTING RATIOS

The financial statements as prepared and presented annually are of little use for guidance of prospective investors, creditors, and even management. If relationship between various related items in these financial statements is established, they can provide useful clues to gauge accurately the financial health and ability of business to make a profit. This relation between two related items of financial statements is known as ratio

A ratio is customarily expressed in three different ways. It may be expressed as a proportion between two figures. For example, if current assets are twice the current liabilities it can be said that the current ratio is 2:1. Second method is to express it in the form of percentage. e.g. the rate of return on capital employee is 30%.Third method is to express it as rates. For Example, stock turnover is 6 or stock turns 6 times a year.

INTERPRETATION THROUGH RATIOS:

Only calculating ratio is of no use unless it is interpreted so as to be useful to management in making policy decision. The following methods are used for

this purpose:

(1) Comparison with Ideal Ratio: No conclusion can be drawn from any individual ratio. It should be compared with some generally accepted ideal ratio. E.g. the current ratio of a firm is found to be 1.5: 1. This ratio dose not guides the management as regards its liquid position. But it is generally believed in financial circles that the ideal current ratio should be 2:1.

(2) Comparison with Past Ratios: If the present Ratios of the company are compared with its past ratios, they will indicate the trend. It will show whether the financial position and performance of the firm has improved, deteriorated or remained constant. This will help the management in taking corrective measures, if necessary.

(3) Help of Some Related Ratio: The analysis and interpretation some ratios may be made more meaningful, if some related ratios are also considered. Suppose, the current ratio of a firm is 2:1 showing a comfortable liquid position. But it is considered along with the liquid ratio and acid test ratio, it will give a very clear idea of the liquidity of business. It may happen that the current ratio may show a good position because of large stock contained in the current assets, but it suggests that the sale is very slow and the liquid position is not as comfortable as it appears. Liquid ratio if used along with current ratio will give a clear idea of liquidity, because it excludes stock in its computation.

(4) Comparison with Ratios of Other Firms: comparison of firm's ratios with those of other firms in the same industry is useful and indicates strength or weakness of the firm's position and performance. The comparison is useful because of the firms in the same industry face similar problems.

Check your progress 2

1. The financial statements as prepared and presented annually are of little use for guidance of relationship between various related items in these financial statements are established for,

(a) Prospective investors

(b) Creditors

(c) Management.

(d) All above a, b and c

2.3 CHARACTERIZATION OF ACCOUNTING RATIOS :

Accounting ratios are generally characterized (classified) as follows:

(2.3.1) Traditional classification or classification according to the type of financial statements

(2.3.2) Functional classification

(A) Traditional classification: The ratios are grouped into three categories on the basis of the statements from which the figures are taken for

computing the ratios. It is well-known traditional classification.

(1) Revenue statement ratio: These are the ratios computed on the basis of items taken from revenue statement i.e. Profit and loss account. E.g. Net profit ratio is computed by dividing net profit by sales. Here both net profit and sales are items appearing in profit and loss account.

(2) Balance sheet Ratio: When two items or groups of items appearing in the balance sheet are compared the ratio so obtained is a balance sheet ratio. e.g. a ratio establishing relationship between current assets and current liabilities is a balance sheet ratio.

(3) Composite Ratios : A ratio showing the relationship between one item taken from balance sheet and another taken from profit and loss Account is composite ratio or a combined ratio known as balance sheet and revenue statement ratio. A return on capital employed shows the proportion of net profit to capital employed and it is composite ratio.

(B) Functional Classification: Ratios are also grouped in accordance with certain tests. On this basis there are four categories ratios.

(1) Liquidity Ratios: These ratios indicate the position of liquidity. They are computed to ascertain whether the company is capable of meeting its short term obligations from its short term resources. For example, current ratio shows the capacity of a firm to meet its current liabilities as and when the mature. e.g. (1) current ratio (2) Liquidity ratio (3) Acid -Test Ratio.

(2) Profitability Ratios: A number of ratios are designed to indicate the profitability of the business and are grouped into the category of profitability ratios. For example, Return on capital employed is an example of profitability ratio. e.g. (i) Gross profit Ratio (ii) Net benefit Ratio (iii) Cost (Expenses) Ratio (iv) Working proportion (Operating Ratio) (v) Return on capital Employed Ratio (vi)Return on shareholders' Funds (vii) Debt service coverage Ratio.

(3) Leverage Ratios: The composition of capital of business and the proportion of owners' capital and capital provided by outsides are reflected by leverage ratio. For example, gearing ratio showing the relationship between the preference capital and ordinary capital is a leverage ratio. e.g. (i) proprietary Ratio (ii) Debt Equity ratio (iii) Gearing Ratio (iv) Fixed capital – Fixed assets Ratio.

(4) Activity or Efficiency Ratios: These are the ratios showing the effectiveness with which the resources of the business are employed. It signifies the efficiency of the management. For example, Stock turnover is an activity ratio, showing the number of times the average stock is turned over during the year. e.g. Debtors ratio or turnover capital ratio, total assets turnover, fixed assets turnover etc.

TRADITIONAL CLASSIFICATION:

In order to easily understand the ratios, the traditional classification is more useful. Hence, the ratio has been discussed according to this classification.

(A) REVENUE STATEMENT RATIOS:

The ratios computed showing relationship between the two items of profit and loss account is enumerated below:

(1) Gross profit Ratio

(2) Operating Ratio

(3) Net Profit Ratio

(4) Stock Turnover

i. **Gross Profit Ratio:** it is a ratio expressing relationship between Gross profits earned to net sales. It is a useful indication of the profitability of the business.

$$\text{Gross ProfitRatio} = \frac{\text{(Gross Profit)}}{\text{Sales}} \times 100$$

For example If Net Sales are ₹ 2, 00,000 and Gross Profit ₹ 50,000 than Gross Profit ratio is

$$\text{Gross ProfitRatio} = \frac{50{,}000}{2{,}00{,}000} \times 100 = 25\ \%$$

This ratio shows every ₹ 100, a margin ₹ 25 is available from which operating expenses of business are to be recovered. It shows cost of production is sufficient or not. If this ratio is low, it indicate that the cost of sales is high or due to depression selling price is reduced but there may be no corresponding reduction in cost of sales. The management investigates the causes and tries to bring up this ratio.

ii. **Operating ratio:** It is a ratio showing relationship between Cost of goods sold plus operating expenses and net sales. It shows the efficiency of the management. The higher the Ratio, the less will be the margin available to proprietors. This ratio is also usually expressed as a percentage.

Cost of Sale

Opening Stock…………….

+ Net Purchase……………

(Purchase – Purchase Return)

+ Purchase Expenses………

Less : Closing Stock……….

OR

Cost of Sales = Net Sales (Sales –Sales Return) – (Gross Profit)

Operating Expenses (Total Expenses)

Administrative Expenses

+ Financial Expenses

+ Selling and distribution Expenses

$$\text{Operating Ratio} = \frac{\text{Cost of Goods Sold + Operating Exp.}}{\text{Sales}} \times 100$$

For example Net sales are ₹ 2, 50,000; Cost of sales is ₹ 1, 50,000 and operating expenses ₹ 60,000. The operating ratio will be calculated as under:

$$\text{Operating Ratio} = \frac{1,50,000 + 60,000}{2,50,000} \times 100 = 84\%$$

Out of sales of ₹ 100, ₹ 84 is taken away by cost of goods and other expenses and ₹ 16 are left in the hands of proprietors. This ratio therefore suggests that a particular share of selling price is absorbed by cost of sales and other operating expenses and the remainder is left for the owners of the business. Hence, the higher this ratio, the less profitable it is, because it would prove insufficient to pay dividend and create necessary reserves.

iii. **Net Profit Ratio:** The ratio is valuable for the purpose of ascertaining the over-all profitability of business and shows the efficiency or otherwise of operating the business. It is the turnaround (reverse) of the operating ratio (Working proportion). It is calculated as below

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

Suppose the net profit of the business after taxes is ₹ 40,000 and sales are

₹ 2, 50,000 then the net Profit Ratio will be

$$\text{Net Profit Ratio} = \frac{40,000}{2,50,000} \times 100 = 16\ \%$$

Generally, the ratio is computed on the basis of net profit earned from operation of business and non - operating Expenses and incomes are excluded. e.g. income from investments of surplus funds of business is non-operating income and so it is to be excluded. Loss on sale of asset is non-trading loss and it is not taken into account. Generally, Tax is deducted from profit while calculating this ratio.

This ratio is indicates what proportion of sales revenue is left to the proprietors after all operating expenses are met.

The higher this ratio, the better will be profitability. In order to have a better idea of profitability, the gross profit ratio and the net profit ratio may be simultaneously considered. If the gross profit is increasing over last five years, but the net profit is declining, it indicates that

Administrative expenses are slowly rising.

iv. **Stock Turnover:** The number of times the average stock is turned over during the year is known as stock turnover. It is computed by dividing the cost of goods sold by the average stock in the business. Average stock is the average of opening and closing stock of the year.

If however, the monthly figures of the stocks are available, the average monthly stock will give a better turnover ratio.

$$\text{Stock turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$$

Suppose Opening stock of company is ₹ 25,000, Purchase ₹ 1, 05,000 and Closing Stock ₹ 15,000 then Stock Turnover Ratio will be.

Cost of goods sold = Opening Stock + Purchase – Closing Stock

= 25,000 + 1, 05,000 – 15,000

= 1, 15000

$$\text{Average Stock} = \frac{\text{Opening Stock + Closing Stock}}{2}$$

$$= \frac{25{,}000+15{,}000}{2} = \frac{40{,}000}{2} = 20{,}000$$

$$\text{Stock turnover Ratio} = \frac{1{,}15{,}000}{20{,}000} = 5.75 \text{ Times}$$

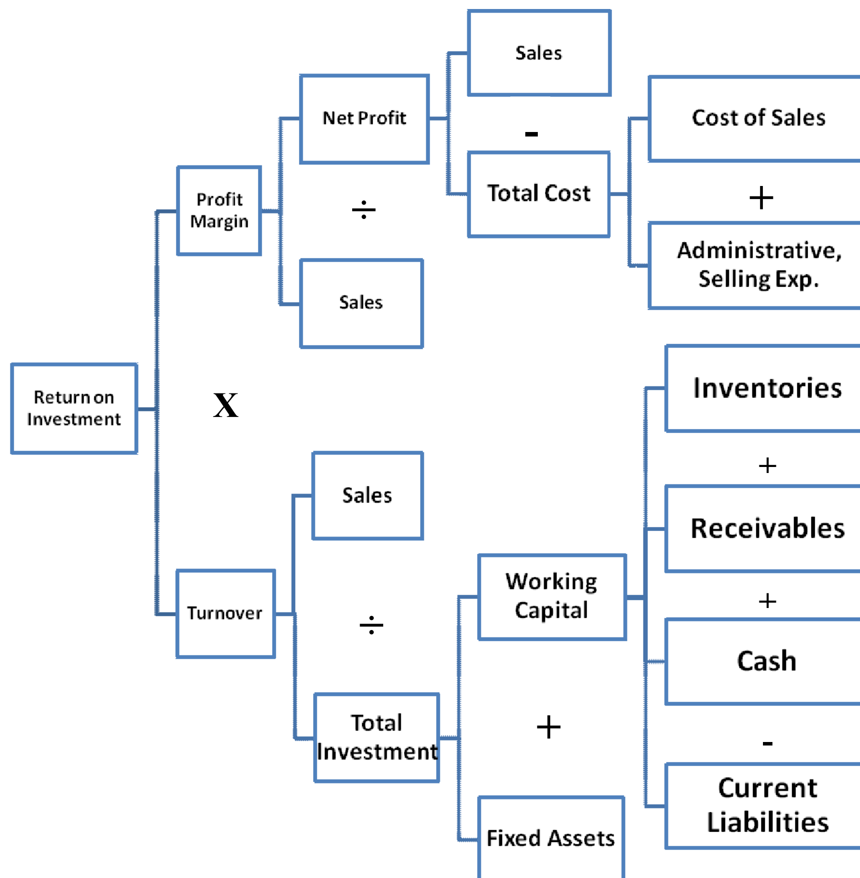
The ratio is very important in judging the ability of management with which it can move the stock. The higher the turnover ratio, the more profitable the business would be. The firm in such a case will be able to trade on a smaller margin of gross profit. A low turnover indicates accumulation of slow-moving, obsolete and low-Quality goods, which is a danger signal to the management.

Profitability Ratio based on investment

Return on investment indicate the profitability of business and is very much in use among financial analysts. Return on capital employed, Return on shareholders' funds, Return on equity shareholders' funds, Earnings per share

The chart used by Du Pont Company of USA is known as Du Pont Chart and given below; it shows how return on investment is calculated

Du Pont Chart



The above chart shows that a number of factors contribute to the final rate of return on capital employed. Change in any factor affects the final rate of return

(B) BALANCE SHEET RATIOS:

The ratios based on comparison of items taken from balance sheet are given below:

(1) Current Ratio

(2) Liquid Ratio

(3) Acid-Test Ratio

(4) Debt-Equity Ratio

(1) Current Ratio: This most widely used ratio shows the proportion of current assets to current liabilities. It is also known as 'Working Capital Ratio'

As it is a measure of working capital available at a particular time. The Ratio is obtained by dividing current assets by the current liabilities. It is a measure of short-term financial strength of the business and shows whether the business will be able to meet its current liabilities, as and when the mature. Remember that a liability which will mature within a period of 12 months is a current liability. They include creditors, bills payable, bank overdraft, outstanding expenses, Provision for taxation etc. Similarly, current assets are in the form of cash or can be readily converted into cash within a short time.

They include cash, bank balance, stock, Debtors, bills receivable, prepaid expenses, accrued income, readily marketable securities etc.

Suppose, the current assets are worth ₹ 2, 00,000 and current liabilities are ₹ 1, 00,000, then the current ratio will be as under:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{2,00,000}{1,00,000} = 2 : 1$$

Standard measurement 2:1

It means that for every ₹ 1 of current liability, there is available ₹ 2 in current assets to meet the current liability.

Current Assets = Cash and bank balance + Stock + Debtors +B/R + Prepaid expenses + Investments readies convertible into cash + Loans and Advances.

Current Liabilities = Creditors + B/P + Bank O/D + Unclaimed dividend + Provision for taxation + proposed dividend.

Loan given to staff for long period cannot be included in current assets. Only, non-trading investments are included in readies convertible investments as current assets. Trading investments cannot be included in current assets.

If income-tax paid in Advance is shown on assets side of B/S, it must be deducted from provision for taxation and net amount of provision should be shown as current Liability.

It is generally believed that 2:1 ratio shows a comfortable working capital position. I.e. The current assets should be twice the current liabilities. However, this rule should not be taken as a hard and fast rule, because a ratio which is satisfactory for one business may not be satisfactory for the other. There may be instances when an enterprise may function satisfactorily even with a current ratio of one to one or less and some enterprises require much higher ratio than 2 to 1. If the amount of stock-in-trade is unduly large, then the 2 to 1 ratio may not be satisfactory.

Before giving any opinion about the liquidity of the company on the basis of current ratio, the types of assets, and the size must be considered. Sometimes, the current ratio seems to be high, because of excessive stock included in current assets. The reason may be low sales. Due to the high proportion of obsolete, slow moving stock, the current ratio may be high, but its capacity to pay current liabilities on maturity will be definitely weak.

(2) Liquid Ratio: A Variant of current ratio is the liquid ratio or quick ratio which is designed to show the amount of cash available to meet immediate payments. It is obtained by dividing the liquid assets by liquid liabilities.

Liquid assets are obtained by deducting stock –in-trade from current assets. Stock is not treated as a liquid asset because it cannot be readily converted into cash as and when required. The current ratio of a business does not reflect the true liquid position, if its current assets consist largely of stock-in-trade.

The liquid liabilities are obtained by deducting bank overdraft from current liabilities. Bank overdraft is not included in liquid liabilities because bank

overdraft is not likely to be called on demand and is treated as a sort of permanent mode of financing. Hence, it is not treated as a quick liability.

$$\text{Liquid Ratio} = \frac{\text{Liquid Assets (Current Assets-Closing Stock)}}{\text{Liquid Liabilities (Current liabilities-Bank O.D.)}}$$

Suppose, the liquid assets of a company is ₹ 60,000 and Liquid liability ₹ 50,000 then Liquid Ratio will be

$$\text{Liquid Ratio} = \frac{60{,}000}{50{,}000} = 1.2 : 1$$

Liquid assets is more than liquid liability than it shows satisfactory condition of business.

(3) Acid-Test Ratio: The measure of absolute liquidity may be obtained by comparing only cash and bank balance as well as readily marketable securities with liquid liabilities. This is a very exacting standard of liquidity and it is satisfactory if the ratio is 0.5 : 1. It is computed by dividing the value of quick assets by liquid liabilities. Here, quick assets do not include both stock and debtors, because payments from debtors would not generally be received immediately when liquid liabilities are to be paid. Thus the quick assets comprise only cash balance, bank balance and readily marketable securities only. Some writers call this ratio as Absolute Liquidity Ratio, (or Absolute Cash Ratio)

$$\text{Acid-test Ratio} = \frac{\text{Quick Assets}}{\text{Liquid Liabilities}}$$

e.g. The company has cash on hand ₹ 5,000, Bank balance ₹ 22,500, readily marketable securities ₹12,500, If the liquid liabilities are ₹ 60,000; than the acid-test ratio will be

$$= \frac{\text{Quick Assets}}{\text{Liquid Liabilities}} = \frac{40{,}000}{60{,}000} = \frac{2}{3} = 0.56 : 1$$

Quick Assets are 2/3rd of quick liabilities.

(4) Debt-Equity Ratio: This ratio is only another form of proprietary ratio and establishes relationship between the outside long-term liabilities and owner's funds. It shows the proportion of long-term External Equities and internal Equities. i.e. proportion of funds provided by long-term creditors and that provided by shareholders or proprietors.

$$\text{Debt-Equity Ratio} = \frac{\text{Long term Liabilities}}{\text{Shareholders' Funds}}$$

e.g. Debenture ₹ 50,000; Bank loan ₹ 20,000; Owners funds are ₹ 1,25,000 Than Debt-Equity Ratio will be

$$\text{Liquid Ratio} = \frac{(50{,}000+20{,}000)}{1{,}25{,}000} = \frac{70{,}000}{1{,}25{,}000} = 0.56 : 1$$

it suggest for ₹ 100 shareholders fund long term debts ₹ 56 means owners funds are more than long term liabilities s(nearly double)

(C) COMPOSITE RATIO:

The ratios expressing relation between one item of profit and loss account and the other item from Balance sheet are combined or composite ratios. The following are some of these ratios:

(1) Debtors turnover (Debtors' Ratio)

(2) Creditors turnover (Creditors' Ratio)

(1) Debtors Ratio: The ratio shows the number of days taken to collect the due of credit sales. It shows the efficiency or otherwise of the collection policy of the enterprise. The ratio is computed by dividing the amount of debtors and bills receivable by the average daily sales. The average daily sales is obtained by dividing the total annual sales by 365.

i.e. (i) Firstly, average daily sales is found out

Then (ii) Collection period is determined.

$$\textit{Average Daily Sales} = \frac{\textbf{Credit Sales}}{\textbf{365}}$$

$$\text{(i) } \textit{Debtors Ratio} = \frac{\text{Debtors} + \text{Bills Receivable}}{\textit{Average Daily Sales}}$$

$$\text{(ii) Debtors Ratio} = \frac{\text{Debtors} + \text{Bills Receivable}}{\text{Credit Sales}} \text{ X } 365$$

Debtors turnover: The debtors turnover suggest the number of times the amount of credit sale is collected during the year, while debtors ratio indicates the number of days during which the dues for credit sales are collected.

$$\textit{Debtors Turnover} = \frac{\text{Credit Sales}}{\textit{Average Debtors}}$$

$$\textit{Average Debtors} = \frac{\text{Opening Debtors} + \text{Closing Debtors}}{2}$$

If B/R is given, it should be included in the debtors.

If total credit sales are ₹ 3,65,000, Total Debtors ₹ 70,000 and Bills Receivable ₹ 20,000

$$\textit{Average Daily Sales} = \frac{\text{Credit Sales (3,65,000)}}{365} = ₹\ 1{,}000$$

$$\text{(i) Debtors Ratio} = \frac{\text{Debtors} + \text{Bills Receivable}}{\text{Average Daily Sales}} = \frac{70{,}000 + 20{,}000}{1{,}000}$$

It means that collection of credit sales is in 90 days If this ratio is higher it suggest that business collection policy is weak.

(2) Creditors Turnover or Creditors Ratio: We have seen in the above paragraph that the debtors' ratio gives us the number of days within which

amount due for credit sales is collected. Similarly, the number of days within which we make payment to our creditors for credit purchase is obtained from creditor's velocity. Suppose the credit period is 45 days, i.e. our creditors allow us to credit period of 45 days and if creditors velocity is 30 days i.e. we are making payment within 30 days, it means that we do not take full advantage of credit period allowed to us.

(3) $$Creditors\ Ratio = \frac{\text{Creditors} + \text{Bills Payable}}{Average\ Daily\ Purchase}$$

$$Creditors\ Velocity = \frac{\text{Creditors} + \text{Bills Payable}}{Annual\ Credit\ Purchase}\ X\ 365$$

$$Creditors\ Turnover = \frac{\text{Credit Purchase}}{Average\ Creditors}$$

If Creditors Ratio or Average Payment Period is to be calculated on the basis of Creditors Turnover, it will be done as follows:

$$Creditors\ Ratio = \frac{360\text{ or }365}{Credit\ Turnover}$$

e.g. in X co. at the end of the year creditors are ₹ 5,000, bills payable ₹1,000 and credit purchases ₹ 73,000, then the creditors' velocity will be as under

$$Creditors\ Ratio = \frac{\text{Creditors} + \text{Bills Payable}}{Annual\ Credit\ Purchase}\ X\ 365$$

$$Creditors\ Ratio = \frac{5{,}000 + 1{,}000}{73{,}000}\ X\ 365 \quad = 30\ Days$$

Check your progress 3

1. Which following classification is involved as a Traditional classification?

(a) Revenue statement ratio

(b) Balance sheet Ratio

(c) Composite Ratios

(d) All above

2. Which following ratio is not based on comparison of items taken from balance sheet is given below:

(a) Net profit Ratio (b) Current Ratio

(c) Liquid Ratio (d) Acid-Test Ratio

2.4 ADVANTAGES (UTILITY) OF RATIO ANALYSIS:

The use of ratios was started by banks for ascertaining the liquidity and profitability of companies' business for the purpose of advancing loans to them. It gradually became popular and other creditors began to use them profitably. Now even the investors calculate ratios began to use accounts of the company in order to have an idea about the solvency and profitability of the company before investing their savings. The ratio analysis provides useful data to management, which would help them in taking important policy decisions. Diverse groups of people make use of ratios, to determine a particu-

lar aspect of the financial position of the company, in which they are interested.

(1) Profitability: Useful information about the trend of profitability is available from profitability ratios. The gross profit ratio, net profit ratio and ratio of return on investment give a good idea of the profitability of business. On the basis of these ratios, investors get an idea about the efficiency of managers and bank as well as other creditors draws useful conclusions about repaying capacity of the borrowers.

(2) Liquidity: In fact, the use of ratios was made initially to ascertain the liquidity of business. The current ratio, liquid ratio and acid-test ratio will tell whether the business will be able to meet its current liabilities as and when they mature. Banks and other lenders will able to conclude from these ratios whether the firm will be able to pay regularly the interest and loan installments.

(3) Efficiency: The turnover ratios are excellent guides to measure the efficiency of managers. e.g. the stock turnover will indicate how efficiently the sale is being made, the debtor's turnover will indicate the efficiency of collection department and assets turnover shows the efficiency with which the assets are used in business. All such ratios related to sales present a good picture of the success or otherwise of the business.

(4) Inter-firm comparison: The absolute ratio of a firm is not much use, unless they are compared with similar ratios of other firms belonging to same industry. This is inter-firm comparison, which shows the strength and weakness of the firm as compared to other firms and will indicate corrective measures.

(5) Indicate Trend: The ratios of the last three to five years will indicate the trend in the respective fields. For example, the current ratio of the firm is lower than the industry average, but if the ratios of the last five years show the improving trend, it is an encouraging trend. Reverse may also be a true. A particular ratio of a company for one year may compared favorably with industry average but, if its trend shoes a deteriorating position, it is not desirable. Only ratio analysis will provide this information.

(6) Useful for Budgetary Control: Regular Useful budgetary reports are prepared in a business where the system of budgetary control is in use. If various ratios are presented in these reports, it will give a fairly good idea about various aspects of financial position.

(7) Useful for decision-making: Ratios guide the management in making some of the important decisions. Suppose the liquidity ratios show an unsatisfactory position, the management may decide to get additional liquid funds. Even for the capital expenditure decision, the ratio of return on investment will guide the management. The efficiency of various departments can be judged on the basis of their profitability ratios and efficiency of each department can thus be determined.

Check your progress 4

1. To determine a particular aspect of the financial position of the company, in which they are interested.

(a) Profitability

(b) Liquidity

(c) Efficiency

(d) All above

2.5 RESTRICTIONS OF RATIO ANALYSIS:

Anyone who draws any conclusion on the basis of accounting ratios about the financial conditions and earning capacity of the business must take account of the following Restrictions (limitations) of ratio:

(1) Single year's ratios have limited utility: The utility of ratios computed from the financial statements of one year only is obviously limited. They must be compared with the past results of the company has also with the results of other business firms in the same industry.

(2) Other factors must be considered: While comparing ratios of the different firms, it must be remembered that different firms follow different accountancy plans and policies. For example, some may use a straight line method of depreciation, while others may make use of a diminishing balance method. Hence, great care has to be exercised before any conclusions are drawn from such comparison.

(3) Limited utility of historical ratios: While comparing ratios of past several years, it should be remembered that change in price level may render such comparison useless. An asset purchased some 10 years before may be shown at its historical value and comparison of these assets with sales may be of no value as sales are expressed in current market value.

(4) Use of one ratio misleading: One ratio used without reference to other ratios may be misleading. If some conclusions are to be drawn, then the combined 365 effect of a few related ratios must be considered.

(5) Lack of standard ratios: There is practically no standard ratio against which the actual performance can be compared. The satisfactory level of various ratios may differ from one industry to another only because circumstances differ from industry to industry and even from firm to firm.

(6) Other factors important: Financial results of the business depend upon a number of factors such as a general economic conditions and competition, local factors and the policy adopted by the management. Hence, before giving any opinion on the basis of accounting ratios all such factors must be kept in mind.

(7) Inaccurate base: The accounting ratios can never be more correct than the information from which they are computed. If the accounting

data is not accurate, the accounting ratios based on these figures would give misleading results.

(8) **Investigation necessary:** It must be remembered that accounting ratios are only a preliminary step in investigation. They suggest areas were investigation or inquiry is necessary. Hence before taking any action on the basis of accounting ratios, a rigorous investigation must be made.

(9) **Rigidity harmful:** If in the use of ratios, the manager remains rigid and sticks to them, it will lead to dangerous situation. For example, if the manager believes the current ratio should not fall below 2:1, then many profitable opportunities will have to be foregone.

(10) **Ratios of two irrelevant figures:** Ratios must be established between related matters. It is of no use if the ratios are found between two figures which have no relation with each other e.g. ratio of factory expenses to selling expenses is illogical and does not give any useful conclusion.

Check your progress 5

1. Limitations of ratio analysis is
   (a) Limited utility of historical ratios
   (b) Lack of standard ratios
   (c) Inaccurate base
   (d) all above

2.6 Practical Example

Example -1

From the following statements of Saloni Ltd. for the year ending 31st March 2020, you are required to calculate the following ratios (300 days to be taken for the year)

(1) Gross Profit Ratio
(2) Net Profit Ratio
(3) Stock turnover Ratio
(4) Debtors Ratio
(5) Creditors Ratio
(6) Current Ratio
(7) Liquid Ratio
(8) Operating Ratio
(9) Proprietary Ratio

Profit and Loss Account for the year ending 31-03-2020

Particulars	Amount ₹	Amount ₹
Net Sales (All Credit Sales)		3,60,000
Less: Cost of Sales		
Opening Stock	50,000	
+ Credit Purchases	2,10,000	
	2,60,000	
Less: Closing Stock	-30,000	2,30,000
Gross Profit		1,30,000
Add: Profit on sale of fixed assets		10,000
		1,40,000
Less: Administrative Expenses	46,000	
Selling Expenses	20,000	
Loss by Fire	4,000	70,000
Net Profit (Before Tax)		70,000

Balance Sheet as on 31-03-2020

Particulars	Amount ₹	Amount ₹
(I)EQUITY AND LIABILITIES		
(1)Shareholders' Funds:		
(a) Share Capital		1,00,000
(b) Reserve and Surplus :		
General Reserve		80,000
Profit and Loss A/c		30,000
(2) Non-Current Liability(Long Term Borrowing)		
(a) 10% Debentures		1,00,000
(b) Bank Loan		
(3) Current Liability		
(a) Trade Payable -Sundry Creditors		40,000
(b) Other Current Liability-Outstanding Exp.		30,000
Total		**3,80,000**
II ASSETS		
(1)Non-Current Assets :		
(a) Fixed Assets		
(i)Tangible Assets		
Land and Building	1,00,000	
Plant and Machinery	1,20,000	2,20,000
(ii) Intangible Assets		
(b) Non-Current Assets-Investment		
(c) Non-Current Assets-Fictitious Assets (Preliminary Exp.)		20,000
(2) Current Assets		
(a) Inventories : Stock		30,000
(b) Trade Receivables : Debtors	50,000	
Bills Receivable	30,000	80,000
(c) Cash and Cash Equivalents : Bank bal.		30,000
Total		**380000**

Sr. No.	Ratio/Formula	Formula	Answer
1	$Gross\ ProfitRatio = \frac{\text{Gross Profit}}{Sales}\ X\ 100$	$= \frac{1,30,000}{3,60,000}\ X\ 100$	= 36.11 %
2	$Net\ ProfitRatio = \frac{\text{Net Profit}}{Sales}\ X\ 100$	$= \frac{6,40,000}{3,60,000}\ X\ 100$	= 17.78 %
	Net Profit(Business Profit) = 70,000 + 4,000 -10,000 Note : Non Business Income and Expenses should be excluded		
3	$Stock\ turnover\ Ratio = \frac{\text{Cost of Goods Sold}}{Average\ Stock}$	$= \frac{2,30,000}{40,000}$	= 5.75 Times
4	$Debtors\ Ratio = \frac{\text{Debtors + Bills Receivable}}{Credit\ Sales}\ X\ 300$	$= \frac{50,000 + 30,000}{3,60,000}\ X\ 300$	= 67 Days
5	$Creditors\ Ratio = \frac{\text{Creditors + Bills Payable}}{Credit\ Purchase}\ X\ 300$	$= \frac{40,000 + \ -}{2,10,000}\ X\ 300$	= 57 Days
6	$Current\ Ratio = \frac{\text{Current Assets}}{Current\ Liabilities}$	$= \frac{1,40,000}{70,000}$	= 2:1
7	$Liquid\ Ratio = \frac{\text{Liquid Assets}}{Liquid\ Liabilities}$	$= \frac{1,10,000}{70,000}$	= 1.57 : 1
8	$Operating\ Ratio = \frac{\text{Cost of Goods Sold + Operating Exp.}}{Sales}\ X\ 1$	$= \frac{2,30,000 + 60,000}{3,60,000} X100$	= 82.22%
9	$Proprietary\ Ratio = \frac{Proprietors'\ funds}{Total\ Real\ Assets}\ X\ 100$	$= \frac{1,90,000}{3,60,000}\ X\ 100$	= 52.78%
	Proprietors' Funds = Shareholders Fund- Fictitious Assets Capital = 2,10,000 - 20,000(Preliminary Exp.) = 1,90,000		

2.7 Let Us Sum Up

Ratio analysis is simple technique that a layman can also understand it easily. This analytical tool is useful not only for the company management, but also for investors. The probable investors can take decision whether to invest or not and existing investor also decides whether to continue the investment or to sell out their securities and more to other company. The technique is useful also for government and creditors.

ACCOUNTING RATIO (Summary)			
Sr. No	**Ratio**	**Formula**	**Usefulness**
A	Profitability Ratio based on Sales		
1	Gross Profit Ratio =	Gross Profit / Sales X 100	To know whether selling price has been properly fixed and to know profitability.
2	Operating Ratio =	Cost of Sales + Operating Exp. / Sales X 100	To ascertain the extent of operating expenses
3	Expenses Ratio =	Expenses / Sales X 100	To know the proportion of each type of expenses to sales
4	Net Profit Ratio =	Net Profit(After Int. and Tax) / Sales X 100	To have an idea of profit ability.
B	Profitability Ratio based on investment		
5	Return on Capital Employed=	Net Profit(Before Int. and Tax) / Shareholders funds X 100	To know the profitability of business
	Shareholders funds = Share Capital+Reserves+Long term Loan-Fictitious Assets		
6	Return on Shareholders' Funds=	Net Profit / Share Capital + Reserves X 100	To know the profitability from the viewpoint of shareholders.
7	Return on Equity Share Capital =	Net Profit-Pref.Div. / Equity Share Capital X 100	To know the profitability from the viewpoint of
8	Earning per Share=	Profit after tax - Pref. Dividend / Number of equity Shares X 100	To know earning per share
C	Liquidity Ratio		
9	Current Ratio =	Current Assets / Current Liabilities	To know the liquid position or the working capital position of
10	Liquid Ratio =	Liquid Assets / Liquid Liabilities	tter idea of the liquid position of
11	Acid-test Ratio =	Quick Assets / Liquid Liabilities	To know whether the firm will be able to pay current liabilityes immediately
D	Capital Gearing Ratio		
12	Proprietary Ratio =	Proprietors' Funds / Total Real Assets	To ascertain the proportion of owners' funds in the total funds
13	Debt-Equity Ratio =	Long term Liabilities / Owners' Funds	To know the proportion of long-term liabilities in relation to owners' funds
14	Gearing Ratio =	Pref. Share Cap. + Deb. / Equity Share Capital	To know the proportion of fixed dividend (or int.)bearing securities to equity capital
15	Long-Term Funds to Fixed Addets =	Long term Funds / Fixed Assets	To see whether all fixed assets have been purchased from the long-term funds.
16	Interest Coverage=	Profit before Interest and Taxes / Interest	To know how many times the firm is able to pay interest.
E	Turnover Ratio		
17	Stock Turnover =	Cost of Sales + Operating Exp. / Average Stock	To know the efficiency of sales
18	Debtors' Ratio =	(Debtors + Bills Receivable) / Credit Sales X Days of the yr.	To know the average period of credit to ascertain the efficiency of credit depat..
19	Creditors' Ratio =	Creditors + Bills Payable / Credit Purchases X Days of the yr.	To know the everage period within which we make payment for credit purchase.
20	Total Assets-Turnover=	Sales / Total Assets	To know efficiency with which total assets are utilised in the business.
21	Debt Service Coverage Ratio =	Profit(Available for Debt Payment) / Instalment of Principal + Interest	To know how many times the Profit covers the amount payable towards principal instalment and yearly interest.
*	Profit= Profit after Tax+Depreciation+Other Cash Adjustment+Interest		

2.8 Answer for Check Your Progress

Check your progress 1

Answer (1-d)

Check your progress 2

Answer (1-d)

Check your progress 3

Answer: (1-d);(2-a)

Check your progress 4

Answer: (1-d)

Check your progress 5

Answer :(1-d)

2.9 Glossary

I. Ratios: Relationship between various related items in these financial statements are established, they can provide useful clues to gauge accurately the financial health and ability of business to make a profit. This relation between two related items of financial statements is known as ratio

II. Composite Ratios : A ratio showing the relationship between one item taken from balance sheet and another taken from profit and loss Account is composite ratio or a combined ratio

III. Liquidity Ratios: These ratios indicate the position of liquidity.

IV. Leverage Ratios: The composition of capital of business and the proportion of owners' capital and capital provided by outsides are reflected by leverage ratio

V. Efficiency Ratios: These are the ratios shoeing the effectiveness with which the resources of the business are employed. It signifies the efficiency of the management.

VI. Debt-Equity Ratio: establishes relationship between the outside long-term liabilities and owner's funds. It shows the proportion of long-term External Equities and internal Equities.

2.10 Assignment

1) Explain ratios showing 'Efficiency' along with their formula

2) Write importance and limitation of ratio Analysis

3) List out various types of formula form ratio Analysis.

Q - 4 The Trading ,Profit & Loss Account and Balance Sheet of Saloni Ltd. is given below

Profit and Loss Account for the year ending 31-03-2020

Particulars	Amount ₹	Amount ₹
Net Sales (All Credit Sales)		5,40,000
Less: Cost of Sales : Opening Stock	75,000	
+ Credit Purchases	4,32,000	
	5,07,000	
Less: Closing Stock	-1,02,000	4,05,000
Gross Profit		1,35,000
Less: Administrative Expenses	30,000	
Selling Expenses	31,500	
Loss by Fire	6,000	67,500
Net Profit (Before Tax of 50%)		67,500

Balance Sheet as on 31-03-2020

Particulars	Amount ₹	Amount ₹
(I)EQUITY AND LIABILITIES		
(1)Shareholders' Funds:		
(a) Share Capital		
Equity Share Capital	1,50,000	
Pref. Share Capital	75,000	2,25,000
(b) Reserve and Surplus :		
General Reserve		90,000
Workmen's Compensation Fund		15,000
(2) Non-Current Liability(Long Term Borrowing)		
(a) Debentures		
(b) 16% Bank Loan		37,500
(3) Current Liability		
(a) Trade Payable -Sundry Creditors		76,500
(b) Other Current Liability.		
Bank Overdraft	17,250	
Provident Fund	7,500	24,750
Total		**4,68,750**
II ASSETS		
(1)Non-Current Assets :		
(a) Fixed Assets		
(i)Tangible Assets		
Land and Building		2,32,500
(ii)Intangible Assets		
(b) Non-Current Assets-Investment		
(c) Non-Current Assets-Fictitious Assets		
(2) Current Assets		
(a) Inventories : Stock		1,02,000
(b) Trade Receivables : Debtors	93,000	
Bills Receivable	7,500	1,00,500
(c) Cash and Cash Equivalents : Bank bal.		33,750
Total		**468750**

From the above information calculate the following ratio.

(1) Gross Profit Ratio (4) Stock turnover Ratio (7) Current Ratio (10) Debt-Equity Ratio
(2) Net Profit Ratio (5) Debtors Ratio (8) Liquid Ratio
(3) Operating Ratio (6) Creditors Ratio (9) Proprietary Ratio

Answer : Saloni Ltd.

Ratio	Formula	Calculation	Answer
(1) Gross Profit Ratio=	Gross Profit / Sales X 100	= 1,35,000 / 5,40,000 X100	25 %
(2) Net Profit Ratio =	Net Profit / Sales X 100	= 33,750 / 5,40,000 X100	6.25 %
Here Net Profit is 67,500(Before tax 50%). So net profit after tax = 67,500 - 33,750 = 33,750			
(3) Operating Ratio =	Cost of Goods Sold + Operating Exp. X 100 / Sales	= 4,05,000 + 61,500 / 5,40,000 X100	86.38 %
(4) Stock turnover Ratio=	Cost of Goods Sold / Average Stock	= 4,05,000 / 88,500	4.58 Times
(5) Debtors Ratio =	Debtors + Bills Receivable / Credit Sales X360	= 93,000 + 7,500 / 5,40,000 X360	67 Days
(6) Creditors Ratio =	Creditors + Bills Payable / Credit Purchase X360	= 76,500 + - / 4,32,000 X360	63.75 OR 64 Days
(7) Current Ratio =	Current Assets / Current Liability	= 236250 / 1,01,250	2.33 : 1
(8) Liquid Ratio =	Liquid Assets / Liquid Liabilities	= 1,34,250 / 84,000	1.59 : 1
Liquid Assets = Current Assets - Closing Stock = 236250 - 1,02,000 = 1,34,250 Liquid Liabilities = Current Liabilities - Bank Overdraft = 101250 -17,250 = 84,000			
(9) Proprietary Ratio =	Proprietors' Funds / Total Real Assets X 100	= 3,30,000 / 4,68,750 X100	70.4 %
Proprietors' Funds = Shareholders Fund- Fictitious Assets Capital = 3,30,000 - Zero = 3,30,000 Total Real Assets = Total Assets - Fictitious Assets = 4,68,750 - Zero = 4,68,750			
(10) Debt-Equity Ratio =	Total Long term liabilities / Proprietary Fund X 100	= 37,500 / 3,30,000 X100	11.36 %

2.11 Activities

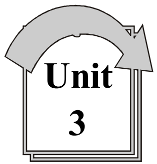
Collect information on scope of measuring liquidity and profitability with the help of ratio analysis.

2.12 Case Study

Discuss under management accounting system, ratio analysis is used to evaluate the progress of the firm.

2.13 Further Readings

1. Aggarawal and Jain Advanced Financial Accounting
2. S.N.Maheshwari. Introduction to Accounting.
3. R.L.Gupta, Advanced Accountancy.



COMMON SIZE FINANCIAL STATEMENT

: UNIT STRUCTURE :

3.0 Learning objective

3.1 Introduction

3.2 Meaning of Financial Statements

3.3 Characteristics of Financial Statements

3.4 Method of Analysis of Financial Statements

3.5 Common-Size Statements

3.6 Illustration

3.7 Let us Sum Up

3.8 Answer for your Progress

3.9 Glossary

3.10 Assignment

3.11 Activities

3.12 Case Study

3.13 Further Reading

3.0 Learning objective

After perusing this unit, you will be able to understand:

- Meaning and characteristics of monetary (financial) Statements
- Natures of Financial Statements
- Purpose of Financial Statements
- Method of investigation (Analysis) of Financial Statements

3.1 Introduction

Financial statement when read with absolute figures is not easily understandable. They are even misleading. Each item of Assets is converted into percentage to Total Assets and each item of capital and liabilities is expressed to total liabilities and capital fund. Thus the whole balance converted into percentage form. Such converted Balance Sheet is known as Common-size balance sheet. When Balance sheets of the same concern for several years or when Balance sheet of two or more than two concerns for the same year are converted into percentage from and presented as such, they are known as comparative common-size Balance Sheet. Again, in Profit and Loss Account

Sales Figure is accepted to be equal to 100 and all other figures are communicated as percentage to sales. So also, in Balance Sheet the entire of assets or liabilities is taken as 100 and all the figures are communicated as percentage of the wholeWithout giving rupee value Comparative statements that give only the vertical percentage or ratio for financial data are known as

common-size statement. The two statements prepared and presented by a business enterprise at the end of accounting year

Viz. a balance sheet and Profit and loss account are called financial statements.

- Balance sheet is a statement of financial position reflecting assets and liabilities on a particular day.
- While Profit and Loss account or income statement as it is known, shows the result of trading of trading achieved during certain period. It shows either profit or loss made in the business during the year.

The investigation and interpretation of financial statement are an endeavor to decide the centrality and meaning of the financial explanation information, so that a figure may be made of the prospects for encourage earnings.

Check your progress 1

1. _______, Statement that give only the vertical percentage or ratio for financial data without giving rupee value are known as common size statement.

   (a) Comparative (b) Income

   (c) Finance (d) Analysis

2. In common-size statement the whole balance are converted in…

   (a) Rupees value (b) Percentage Value

   (c) Ratio Value (d) None of above

3.2 Meaning of Financial Statements:

"The end product of the financial accounting process is a set of reports which are called financial statements"

Balance sheet is a statement of financial position reflecting assets, liabilities and capital on a particular day. It shows the assets of a business on a particular day and the sources of financing the assets, whether the funds rose from creditors or from owners. A heap of information does not give any idea about the financial position of business. It is therefore arranged systematically in the balance sheet so that reader can understand them. The people who have risked their money in business i.e. the shareholders and creditors get an idea about the soundness or otherwise of the financial position of the business from time to time.

Profit and loss Account or the income statement as it is known

- Shows the result of trading achieved during a certain period.
- It shows either profit or loss made in the business during the year.
- It shows the change in business which have taken place between two balance sheet dates
- And which clarifies the effects of such changes on the share available to the owners of business.

As Gultuman has put it. "The balance sheet might be described as financial cross-sections taken at certain intervals and the earnings statements as condensed history of the growth or decay between the cross section"

Check your progress 2

1. As________ statements are most valuable in marketing comparisons among the companies in the some industry.
   (a) Income (b) Common size
   (c) data (d) User

3.3 CHARACTERISTICS OF FINANCIAL STATEMENTS:

From the above definition, we can derive the following characteristics of financial statements.

I. **Two Statements**: There are two basic financial statements. One balance sheet showing the firm's financial position as on a particulars date. The second, the profit and loss account showing the results of year's trading in the form of either profit or loss.

II. **Accounting Principles and concepts**: The two explanations are arranged on the basis of by and large acknowledged accounting principles and practicese.g. when stock is valued at cost or market price whichever is lower, we make use of principle of conservatism.

III. **Based on Recorded Facts**: The financial statements are prepared on the basis of facts recorded in accounting records i.e. they are prepared on the basis of business transactions recorded in the books of accounts only. It thus, means that the fixed assets are shown at their cost and only those transactions are included in financial statements which can be expressed in monetary terms.

IV. **Personal Judgements**: In addition to the accounting principles, the personal opinion also plays an important role in preparation of financial statements. For example, it depends upon the personal judgements of the accountant or the managing director, which method of charging depreciation should be used, at what rate depreciation should be charged. The number of years over which a fictitious asset should be written off and so on.

V. **Accounting to legal provisions**: The financial statements of business units for which separate laws are made, are prepared accounting to legal provisions and in prescribed forms. e.g. If the business is run by a joint stock company, its financial statements are prepared according to provisions of company Act.

VI. **Reasonable Accuracy**: Absolute accuracy is not possible in preparation of financial statements as some of the figures are only estimates. e.g. provision for doubtful debts. In case of some of the liabilities, the amount is indeterminate e.g. gratuity payable to employees. Besides, even the Company law permits the use of figures to the nearest rupee.

VII. **Multi-Purpose**: The profits or losses revealed by income statements prepared for different purpose are bound to differ. e.g. profit as per normal profit and loss account is different from profit computed for income-tax purposes and from the profit ascertained for the purpose of managerial remuneration under the company law.

VIII. Clarity: The financial statements must be so prepared that they can be easily understood by the readers for whom they are meant. Unnecessary details should be avoided. If need be, the additional information must be given in the form of schedules. e.g. the values of fixed assets must be shown in the balance sheet, but its cost prise, depreciation till the end of last year, depreciation written off during the current year, any additions or deductions during the year etc. are all shown in separate schedules. Particulars stress is laid on the strength or weaknesses of the financial position of the business and reasons thereof weakness of the financial

IX. Comparison with figures of Previous Year: The figures of current year are g generally Gavin along with those of the previous year in both the financial statements. The Companies act has made this presentation compulsory. This presentation is useful to management in taking important policy decisions.

Check your progress 3

1. Characteristics of financial statements……
   (a) Multi-Purpose
   (b) Clarity
   (c) Comparison with figures of Previous Year
   (d) All of above

3.4 METHOD OF ANALYSIS OF FINANCIAL STATEMENTS:

Strategy of financial statements uncovers the basic significance of the things composed in them. Examination breaks down the complex set of actualities or figures into components down set of actualities or figures into straightforward components. Elucidation is the following step. It comprises in clarifying the genuine noteworthiness of these explanations.

As *Kennedy and McMullen* have said, "The investigation and translation of financial statements are an endeavor to decide the significance and meaning of the monetary statement information so that a forecast may be made of the prospects for further earnings, capacity to pay interest and debt maturities. Both current and long term and probability of sound dividend policy"

The investigation comprises of the ponder of inter-relationship between different things comprised in financial explanations to decide whether the profit and the money related position of the company are palatable. A number of gadgets are utilized within the examination of monetary explanations, a few of which are as takes after:

I. Comparative Statements

II. Common-sized Statements

III. Trend Percentages

IV. Statement of changes in working capital

V. Cash-flow Analysis

VI. Fund-flow Analysis

VII. Ratio Analysis

VIII. Value-added Statement

Financial statements prepared at different dates are presented together in a columnar form, so that trend over a period of time is clearly brought out. For example, balance sheet of last 5 years may be presented in the columnar form, from which the trend of increase or decrease in the assets and liabilities can be judged.

The common sized statements are used to provide a common base for comparison. For example, total of balance sheet is taken as 100 and various items in balance sheet are stated as percentage of total of 100.

In the trend percentage analysis, the financial statements of past few years are so presented that the percentage relation of various items of the statements with some important base item is shown. For example, percentage of various expenses to sales may be presented.

The fourth method of analysis is the Statement of Cash Flow which is just a historical review of cash receipts and payments. Cash flow various sources and its outflow.

A Fund Flow Statement is another method, showing from where the funds have flow into business and where have they been applied

The most popular technique of analysing financial statements is Ratio Analysis, Which is described in details in a separate chapter.

in fabricating commerce, the company buy raw materials from exterior and through manufacturing process, changes over them into finished items and includes to the value is called value added

We discuss the common size statements.

Check your progress 4

1. Which following method is not a method Of Analysis of Financial Statements?

a. Comparative Statements

b. Common-sized Statements

c. Trend Percentages

d. None of above

3.5 COMMON-SIZE STATEMENTS:

The strategy so far examined does not give any common base with which all things in each explanation can be compared. For this purpose common size statement are prepared in which all items are compared with one common item, which is significant. For example, in the income statement or Profit & Loss account, sales may be taken as 100 and all other items in this statement are computed as percentage of sales. Similarly in case of balance sheet the assets of company are ₹10, 00,000 which is taken as 100. If the cash balance on 31st March, 2019 is ₹ 50,000, than it is presented as 5% of the total assets.

If other companies keep cash balance of 10% of total assets, than statements are presented in this way, they are called 'common-size statements' or 100 per cent statements'

Balance sheet as common-size statement:

Within the balance sheet, total resources are taken as 100 and all things are displayed as rate of total resources as appeared underneath:

Common-size Balance Sheet of Indu Ltd. As on. 31st March 2020

Assets	Amount ₹	% of Total Assets
Fixed Assets less depreciation	4,70,000	47.00%
Current Assets:		
Cash	90,000	9.00%
Debtors	2,10,000	21.00%
Stock	1,80,000	18.00%
Other current assets	30,000	3.00%
Prepaid expenses	20,000	2.00%100.0
	10,00,000	0%

Liabilities	Amount ₹	% of Total Assets
Share Capital	4,20,0000	42.00%
Reserve and surplus	60,000	6.00%
Owners fund Long-term	4,80,000	48.00%
Debts	3,20,000	32.00%
Current Liabilities:	1,20,000	12.00%
Creditors	80,000	8.00%
Other Liabilities	5,20,000	52.00%
	10,00,000	100.00%

The above balance sheet shows the percentage of each asset to the total assets as well as the percentage of each liability to the liabilities and capital. Such percentages give only the change in proportion of one item to one main item like sales or total assets. But it fails to indicate whether the financial position or performance over a period of some year is improving or deteriorating. For example, the proportion of current asset to total assets in 2019-'20 was 47% This does not shows whether the financial position of the firm has improved or deteriorated.

While preparing common-size statements, it may be desirable to keep one more column for showing the percentage of each item to its group total, e.g. if the percentage of each of current assets to total current assets is shown in a separate column, it will serve a useful purpose. Here cash is 9% of the total assets, but in a separate column it may be shown as 17% approx. Of the current assets.

(₹ 5,20,000 = 100)

Common-size Profit and Loss Account:

In the common-size income statement, the sales as 100 and all individual items of incomes and expenses are appeared as rate (%) of sales. Assume,

The sale is ₹ 10, 00,000 and salaries are ₹ 1, 00,000 then it is 10% of the sales. Such percentage or over three to five years will also suggest the changes.

if any, in the relative proportion of individual item or expenses of incomes as compared to sales.

Common-size Profit & Loss Accounts

(Rupees in thousand)

Particulars	Years			Percentages of sales		
	2017-'18	2018-'19	2019-'20	2017-'18	2018-'19	2019-'20
Sales	1,600	1,800	2,000	100.00	100.00	100.00
Less: Cost of goods sold	1,000	1,080	1,140	62.50	60.00	57.00
Gross Profit	600	720	860	37.50	40.00	43.00
Less:						
Administrative Expenses	320	360	420	20.00	20.00	21.00
Selling Expenses	112	144	170	7.00	8.00	8.50
Total Operating Expenses	432	504	590	27.00	28.00	29.5
Net Profit (GP-Operating Exp.)	168	216	270	10.50	12.00	13.5

The common-size statements give useful proportions of each component to the total. But they alone are not of much use, as they do not give information about the trends of individual items from year to year. They must be used along with trend percentages and individual ratios based on these two statements.

However, common-size statements are found to be very useful for comparison of two business enterprise at a certain date. e.g. the common-size balance sheet of a company reveals that its own funds are 65% and outside liability is 35%. The common-size balance sheet of another company shows that its own funds are 48%, while its outside liability is 52%. The comparison makes it clear that the first company is financially sounder than the other one. as it mainly depends upon its own funds for carrying on the business, while the other company carries on its activities chiefly with the help of outside funds.

Similarly, suppose the cash on hand in one company is 4% of its total assets, while the cash on hand of the other company is 10%. One can easily say from the comparison that the liquid position of the second company is better than that of the first one. However, it is difficult to say whether the proportion of cash in the first company is desirable or otherwise, as it requires comparison with average of the business.

However, the comparison of the various items of two companies would be valid only if their statements are prepared uniformly i.e. the accounting methods used by them must be similar, e.g. they both must be using the same method of charging depreciation.

3.6 Illustration

Illustration -1from the following Balance sheet; prepare a Common-size statement:

Assets	2018-2019 Amt. ₹	2019-2020 Amt. ₹
Cash	70,000	60,000
Debtors	5,00,000	4,50,000
Stock	2,20,000	2,50,000
Prepaid Expenses	30,000	60,000
Investment	60,000	50,000
Bills Receivables	20,000	30,000
Fixed Assets	12,00,000	14,00,000
	21,00,000	23,00,000
Liabilities & Capital:		
Share Capital	13,00,000	14,00,000
Reserve and surplus	50,000	1,00,000
12% Debenture	2,50,000	2,50,000
Long-term Debt	2,20,000	2,00,000
Sundry Creditors	1,00,000	1,20,000
Other Liabilities	1,80,000	2,30,000
	21,00,000	23,00,000

Solution :

Particulars	**2018-'19 Amount ₹**	**2019-'20 Amount ₹**	**2018-'19 Amount %**	**2019-'20 Amount %**
I EQUITY AND LIABILITIES				
(1)Shareholders' Funds:				
(a) Share Capital				
Equity Share Capital	13,00,000	1400000	61.90	60.87
(b) Reserve and Surplus :	50,000	100000	2.38	4.35
(2) Non-Current Liability(Long Term Borrowing)				
(a) Debentures	2,50,000	250000	11.90	10.87
(b) other Long-term Debt	2,20,000	200000	10.48	8.70
(3) Current Liability				
(a) Trade Payable -Sundry Creditors	1,00,000	120000	4.76	5.22
(b) Other Current Liability.	1,80,000	230000	8.57	10.00
Total	**21,00,000**	**2300000**	**100.00**	**100.00**
II ASSETS				
(1)Non-Current Assets :				
(a) Fixed Assets				
(i)Tangible Assets	12,00,000	1400000	57.14	60.87
(ii)Intangible Assets				
(b) Non-Current Assets-Investment	60,000	50000	2.86	2.17
(c) Non-Current Assets-Fictitious Assets				
(2) Current Assets				
(a) Inventories : Stock	2,20,000	250000	10.48	10.87
(b) Trade Receivables : Debtors + Bills Receivable	5,20,000	480000	24.76	20.87
(c) Cash and Cash Equivalents : Bank bal.	70,000	60000	3.33	2.61
(d) Other Current Assets	30,000	60000	1.43	2.61
Total	**21,00,000**	**2300000**	**100.00**	**100.00**

Illustration 2

The summary of Balance Sheet data in respect of Kavisha Ltd. and Kaival Ltd. is as under:

Particulars	**Kavisha Ltd. ₹**	**Kaival Ltd. ₹**
Buildings	1,00,000	4,50,000
Machinery	3,00,000	7,50,000
Share Capital	4,50,000	14,50,000
Reserves	50,000	33,000
Debtors	1,15,000	1,60,000
Stocks	60,000	2,17,000
Cash	10,000	5,000
Prepaid Expenses	5,000	3,000
Creditors	91,000	1,00,000
Liability for Expenses	9,000	17,000
Preliminary Expense	10,000	15,000

Prepare Common-size Balance Sheet

Solution:-2

Common-size Balance Sheet Statement

Particulars	Kavisha Ltd.	Kaival Ltd.
I EQUITY AND LIABILITIES		
(1)Shareholders' Funds:		
(a) Share Capital		
Equity Share Capital	75.00	90.63
(b) Reserve and Surplus :	8.33	2.06
(2) Non-Current Liability(Long Term Borrowing)		
(a) Debentures		
(b) other Long-term Debt		
(3) Current Liability		
(a) Trade Payable -Sundry Creditors	15.17	6.25
(b) Other Current Liability.-Liability for Expenses	1.50	1.06
Total	**100.00**	**100.00**
II ASSETS		
(1)Non-Current Assets :		
(a) Fixed Assets		
(i)Tangible Assets(Building + Machinery)	66.67	75.00
(ii)Intangible Assets		
(b) Non-Current Assets-Investment		
(c) Non-Current Assets-Fictitious Assets	1.67	0.94
(2) Current Assets		
(a) Inventories : Stock	10.00	13.56
(b) Trade Receivables : Debtors + Bills Receivable	19.17	10.00
(c) Cash and Cash Equivalents : Bank bal.	1.67	0.31
(d) Other Current Assets-Prepaid Expenses	0.82	0.19
Total	**100.00**	**100.00**

3.7 Let Us Sum UP

Common Size statements are found to be very useful for comparison of two business enterprise at a certain date. Accounting methods used by them must be similar. Financial statements when read with absolute figures are not easily understandable. They are even misleading. Each item of assets is converted into percentage to total Assets and each item of capital and liabilities is expressed to total liabilities and capital fund. Thus the whole balance converted into percentage form. Such converted Balance Sheet i s known as Common-size balance sheet. When Balance sheets of the same concern for several years or when Balance of two or more than two concerns for the same year are converted into percentage from and presented as such, they are known as comparative common-size Balance Sheet.

3.8 Answer for Check Your Progress

Check your progress 1

Answer: (1 - a) ;(2-b)

Check your progress 2

Answer: (1 - b)

Check your progress 3

Answer: (1 - d)

Check your progress 4

Answer: (1 - d)

3.9 Glossary

I. **Personal Judgements**: The personal opinion also plays an important role in preparation of financial statements. e.g. Which method of charging depreciation should be used, at what rate depreciation should be charged? The number of years over which a fictitious asset should be written off and so on.

II. **Reasonable Accuracy**: Absolute accuracy is not possible in preparation of financial statements as some of the figures are only estimates.

III. **Clarity**: The financial statements must be so prepared that they can be easily understood by the readers for whom they are meant.

IV. **Multi-Purpose**: The profits or losses revealed by income statements prepared for normal profit and loss account, profit computed for income-tax purposes and from the profit ascertained for the purpose of managerial remuneration under the company law.

V. **Value-added:**in manufacturing business, the company buy raw materials from exterior (Outside) and through manufacturing process, changes over them into finished items and includes to the esteem (Value) is called value added

3.10 Assignment

1. Define common size statement.
2. From the following Balance sheet, prepare a Common-size statement of Saloni Ltd.:

Assets	2018-2019 Amt. ₹	2019-2020 Amt. ₹
Cash	27,000	31,500
Debtors	2,20,000	2,11,000
Stock	1,00,000	1,26,000
Prepaid Expenses	11,000	21,000
Bills Receivables	10,000	10,500
Fixed Assets	6,35,000	6,50,000
	10,03,000	10,50,000
Liabilities & Capital:		
Share Capital	6,58,000	7,00,000
Long-term Debt	2,25,000	2,00,000
Sundry Creditors	42,000	50,000
Other Liabilities	78,000	1,00,000
	10,03,000	10,50,000

3. The summary of Balance Sheet data in respect of Himesh Ltd. and Shweta Ltd. is as under:

Particulars	Himesh Ltd. ₹	Shweta Ltd. ₹
Buildings	1,00,000	4,50,000
Machinery	3,00,000	7,50,000
Share Capital	4,50,000	14,50,000
Retained Earnings	50,000	33,000
Debtors	1,15,000	1,60,000
Stocks	60,000	2,17,000
Cash	10,000	5,000
Prepaid Expenses	5,000	3,000
Creditors	91,000	1,00,000
Liability for Expenses	9,000	17,000
Preliminary Expense	10,000	15,000

Prepare a Common-size statement of both companies.

3.11 Activities

Find out usages of common size statement in business enterprise.

3.12 Case Study

Analysis of Financial Statements

3.13 Further Reading

1. Aggarwal and Jain, Advanced Financial Accounting.
2. S.N.Maheshwari, Introduction of Accounting.
3. R.L.Gupta, Advanced Accountancy.
4. S.Chand, Management Accounting .

Block Summary

This block give detailed information about uses and concept related to cash flow Ratio Analysis and Common-size statements. The block explained more about how a student will able to write steps in designing of such statements. The knowledge about working and role of financial statements with knowledge related to balance sheet also detailed.

After studying this block, students understand correctly about comparison which exists among cash flow statements Ratio Analysis and Common-size Statement. The concepts of rules which lead to designing of cash flow statements, Ratio Analysis and Common-size Statement are well detailed to the students.

Block Assignment

Short Answer Questions

1. List few steps of Statement of cash flow ?
2. What is Common-size statement?
3. State the benefits of Statement of Cash flow ?
4. Classification of Accounting Ratio

Long Answer Questions

1. What are the qualities of Statement of Fund flow?
2. What are the financial limitations of Statements of Cash flow?
3. List out the various formulas for Accounting Ratio summary.

Enrolment No [ ]

1. How many hours did you need for studying the units ?

Unit No	1	2	3
Nos. of Hrs			

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	☐	☐	☐	☐	________
Language and Style	☐	☐	☐	☐	________
Illustration used (Diagram, tables etc)	☐	☐	☐	☐	________
Conceptual Clarity	☐	☐	☐	☐	________
Check your progress Quest	☐	☐	☐	☐	________
Feed back to CYP Question	☐	☐	☐	☐	________

3. Any Other Comments

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Dr. Babasaheb Ambedkar OpenUniversity

BBAR-602

MANAGEMENT ACCOUNTING

BLOCK-3 WORKING CAPITAL MANAGEMENT-I & II, INVENTORY MANAGEMENT & RECEIVABLE AND CASH MANAGEMENT- CASH BUDGET

UNIT 1

WORKING CAPITAL MANAGEMENT - I

UNIT 2

WORKING CAPITAL MANAGEMENT - II

UNIT 3

INVENTORY MANAGEMENT & RECEIVABLE

UNIT 4

CASH MANAGEMENT-CASH BUDGET

BLOCK 3 :WORKING CAPITAL MANAGEMENT - I & II, INVETORY MANAGEMENT & RECEIVABLE AND CASH MANAGEMENT - CASH BUDGET

Businesses need investment to buy asset which can be used for longer period of time. It serves as long-term investments in terms of fixed capital. Cash serves as ready money in the bank or in the business which is not inventory, but is accounts receivable.

In this block, students will get knowledge about operations of working capital in running business smoothly without involving in financial crisis that leads to payments in short-term liabilities. The block will detail about internal control method Inventory management and Cash Budget which is used by companies to increase reliability of financial reports through effective operations under desired laws and regulations.

After studying this block, students will be able to understand correctly about working capital management, Inventory management & Receivable and Cost management-Cash Budget its features and also benefits of such receivables to customers. The concept of different types of cash management techniques and determinants of working capital management gives knowledge to student.

Block Objective

After completing this block, students will be able to:

- Knowledge about Working Capital Management
- Understanding the role of Working Capital Management
- Study the different types of Management of Cash
- Know about determinants of Working Capital

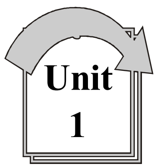
Block Structure

Unit 1: Working Capital Management - I

Unit 2: Working Capital Management -II

Unit 3: Inventory Management & Receivable

Unit 4: Cash Management-Cash Budget



WORKING CAPITAL MANAGEMENT - I

: UNIT STRUCTURE :

1.0 Learning Objectives
1.1 Introduction
1.2 Definition
1.3 Nature and Concept of Working Capital Management
1.4 Need of Working Capital
1.5 Determinants of Working Capital
1.6 Let Us Sum Up
1.7 Answer for Check Your Progress
1.8 Glossary
1.9 Assignment
1.10 Activities
1.11 Case Study
1.12 Further Readings

1.0 Learning Objectives

After reading this unit, you will be able to understand:

- Meaning of Working Capital Management.
- Significance of Working Capital Management

1.1 Introduction

Working capital management is a management methodology where company manages relationship among assets and liabilities for short duration. It is way by which the company manages its money for day to day operations and the immediate debt obligations. In case of managing working capital, company needs to take care of accounts receivable, accounts payable, inventory along with cash.

The idea behind working capital management is to have required cash flow for definite and regular operations with utmost productive usage of resources.

There appear certain calculations in regards to working capital management where there are probabilities of calculating working capital by considering current assets and thereby reducing current liabilities.

Working capital efficiency is determined by calculating the working capital ratio. This ratio is a key indicator in the company's financial health. The working capital efficiency is calculated by considering current assets which is divided by current liabilities. When the result of calculation is less than 1.0, then it is taken as a sign that the company is having financial issues while when the result is more than 1.0 and less than 2.0, in such case company

results in good financial health. If the calculation resulting in above 2.0, then result shows that the desired company will not be position to make effective use ofassets.

Check your progress 1

1. Working capital management is a methodology used by company to handle:

a. management issues

b. salary issues

c. relationship among assets and liabilities for short duration

d. all of above

1.2 Definition

Working capital is a measure of the company's efficiency and short term financial health. It refers to that part of the company's capital, which is required for financing short-term or current assets such a cash marketable securities, debtors and inventories. It is a company's surplus of current assets over current liabilities, which measures the extent to which it can finance any increase in turnover from other fund sources. Funds thus, invested in current assets keep revolving and are constantly converted into cash and this cash flow is again used in exchange for other currentassets.

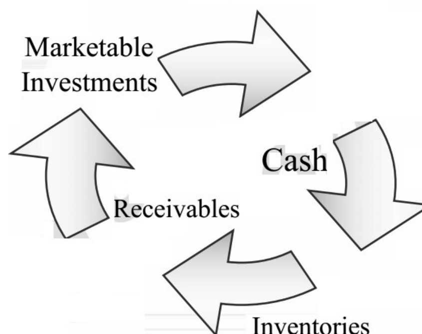


Fig 1.1 Working Capital Management Cycle

Working capital can be categorized on basis of concept as gross working capital and net working capital on the basis of time. The two major Components of Working Capital are Current Assets and Current Liabilities. One of The major aspects of an effective working capital management are to have regular analysis of the company's currents assets and current liabilities.

Check your progress 2

1. Which capital measure the company's efficiency and short term financial health.

a. Equity share capital

b. Preference share capital

c. working capital

d. None of above

1.3 Nature and Concept of Working Capital Management

Working Capital Management relates to strategies which are carried by companies so as to handle short term assets and liabilities with an idea to make sure that it results as continuous operations for clearing of debt obligations. It will administer current assets and liabilities. A good management of working capital involves main part of all corporate strategy by involving policies of different companies in relation to profitability, liquidity and structure of an organization.

Nature of working capital relates to:

- Purchase of raw materials, payment of wages and expenses.
- Change form in order to keep moving of business.
- Enhances liquidity, solvency, credit worthiness and image of enterprise.
- Generation of cost elements like materials, wages and expenses.
- Allowing enterprise to avail cash discount facilities offered by suppliers.
- Improvement of morale of executives and efficiency.
- Expansion of programmes of an enterprise in maintaining operational efficiency of fixed assets.

Concepts related to working capital involve:

- Gross working capital
- Net working capital

As per Gross concept, working capital involves current assets along with amount of funds which is invested in current assets. It involves capital invested in current assets that gets converted into cash within short-time period.

Gross Working Capital = Total current assets

So, gross working capital is companies' investment in current assets which shows total of current assets including cash in hand, cash at bank, inventory, prepaid expenses, bills receivable etc. In this, the amount invested in current assets is working capital that is needed to run day-to-day operations. These are current assets of company that changed from one form to another either from cash to inventory or from inventory to work in progress.

Net concept of working capital involves extra current assets over current liabilities where difference among current assets and current liabilities is net working capital.

Net Working Capital = Current Assets - Current liabilities

With this, net working capital relates to difference of current assets and current liabilities.

Although investing in good long-term capital projects receives more emphasis than the day-to-day work associated with managing working capital, companies that do not handle this financial aspect well will not attract the capital necessary to fund those highly visible ventures in other words, you must get through the short run to get to the long run.

Check your progress 3

1. Gross Working capital means:
   a. total assets
   b. Total fixe dassets
   c. Total current assets
   d. all of above

1.4 Need of Working Capital

Working capital plays an important role in business. Working capital remains blocked while buying raw materials, making people to work and in preparing of finished products along with cost involved in certain marketing activities. The needs for working capital are as given below:

i. Ample of working capital is required to maintain regular supply of raw materials that makes smoothen the production process.

ii. It ensures of regular and timely payment of wages and salaries which finally helps in improving morale and efficiency of employees.

iii. Such capital is needed to for effective use of fixed assets.

iv. It supports goodwill and helps in building good reputation while making payments to creditors ontime.

v. Such capital helps in avoiding the possibility of under-capitalization.

vi. Working Capital is required in order to get ample of raw materials in case of economic slowdown.

vii. This capital is required to pay good rates of dividend and interest within particular time that makes boosting of investors' confidence in the firm.

Working capital is essential in smooth running of business, without adequate working capital there are hardly any business that can run successfully. It has certain advantages like:

1. Strengthen of Solvency

Working capital helps in operation of business smoothly without any financial crisis which leads to payments related to short-term liabilities. Buying of raw materials and salary, wages with certain overhead can be made without any delay. Adequate working capital helps in maintaining solvency of the business by providing uninterrupted flow of production.

2. Uplift of Goodwill

Sufficient working capital enables a business concern to make prompt payments and hence helps in creating and maintaining goodwill. Goodwill is enhanced because all current liabilities and operating expenses are paid on time.

3. Easy Obtaining Loan

A firm having adequate working capital, high solvency and good credit rating can arrange loans from banks and financial institutions in easy and favorable terms.

4. **Regular Supply of Raw Material**

   Quick payment of credit purchase of raw materials ensures the regular supply of raw materials from suppliers. Suppliers are satisfied by the payment on time. It ensures regular supply of raw materials and continuous production.

5. **Smooth Business Operation**

   Working capital is really a life blood of any business organization which maintains the firm in well condition. Any day to day financial requirement can be met without any shortage of fund. All expenses and current liabilities are paid on time.

6. **Ability to Face Crisis**

   Adequate working capital enables a firm to face business crisis in emergencies such as depression.

Check your progress 4

1. Inadequate working capital create:
   a. Smooth Business Operation
   b. Regular Supply of Raw Material
   c. Face Crisis
   d. Uplift of Goodwill

1.5 Determinants of Working Capital

Generally it is seen that company normally as per policy wants to hold with him certain capital balance for working in order to overcome certain solvency risks. This is a logical approach indicating that working capital is a means to an end and not an end in itself.

We see that quantitative working capital can hardly be set for a firm as the corporate management are considering ample of factors in making decision regarding balances. An appraisal of these would provide guidance to management in estimating prospective needs. These are called as determinants of working capital. Some of the most determinants of working capital are:

1. **Nature of business**

   We see that working capital of a company depends on type of business. Companies who are into public services like Railways, Electricity etc would need only small amount of working capital while manufacturing and trading firms needs larger working capital for operations.

2. **Length of period of manufacture**

   Amount of working capital required is highly influenced by length of manufacturing cycle. If manufacturing process is long, in such case large amount of working capital is required, so normally companies shorten the period of cycle to minimize the needs of working capital.

3. **Production process flow.**

   If a company estimates its production needs, what it manufactures will likely vary somewhat from actual demand, resulting in an excess amount

of inventory on hand. Conversely, a just-in-time system produces goods only to order, so the investment in inventory is reduced.

4. Growth rate.

In case of business is expanding at high rate, it increases investments in receivables and inventory period. Unless profits are too high, it is unlikely that entity can generate sufficient cash to pay such receivables and inventory which lead to steady increase in working capital. On the other hand, if business is shrinking, its working capital gets decline, which spins off excess cash.

5. Turnover of working capital

If a company estimates its production needs, what it manufactures will likely vary somewhat from actual demand, resulting in an excess amount of inventory on hand. Conversely, a just-in-time system produces goods only to order, so the investment in inventory is reduced.

6. Terms of Credit

If a business offers easy credit terms to its customers, the company is investing in accounts receivable that may be outstanding for a long time. This investment can be reduced by tightening the credit policy, but doing so, may drive away some customers.

7. Seasonal Variations

Seasonal changes in the economy also affect the quantum of working capital. Huge amount of working capital is required during the periods of inflation and depression and the requirement declines during the other periods of economic cycle.

8. Requirements of Cash

Need for the working capital depends upon the amount of cash required by the company for its various purposes. If greater the requirements of cash, the higher will be the working capital needs of the company and vice versa.

Check your progress 5

1. Which type of unit would need small amount of working capital:
   a. Manufacturing unit
   b. Public Service Unit like Railway
   c. Both of above a and b
   d. None ofabove

1.6 Let Us Sum Up

In this unit we have learnt that working capital management is a methodology where company manages relationship among assets and liabilities for short duration. It is seen that good working capital management takes care of main part of corporate strategy which involves policies of various companies in terms of profitability, liquidity and structure of the firm. Working capital helps in operation of business smoothly without any financial crisis which lead to payments related to short-term liabilities.

1.7 Answer for Check Your Progress

Check your progress 1

Answers: (1-c)

Check your progress 2

Answers: (1-c)

Check your progress 3

Answers :(1-c)

Check your progress 4

Answers :(1- c)

Check your progress 5

Answers :(1- b)

1.8 Glossary

1. **Fixed assets -** Relatively permanent resources intended for use in business
2. **Gross profit -** Sales less cost of goods sold
3. **Growth trap -** A cash shortage resulting from rapid growth

1.9 Assignment

List some features of working capital management.

1.10 Activities

Collect information on drawbacks of working capital management.

1.11 Case Study

Discuss the factors affecting working capital requirement.

1.12 Further Readings

1. Bateson, John E. G. and K. Douglas Hoffman (1999), Managing Services Marketing Text and Readings (Fourth ed.). Fort Worth: The Dryden Press. (471

WORKING CAPITAL MANAGEMENT–II
(Computation of working capital)

: UNIT STRUCTURE :

2.0 Learning Objectives
2.1 Introduction
2.2 Sources of working capital
2.3 Management of working Capital
2.4 Computation or Estimation of Working Capital
2.5 Illustration
2.6 Let Us Sum Up
2.7 Answer for Check Your Progress
2.8 Glossary
2.9 Assignment
2.10 Activities
2.11 Case Study
2.12 Further Readings

2.0 Learning Objectives

After reading this unit, you will be able to understand:

- Sources of working capital
- Computation of Working Capital

2.1 Introduction

Working capital may be regarded as the lifeblood of a business. Its effective provision can do much to ensure the success of a business. Its inefficient management can lead not only to loss of profit but also to the downfall of a business. The nature of working capital is described with the help of nature of operation cycle of the firm. The process of cash or operation cycle starts when a firm uses cash to purchase raw materials and pay for other manufacturing costs to produce goods. Cash management refers as corporate process of collecting and managing cash for the purpose of short-term investment. It is the main part which ensures a company's financial stability and solvency.

Check your progress 1

1. Cash management refers as corporate process of collecting and managing cash for the purpose of …..

   a. short-term investment

   b. Long-term investment

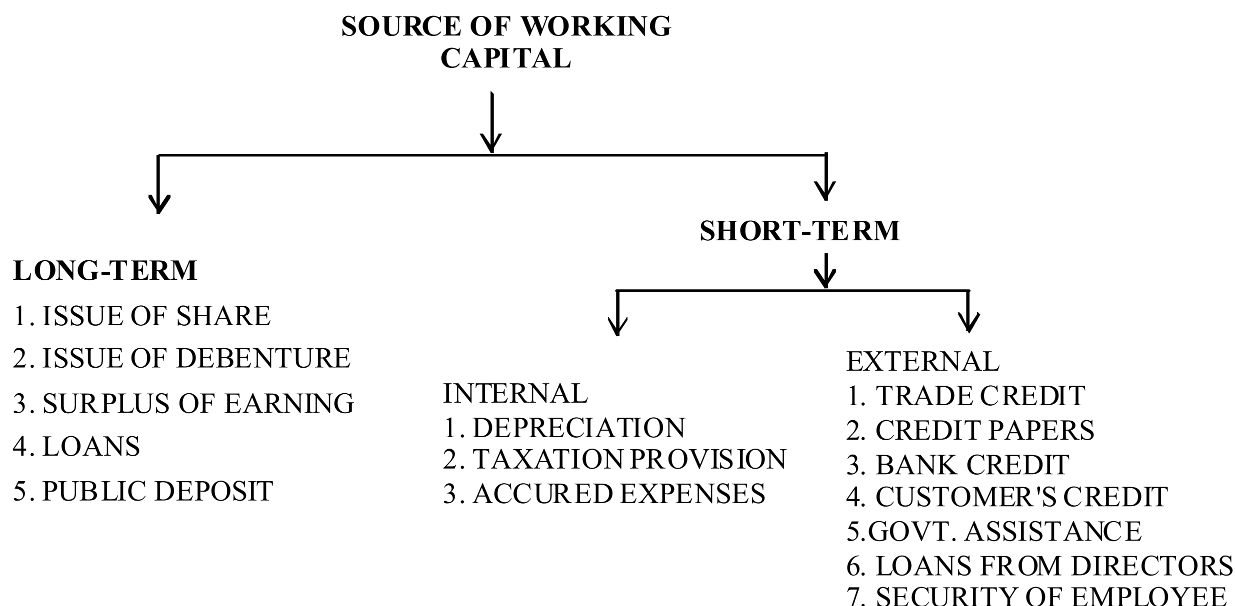
   c. Short-term and Long-term investment

   d. None of above

2.2 Sources of working capital

The financial manager is always interested in obtaining the working capital at right time, at a reasonable cost and at the best possible favourable terms. It is acceptable that a part of working capital investments are permanent investments in fixed assets. Because, working capital have always a minimum level of current assets which are continuously required by the enterprise to carry out its day-to-day business operation. The minimum level of working capital should be maintained.

Sources of working capital



Check your progress 2

1. Government Assistance consider as ___________source of working capital
   a. Long–term
   b. Short-term
   c. Short-term internal
   d. Short-term external
2. **Public deposit is a _______________source of working capital.**
   a. Long–term
   b. Short-term
   c. Short-term internal
   d. Short-term external

2.3 Management of working Capital:

Working Capital administration is an inside portion of corporate administration. For financial supervisor to preserve a working capital may be a challenges and opportunities. Working capital is an excess of current assets over current liabilities. Administration of working capital is endeavoring to manage current assets, current liabilities and inter-relationship that exist between them. Lacking and excessive working capital is bad for business.

- Inadequate working capital may lead the firm to insolvency while
- Excessive working capital implies idle funds, which earn no profit for the business.

The both objective of working capital management are to maintain profitability and liquidity. Investment in current assets as well as long-term assets has to be undertaken so as to offer the most satisfactory returns to shareholders. The goal of liquidity is to ensure that a business or company satisfies obligations and continues as a going concern. Profitability and liquidity frequently conflict with each other. A sound working capital management policy is one which ensures higher profitability, proper liquidity and sound structural health of the organisation.

The management of working capital has the following problems:

- Estimating the working capital requirements.
- To decide the optional level of investment in various current assets.
- To decide optimal mix of short-term funds in relation to long-term capital.
- To locate the appropriate means of short-term financing.

"We need to know when to look for working capital funds, how to use them and how to measure, plan and control them". Thus the financial manager has to perform the following two basic functions:

I. Forecasting the working capital requirements.

II. Financing working capital needs.

Working Capital forecasting for Trading Concern

The most ticklish problem that is faced by a businessman is the determination of the amount of working capital required at a particular level of business operation. Working capital is the life-blood of a business. No businessman can successfully run without an adequate amount of working capital. A working capital forecast is prepared for this purpose involving some calculations after taking into consideration all the aspects of business activity.

The estimated requirement of working capital for the budgeted period can be determined on the basis of data contained in the Balance sheet of previous year. The current assets and current liabilities are to be adjusted in relation to the budget period and the working capital requirement can easily be determined by deducting the estimated total value of current liabilities from the estimated total value of current assets.

Check your progress 3

1. Which following problems are not included in management of working capital.

a. Estimating the working capital requirements.

b. To decide the optional level of investment in various current assets.

c. To decide optimal mix of short-term funds in relation to long-term capital.

d. Need not require to estimate working capital

2.4 Computation or estimation of Working Capital

Working capital represents the difference between a firm's current assets and current liabilities. The challenge can be determining the proper category for the vast array of assets and liabilities on a firms' balance sheet and deciphering the overall health of a firm in meeting its short-term commitments.

We see a good business will have ample capacity to pay off its current liabilities with current assets. The current ratio is current assets which are divided by current liabilities that show insight into working capital health at a firm. The ratio above 1 indicates that current assets are more than liabilities, so higher is the ratio, the better it will be for company. Also, we see that quick ratio measures the proportion of short-term liquidity while comparing to current liabilities. The difference among this as current ratio in numerator shows asset which covers cash, marketable securities and receivables. The key item it backs out is inventory, which can be more difficult to turn into cash on a shorter-term basis. So we can see that working capital can be calculated using the formula:

Working Capital = Current Assets – Current Liabilities

Current assets and current liabilities can be found in the balance sheet of the company financial statements. By subtracting the current liabilities from the current assets you have the net working capital which the company can use to operate the business.

Current assets include cash, investment securities, prepaid expenses, accounts receivable, and inventory. Current Liabilities consist of any obligations due within one year. This would include accounts payable, notes payable, dividends, taxes, wages, and the current portion of long-term debt.

The working capital is excess of current assets over current liability

The working capital is excess of current assets over current liabilities. Hence only current assets and current liabilities are shown in the statement showing changes in working capital. While preparing this statement, the following point should note:

Working Capital = Current Assets – Current Liabilities. This suggests that:

1. Working capital increase if there is any increase in the current assets

   e.g. If current assets are worth ₹ 75,000 and current liabilities are ₹ 50,000 than working capital = ₹ 25,000 (₹ 75,000 -₹ 50,000)

   If current assets increase to ₹ 15,000 than working capital will also increase to ₹ 40,000

   Working Capital = ₹ 90,000 - ₹ 50,000 = ₹ 40,000

   Current assets increased by ₹ 15,000 working capital increased from ₹ 25,000 to ₹ 40,000

2. Working capital decrease if there is any decrease in current assets

   e.g. If current assets are worth ₹ 75,000 and current liabilities are ₹ 50,000 than working capital = ₹ 25,000 (₹ 75,000 -₹ 50,000)

If current assets decrease to ₹ 15,000 than working capital will also decrease to ₹ 10,000

Working Capital = ₹ 60,000 - ₹ 50,000 = ₹ 10,000

current assets decreased by ₹ 15,000 working capital decreased from ₹ 25,000 to ₹ 10,000

3. Working capital increase if there is any decrease in the current liabilities

   e.g. If current assets are worth ₹ 75,000 and current liabilities are ₹ 50,000 than working capital = ₹ 25,000 (₹ 75,000 -₹ 50,000)

   If current liabilities decrease to ₹ 15,000 than working capital will increase to ₹ 40,000

   Working Capital = ₹ 75,000 - ₹ 35,000 = ₹ 40,000

   Current liabilities decreased by ₹ 15,000 working capital decreased from ₹ 25,000 to ₹ 40,000

4. Working capital decreases if there is any increase in current liabilities.

   e.g. If current assets are worth ₹ 75,000 and current liabilities are ₹ 50,000 than working capital = ₹ 25,000 (₹ 75,000 -₹ 50,000)

   If current liabilities increase to ₹ 15,000 than working capital will also decrease to ₹ 10,000

   Working Capital = ₹ 75,000 - ₹ 65,000 = ₹ 10,000

   Current liabilities increased by ₹ 15,000 working capital increased from ₹ 25,000 to ₹ 10,000

When current assets increase, the working capital also increases and when assets decrease, the working capital also decreases. Thus working capital varies directly with current assets.

Conversely current liabilities increase working capital will decrease and current liabilities decrease working capital will increase. Thus working capital adversely varies with liabilities.

Change in working capital also affects fund flow as well as cash flow of business

- Increase in working capital is known as application of funds and
- decrease in working capital is known as sources of funds
- Increase in working capital decrease cash flow
- Decrease in working capital increase cash flow

The purpose of the working capital calculation is to measure liquidity and efficiency of an enterprise. This provides insight into how proficient the company is at managing inventory, debt, accounts receivable, and accounts payable. While a lack of working capital can be devastating, it could be a sign of mismanagement.

Working Capital forecasting for Manufacturing Concern

The following items are taken into consideration at the time of ascertaining the requirement of working capital for manufacturing concern.

i. Total amount of unit created all through the year.

ii. Total cost brought about on materials, wages and overheads.

iii. Information almost the length of time for which raw materials are to stay in store some time recently they are issued for production

(The longer the period, the more will be the necessity of working capital)

iv. Information almost length of production cycle. (The longer the period, the expansive will be the necessity of working capital)

v. Information approximately length of sales cycle. That is the period amid which finished items will stay within the warehouse

vi. Information almost the average of credit permitted to debtors

vii. Information almost the average of credit permitted by suppliers.

viii. Information almost the trade expenses.

ix. Information almost the lag in installment of wages and overheads (The Longer the period, the less will be the requirement of working capital)

Estimate of working capital is compiled on the premise of estimate as it were. Hence, in arrange to supply for possibilities, an arrangement may be included as margin of security. This arrangement makes a difference in cushioning all instabilities included in making the estimates.

Check your progress 4

1. Working capital calculation involves:

   a. Measure of liquidity b. Measure ofefficiency

   c. Both a and b d. Neither a norb

2.5 Illustration

Illustration 1

From the following information of Pramod Ltd., a trading concern, you are asked to ascertain the working capital

.**Fixed Assets:**	Amount ₹
Land and Building	20,000
Plant and Machinery	10,000
Working Capital:	
Current Assets:	
Stock	40,000
Debtors	30,000
Cash and Bank	10,000
Current Liabilities	
Creditors	20,000
Taxation	6,000
Overdraft	14,000
O/s Liabilities	10,000

Solution:

Working Capital = Current Assets – Current Liabilities

Particulars	Amount ₹
CURRENT ASSETS:	
Stock	40,000
Debtors	30,000
Cash and Bank	10,000
Total Current Assets (A)	80,000
CURRENT LIABILITIES:	
Creditors	20,000
Taxation	6,000
Overdraft	14,000
O/S Liabilities	10,000
Total Current Liabilities (B)	50,000
Working Capital=(A-B)	30,000

Illustration 2

From the following information of Rupal Ltd., a trading concern, you are asked to ascertain the estimated additional requirement of working capital.

BALANCE SHEET OF RUPAL LTD. AS ON….31st March 2021

Fixed Assets:		
Land and Building	30,000	
Plant and Machinery	20,000	50,000
Working Capital:		
Current Assets:		
Stock	50,000	
Debtors	40,000	
Cash and Bank	20,000 1,10,000	
Less: Current		
Liabilities	30,000	
Creditors	6,000	
Taxation	24,000	
Overdraft	20,000 80,000	30,000
O/s Liabilities		
		80,000

Additional information :

I. It is estimated that the company will be able to increase sales by 25% in the following year.

II. Maximum limit of overdraft facility granted is ₹ 25,000

III. Credit period allowed to customers and the level of stock will remain unaltered.

Solution 2:

Particulars	Current year level Amount ₹	Estimated Increase ₹	Estimated requirement ₹
CURRENT ASSETS:			
Stock	50,000	12,500	62,500
Debtors	40,000	10,000	50,000
Cash and Bank	20,000	5,000	25,000
Total Current Assets (A)	1,10,000	27,500	1,37,500
CURRENT LIABILITIES:			
Creditors	30,000	7,500	37,500
Taxation	6,000	1500	7,500
Overdraft	24,000	6,000	30,000
O/S Liabilities	20,000	5,000	25,000
Total Current Liabilities (B)	80,000	20,000	1,00,000
Working Capital = (A-B)	30,000	7,500	37,500

Requirement of Additional Working Capital = ₹ 7,500(37,500-30,000)

Illustration 3:

Kaival is engaged in large scale consumer retailing. From the following information, you are required to forecast his working capital requirement:

Projected annual Sales ₹ 78, 00,000

Percentage of Net Profit on cost of sales 25%

Average Credit period is allowed to Debtors 10 Weeks

Average credit period is allowed by Creditors 4 Weeks

Average stock carrying (In terms of Sales requirement) 8 Weeks

Add 10% to compute figures to allow for contingencies.

Solution:-3

Projected Annual Sales ₹ 78, 00,000

Projected Annual Sales per week = 78, 00,000 / 52 Weeks = ₹ 1, 50,000

Less: Net Profit there on (25% on Cost = 20% on Sales) ₹ 30,000

Projected Cost Per week ₹ 1,20,000

Working Capital Requirement Forecast

Current Assets:

Debtors (Credit period 10 weeks) ₹ 1, 20,000 X 10 = ₹ 12, 00,000

Add: Profit @ 25% on cost ₹ 3, 00,000 ₹ 15, 00,000

Stock (8 weeks) ₹ 1, 20,000 X 8 ₹ 9, 60,000

Current Assets	Amount ₹
Debtors (Credit period 10 weeks) ₹ 1, 20,000 X 10 = ₹ 12,00,000 Add: Profit @ 25% on cost ₹ 3,00,000	15,00,000
Stock (8 weeks) ₹ 1,20,000 X 8 weeks	9,60,000
Total Current Assets	**24,60,000**
Current liability:	
Creditors (4 Weeks) ₹ 1,20,000 X 4 Weeks	4,80,000
Working Capital Computed	19,80,000
Add: 10% for contingencies	1,98,000
Total Requirement of Working Capital	**21,78,000**

Illustration 3

From the following particulars Kavisha Ltd. prepare a statement showing working capital needed to finance a level of activity of 12,000 units of output per annum.Analysis of selling price per unit

Particulars	**₹**
Raw Materials	05
Labour	03
Overhead	02
Total Cost	10
Profit	02
Selling Price	12

Additional Information

I. Raw materials are to remain in store on an average 1 months

II. Materials are in process, on an average 2 months

III. Finished goods are in stock on an average 3 months

IV. Credit allowed to Debtors is 4 months

V. Credit allowed by suppliers is 2 months.

It may be assumed that production and overheads accrue evenly throughout the year.

Solution : 3

Sales for the year = 12000 units X ₹ 12 = ₹ 1, 44,000

Sales per month = ₹ 1,44,000 / 12 months = ₹ 12,000

Materials

Particulars	Unit per annum	Amount per unit ₹	Amount per annum ₹	Per month ₹
Raw Materials	12,000	5	60,000	5,000
Labour	12,000	3	36,000	3,000
Overhead	12,000	2	24,000	2,000
Total Cost	12,000	10	1,20,000	10,000
Profit	12,000	02	24,000	2,000
Selling Price	12,000	12	1,44,000	12,000

Working capital Requirement Forecast

Current Assets:	Per month ₹	Month	Total Amount ₹	Total Amount ₹
1. Stock of Raw Materials(1 month) Raw Materials	5,000	1	5,000	5,000
2. Work-in-progress (2 months)				20,000
Raw Materials	5,000	2	10,000	
Labour	3,000	2	6,000	
Overheads	2,000	2	4,000	
3. Stock of Finished Goods(3 months)				30,000
Raw Materials	5,000	3	15,000	
Labour	3,000	3	9,000	
Overheads	2,000	3	6,000	
4. Debtors (4 months) (Sales)				
Raw Materials	5,000	4	20,000	
Labour	3,000	4	12,000	
Overheads	2,000	4	8,000	
Cost of Sales			40,000	
+ Profit 20%			8,000	48,000
Total Current Assets				1,03,000
Less: Current Liabilities:				
1. Creditors (2 months)	5,000	2	10,000	10,000
Requirement of Working Capital				93,000

2.6 Let Us Sum Up

Working capital may be regarded as the lifeblood of a business. Its effective provision can do much to ensure the success of a business. Its inefficient management can lead not only to loss of profit but also to the downfall of a business. The nature of working capital is described with the help of nature of operation cycle of the firm.

The financial manager is always interested in obtaining the working capital at right time, at a reasonable cost and at the best possible favourable terms. It is acceptable that a part of working capital investments are permanent investments in fixed assets. Because, working capital have always a minimum level of current assets which are continuously required by the enterprise to carry out its day-to-day business operation. The minimum level of working capital should be maintained.

Working Capital management is an internal part of corporate management. For financial manager to maintain a working capital is a challenges and opportunities. Working capital is an excess of current assets over current liabilities. Management of working capital is attempting to manage current assets, current liabilities and inter-relationship that exist between them. Inadequate and excessive working capital is bad for business.

2.7 Answer for Check Your Progress

Check your progress 1

Answer: (1-a)

Check your progress 2

Answers: (1-d);(2-a)

Check your progress 3

Answers: (1-d)

Check your progress 4

Answers: (1-c)

2.8 Glossary

- **current assets -** Liquid assets that can be converted into cash within a company's operating cycle
- Inadequate working capital - Insufficient or low working capital
- Excessive working capital - More than necessary working capital
- Forecasting – Predict or estimate

2.9 Assignment

1. Computation of Working Capital
2. From the following information of Rupal Ltd., a trading concern, you are asked to ascertain the estimated additional requirement of working capital.

BALANCE SHEET OF RUPAL LTD. AS ON….

Fixed Assets:			
Land and Building	60,000		
Plant and Machinery	40,000		1,00,000
Working Capital:			
Current Assets:			
Stock	1,00,000		
Debtors	80,000		
Cash and Bank	40,000	2,20,000	
Less: Current Liabilities			
Creditors	60,000		
Taxation	12,000		
Overdraft	48,000		
O/s Liabilities	40,000	1,60,000	60,000
			1,60,000

Additional information:

I. It is estimated that the company will be able to increase sales by 25% in the following year.

II. Maximum limit of overdraft facility granted is ₹ 25,000

III. Credit period allowed to customers and the level of stock will remain unaltered.

[Answer: Additional required working capital is ₹ 15,000]

2.10 Activities

Management of working capital.

2.11 Case Study

Sources of working capital.

2.12 Further Readings

1. Bateson, John E. G. and K. Douglas Hoffman (1999), Managing Services
2. Management Accounting by S.Chand

INVENTORY MANAGEMENT & RECEIVABLE

: UNIT STRUCTURE :

3.1 Learning Objective
3.2 Introduction
3.3 Meaning and definition
3.4 Types of inventory
3.5 Motive for holding inventory
3.6 Inventory control and its Functions
3.7 Practical example for inventory
3.8 Receivables Introduction
3.9 Meaning of Receivables
3.10 Objectives of maintaining Receivables
3.11 Factors influencing the size of Receivables
3.12 Assessment (Evaluation) of Credit Policy
3.13 Let Us Sum Up
3.14 Answer for Check Your Progress
3.15 Glossary
3.16 Assignment
3.17 Activities
3.18 Case Study
3.19 Further Reading

3.1 Learning Objective

After reading this unit, you will be able to understand:

- Meaning and Types of inventory
- Motive for holding inventory
- Functions of inventory control
- Meaning of Receivables
- Objectives of maintaining Receivables

3.2 INTRODUCTION:

Inventory is composed of assets that will be sold in future in the normal course of business operations. To the finance manager, inventory connotes the value of raw materials, consumables, spares, work-in-progress, finished goods and scrap in which a company's funds have been invested. It considers the inventory, as blockage of money.

Inventory means tangible property held

(i) for sale in the ordinary course of business or

(ii) in the process of production for such sale or

(iii) For consumption in the production of goods or services for sales.

It is interesting to learn that different departments of the same organisations have different purposes of holding inventory. The production manager favors relatively higher level of inventory so that production process runs smoothly. The marketing manager prefers to have reserves of finished goods so that availability of product is ensured even if demand for the product keeps fluctuating. On the other hand, the finance managers justify limited stock levels because of them; inventory is money blocked which doesn't earn interest.

At the outset, it is essential to be clear about the meaning of the term inventory control. Inventory has a wider meaning. Inventory refers to the stocks, not only the materials, but of finished and semi-finished goods, spare parts, tools and equipment's and general stores like oil, grease, belt etc.

Check your progress 1

1. Which following statement for Inventory is not true…..
   (a) Inventory is an intangible asset
   (b) In the process of production for such sale
   (c) For consumption in the production of goods or services for sales.
   (d) For sale in the ordinary course of business

3.3 Meaning

Inventory control refers to planned method to determine which items to purchase, how much to purchase and how much to keep in stock, so that the costs of purchase and storage both are minimized without adversely affecting either production or sales.

In other words, 'inventory control means the decision of the firm as to the extent to which inventories can be economically stored.'

3.4 Types of inventory:

(1) Raw materials: These are goods which have not yet been committed to production in a manufacturing firm. They may consist of basic raw materials or finished components. In many of the case the finished goods of one industry becomes the raw materials of another industry e.g. the finished goods of a spinning mill is the yarn, which becomes the raw material for a weaving mill.

(2) Work-in-process: This includes those materials which have been committed to production process but have not yet been completed. They are unfinished goods and lying at various stages of production.

(3) Semi-finished goods: Goods which are not in saleable state, on which some processes have been performed and which require further processing before being transferred into finished stock godown are known as semi-finished goods.

(4) Finished goods: These is completed products awaiting sale. They are output of the production process in a manufacturing firm.

The level of three different kinds of inventories depends upon the nature of the business. For example, a manufacturer will have high levels of all the three kinds of inventory, while a retailer or wholesaler will have high level of inventories of finished goods only.

(5) Supplies: Another kind of inventory, supplies or what is called consumable stores is also maintained by the firms. These materials are of low value and they do not enter the production process, for example oil, fuel, bulbs, soaps etc.

(6) Components parts: When two or more parts are to be joined to prepare a final product, component parts are either bought from outside or are manufactured in the factory. These parts also from a considerable value of the total inventory. e.g. a motor-car is manufactured by assembling more than 2500 parts.

(7) Scrap: The waste of materials arising during manufacturing process is also a part of the inventory. Even defective pieces to be disposed of are a part of inventory.

(8) Defective work: Defective work is that product which contains a manufacturing defect and cannot be corrected, and then they are sold as seconds.

Check your progress 2

1. Inventory includes…….

   (a) Raw materials

   (b) Work-in-process

   (c) Semi-finished goods

   (d) All above

3.5 Motive for holding inventory:

(1) Transaction motive: An important reason for maintaining inventory levels is the transaction motive. This refers to the need of maintaining inventory to facilitate smooth production and sales operations. The transaction motive for holding inventory is to satisfy expected level of operations in the firm.

(2) Precautionary Motive: Precautionary motive for holding inventory is to provide a safe guard or cushion in case the actual level of activity is different than anticipated. This inventory serves as a reserve when there are unpredictable changes in the demand and supply forces. e.g. it may be that due to some unforeseen circumstances government may restrict import of some important basic raw material or there may be unexpected big order received from a customer to supply a large quantity of finished goods.

(3) Speculative Motive: It refers to the desire of a firm to take advantage of opportunities of rising prices which present themselves at unexpected

moment and which are typically outside the normal course of business. While precautionary motive is defensive in nature in that firm keep inventory to meet unexpected contingent situations the speculative motive represents an aggressive in inflationary times is one from of speculative behavior.

Check your progress 3

1. Which following statement is not included in motive ?

   (a)Transaction motive

   (b) Charity motive

   (c) Precautionary Motive

   (d) Speculative Motive

3.6 Inventory control and its Functions:

In order to reduce the cost of materials to minimum, there should not be over investment in materials, Likewise the production should not be held up for want of materials. Hence, the stores control, demands that minimum level should be fixed beyond which stock should not fall. Maximum level should be fixed beyond which stock should not raise and ordering level should also be fixed when step should be taken to place order for fresh supplies

Ordering quantity means the quantity of materials for which order must be placed is also known as ordering quantity It is used either to mean the most economical quantity for which an order may be placed at any time or quantity

Various levels of materials are determined by following formulas

(i) Re-order Stock Level = Maximum Consumption X Maxi. Delivery Time

(ii) Minimum Level = Ordering Level – (Average Consumption X Average Time)

(iii) Maximum Level = Ordering Level – (Mini. Consumption X Mini. Time) +Ordering Quantity

(iv) Average Level = Minimum Level + ½ Ordering Quantity

(v) Danger Level: = Average Consumption X Maximum Delivery Time for emergency purchase

(vi) EOQ = $\sqrt{\frac{2AO}{C}}$, EOQ = $\sqrt{\frac{2AO}{CP}}$

Function of Inventory

(1) Inventory gives protection against Uncertainties: Sometimes, forecasts of market demand go wrong, creating disturbance in production flow. Such disturbances can be easily absorbed through the use of inventories. Supposing there is an unexpected sudden increase in the demand for the company's product. In such a case production will require additional materials. These materials can be easily withdrawn from

the stocks. i.e. inventory. Thus, the requirement of production and sales department can always be fulfilled through inventories.

(2) Inventory Enables Continuous Production for Seasonal Goods: Even in industries in which products of seasonal demand are manufactured, men and machines are continuously and smoothly used. This is made possible due to the provision of adequate inventory. For instance, woolen cloth is in demand only during winter and yet woolen industry functions throughout the year continuously, using men and materials that it has employed. Only due to inventory it is possible to continue production throughout the year through the demand is seasonal.

(3) Inventory helps in getting quantity discounts: It is on account of inventory that a company can have the facility of discounts associated with large scale buying of materials. Also, inventory of finished goods allows it to produce on a large scale and thereby get all the economies of large scale production.

Check your progress 4

1. Which following statement is not included in Functions of inventory control ?

   (a) Inventory Enables Continuous Production for Seasonal Goods

   (b) Inventory helps in getting quantity discounts

   (c) Inventory create recession

   (d) Inventory gives protection against Uncertainties

3.7 Practical Example for inventory

Illustration – 1

From the following information calculate Economic Order Quantity of Himesh Ltd.

Annual Consumption	12,500 units
Cost per unit	₹ 30
Insurance cost per unit	₹ 0.50
Interest cost per Unit	₹ 0.25
Storing cost per Unit	₹ 0.25
Cost of placing an order	₹ 10

Solution -1

Notes : Cost of carrying inventory per unit per year is given in rupee (not given in percentage) in that case EOQ formula will be $\sqrt{\frac{2AO}{C}}$

Here carrying cost = ₹ 1 (Insurance cost per unit ₹ 0.50 + Interest cost per Unit ₹ 0.25 + Storing cost per Unit ₹ 0.25)

$$EOQ = \sqrt{\frac{2AO}{C}}$$

A = Annual Consumption = 12,500 Units

O = Cost of Placing Order = ₹ 10

C = Cost of carrying inventory per unit per year =₹ 1

P = Price per unit = ₹ 30

EOQ = $\sqrt{\frac{2 \times 12{,}500 \times 10}{1}} = \sqrt{\frac{2{,}50{,}000}{1}} = \sqrt{2{,}50{,}000}$ = 500 Units

Illustration – 2

From the following information calculate Economic Order Quantity of Shweta Ltd.

Annual Consumption	22500 units
Cost per unit	₹ 30
Cost of placing an order	₹ 6
Cost of carrying unit 10%	

Solution -2

EOQ = $\sqrt{\frac{2AO}{CP}}$

A = Annual Consumption = 22,500 Units

O = Cost of Placing Order = ₹ 6

C = Cost of carrying inventory per unit per year =10%

p = Price per unit = ₹ 30

EOQ = $\sqrt{\frac{2 \times 22{,}500 \times 6}{10\% \times 30}} = \sqrt{\frac{2{,}70{,}000}{3}} = \sqrt{90{,}000}$ = 300Units

Illustration 3

From the following information of Saloni Ltd. calculate:

(i) Re- order stock level (ii) Minimum stock level (iii) Maximum stock level

(iv) Average stock level (v) Danger stock level

Maximum delivery period	50 days
Average delivery period	40 days
Minimum delivery period	30 days
Maximum delivery period for emergency purchase	7 days
Maximum rate of consumption per day	40 units
Average rate of consumption per day	30 units
Minimum rate of consumption per day	20 units
Ordering quantity	500 Units

Solution -3

Particulars	Delivery period	consumption
Maximum	**50 days**	**40 units**
Minimum	**30 days**	**20 units**
Average	**40 days**	**30 Units**
Max Emergency purchase	**7 days**	**Ordering Quantity 500 Unit**

(i) Re-order Stock Level = **Maximum Consumption X Maxi. Delivery Time**

= **40 units X 50 days**

= **2,000 units.**

(ii) Minimum Level = **Ordering Level – (Average Consumption X Average Time)**

= 2,000 – (30 units X 40 days)

= 2,000 – 1,200

= 800 units

(iii) Maximum Level = **Ordering Level – (Mini. Consumption X Mini. Time) +Ordering Quantity**

= 2,000 – (20 units X 30 days) + 500

= 2,000 – 600 + 500

= 1,900 units

(iv) Average Level = **Minimum Level + ½ Ordering Quantity**

= 800 + (½ X 500)

= 800 + 250

= 1,050 units.

(v) Danger Level: = **Average Consumption X Maximum De livery Time for emergency purchase**

= 30 units X 7 days

= 210 units

3.8 RECEIVABLES

1. Introduction:

When goods are sold on credit in business, the price of the goods becomes receivable. We know this amount as "Trade Debtors" or "Debtors" or "Receivables" or "Accounts Receivables". These receivables are assets of the business.

There are three important features of this asset

(1) It involves an element of risk. There is no risk in cash sales, but in credit sales, there is a risk of bad debts.

(2) It is based on economic value. When sale is made, the economic value immediately passes to the buyer, while it will pass to the seller in future.

(3) It implies futurity in the sense that the money is receivable in future.

In the present competitive economic system, credit sales are essential; unless the good sold is in short supply. The money involved in receivables is blocked till future and management has to arrange for the funds through debt or through issuing equity shares. Thus there is an opportunity cost of receivables. However, a credit sale is essential in order to meet the severe competition. And so the management of receivable requires great care. It must be so managed that the benefit available from additional sales and the cost of funds raised to finance the additional credit coincide.

Management of receivable is important from another view point also. It is an important component of current assets and in India it forms about one-third of current assets. The funds are tied up in trade debtors and if proper care is not taken, it will affect the profitability.

Check your progress 5

1. Which following words does not match for receivables
   (a) Trade Debtors
   (b) Goods are sold on credit
   (c) Trade Creditors
   (d) Accounts Receivables

3.9 Meaning of Receivables:

When a firm sells goods for cash, payments are received immediately and therefore no receivables are created however, when a firm sells goods or services on credit, payments are received only at a future date and receivables are created. These are the amounts which are owned by the firm against sale of goods or services in a business. It represents claims of firm against its customers which acts as current assets to it. Receivables are accounts receivables, trade receivables, customer receivables or book debts which are for customers. In this, the credit period and extent of receivables relays on credit policy of the company. The purpose of maintaining or investing in receivables is to meet competition, and to increase the sales and profits.

According to **Hampton “**receivables are asset accounts representing amounts owed to the firm as a result of the sale of goods/services in the ordinary course of business”.

Costs of Maintaining Receivables

By allowing credit to customers shows giving of funds to customer’s use. The concern lead to following cost on maintaining as:

- **Cost of Financing Receivables**: in case of goods and services are given on credit, than concern’s capital can be used by customers, As the receivables are financed from funds of shareholders by long term financing or through retained earnings, the concern occurs due to certain cost which lead to collection funds.
- **Cost of Collection**: A proper collection of receivables is required for receivables management. Here the customers who do not pay money

during required credit period will be intimated for early payments. Many people need constant follow-ups for collection of desired amount. Such type of costs is collection costs whose permission is required to incur.

- **Bad Debts:** Many customers fail to pay the required amount which was due towards them, so such amount comes under bad debts. The concern also is to lower the bad debts by efficient collection of machinery which cannot be ignored.

3.10 Objectives of maintaining Receivables:

Credit sale is an essential part of the Modern business operations. Particularly in a situation where there is competition, no business can survive without selling goods or services on credit. There is a bound to be some level of permanent receivables. We can identify three main objectives of maintaining receivables.

(1) To achieve growth in sales: It is natural that a firm which sells on credit will get more sales than the firm which sells only for cash. Many customers do not like to pay cash when they make purchases. They may not have enough cash at the time of purchase and must wait until they resell the goods before they have money to pay them. Some business firms may want the bill to be sent to their accounts department, where they would be checked before payment is made. Because of such practices of customers, the firm which sells on credit will have large sales.

(2) To increase profits: Due to practice of selling goods on credit, there will be increased sales and it will result into higher profits for the firm. This will happen only when the gross profit margin is greater than the additional cost associated with the credit policy. The additional margin should be greater than the collection costs, loss of bad debts and also the opportunity costs. If it is not possible to cover these costs, it would be better to make additional sales for cash only.

(3) To meet Competition: Where competition prevails, all firms in that business will adopt similar policy as regards credit sales. Of course, credit policy various widely from industry to industry. e.g. in textile industry, there is a practice of granting credit of 180 days due to severe competition, but in automobile industry, no credit sale is there. A firm would loss the customers if it does not fall in line with competitors as regards credit sales.

3.11 Factors influencing the size of Receivables:

Apart from sales, many other factors also influence the size of receivables such as:

I. Size of credit Sales: Volume of credit sales is initial factor which rises or lower the size of receivables. The company who sells the goods on cash basis will have no receivables. we see that higher part of credit sales from total sales result in more receivables.

II. **Credit Policies:** Company having limited policy will have low receivables as compared to firm with liberal credit policy. If collections are prompt then even if credit is liberally extended the size of receivables will remain under control. In case receivables remain outstanding for a longer period, there is always a possibility of bad debts.

III. **Terms of Trade:** in this, size of receivables depends on trade terms. Here the credit period allowed and discount rates are linked with receivables. In case of credit period is more than receivables, will also be more. Many times trade polices of competitors needs to be followed otherwise it is difficult to expand sales.

IV. **Expansion Plan:** To expand the activities, company will have to enter in new market to attract customers by giving incentives in shape of credit facilities. It is up to the choice of company to lower the credit period until it gets permanent customers. In the early stages of expansion more credit becomes essential and size of receivables will be more.

V. **Relation with Profits:** The idea of credit policy is to increase companies' sales. When sales increase beyond a certain limit, than extra costs occur will be lower than increase in revenues. Hence it is desired to increase sales beyond a particular point as it will bring more profits to the company. The increase in profit is followed with increase in size of receivable or vice-versa.

VI. **Credit collection Efforts:** Credit collection needs to be streamlined as the customers' needs to send periodical reminders if they fail to pay in time. We see that without paying special attention towards credit collection, the company can land into financial problem. Efficient credit collection machinery will reduce the size of receivables.

VII. **Habits of Customers:** The paying habits of customers also have bearing on the size of receivables. The customers may be in the habit of delaying payments even though they are financially sound. The concern should remain in touch with such customers and should make them realize the urgency of their needs.

3.12 Assessment (Evaluation) of Credit Policy

Assessment (Evaluation) of Credit Policies An appropriate assessment of credit arrangements to be received by a company and those to be apportioned with by a company is indubitably one of the foremost critical assignments to be embraced by back supervisors. The firm must work out the ideal sum that it ought to spend on the collection of its debtors. This includes keeping up a trade-off between the levels of use on the one hand and a decrease in terrible obligation losses/increase in sales income on the other. To secure the part of different costs included within the assessment of credit policies, let us consider the taking after example

Illustration 1

Labdhi Company is making sales ₹ 16, 00,000 and it extends a credit of 90 days to its customers. However in order to overcome the financial difficul-

ties it is considering to change the credit policy. The proposed terms of credit and expected sales are given below

Policy	I	II	III	IV	V
Sales	15,00,000	14,50,000	14,25,000	13,50,000	13,00,000
Terms	75 days	60 days	45 days	30 days	15 days

The company's variable cost is 80% of sales value and fixed cost is ₹ 1, 00,000. The cost of capital is 15%. Evaluate different proposed policy should be adopted₹ (Year may be taken as 360 days)

Solution -1

Particulars	Present	I	II	III	IV	V
Credit policy	90	75	60	45	30	15
Sales ₹ (A)	16,00,000	15,00,000	14,50,000	14,25,000	13,50,000	13,00,000
Variable Cost ₹	12,80,000	12,00,000	11,60,000	11,40,000	10,80,000	10,40,000
Fixed Cost ₹	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
Total Cost ₹ (B)	13,80,000	13,00,000	12,60,000	12,40,000	11,80,000	11,40,000
Profit C =A - B	2,20,000	2,00,000	1,90,000	1,85,000	1,70,000	1,60,000
Debtor at Cost	345000	270833.33	210000	155000	98333.333	47500
Cost of financing debtors	51750	40625	31500	23250	14750	7125
Net Profit (C)	1,68,250	1,59,375	1,58,500	1,61,750	1,55,250	1,52,875

Debtor at cost = Total cost * Terms of credit/ 360 days

= 13,80,000 * 90days/ 360 days

= 3,45,000

Cost of financing debtors =Debtor at cost *cost of capital is 15%.

=3,45,000 * 15%

=51750

3.13 Let Us Sum Up

To the finance manager, inventory connotes the value of raw materials, consumables, spares, work-in-progress, finished goods and scrap in which a company's funds have been invested. He considers the inventory as blockage of money.

Goods are sold on credit in business; the price of the goods becomes receivable. We know this amount as "Trade Debtors" or "Debtors" or "Receivables" or "Accounts Receivables". These receivables are assets of the business.

3.14 Answer for Check Your Progress

Check your progress 1

Answer :(1-a)

Check your progress 2

Answer: (1-d)

Check your progress 3

Answer: (1-b)

Check your progress 4

Answer: (1-c)

Check your progress 5

Answer: (1-c)

3.15 Glossary

I. Inventory: value of raw materials, consumables, spares, work-in-progress, finished goods and scrap in which a company's funds have been invested. So considers the inventory as blockage of money.

II. Inventory control: planned method to determine which items to purchase, how much to purchase and how much to keep in stock, so that the costs of purchase and storage both are minimized without adversely affecting either production or sales is called inventory control.

III. Receivables: when a firm sells goods or services on credit, payments are received only at a future date and receivables are created

IV. To meet Competition: Where competition prevails, all firms in that business will adopt similar policy as regards credit sales.

V. Habits of Customers: The customers may be in the habit of delaying payments even though they are financially sound.

3.16 Assignment

1. Mention the motives for holding inventory
2. What is meant by receivables Mention objectives of maintaining receivables.
3. From the following information calculate Economic Order Quantity of Kavisha Ltd.

Annual Consumption	10,000 units
Cost per unit	₹ 8
Insurance cost per unit	₹ 0.65
Interest cost per Unit	₹ 0.17
Storing cost per Unit	₹ 0.18
Cost of placing an order	₹ 25

Ans. EOQ = $\sqrt{\frac{2AO}{C}}$, = $\sqrt{\frac{2 \times 10,000 \times 25}{1}}$ = 707

4. From the following information calculate Economic Order Quantity of Kaival Ltd.and state how many times during the year order should be placed

Annual Consumption	3,600 units
Cost per unit	₹ 400

Cost of placing an order ₹ 1,000

Cost of carrying unit 5%

[Ans. $EOQ = \sqrt{\frac{2AO}{CP}} = \sqrt{\frac{2 \times 36,000 \times 1,000}{400 \times 5\%}} = \sqrt{\frac{72,00,0000}{20}}$

$= \sqrt{3,60,0000} = 600$ Units

5. From the following information of Kaivan Ltd. calculate:

(i) Re- order stock level (ii) Minimum stock level (iii) Maximum stock level (iv) Average stock level (v) Danger stock level

Particulars	Delivery period	consumption
Maximum	**90 days**	**60 units**
Minimum	**50 days**	**40 units**
Average	**70 days**	**50 Units**
Max Emergency purchase	**10 days**	**Ordering Quantity 1200 Unit**

[Ans : (i) Re- order stock level 5,400 units (ii) Minimum stock level 1,900 units (iii) Maximum stock level 4,600 units (iv) Average stock level 2,500 units (v) Danger stock level 500 units

6. Kaivan Company is making sales 2, 00,000 units and it extends a credit of 30 days to its customers. However in order to overcome the financial difficulties it is considering to change the credit policy. The proposed terms of credit and expected sales and other information given below

Selling price ₹ 6 Per Unit

Cost per unit ₹ 4.5 Per Unit

Variable cost ₹ 4 Per Unit

Bed debts 1% of Sales Price

Cost of Capital 20%

Fixed cost ₹ 1,00,000 Fixed Cost

Policy	Present	I	II	III	IV	V
Sales (In Unit)	2,00,000	2,10,000	2,16,000	2,25,000	2,30,000	2,35,000
Terms(days)	30	40	50	60	75	90
Bed debts	1%	1.50%	2%	3%	4%	5%

Ans :-6

Sr.	Particulars	Present	Option				
			I	II	III	IV	V
	Sales Unit	2,00,000	2,10,000	2,16,000	2,25,000	2,30,000	2,35,000
1	**Sales Price(Unit X R 6)**	**1200000**	**1260000**	**1296000**	**1350000**	**1380000**	**1410000**
2	Variable Cost	800000	840000	864000	900000	920000	940000
3	Fixed Cost	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
4	Bed Debts	12000	18900	25920	40500	55200	70500
5	**Total Cost**	**9,12,000**	**9,58,900**	**9,89,920**	**10,40,500**	**10,75,200**	**11,10,500**
6	**Exp. Profit**	**2,88,000**	**3,01,100**	**3,06,080**	**3,09,500**	**3,04,800**	**2,99,500**
7	Total Cost= F+V	9,00,000	9,40,000	9,64,000	10,00,000	10,20,000	10,40,000
8	opportunity Cost	15000	20888.89	26777.78	33333.34	42500	52000
	Cost X Days X Rate of Return 360 X 100						
9	**Net Profit =6 - 8**	**2,73,000**	**2,80,211**	**2,79,302**	**2,76,167**	**2,62,300**	**2,47,500**

Here it is recommended to choose credit policy Option I because net expected benefit under this policy are higher to other policy

3.17 Activities

Collect information of various Types of Inventory

How to maintain Receivables

3.18 Case Study

Management of Inventory

Management of Receivables

3.19 Further Reading

Baston, John E.G.And K.Douglas Hoffman, Manafging Services

: UNIT STRUCTURE :

4.0 Learning Objectives
4.1 Introduction
4.2 Definition
4.3 Advantages of Cash Budget
4.4 Difficulties or limitations of Cash Budget
4.5 Methods of Preparing Cash Budget
4.6 Illustrations
4.7 Let us Sum Up
4.8 Answer for check Your Progress
4.9 Glossary
4.10 Assignment
4.11 Activities
4.12 Case Study
4.13 Further Reading

4.0 Learning Objectives

After reading this unit, you will be able to understand:

- Need of cash budget
- Advantages of cash budget
- Limitations of cash budget
- Method of preparing cash budget

4.1 INTRODUCTION

Cash budget occupies a unique position in the financial management of a modern business enterprise, particularly in enterprises running on a large scale. It makes certain that the business has sufficient cash available to meet its needs as and when they arise. Cash budget shows cash receipts from all sources of business and all payments and also the resultant cash balance for a definite future time period, which is generally accounting year. In short, cash budget is a plan showing the cash position of business at different time intervals during the year. Even though sales budget and production budget have been very carefully framed; the business would be put to difficulties if proper attention to cash position to paid. Generally cash budget is derived from other budgets. Hence, other operating budgets are prepared first and then only the necessary figures of receipts and payments are obtained for preparing cash budget. In first part of cash budget, estimates of Cash Receipts are shown whereas in second part, estimates of cash Payments are shown. Thus on the basis of Budget the position of cash at different period of time will be available.

Check your progress 1

1. Cash budget is a plan showing the _________ position of business at different time intervals during the year.
   (a) Cash
   (b) Working capital
   (c) Sales
   (d) Purchase

4.2 Definition

A cash budget could be a budget or arrange of anticipated cash receipts and payment during the period. These cash inflows and outflows incorporate incomes collected; expenses paid, and credits receipts and installments. In other words, a cash budget is an estimated projection of the company's cash position within the future.

"Detailed plan showing how much cash resources will be obtained and utilized over a few specific time periods." Cash needs are evaluated during general budgeting, arranging, or estimating. Cash Budget is by and large arranged after operating budgets, including sales and production budgets, have been set up. All other budgets have an impact on the cash budget. Most budgets have arranged cash consumptions joined into them. Sales budgets, for case, affect the overall cash budget by means of arranged cash receipts expected to be received on sales.

Check Your Progress 2

1. The cash budget represents
   (a) Cash receipts
   (b) Cash payments
   (c) Cash receipts and cash payments
   (d) None of above

According to Shubin, "A budget is a comprehensive overall plan in which management, on the basis of estimate sales volume and receipts, establishes cost and expense allowances for future operations. In this way effectively integrating and directing activities towards carefully determined goals"

4.3 ADVANTAGES OF CASH BUDGET

(1) Planned Use of Cash: If the management has a clear idea about cash receipts and payments, they can plan out the use of cash. If cash payments are planned to be made when sufficient cash is available, it is possible to carry on business with the minimum of working capital. The cost of holding cash at optimum level would be minimum.

(2) Provision for Capital Expenditure: It is useful in two ways. It shows whether capital expenditure projects can be financed internally. Secondly, it gives an idea about the timing when sufficient cash is available for capital expenditure. This would help in avoiding a situation when funds for capital expenditure may be required to be borrowed at high rate of interest.

(3) Investment of Surplus Funds: It reveals the availability of excess cash. This can be invested in short term investments, if funds would be needed in near future in the business. It may be considered even for long term investments in some cases. Thus, it serves as a guideline for investment of surplus funds.

(4) Dividend Policy: The cash budget may guide the management in deciding the dividend policy for the year. If the cash budget shows that the liquid position will not be comfortable, the management may decide to reduce the rate of dividend or skip over dividend for the year.

(5) Profitable Use of Cash: It guides the management when to get the benefit of cash discount or quantity discount for bulk purchases. It will also help the finance manager in making enough provision for cash requirements of reasonable purchases

(6) Timely Payment of Debts: Cash budget enables the finance manager to ascertain his cash position so that he can make payment for debts on maturity dates. Thus provision is made for enough cash for payment of debts as and when they fall due.

(7) Arrangement for Obtaining Funds: It guides the management in making decision about whether funds for short term and long term purpose are to be borrowed or arranged in some other manner, if they are to be borrowed, there in what manner.

(8) Useful for control: If the estimates for cash receipt and payments are made in advance, they can be compared with cash receipts and payments and the difference can be investigated. Thus the management can control the use of cash resources.

(9) Helps Co-Ordination: In fact, cash budget serves as a co-ordinator of all remaining budgets. For example, the revenue shows by sales budget determines the limits within which production and other service departments can spend money Thus cash budget serves as a link between all budgets.

(10) Easy to Obtain Funds: A concern preparing cash budget is able to meet its obligations in time on maturity, this creates goodwill for the concern in money market. This helps the firm in raising funds whenever needed with ease from banks and other financial institutions.

Check your progress 3

1. Which of the following statements does not indicate advantage of cash budget ?

(a) Cash can be profitably used with the help of cash budget.

(b) It helps in determining proper dividend policy.

(c) It is useful in determining whether bonus shares should be issued or not.

(d) Benefit of cash discount can be availed by making payment in due time with the help of cash budget.

4.4 Difficulties or limitations of Cash Budget:

Cash budget, if properly framed and implemented, is immensely useful. But following difficulties and limitations must also be taken into account.

I. **Estimates are Difficult**: There are many uncertainties in business. It is therefore, difficult to have near accurate estimates of cash receipts and payments, particularly for a longer period. It is of course not difficult to estimate them for next three to four months period. But the long term estimate is likely to go astray in many cases.

II. **Carelessness in implementation**: If proper care is not exercised in implementing the cash budget, it will become only a mental exercise. The actual cash receipts and payments would not conform to the estimates, leading to frequent changes in them.

III. **Rigidity:** If the finance manager does not show flexibility in implementing the cash budget, it will lead to undesirable situation. A manager strictly believing in his estimates of cash inflow, may resort to strict adherence to payments schedule may lead to difficult liquid position and reduced profitability.

IV. **Expensive**: Difficult mathematical models are used for long term estimates of receipts and payments. It requires collection of data from various sources, employing experts in operations research etc. This becomes expensive which small firms cannot afford. Besides, such experts are not easily available Hence, long term estimates do not prove even nearly accurate.

Check your progress 4

1. During preparing which following difficulties (limitation) must also be taken into account

(a) Estimates are Difficult

(b) Carelessness in Implementation

(c) Rigidity

(d) All of above

4.5 METHODS OF PREPARING CASH BUDGET

The method to be used for preparing cash forecast depends upon the circumstances and needs of the business. There are generally four methods used for preparing cash budget:

I. Receipts and Payments Method (Or Receipt and Disbursements Method)

II. Adjusted Earnings Method (Or Adjusted Profit and Loss Method)

III. Balance sheet Method (Or Balance sheet Projection Method)

IV. Working capital Differential Method.

We discuss these methods in details:

1. Receipts and Payments Method (Or Receipt and Disbursements Method): This is the most widely-used and popular method of prepar-

ing cash budget. The estimates under this method may be divided into weekly, fortnightly or monthly basis. The method is of particular importance in business where sale is unstable or seasonal or which suffers from shortage of liquid resources. Due to its flexibility, this method is used in planning cash at various time periods and thus helps in controlling cash disbursements.

(a) Estimating cash receipts: The sources of cash receipt is a business are generally sales. Non-opening incomes like interest and dividend as well as capital transaction like sales of assets and issue of shares and debentures. The first step is preparing cash budget under this method is to estimate the sales; as sales is the most important source of cash receipt.

Once the total sales are estimated, it is easy to put down the figures of cash sales. From the past Experience, the proportion of cash sales source can be determined. Any changes likely to occur in the figure budget period are taken into account. There is no time-leg between sales and receipts of cash sales.

However, estimating collection from credit sales is a little difficult problem. The credit policy of the firm, the past experience etc. affects the collection from debtors. Debtor's ratio gives an idea of the period when such receipts are likely. Suppose the debtor ratio is 30 day, it means the collection from credit sales will be made in the next month i.e. collections from credit sales of December will be made in January. The fact that certain percentage of credit sales is not received in time must all be taken notes of. Besides, the term of sales, discount policy, seasonal variations, general business conditions must all can be taken into account while estimating collections. The receipts from discounting of bills or maturity of bills pose no problem, as they can be estimated on the basis of the term of the bill. Receipts from investments and other sources are comparatively easy to estimate.

(b) Estimating Cash Payments: Cash payments generally consist of payment of creditors on account of credit purchases, payments for wages, overhead expenses dividends, capital expenditure like purchase of assets, repayment of loans, etc. the estimates on various accounts are based on various operating budgets, e.g. payments to creditor are estimated on the basis of purchase budget, for wages and factory overhead, the basis will be production budget etc. In estimating payments to creditors, the credit period allowed by suppliers, cash discount etc. must be considered. The payment on account of capital expenditure can be estimated on the basis of capital Expenditure budget. Overheads can also be based on overheads budget. of course, adjustments like depreciation and accruals should not be taken into account. Payment on account of dividend may be a difficult problem. But in case of companies which adopt stable dividend policy, it is easy to estimate the total amount of dividend payable.

The closing cash balance every month will be available by deducting total cash payments from cash receipts. This gives an idea of either cash balance or cash deficiency and in the latter case, the finance manager will have to make arrangement for bank overdraft. There are two factors which determine

whether the cash balance is enough or not: first the actual payments to be made next month and the actual timings of such payments. for example, if the collection from sales is available only after 15th of the month, than enough cash balance must be maintained for meeting payments for the first 15 days.

CASH BUDGET

For three months from January 2020 to March, 2020

Particulars	January ₹	February ₹	March ₹
Opening Cash Balance			
Add: Receipt			
Cash Sales			
Collection from Debtors			
Receipts from bills receivable			
Interest and Dividend			
Sales of fixed Assets			
Receipts from loan, Debenture			
Receipt from shares issued			
Other receipts			
Total Receipts ₹(a)			
Less: Payments			
Cash Purchases			
Payment to Creditors			
Wages and salaries			
Administrative expenses			
Selling expenses			
Purchase of Fixed Assets			
Repayment of loan			
Payment of Taxes			
Other Payments			
Total Payments ₹ (b)			
Closing Cash Balance ₹ (a-b)			

(2) Adjusted Profit and Loss Method :

This is also known as 'Adjusted Earning Method' this method is based on estimating closing cash balance by converting profit figure into cash. The net profit shown by profit and loss account does not indicate the actual cash flow into the business e.g. if the profit and loss shows a net profit of ₹ 4 Lakh, it does not mean that the company has received rupees four lakh in cash. The depreciation charged to profit and loss will reduce the net profit, but does not affect cash. Thus while estimating cash flow on the basis of profit, the amount of depreciation will be added back to profit. Similarly, the purchase of assets does not affect net profit. But it does affect the cash balance. Hence it will be deducted from the profit to ascertain the inflow of cash.

In short, a cash Budget can be prepared as follows:

	₹.
Profit as per Profit and Loss Account	4,00,000
Add: (1) Adjustments not affecting cash e.g. depreciation	30,000
(2) Receipts of capital nature e.g. sale processed of a	

Fixed asset	30,000 60,000	
	4,60,000	
Less: Items not affecting profit, But Reducing the cash:		
(1) Capital expenditure like purchase of fixed asset	70,000	
(2) Deferred Revenue Exp. e.g. advertisement suspense	50.000	1,20,000
Increase in cash during the year:		3, 40,000

This method can be usefully employed only in those industries where business is stable and sales can be forecasted with fair degree of accuracy or where the liquidity does not pose a big problem. But it fails to indicate at what period of a time, the cash would be actually received and paid. Hence the method can be profitably used for term cash forecasts and is not useful in controlling the day-to-day cash transactions.

(C) Balance Sheet Method (or Balance Sheet Projection Method): This method resembles the Adjusted Profit and Loss method, except that in this method a balance sheet is projected while, in the second Method, the profit and loss is adjusted. Here the budgeted balance sheet is prepared as at the end of the budget period, in which estimated amounts of all assets and liabilities are put down except cash. The cash balance is then arrived at as a balancing figure. If the assets side is more than the liabilities side, it would be bank overdraft, while the bigger liabilities side will reveal a balance at bank. The firms using this method of cash forecasting are of the opinion that this method gives as accurate forecast of closing cash balance as the first method and yet it is simple one. However are shows only the cash position at the end of a period, any surplus or deficiency of cash occurring within the budget period is not revealed. Hence, this method is generally used by firms having stable business and enough liquid resources.

(d) Working Capital Differential Method: This method is based on the estimates of working capital. It starts with opening working capital to which are added or deducted all changes in the current assets (except cash) and current liabilities, as the case may be. The balance shows the actual cash balance at the end of the budget period. It is almost similar in its mechanism to the balance sheet method, except that in this method only changes in current assets and liabilities are considered.

Check your progress 5

1. Which following method is not used for preparing cash budget
   (a) Receipt and Payment Method
   (b) Adjusted Profit and Loss method
   (c) Ratio Analysis method
   (d) Working capital method

4.6 ILLUTRATIONS

Illustration 1:

From the following data prepare Cash Budget for the period from 1st July to

31st December, 2019 when the opening cash balance is expected to be ₹ . 50,000

Month	Sales	Purchases	Wages	Factory Expenses	Administration Expenses	Selling Expenses
	₹	₹	₹	₹	₹	₹
May	2,00,000	90,000	18,000	12,000	7,000	8,000
June	1,80,000	95,000	20,000	14,000	8,000	9,000
July	2,10,000	94,000	19,000	10,000	7,000	8,000
Aug.	1,70,000	94,000	15,000	13,000	5,000	8,500
Sept.	1,75,000	85,000	22,000	14,500	6,500	8,600
Oct.	2,20,000	72,000	18,000	11,000	7,200	9,300
Nov.	2,12.000	75000	21,000	9,500	7,500	7,800
Dec.	2,50,000	65,000	20,000	10,000	7,400	6,500

Additional Information:

(1) Machinery to be purchased for ₹ .60, 000 in July will be payable on delivery.

(2) Period of credit allowed by suppliers is 1 month and the same credit period is allowed to customers.

(3) Wages are paid after one week, while factory, administrative expenses and selling expenses are paid one month after the month in which they are incurred.

(4) A sales commission of 2 ½% on sales is paid two months after sales.

(5) Machinery to be purchased in August for ₹ . 1, 80,000 is payable in equal instalments in September and October.

Solution:

Notes :

(1) As the credit period for sales is one month, the collection for credit sales during each month will be for the sale of the previous month e.g. in July, the collection will be made for June. i.e.₹ 1, 80,000. Similar calculations will be made for all the 6 months.

(2) Credit purchases will be similarly paid after one month e.g. in July, payment will be made for the purchases of June i.e. ₹ . 95,000.

(3) Sales commission at 2 ½ % on sales of may will be paid in July. This will be 2 ½ % of ₹ . 2,00,000 = ₹ . 5,000.

Month	July ₹	Aug. ₹	Sept. ₹	Oct. ₹	Nov. ₹	Dec. ₹
June 20,000 X 1/4	5,000	-	-	-	-	-
July 19,000 X3/4	14,250	4,750	-	-	-	-
Aug. 15,000	-	11,250	3,750	-	-	-
Sep. 22,000	-	-	16,500	5,500	-	-
Oct. 18,000	-	-	-	13,500	4,500	-
Nov. 21,000	-	-	-	-	15,750	5,250
Dec. 20,000 X ¾	-	-	-	-	-	15,000
Total	19,250	16,000	20,250	19,000	20,250	20,250

(4) Calculation of Wages

(5) Other expenses of previous month will be paid during the current month e.g. factory expenses of ₹. 14,000 of will be pain in July

(6) As there is a deficit of cash balance of ₹. 28,600 in October, an arrangement will have to be made with the bank for overdraft.

Cash Budget

For the period of 6 months from 1-7-2019 to 31-12-2019

Particular	July ₹.	Aug. ₹	Sept. ₹	Oct. ₹	Nov. ₹	Dec. ₹.
Opening Balance	50,000	19,750	90,250	24,250	-28,600	67,275
Receipts :						
Sales Collection	1,80,000	2,10,000	1,70,000	1,75,000	2,20,000	2,12,000
Total Receipts (A)	2,30,000	2,29,750	2,60,250	1,99,250	1,91,400	2,79,275
Payments :						
Purchase	95,000	94,000	94,000	85,000	72,000	75,000
Wages	19,250	16,000	20,250	19,000	20,250	20,250
Factory Exp.	14,000	10,000	13,000	14,500	11,000	9,500
Adm. Exp.	8,000	7,000	5,000	6,500	7,200	7,500
Selling Exp.	9,000	8,000	8,500	8,600	9,300	7,800
Commission on Sales	5,000	4,500	5,250	4,250	4,375	5,500
Cap.Exp.(Machinery)	60,000	-	90,000	90,000	-	-
Total Payments : (B)	2,10,250	1,39,500	2,36,000	2,27,850	1,24,125	1,25,550
Closing cash Balance [(A) – (B)]	19,750	90,250	24,250	-28,600	67,275	1,53,725

4.7 Let Us Sum Up

A cash budget is a forecast to future cash activities. It is a chart of future incomes and expenses. It co-ordinating financial plan for a business enterprise. It includes estimates of sales, production, purchases, labour cost, overheads and financial position

4.8 Answer for Check Your Progress

Check your progress 1

Answer: (1-a)

Check your progress 2

Answer: (1-c)

Check your progress 3

Answer: (1-c)

Check your progress 4

Answer: (1-d)

Check your progress 5

Answer: (1-c)

4.9 Glossary

- **Cash budget :** Result between cash receipt and payment for a definite future time period
- **Surplus Funds :** Excess cash
- **Working Capital :** Changes in current assets and current liability

- **Adjusted Earning :** Adjusted Profit and Loss
- **Rigidity :** Does not shows flexibility

4.10 Assignment

1. What is Cash Budget₹ Describe its usefulness and explain method of preparing Cash Budget
2. From the following forecasts of income and expenditure prepare a cash budget for the three months commencing 1st June, when the bank balance was ₹ 90,000

Month	Sales	Purchase	Wages	Factory exp.	Admin Exp.
April	80,000	41,000	5,600	3,900	10,000
May	76,500	40,500	5,400	4,200	14,000
June	78,500	38,500	5,400	5,100	15,000
July	90,000	37,000	4,800	5,100	17,000
August	95,000	35,000	4,700	6,000	13,000

A sales commission of 5 per cent on sales, due two months after sales, is payable in addition to selling expenses. Plant valued at ₹ 65,000 will be purchased and paid for in August, and the dividend for the last financial year of ₹ 15,000 will be paid in July. There is a two month credit period allowed to customers and received from suppliers. Assume that wages, factory expenses and administration and selling expenses are payable in the following month.

[Ans. Closing Balance June 1, 01, 400, July 93,075, August 37,250]

4.11 Activities

What do you mean by Cash Budget₹

4.12 Case Study

How does a cash Budget help in management of working capital

4.13 Further Reading

Beteson, John E.G. and K. Douglas Hoffman, Meaning Services

BLOCK SUMMARY

This block give detailed information about working capital management methodology and describes the relationship among assets and liabilities. The block explained more about Inventory Management & Receivables, its features in terms of financial accounts, trade, and customer and book debts.

After studying this block, students understand correctly about cash budget and its role in terms of financial aspects for the company. The concept of working capital involves main part of all corporate strategy are well detailed for the students.

BLOCK ASSIGNMENT

Short Answer Questions

1. List the needs of credit policy.
2. What is Cash Payments.
3. State the benefits of credit policy in Receivables.
4. Explain focal point of financial management in a firm.
5. List out various Sources of working capital
6. Write various Types of inventory
7. What are the Functions of inventory control.
8. Write Objectives of maintaining Receivables
9. Factors influencing the size of Receivables
10. Advantages of Cash Budget

Long Answer Questions

1. XYZ is an oil based business company, which does not have adequate working capital. It fails to meet its current obligation, which leads to bankruptcy. Identify the type of decision involved to prevent risk of bankruptcy.
2. What are the features of working capital management.
3. State the need of working capital management in affirm.
4. Motive of holding inventory
5. Explain Semi-finished goods
6. How to Maintaining Costs of Receivables
7. What is Adjusted Profit

Enrolment No.: ______________

1. How many hours did you need for studying the units ?

Unit No.	1	2	3	4
Nos of Hrs				

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	☐	☐	☐	☐	______
Language and Style	☐	☐	☐	☐	______
Illustration used (Diagram, tables etc)	☐	☐	☐	☐	______
Conceptual Clarity	☐	☐	☐	☐	______
Check your progress Quest	☐	☐	☐	☐	______
Feed back to CYP Question	☐	☐	☐	☐	______

3. Any Other Comments

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BBAR-602

MANAGEMENT ACCOUNTING

BLOCK-4 CONTROLLING TOOLS AND MANAGEMENT AUDIT

UNIT 1
BUDGET & BUDGETORY CONTROL

UNIT 2
FLEXIBLE BUDGET

UNIT 3
MARGINAL COSTING

UNIT 4
MANAGEMENT AUDIT

BLOCK 4 : Controlling Tools and Management Audit

Present day business world is in full of competition. Instability exposed to different types of risks. This complexity of administrative problems has driven to the advancement of different administrative tools, techniques and methods valuable for the administration in managing the business effectively. Budget is most common, valuable and broadly utilized standard devices of planning and control. The budgetary control has presently gotten to be a fundamental instrument of administration for controlling costs and maximizing benefit. Cost can be decreased, wastage can be avoided and appropriate relationship between cost and incomes can be built up as it were when the various variables of production are combined in beneficial way. The resources of a business can be viably utilized by proficient conduct of its operations. This requires careful working out of appropriate plans in progress, co-ordination and control of activities on the part of administration.

Marginal costing isn't a strategy of cost ascertainment like job costing or contract costing. Marginal costing may be a strategy of costing, which may be utilized with other strategies of costing. For decision making, it is more supportive to administration. The other names for marginal costing are direct costing, differential costing, incremental costing and comparative costing.

Management audit is a modern concept in the sphere of auditing. The administration audit is a development of inside review and which is presently called Management Audit. It is the most recent improvement of internal audit. In spite of the fact that, this concept is still in its earliest stages, however it has caught world-wide attention of Bookkeepers, It covers review, evaluation and seriously examination of targets, programs, arrangements, strategies, Organizational structure, choices and inside controls of administrative policies and plans in comparison to pre-determined guidelines

Block Objective

After completing this block, students will be able to:

- Understanding the Budget and Budgetary Control
- Study about the Flexible budget
- Study about Marginal Costing
- Need of Management Audit.

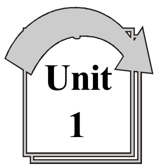
Block Structure

Unit1: Budget & Budgetary Control

Unit2: Flexible Budget

Unit3: Marginal Costing

Unit4: Management Audit



Budget & Budgetary Control

: UNIT STRUCTURE :

1.0 Learning Objective

1.1 Introduction

1.2 Definitions and Characteristics of Budget

1.3 Meaning and Definition of Budgetary Control

1.4 Objectives of Budgetary Control

1.5 Advantages of Budgetary Control

1.6 Limitations of Budgetary Control

1.7 Classification of Budgets

1.8 Let Us sum up

1.9 Answer for check Your Progress

1.10 Glossary

1.11 Assignment

1.12 Case Study

1.13 Further Reading

1.0 Learning Objectives

After reading this unit, you will be able to understand:

- Definitions and Characteristics of Budget
- Meaning and Definition of Budgetary Control
- Objectives of Budgetary Control
- Advantages of Budgetary Control
- Limitations of Budgetary Control

1.1 Introduction

The complexity of modern management problems has led to the development of various tools, techniques and procedures which may help the management in resolving the problems they face. One of these important tools is business budgeting. The modern management have now realised the importance of planning their business operations in advance. They know that the success or otherwise of any business activity depends on careful planning. The management prepare themselves to face successfully the possible advertise by visualising them in advance and can also avoid or minimise the errors that may inflict a heavy loss on the business. The management endeavour, through business budgeting, to give a definite direction to the activities of their organisation.

One of the important functions of management is to plan, to co-ordinate and to control the operations of business organisation in such a manner that its basic objectives may be realised. In fact, budgeting is necessary in all walks of life.

Even an average person has to make an estimate of his monthly income on the one hand, and monthly expenditure on food, clothing and other requirements on the other. If estimated expenditure exceeds estimated income, he will try to curtail expenditure on some of his requirements. In this case, he uses budgeting as a tool of control. Of course individual budgets exist only in the mind of the individuals concerned and are rarely available in a written form. But they are not different from business Budget so far the objective is concerned, through the letter are more carefully devised, take a longer period of time and are not unwritten.

Check your progress 1

1. To control the operation of business organisation, Given One basic following is not the important functions of management

   a. To plan,

   b. To co-ordinate

   c. To control

   d. To be dependant

1.2 Definitions and Characteristics of Budget:

A budget is a forecast of future activities; it is a chart of future incomes and expenses. It is a co-ordinating financial plan for a business enterprise. It includes estimates of sales, production, purchases, labour cost, overheads and financial position.

i. Institute of cost and Management Accounts, England has given following definition of a budget.

"A Budget is 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 objectives. It may include income, expenditure and employment of capital.

The above definitions make it clear that budgets are prepared to achieve objectives and targets of business. It is prepared for a definite period of future time. It expresses targets either in quantitative terms of in financial terms or in both.

Characteristics:

The main features of business budgets, as derived from the above definitions, are as follows:

I. It is an important instrument of control. The budget reports indicate whether and to what extent have the original target been realised. Moreover, the responsibilities for different operations are clearly located before budgets are framed. Hence the activity of every executive can be easily evaluated and controlled. Thus, the budget serves as an instrument of planning and controls both.

II. Continuous process: The framing of business budget and its implementation both go hand in hand. At the same time, control is exercised over the actual operation of the business to ensure that it does not deviate from the plan of action as indicated in the budget. The actual performance of the

enterprise is compared with the budgeted results and if any discrepancy is observed between them, an attempt is made either to revise the targets of the budget or to take corrective measures.

III. It is a plan not only of the resources of an enterprise, but of its operation as well:

The targets are fixed for all aspects of the operations of the firm and estimates of expenses and revenues involved are also stated precisely. The budget covers all activities of an enterprise.

The amount of resources that would be required for each of these activities is anticipated and the arrangement to be made to obtain resources at a right time is also suggested therein.

IV. It is a comprehensive plan of business: In the sense that it covers all aspects of business operations. Of course, each head of department prepares a budget pertaining to the operations of his own department. But finally an overall budget has to be framed on the basis of these departmental budgets. A departmental budget, independent from other similar budgets, has no meaning.

V. It is an integrated plan: The budget committee or the budget officer has to reconcile and co-ordinate various budgets prepared by the heads of different departments in the unit, the production budget and sales budget, for example, should be so devised that there is no conflict between them. If the basic objectives of the enterprise are not kept in view while preparing the budgets of various departments, there will be no consistency between them. In that case, departmental budgets will do more harm than good.

VI. In future it covers a definite period of time: The target have no meaning unless they are linked to a definite period of time. A company for example, may envisage a total profit of ₹ 1, 00,000.But if it does not specify the time period within which this profit is to be made. Its target loses its meaning. On the other hand, if it is decided that a profit of ₹ 1, 00,000 is to be made during the year, it is then possible to prepare a concrete plan of actions to realise the target. So far as time period is concerned. There are two types of budgets- long term budgets and short term budgets. for instance, to earn prestige as a firm, making the most reliable product the market may be a long term objective. Then, short term budgets may be framed so that gradually the company concerned moves towards the long term objective.

VII. It is expressed in financial form. In its original form, the budget lays down its targets and estimates in physical terms. For instance, estimates of sales are expressed in physical units of the product. But finally, these estimates are converted in monetary units. The reason is that physical units used to express the estimates and targets are not same in all sectional budgets of the enterprise. For example, while magnitude of labour is expressed in terms of man-days. the quantum of raw materials is indicated in terms of kilograms or units. Evidently. They cannot be aggregated unless they all are expressed in terms of a common units i.e. money.

Check your progress 2

2 A budget is a forecast of future activities; it is a chart of

a. Future incomes

b. Future expenses

c. Both future income and future expenses

d. None of above

1.3 MEANING AND DEFINITION OF BUDGETARY CONTROL

Budgetary control is a process which covers making of a business budget, comparison of the actual performance with the budgeted one and detecting the errors and mistakes committed so that an attempt may be made to rectify them in future.

According to Moore and Jakedine, "Budgetary control is using budget as a tool of controlling the actual operation of business"

The Institute of cost and Management Accountants, London, defines the term budgetary control as "The establishment of budgets relating the responsibilities of executives to the requirements of a policy and the continuous comparison of actual with budgeted result, either to secure by individual action the objectives of that policy or to provide a firm basis for its revision."

Thus, the main elements of budgetary control are as follows:

- To prepare departmental budgets.
- To co-ordinate all departmental budgets so that all activities of the enterprise may be integrated.
- To compare actual results with the budgeted estimates so that variances may be detected and removed.

Check your progress 3

3. Which following elements is not a part of budgetary control ?

a. To prepare departmental budgets.

b. To co-ordinate all departmental budgets so that all activities of the enterprise may be integrated.

c. To compare actual results with the budgeted estimates so that variances may be detected and removed.

d. To compare actual results with past year result.

1.4 OBJECTIVES OF BUDGETARY CONTROL:

Basic objective of budgetary control is to lay down the goal of business so that available resources may be utilised most efficiently. To be more precise, the main objectives of budgetary control are as follows:

I. To define in clear terms the basic goals of the business.

II. To inform the persons concerned of these goals.

III. To chalk out a detailed plan of action.

IV. To co-ordinate various activities in such a manner that optimum utilisation of resources.

V. To provide a method of evaluating the actual activity.

Let us examine the above objectives in some more details.

I. **Defining Basic Goals**: In essence, budgeting implies determination of basic goals and formulation of short term plans to achieve them, Thus, budget establishes a harmony between the long term and short term goals of the enterprise. For the achievement of short term goals, targets are fixed. These target help in the realisation of goals in two ways – one, through providing proper information and second, by providing effective incentives. Detailed targets are fixed for various operations which make it easy to know who is responsible for what. also, the performance of executives can be evaluated in the light of these targets. This encourages the executives to improve their performance. The targets clarify the basic goals of the enterprise.

II. **Communicating the Goals**: Clear In fact, budgets are prepared mainly to inform the executives and employees at all levels about the basic goals of the enterprise. It is the duty of the top executives to make the low level officials aware of the work they are expected to do. Thereby, the low level officials come to understand the basic goals of the enterprise and this understanding motivates them to make an effort to realise them.

III. **Making a Plan of Action** : Budget are prepared with a view to make a plan of action so that it is clearly known what is to be done, how it is to be done and by whom it is done. This is necessary to avoid misunderstanding on the part of excutives and employees. Moreover, the persons concerned can have proper guidance as to the direction in which the efforts are to be made. Truly speaking budget shows the path towards the goal of enterprise. It represents a time bound programme showing what is to be accomplished within a definite period of time.

IV. **Co-ordination between Various Activities and Efforts:** Budgets are prepared to ensure that different departments of the enterprise do not operate inconsistently. Their activities must be oriented towards the goal of the enterprise. The budget of the production department must not provide for the manufacturing of a product which it is not possible for the sales department to sell. Conversely, the sales department must not provide for the sale of a product which production department cannot produce in required quantities. The purchase department must not purchase materials in excess of the requirements of the Production department. Budgets avoid such inconsistencies between the behaviour of different departments, and thereby it avoids imbalances and wastage of resources. While preparing the budgets, the heads of various departments are therefore required to keep in contact with one another constantly.

V. **To Provide an instrument of control:** Since budget represents a detailed plan of operation, the responsibility of each department, official and employee gets fixed making it possible to evaluate it is an objective manner. Periodically budget reports are prepared department-wise in which actual performance is compared with the predetermined targets of the budget. It becomes obvious to what extent the performance of an employee is up to

the standard set in the budget. Of course,while evaluating their performance, circumstantial changes need to be taken into account. The officials might have failed to achieve budget target due to the change in circumstances beyond their control. The effect of change in external and uncontrollable factors must not be overlooked. In this way, the causes of discrepancy between the actual results and budgeted target are identified and steps are devised to remove this discrepancy to the extent possible.

Check your progress 4

4. Basic objective of budgetary control is to lay down the goal of business so that available resources may be utilised most efficiently. Which following given objectives of budgetary control is not true.

a. To define in clear terms the basic goals of the business.

b. Do not share inform to the persons who are concerned with these goals.

c. To chalk out a detailed plan of action.

d. To co-ordinate various activities in such a manner that optimum utilisation of resources.

1.5 ADVANTAGES OF BUDGETARY CONTROL:

Budgetary control is an important instrument of control with the management. Thereby they can visualise future advertises and make provisions to face them successfully. It helps them evaluate the working of different departments and performance of employees as well. The main advantages of budgetary control may be summarised as under:

I. **Planning**: Budget is a short term plan of future activities. As it gives an opportunity to make estimates of future force and visualise the possible contingencies, it enhances the efficacy of management.

II. **Co-ordination**: As a comprehensive master budget is prepared on the basis of departmental budgets, it ensures co-ordination and makes all departments to co-operate in attaining the target fixed by the budget.

III. **Control:** Budget targets set a standard against which actual performance is evaluated. Thereby it reveals the degree of success achieved in the direction of targets. If necessary, corrective measures can be devised. Thus, it makes it possible to exercise control over each aspect of operation and also over the activities of each official.

IV. **Decentralisation**: Budget facilitates decentralisation of business activity and distribution of responsibilities among the officials. The business unit gets divided into different departments. Each of these departments shoulders the responsibility to prepare and implement the budget of its own. For this purpose, authority and powers to do so are delegated to the heads of departments.

V. **Efficiency:** Before budget is prepared, all factors affecting the business operation are studied in details. Consequently the scope of conflicts is reduced and that of mutual co-operation is increased.

VI. Co-operation: As executives and heads of departments have to meet often to discuss the provisions of budget. They can understand one another's problems. Consequently the scope of conflicts is reduced and that of mutual co-operation is increased.

VII. Efficient Communication: If ensures effective communication. To give in writing the goals, targets, programmes and responsibilities to all persons concerned is an integral part of the implementation of the budget programme. This removes the possibility of doubts and misunderstanding as to the kind of work to be done, the manner in which it is to be done and time period within which it is to be accomplished. As a result, a healthy atmosphere of cordial relation is created in the unit.

VIII. Efficient use of Resources: The budget ensures optimum utilisation of available resources. Efforts of all officials and employees are directed towards the same goal. Hence, physical and human resources can be utilised to the fullest extent and the aim of maximum profits can be achieved.

IX. Higher morale and Productivity: Since supervisor and employees are also called upon to take part in framing business budgets, their morale is strengthened. A harmony is established between the goals of the enterprise and those of the individual employees. Employees are inspired to put their heart in the implementation of budget programmes. Consequently, productivity of the enterprise gets a boost.

Check your progress 5

5. The main advantages of budgetary control may be summarised as under:
   a. Success Depends on Estimates
   b. Rigidity
   c. Collective Effort
   d. Planning: Co-ordination and Control

1.6 LIMITATIONS OF BUDGETARY CONTROL:

The advantages of budgetary control enumerated above are no doubt impressive. There is therefore a possibility that its limitations may be ignored by the management. Wherever budgetary control has failed to yield positive results; it is mainly due to two reasons. One is the lack of interest and therefore the apathy of the management towards effective implementation of budgetary control. Second is the neglect of some serious limitations of budgetary control. They are as follows:

I. Success Depends on Estimates: Budget plan is based on estimates. The success of budget programmes depends on the accuracy of estimates pertaining to different operations of the enterprise. Hence budget figures must be arrived at after careful consideration of all relevant factors and facts, it is desirable to use recently developed statistical methods to bring in budget estimates as much accuracy as possible.

II. Rigidity: It is necessary to adopt budget programmes to changing conditions in and out of the enterprise. Different techniques should be used to prepare budget programmes and also to change them whenever neces-

sary. In the initial period, not much can be expected from budget programme as a satisfactory budget programme can be evolved after a long period of hard work only.

III. **Collective Effort**: Execution of budget programme is not an easy task. It requires a collective effort of all the executives simultaneously. Each one of them has to work sincerely to achieve the targets assigned to him. Each executive must realise that if he fails to achieve the targets concerning the operation of his department, it will have adverse effect on the operation of other departments.

IV. **Budget is only a Tool:** Budget can never be a substitute for management and administration of a business unit. Budget is merely an instrument in the hands of the management. In the budget manual of a well-known company, it is rightly remarked that, 'Budget is to be treated not as our master, but as a servant. It is one of the best tools to develop the activities of the whole business unit as well as those of each individual within it. Yet must not be taken as a perfect and complete instrument.'

V. **Expensive**: Preparation of budget programmes and implementation thereof are highly expensive affairs. The small firms cannot afford to use budgeting technique therefore. Moreover, if budget programmes are not devised carefully, they are likely to harm the interests of the business.

VI. **Success in the Long Run only**: The managers who expect immediate gains from budget programmes are bound to be disappointed and frustrated. The budget procedures and techniques can be developed only after a long period of experience. They yield fruits in the long run.

VII. **Disappointment Caused by High Targets**: Budget targets must not be high and over-ambitious. If they are unrealistic and impracticable, employees fail to achieve them. They get frustrated and demoralised. All this reduces the efficiency of business.

VIII. **Defective Evaluation:** It is essential to monitor continuously how far budget targets have been achieved. IF evaluation system is defective, the inefficiency of the personnel will not be detected and budgetary control will not serve any useful purpose.

Check your progress 6

6. Which of the following limitations of budgetary control is not true.

a. Expensive

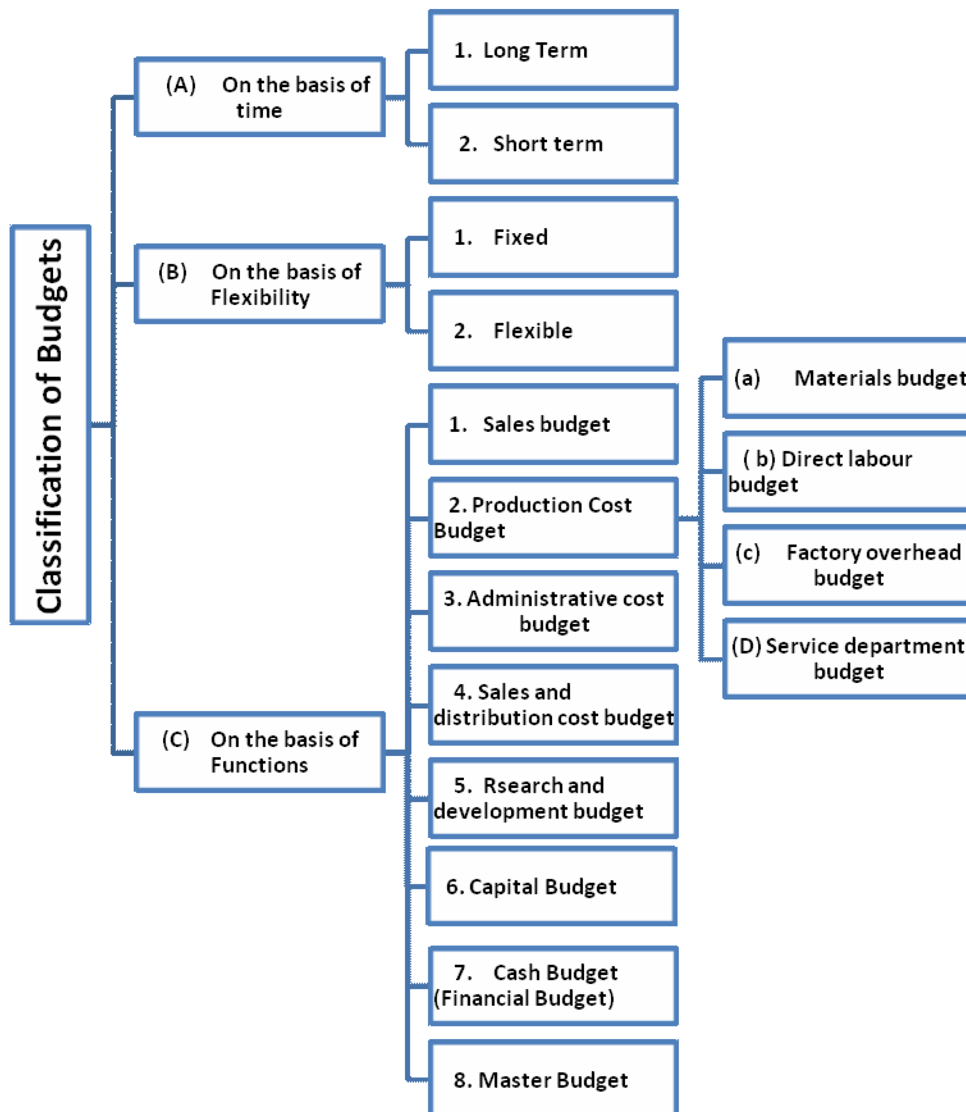
b. Success in the Long Run only

c. Success is not Depends on Estimates

d. Defective Evaluation

1.7 Classification of budgets

Different types of budget Different types of budget: Different types of budget



(A) Classification According to Time

(1) Short term Budget: These budgets are generally prepared for one year or less than 12 months period Short term budget is prepared for that time of business where long term forecasting is difficult, quarterly or half yearly budgets are prepared.

(2) Long term Budget: The period of budget is for five year to ten years. Long term budgets are prepared for capital expenditure, research and development and long term financial planning.

(B) Classification according to flexibility

(1) Fixed Budget: According to ICMA 'A budget which is designed to remain unchanged irrespective level of activity actually attained" e.g. where sales, cost and expenditure can be forecast with accuracy.

(2) Flexible Budget: where forecast of Sales, revenue and expenditure are difficult. Where demand is uncertain or unpredictable

(c) Classification according to function: The usual functional budgets of a business unit are as under

(1) Sales Budget: This is most important budget, as it is most difficult to forecast This forecast is based on nature of product, method of distribution, size of business etc. Normally below procedure are used to arrive at definite forecast of sales value and volume

- Personal opinion of sales manager and salesmen and other who are directly or indirectly connected with sales activity
- Final estimate of future sales can be arrived at on basis of personal opinion of salesmen and sales manager
- Area wise sales estimation
- Sales manager take responsibility to shape final sales budget
- Period of sales budget is one year. But if planning is for long term sales may also framed for next five year or ten years sales budget.

(2) Production Budget: Production manager prepare this budget to forecast output of production. The object of budget is to decide quantity of production and cost of production. this budget is prepared to maintain a minimum stock of finished goods. It is possible to ascertain cost per unit as well as profitability of each product. Before preparing production budget following budgets are prepared for finding cost of production. Cost of production includes materials, labour and overheads. Therefore separate following budget are required for each item.

- Materials Budget
- Labour Budget
- Overhead Budget
- Service department Budget.

(3) Administration overheads Budgets: This budget covers the expenditure of administrative office and management salaries. It is ready with the help of past involvement and anticipated changes in future. Most of administrative cost is fixed and constant therefore this budget can be framed with less difficulty.

(4) Selling and Distribution Overhead Budget: This budget relates to offering and conveyance of items for the budget period and is based on sales budget. It is for the most part arranged territory shrewd by the sales supervisor of each region. The selling and distribution overheads are separated into settled, variable and semi-variable; and evaluated is taken on the basis of past records.

(5) Research and Development Budget: Ifcompany wants to survive in competitive market and want benefit of monopoly. Research and development activities go on continuously. Company should frame separate budget related to research and development activities.

(6) Capital Budget: When company want to purchase capital fixed assets like building, machinery and Equipment Company needs Capital budget because capital expenditure can be recovered only in the long run, they need a careful planning.

(7) Cash Budget: This budget represents the amount of cash receipt and cash payments Accountant make it monthly or weekly bases to ensure sufficient cash requirement for business

(8) Master Budget: Master budget is a summary of all functional budgets showing the overall position of the budget. It is also known as summary budget or finalized profit plan because ultimate goal of business is to make profit.

1.8 Let Us Sum Up

The complexity of modern management problems has led to the development of various tools, techniques and procedures which may help the management in resolving the problems they face. One of these important tools is business budgeting. A budget is a forecast of future activities; it is a chart of future incomes and expenses. Basic objective of budgetary control is to lay down the goal of business so that available resources may be utilised most efficiently. To be more precise

1.9 Answer for Check Your Progress

Check your progress 1

Answer: (1-d)

Check your progress 2

Answer: (1-c)

Check your progress 3

Answer: (1-d)

Check your progress 4

Answer: (1-b)

Check your progress 5

Answer: (1-d)

Check your progress 6

Answer: (1-c)

1.10 Glossary

- Endeavour-An attempt to achieve a goal
- Inflict-Impose

1.11 Assignment

Advantages of Budgetary Control

Limitations of Budgetary Control

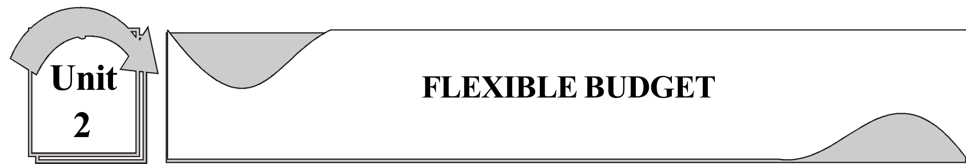
Explain Classification of Budget

1.12 Case Study

Objectives of Budgetary Control

1.13 Further Reading

Management Accounting by Chand



FLEXIBLE BUDGET

: UNIT STRUCTURE :

2.0 Learning Objective
2.1 Introduction
2.2 Classification of Cost
2.3 Method of Constructing a Flexible Budget
2.4 Utility of Flexible Budgeting
2.5 Illustrations
2.6 Let Us sum up
2.7 Answer for check Your Progress
2.8 Glossary
2.9 Assignment
2.10 Case Study
2.11 Further Reading

2.0 Learning Objective

After reading this unit, you will be able to understand:

- Classification of Cost
- Method of Constructing a Flexible Budget
- Utility of Flexible Budgeting
- Illustrations

2.1 Introduction:

Management will adopt fixed budget when it is possible to forecast sales, revenue and expenditure with reasonable degree of accuracy. Under this method, budgets are prepared for different departments of business on the basis of fixed level of activity. For example, if it is possible to forecast with certainty that sales during the next year would amount to 1,00,000 units, then sales budget, production budget and materials budget etc. would be prepared on the basis of this sales estimate only. Costs and output associated with any other level of sales is not considers. Estimates are made only for a single level of business activity.

But when accurate forecast of sales and revenue are not possible, demand for the product is uncertain and, for any reason, level of production is unstable during the budget period, management will make use of flexible budgeting.

The Chartered Institute of Management Accountants of England defines a flexible budget as a "a budget which is so designed that it changes with the level of activity actually attained, keeping in view the differential of fixed, semi-fixed and variable costs. "Recently it has defined it as, "A flexible budget is a budget which, by recognising different cost behaviour patterns, is designed to change as volume of output changes.

The main points that follow about flexible budgeting from the above definition are:

I. It is so designed that it changes with the level of output actually attained. From the very beginning, it determines the total cost and per unit cost at different levels of production.

II. To prepare flexible budget, costs are divided into three categories: fixed costs, semi-fixed or semi-variable costs and variable costs

III. Under flexible budgeting method, department-wise estimates are laid down for various levels of activity. For example, estimates of materials and labour costs etc. are given for the production of 50,000 units, for 60,000 units, 75,000 units and so on.

Check your progress 1

1. Management will adopt fixed budget when it is possible to…..

   (a) Forecast sales

   (b) Forecast Revenue

   (c) Forecast expenditure with reasonable degree of accuracy

   (d) All of above

2. If it is possible to forecast with certainty that sales during the next year would amount to 1, 00,000 units which type of budget would be prepared on the basis of this sales estimate....

   (A) Sales budget

   (b) Production budget

   (c) Materials budget

   (d) All of above

2.2 Classification of Costs:

As stated above, there are three types of costs:

(1) Fixed costs, (2) Semi-fixed or Semi-variable costs and (3) Variable costs. Let us examine each of them.

(1) Fixed Costs: These are the costs which remain constant whatever may be the level of production. The total fixed costs unaffected by the change in the level of production. For instance, if monthly salary of the manager is ₹ 20,000, he must be paid this sum whether production is 2,000 unit, 3,300 unit or 6,700 units. It must be remembered that it is the total fixed cost which remains constant and not the per unit fixed cost. In fact, since total fixed cost is constant per unit fixed cost decreases with the increase in output. For example given above, salary cost per unit will be ₹ 10 when 2000 unit produced ₹ 8when 2,500 units are produced and ₹ 2 when 10,000 units are produced.

In short, while total fixed cost does not change with production per unit fixed cost does change with it, but in opposite direction. Secondly it must also be noted that it is only in short run that some costs are fixed. In the long run, all costs are variable. For example, factory building may be expanded and an assistant manager may be appointed in order to increase output by 100 per cent.

(2) Variable Cost: These are the costs which change with output direct labour cost is an example of variable cost, because it increases when output is increased. Generally, direct materials cost and direct labour cost increase in the same proportion as output. When output is increased by 100 per cent, direct labour cost also increase by 100 per cent. Costs associated with sales are also of the same nature. The salesmen's commission, for instance, is linked to the volume of sales. It increases with the volume of sales.

While total variable cost change with output, per unit variable cost remains constant. For example. If per unit labour cost ₹ 5 and total production is 1,000 units, total labour cost will amount to ₹ 5,000. But when production is increased to 2,000 units, total labour cost will increase to ₹10,000, through per unit labour cost will be constant at ₹ 5. Direct materials cost, power cost etc. Are other examples of variable costs Such costs can be reduced even in the short run, by controlling them.

(3) Semi-variable Costs: These are the costs which are partly fixed and partly variable. Depreciation of machinery is an example of semi-variable cost. To the extent, machines work, they get depreciated. But even when machines are out of work their value decline with the passage of time. Another example of semi-variable cost is telephone bill. A part of this bill represents rent which is fixed in amount. But if phone calls exceed a definite limit, a certain change is collected per phone call.

The main points of difference between fixed and variable costs may be summarised as under,

Difference between fixed costs and variable costs

I. Fixed cost does not change with output, while variable costs increase or decrease with output

II. Total fixed costs are always constant, but per unit fixed cost declines with the increase in output, while per unit variable costs are always constant, but total variable costs increase when output in increased.

III. Fixed costs are linked to the period of time and not to the level of output. Fixed costs are not fixed in the long run. While variable costs are linked to the level of output and not to the period of time.

Check your progress 2

1. To prepare flexible budget, costs are divided into following categories:

(a) Fixed costs,

(b) Semi-fixed or semi-variable costs

(c) Variable costs

(d) All of above

IV. Fixed costs cannot be controlled in the short run. While variable costs can be controlled in the short run and can be economized thereby.

2.3 Method of Constructing a Flexible Budget

Three methods are available for preparing a budget related to different levels of business activity. These are as follows:

I. Tabular method or multi-activity method.

II. Ratio method or Formula method.

III. Graphic method or charting method.

I. Tabular method or multi-activity method.

Under this method, estimates are given in the budget for different levels of production and sales. Different levels associated with these levels of production are given in columns.

Two problems are of vital importance here. First problem is with regard to the determination of measure. Generally, budget estimates are expressed in terms of money or physical units, but sometimes they are expressed in terms of man hours or machine hours too. The second problem is related to determining the levels of activity for which budget estimates are to be prepared. Generally, a few levels around the anticipated activity are chosen for this purpose. For example, if management hopes to reach 80 per cent activity during the year, then budget would be prepared also for 60, 70, 80 and 90 per cent activity.

II. Ratio method or Formula method.

Under this method, budget for an average level of production is prepared. On this basis, all costs are estimated for each unit level of production.

For example, if variable costs are ₹ 60,000 at the level of 60 percentages, the same will be ₹ 1,000 at the level of one per cent, in this way, ratio for all kinds of costs at a unit level of production are obtained. These ratio help to find out the possible situation at any level of production.

For example, if at the level of 60 per cent production, fixed costs are ₹ 70,000 and variable costs are ₹ 30,000, then variable costs at the level of one per cent production will be ₹ 500. If a budget is to be prepared for 80 per cent production level, it will be as follows:

Fixed costs	70,000
Variable costs 80 X ₹ 500	40,000
Total cost	₹.1,10,000

This is how costs and incomes can be estimated for any level of production. It is of course necessary to find out in advance different ratios and actual costs also with the help of formulas

III. Graphic method or charting method.

Under this method, estimates of budget are presented graphically. First of all, costs are divided into three classes: fixed costs, semi-variable costs and variable cost. Then figures of costs are obtained for different level of production. These figures are represented in the form of a graph. Production is measured on the x-axis, while costs are measured on the y-axis. A glance at the graph is enough to find out figure of estimates for any level of production. This graph resembles the

break-even chart in which the variable costs are curve is drawn in place of sales curve, fixed costs line is a straight horizontal line and total costs curve line above both of these curves.

Check your progress 3

1. Which following method is not included in flexible budget.
   (a) Receipt and payment method
   (b) Ratio method or Formula method.
   (c) Graphic method or charting method.
   (d) Tabular method or multi-activity method.

2.4 Utility of Flexible Budgeting

Under the fixed budgeting method, controlling of business operation becomes difficult when actual performance differ from the performance targeted in the budget. Suppose a budget is prepared on the assumption that sales would be of the order of 60,000 units during the budget period. But suppose actual sales touch the figure of 90,000 units. In that case comparison of actual with the estimate loses its meaning and no judgement can be made about the efficiency of the operation of business unit. To make comparison meaningful, budget estimates will have to be changed. As against this, budgets are prepared in advance for different level of sales under flexible budgeting method, so that any actual result can be accommodated in the budget, making comparison of actual achievements with budget targets meaningful and lively. In fact, flexible budgeting represents a collection of various budgets associated with various possible level of business activity; it does not content with just a single budget associated with just a single definite level of business activity. Therefore, flexible budgeting can reveal to the management what will be the effect of a change in actual sales and production on costs and profits. It is helpful to those officials also who are in charge of preparing budget reports by comparing the actuals with budget estimates. Thus management gets figures ready in the budget whatever may be the actual level of activity.

Thus, flexible budgeting seems to be extremely beneficial to the management. In fact however, it is too difficult to practise. Flexible budgeting necessitates a classification of costs into fixed costs and variable costs. This is not an easy job. Let us illustrate this point. Consider the following example of a flexible budget.

Check your progress 4

1. Under the fixed budgeting method, controlling of business operation becomes difficult

(a) When actual performance differs from the performance targeted in the budget.

(b) When actual performance and performance target are same.

(c) When actual performance need not require to compare with performance target

(d) None of above

2.5 Illustrations

With the following data for 50 per cent activity, prepare a budget for production at 80 per cent and 100 per cent capacity.

Production at 50 per cent activity, 500 units

Material per unit ₹ 100

Labour per unit ₹ 40

Expenses per unit ₹ 10

Factory expenses ₹ 40,000 (40% Fixed)

Administration expenses ₹ 30,000 (60% Fixed)

Solution

Production Level (Production in units)	50% 500 Units	80% 800 Units	100% 1000 Units
Direct Costs			
Materials:₹ 100 per unit	50,000	80,000	1,00,000
Labour ₹ 40 per unit	20,000	32,000	40,000
Expenses ₹ 10 per unit	5,000	8,000	10,000
Variable factory over heads	20,000	32,000	40,000
(₹ 40,000 X 60% = ₹ 24,000/600 = ₹ 40 per unit)			
Variable Administration Overheads	10,000	16,000	20,000
(₹ 30,000 X 40%=12,000/600= ₹ 20 per unit)			
Total variable Cost	1,05,000	1,68,000	2,10,000
Fixed cost : Factory 40,000 X 40%	16,000	16,000	16,000
Administration o/h 30,000 X 60%	18,000	18,000	18,000
Total cost	1,39,000	2,02,000	2,44,000

Illustration 2 :

KS creation Ltd. has prepared a budget for the production of 1, 00,000 units of a certain commodity for a costing period as under:

Raw Materials 3, 00,000

Direct Labour 75,000

Direct Expenses 10,000

Work Overheads (70% Fixed) 2, 00,000

Administration Overheads (80% Fixed) 35,000

Selling Overheads (50% Fixed) 14,000

The actual production during the period was only 70,000 units. Calculate the revised budgeted cost per unit.

Solution

Particulars	Budget(1,00,000 Units)		Actual(70,000 Units)	
	Total ₹	Per Unit ₹	Total ₹	Per Unit ₹
Raw Materials	3,00,000	3.00	2,10,000	3.00
Director Labour	75,000	0.75	52,500	0.75
Direct Expenses	10,000	0.10	7,000	0.10
Prime Cost	3,85,000	3.85	2,69,500	3.85
Factory Overheads:	1,40,000			
Fixed (60%)	60,000	1.20	1,40,000	2.00
Variable (40%)		0.80	56,000	0.80
Factory Cost	5,85,000	5.85	2,22,500	6.65
Administration				
Overheads:	28,000	0.28	28,000	0.40
Fixed (80%)	7,000	0.07	4,900	0.07
Variable (20%)				
Production Cost	6,20,000	6.20	2,55,400	7.12
Selling Overheads:				
Fixed (50%)	7,000	1.00	7,000	1.00
Variable (50%)	7,000	0.07	4,900	0.07
Total Cost ₹	6,34,000	7.27	2,67,300	8.19

It can be seen that the per unit fixed cost has increased due to increase in the number of units from 1, 00,000 to 70,000. The variable cost remains the same at both levels.

2.6 Let Us Sum Up

Management will adopt fixed budget when it is possible to forecast sales, revenue and expenditure with reasonable degree of accuracy. Under this method, budgets are prepared for different departments of business on the basis of fixed level of activity

Under the fixed budgeting method, controlling of business operation becomes difficult when actual performance differ from the performance targeted in the budget. In that case comparison of actual with the estimate activities, its meaning and no judgement can be made about the efficiency of the operation of business unit. To make comparison meaningful, budget estimates will have to be changed. As against this, budgets are prepared in advance for different level of sales under flexible budgeting method, so that any actual result can be accommodated in the budget, making comparison of actual achievements with budget targets meaningful and lively. In fact, flexible budgeting represents a collection of various budgets associated with various possible level of business activity.

2.7 Answer for Check Your Progress

Check your progress 1

Answer: (1-a); (2-d)

Check your progress 2

Answer: (1-d)

Check your progress 3

Answer :(1-a)

Check your progress 4

Answer :(1-a)

2.8 Glossary

- **Forecast**: A prediction or estimate of future event especially for financial trend
- **Flexible budget**: A budget which is so designed that it changes with the level of activity actually "A flexible budget is a budget which, by recognising different cost behavior patterns, is designed to change as volume of output changes.
- **Fixed costs:** These are the costs which remain constant whatever may be the level of production.
- **Semi-fixed or semi-variable costs:** These are the costs which are partly fixed and partly variable
- **Variable costs:** These are the costs which change with output, because it increases when output is increased. It decrease when output decrease.

2.9 Assignment

I. Classification of Cost

II. From the following data of Himesh Co. prepare flexible budget for 75% and 90% capacity.

Particulars	8000 Units per unit ₹	10,000 Units per unit ₹
Materials	25	25
Wages	20	20
Factory Expenses	26	22
Administrative Expenses	17	14
Selling Expenses	11	9
Total Cost	99	90
Net Profit	1	10
Selling Price	100	100

At 100% Capacity production is 20,000 units.

Answer:

Factory Exp.

Variable = $\frac{HC-LC}{HU-LU} = \frac{2,20,000-2,08,000}{10,000-8,000}$

= ₹ 6 per Unit

Fixed= 2, 20,000-(10,000 X ₹ 6) = 1, 60,000

*HC =Highest Cost/ HL Lowest Cost

*HU=Highest Unit / LU Lowest Unit

Administrative Exp.

Variable = HC-LC = 1,40,000-1,36,000 .
HU-LU 10,000-8,000

=₹ 2 per Unit

Fixed = 1, 40,000-(10,000 X ₹ 2) = 1, 20,000

Selling Exp.

Variable = HC-LC = 90,000-88,000
HU-LU 10,000-8,000

= ₹ 1 per Unit

Fixed= 90,000-(10,000 X ₹ 1) = 80,000

Statement of flexible budget

Particulars	75%	90%
	15000Units	18000Units
Materials	375000	450000
Wages	300000	360000
Factory Expenses-Fix	160000	160000
Variable	90000	108000
Administrative Exp.-. Fix	120000	120000
Variable	30000	36000
Selling Expenses - Fix	80000	80000
Variable	15000	18000
Total Cost	1170000	1332000
Net Profit	330000	468000
Selling Price	1500000	1800000

2.10 Case Study

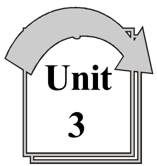
Utility of Flexible Budgeting

2.11 Further Reading

Management Accounting by R.S.N. Pillai Bhagavathi, Scand

Cost and Management Accounting by Sudhir Prakashan

Cost Accountancy: P.V. Gupta, Scand& Sons.



MARGINAL COSTING

: UNIT STRUCTURE :

3.0 Learning Objective

3.1 Introduction

3.2 Definition

3.3 Characteristics of Marginal Costing

3.4 Advantages of Marginal Costing

3.5 Limitations of Marginal Costing

3.6 Certain terms relating to marginal costing

3.7 Illustration

3.8 Let Us sum up

3.9 Answer for check Your Progress

3.10 Glossary

3.11 Assignment

3.12 Case Study

3.13 Further Reading

3.0 Learning Objective

After reading this unit, you will be able to understand:

- Definition and meaning of marginal costing
- Characteristics of Marginal Costing
- Advantages of Marginal Costing
- Limitations of Marginal Costing
- Certain terms relating to Marginal Costing

3.1 Introduction

Any change in the total cost of production by an increase or decrease of one unit of a product is termed as "Marginal Cost" in Economics. In Cost Accounts, the same concept is put in another way. A system of determining cost of production by excluding fixed from expenses from total cost is known as Marginal Costing.

The total cost of an article is made up of variable expenses which are increased per unit of output and its shares of fixed (constant) expenses. Under marginal costing, the total cost is classified into fixed and variable expenses and only variable expenses are recorded. Whereas fixed expenses are excluded and they are charged against the fund arising out of the excess of selling price over variable expenses.

The variable expenses very directly with the number of unit produced and they remain constant per unit of production. On the other hand, total fixed expenses

remain constant irrespective of the changes in the volume of production and the rate per unit will consequently very with the changes in output. e.g. In a factory monthly fixed expenses are ₹ 10,000 and variable expenses per unit are ₹ 10. Now, if 1,000 units are produced. The total cost would be ₹ 20,000 [10,000 + 10,000 (1,000 X 10)] and cost per unit would be ₹ 20 (20,000 / 1,000). If 2,000 units are produced, then the total cost would be ₹ 30,000 [(10,000 + 20,000 (2,000 X 10)] and cost per unit will come down to ₹ 15 (30,000 / 2,000). Thus the cost per unit has been reduced from ₹ 20 to ₹ 15. This is not due to increase in efficiency but to increase in output. Thus if the output varies in different periods, the cost per unit will differ accordingly. If selling price is based on cost per unit, it will have to be changed every time with the variation in cost. This would be neither feasible nor practical. In order to overcome this difficulty, only variable expenses are taken into account for ascertainment of cost difficulty, only variable expenses are taken into account for ascertainment of cost and fixed expenses are written off against profit in the period in which they arise.

Marginal costing is not a system of costing like job costing, process costing etc. but it is only a special technique of presenting cost, whereby possible to find out the effect of changes in the volume of output on the profitability of the firm.

Check your progress 1

1. Any change in the total production by an increase or decrease of one unit of a product is termed as

   a. Marginal Cost

   b. Unit Costing

   c. Standard costing

   d. Operating costing

3.2 Definition

The Charted institute of Management Accountants-CIMA has given the following definitions:

Marginal Cost: "That amount at any given volume of output by which aggregate costs are changed, if the volume of output is increased or decreased by one unit." In practice, this is measured by the total variable cost attributable to one unit.

Note: In this context a unit may be a single article, a batch of article, an order, a stage of production capacity, a process or a department. It relates to the changes in output in the particular circumstances under consideration.

Marginal Costing: "The ascertainment of marginal costs and of the effect on the profit of changes in volume or type of output by differentiating between fixed costs and variable costs."

Note: In this method of costing only variable costs are charged to operations, process or products, while fixed costs are written off against profits in the period in which they arise.

A more recent definition given by the Institute is as follows:

"Marginal costing is the accounting system in which variable costs are charged to the cost unit and fixed costs of the period are written off in full against the aggre-

gate contribution. Its special value is in decision making."

Why marginal costing is required

The following may be listed as specific managerial uses:

(a) Cost Ascertainment: Marginal costing method encourages not as it were the recording of costs but their reporting too. The classification of costs into fixed and variable components makes the work of cost ascertainment simpler. The most issue in this respect is as it were the isolation of the semi-variable cost into fixed and variable components. In any case, this may be overcome by adopting any of the methods in this regard.

(b) Cost Control: Marginal cost explanations can be understood effectively by the administration than those displayed under absorption costing. Bifurcation of costs into fixed and variable empowers administration to work out control over production cost and subsequently influence efficiency. In reality, whereas variable costs are controllable at the lower levels of administration, fixed costs can be controlled at the top level. Under this strategy, administration can consider the behavior of costs at varying conditions of yield and deals and in this manner work out superior control over costs.

(c) Decision-Making: Modern administration is faced with a number of decision-making issues each day. Profitability is the most criterions for selecting the most excellent course of activity. Marginal costing through 'contribution' helps administration in solving problems.

A few of the decision-making problems that can be illuminated by marginal costing are:

(a) Profit planning

(b) Pricing of products

(c) Make or purchase decisions

Check your progress 2

1. Marginal costing is the accounting system in which

a. Fixed costs are charged to the cost unit and Variable costs of the period are written off in full against the aggregate contribution. variable costs are charged to the cost unit and fixed costs of the period are written off in full against the aggregate contribution.

y. variable costs and fixed cost both are charged to the cost unit .

c. Only Variable costs of the period are written off in full against the aggregate contribution.

(d) Product mix etc.

3.3 Characteristics of Marginal Costing

The following are the characteristics of the marginal costing:

I. The cost is ascertained on the basis of variable cost only

II. The cost is presented in such a manner that it helps the management in taking important decisions.

III. The stock of finished goods and work-in-progress are valued on the basis of marginal cost only.

IV. For ascertainment of profit, a special type of Profit and Loss Account is prepared which is known as "Marginal Profit and Loss Account."

V. Selling price is determined on the basis of marginal cost plus contribution (Contribution = Selling Price – Variable cost).

VI. In order to find the effect of change in volume of output break-even point, break-even chart and other methods are used, which are part of the marginal costing system.

VII. In order to find out the profitability of various departments or products, contribution available from sales is compared.

Check your progress 3

1. Which of the following characteristics of marginal costing is not correct

a. The cost is ascertained on the basis of variable cost only

b. The stock of finished goods and work-in-progress are valued on the basis of marginal cost only.

c. The cost is ascertained on the basis of variable cost and fixed cost.

d. Selling price is determined on the basis of marginal cost plus contribution

3.4 Advantages of Marginal Costing

The following are the advantage of marginal costing:

I. Cost per Unit Same: In marginal costing as fixed overheads are not charged to the cost of production, the effect of changes in output on cost per unit is avoided. Marginal cost per unit remains unchanged irrespective of changes in the level of production.

II. No increase or decrease in recovery of overhead expenses: It eliminates large balances left in Overhead Control Accounts. When fixed overheads are recovered on certain basis, then fixed overheads will be either under-recovered or over-recovered due to changes in the volume of output. Such problems would not arise in marginal costing.

III. Decision of production in the period of prosperity: Marginal costing is a valuable aid to management in their task of decision-making. In times of prosperity, the firm would receive order beyond the capacity of firm to fulfil. The question before management is to accept only most profitable orders. Marginal costing helps the management in taking such decisions. The marginal costs of various orders can be determined and compered with selling prices and only those giving largest 'Contribution" should be accepted.

IV. Useful in depression: During depression, price will have to be reduced in order to maintain sales. Prices have to be reduced even below total cost. So far as the selling price is more than marginal cost. It is worthwhile to continue production. Marginal Costing, thus, indicates the level of price up to which price can be reduced.

V. **Make or buy decision**: Sometimes, it becomes necessary to decide whether a component or a part is to be manufactured in the factory or be bought from outside. If the price of the supplier is more than marginal cost, it should not be purchased from outside, even though it may be below our total cost per unit. For example, the variable cost of manufacturing a part is ₹ 15 if the fixed cost is allotted to this part, suppose it comes to ₹ 5 per unit, i.e. the total cost is ₹ 20 per unit. If the outside supplier is prepared to supply it at ₹ 18 per unit. it seems profitable to purchase it from him. However this is misleading. Suppose, the part is not manufactured in the factory, even then the fixed cost is bound to occur. Hence, the cost of manufacturing this part is only ₹ 15 per unit and not ₹20. Hence, it is not worthwhile to purchase from outside.

VI. **Dumping in foreign market**: In order to capture foreign markets or to accept a special order at a reduced price, it is necessary to arrive at marginal cost. If the fixed costs are fully recovered in home market, it would be worthwhile to sell in the foreign market at a price below the total cost. provided the price is more than marginal cost and it does not affect the price in the home market

VII. **Relation between volume & Profit**: The effect of changes in the level of output on the profitability is brought to light by the system of marginal costing .Calculation of break -even point and preparing break even charts are useful in this regards.

VIII. **Useful in system different cost analysis**: The system of marginal costing is based on distinction between fixed expenses and variable expenses. This distinction is useful in systems of flexible budgeting and differential cost analysis.

IX. **Control over cost**: By dividing total cost in two parts as fixed cost and variable cost, control over cost becomes easy. Fixed cost is a result of management policy e.g. Management decides what amount of salary should be paid to manager. Thus management has control over fixed costs.

X. **Easy for sales Manager to fix selling price**: If the cost of production per unit changes with changes in output each month. Then it will be difficult for sales manager to fix selling price. But by adopting marginal costing. Marginal cost-per unit remains unchanged and as a result fixation of selling price becomes easy.

Check your progress 4

1. Which of the following advantage is not correct in marginal costing ?

a. Variable Cost per Unit is same

b. No increase or decrease in recovery of overhead expenses

c. Marginal costing is a valuable aid to management in their task of decision-making.

d. Selling price is determined on the basis of contribution only

3.5 Limitations of Marginal Costing

The marginal costing is a modern technique that helps management in decision-making, but its following limitations cannot be ignored.

I. **A voidance of fixed cost in long-run harmful:** The marginal costing may be useful guide for price fixing in the short run, but economic prices cannot be set in the long run without taking fixed expenses into account. A product must bear its full share of fixed cost in the long run or else it will have to be discarded. "Total cost must be recovered at the end of the day; decision which has the effect of recovering less than this cost means eventual loss."

II. **Time factor ignored**: The time factor is completely ignored. Two jobs may have the same marginal cost, through one may take much longer time to complete than the other. Hence, the comparison would be quite misleading.

III. **Possibility of loss:** If some special orders are accepted at lower prices below total cost, it may lead to expectation of general lowering of price for total cost, it may lead to expectation of general lowering of prices for all customers. This may prove fatal to the enterprise in the long run.

IV. **Adverse effect of price reduction:** If price reduction is done in case of one customer, then price reduction must be done in respect of all customers and if total is to be maintained then sales will have to be increased on large scale.

V. **Distinction between costs difficult**: The system of marginal costing is based on the distinction between fixed costs and variable costs. In practice it is difficult to clearly separate expenses into two categories of fixed and variable expenses. Some of the expenses are semi-variable whereas some expenses have no relation at all to the level of output.

Check your progress 5

1. Which of the following limitation is correct in marginal costing ?

a. A voidance of fixed cost in long-run harmful

b. Time factor ignored

c. Adverse effect of price reduction.

d. All above

Fixed cost part of cost: In large and highly mechanised industries, the fixed costs from a substantial part of the total costs, by ignoring fixed cost only a small portion of the cost is recovered by the marginal cost. This would be misleading.

3.6 Certain terms relating to marginal costing

For understanding marginal costing system, it is advised to understand certain terms used in marginal costing.

Cost-Volume-Profit Analysis

As the terms itself propose, the cost-volume-profit (CVP) examination is the investigation of three factors, viz., cost, volume and profit. In CVP analysis, an attempt is made to measure varieties of costs and benefit with volume. Profit as a variable is the reflection of a number of inner and outside conditions which apply impact on sales revenue and costs.

The cost volume profit analysis makes a difference or helps the administration in profit planning. In order to extend the benefit, a concern must increase the yield. When the yield is at most extreme, inside the installed capacity, it adds to the contribution. Within the words of Heiser, "The most critical single calculate in profit planning of the average business is the relationship between the volume of business, costs and profit. "Thereby, cost volume profit analysis is the relationship among cost, volume and profit. When the volume of output increase, unit cost of production diminishes, and vice versa; since the fixed cost remains unaffected. Output increases the fixed cost per unit decreases. Subsequently, profit will be more, when sales cost remains consistent. By and large, cost may not alter in direct proportion to the volume. Hence, a small alter within the volume will influence the profit.

The administration is continuously curious about knowing that which product or product mix is most profitable, what impact alter within the volume of output will have on the cost of production and benefit etc. All these problems are illuminated with the help of cost-volume-profit-analysis to know the cost volume benefit relationship, a study of the following is essential

To know the cost volume profit relationship, a study of the following is essential

I. Marginal cost formula

II. Break-even analysis;

III. Profit volume ratio;

IV. profit graph;

V. Key factor;

VI. Sales mix etc.

I. Marginal cost formula

- Sales = Cost + Profit or Loss OR S = C + P OR L
- Total Cost = Total of Expenses or (Fixed Exp. + Variable Exp.) Or TC = F + V
- Sales (S) = F + V+ (P OR L)
- S – V = F + (P OR L) OR C = F + P (-L)

Contribution: The difference between sales price and variable cost is termed as "Contribution"

Contribution = Sales price – Variable cost. [C = S –V]

C = Contribution, S = Sales price, V = Variable cost

In short period, fixed costs are constant and more the amount of contribution, the more will be the ultimate profit.

- Contribution shows what each unit contribute towards fixed costs and profit.
- When contribution is more than fixed cost , Profit is earned
- When contribution is less than fixed cost , loss is incurred

Profit: The excess of contribution over the fixed cost will be the profit.

Profit = Total contribution – Fixed Cost [P = TC – F]

P = Profit

TC = Total Cost

F = Fixed Cost

The equation is

Sales Price = Total Cost + Profit [S = TC + P]

Sales Price = Fixed Cost + Variable Cost + Profit [S = F + V + P]

II. Break-Even Point (BEP): It is that volume of output at which neither a profit is made nor a loss is incurred, i.e. at this point, contribution just covers the fixed cost at break-even point Contribution = Fixed Cost.

Break-even point may be presented in two ways:

- The number of units that should be sold so that incomes and expenses are equal.
- The amount of sales value in rupees so that incomes and expenses are equal.

Calculation of Break-even Point

S = F + V + P (Where Profit will be Zero means no profit no loss)

So, S = F + V

C = S – V

- BEP (Units) = F/(S-V) or F/C
- BEP (Rupees) = BEP (Units) × S

Notes: When per unit Sales Price and variable cost are given, one can use above formula if per unit value is not given but total sales and variable values are given in that case first find out P/V Ratio then we can find BEP

- When Sales necessary to earn Particulars Amount of Profit :

$$Sales\ (Unit) = \frac{F+P}{S-V} \qquad OR= \frac{F+P}{C}$$

- When Sales particular amount of loss is made

$$Sales\ (Unit) = \frac{F-L}{S-V} \qquad OR = \frac{F-L}{C}$$

III. Profit Volume Ratio = Profit volume ratio, which is known as P/V Ratio. This ratio indicates the relative profitability of different products. Its hows relationship of contribution to sales.

Another name of P/V Ratio is

- Contribution-sales Ratio
- Marginal-income Ratio
- Variable-Profit Ratio

P/V Ratio = $\frac{C}{S} \times 100$ OR C=Contribution = F + P So P/V Ratio = $\frac{F+P}{S} \times 100$

BEP (Rupees) = $\frac{F}{P/V\ Ratio}$

Margin of Safety :

Sales more than Break-even point is known as margin of safety. It is a difference between Actual Sales and Breakeven point sales. High Margin of safety shows sign of Strength and soundness of business

IV. Break Even chart

In order to find out break-even point and profit or loss at different levels of production a break even chart prepared, break-even chart is a graphic presentation of relationship between total cost, Sales and Profit or cost-volume-profit relationship

From the following information prepare the break-even chart

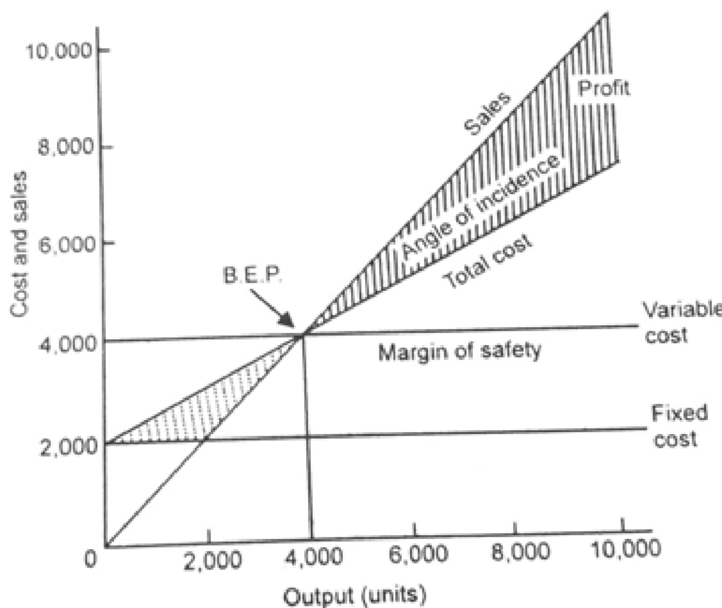
Fixed Cost ₹ 2,000

Variable Cost ₹ 0.50 per unit

Sales Cost ₹ 1 per unit

Units produced and sold 2,000,4,000, 6,000, 8,000, 10,000

1	Output (Units)		0	2000	4000	6000	8000	10,000
2	Fixed Cost		2,000	2,000	2,000	2,000	2,000	2,000
3	Variable Cost	0.5	0	1000	2000	3000	4000	5,000
4	Total Cost (1 + 2)		2,000	3,000	4,000	5,000	6,000	7,000
5	Sales ?	1	0	2000	4000	6000	8000	10,000
6	Profit OR Loss (5 - 4)		-2,000	-1,000	0	1,000	2,000	3,000



V. Key Factor

The main objective of any trade undertaking is to amplify its profit for maximizing the benefit; all assets must be used to its most extreme capacity and offer maximum quantity of items which surrender highest individual marginal contribution. A key calculate or constraining factor is one which limits the production or benefit of the business. There may be shortage of materials, work, capital, plant capacity, or indeed deals. This key figure or rare figure puts limit on the production and benefit of the business enterprise Thus when there's a rare factor and where the business

has two or more item lines, the problem of utilizing such scarce factor to the most excellent conceivable way emerges. In such case, concurring to Marginal costing, scarce assets ought to be used for those product lines whose commitment per unit of rare figure is generally more

$$\text{Profitability} = \frac{Contribution}{Key\ factor\ \ (Scarce\ \ Factor\ )}$$

If the sales is key factor, then

$$\text{Profitability} = \frac{Contribution}{Sales}$$

This is known as Profit-volume Ratio or Contribution or Sales Ratio

- **If raw-material is in short supply**, then

$$\text{Profitability} = \frac{Contribution}{Units\ of\ Raw\ Materials}$$

- **If labour is key factor**

$$\text{Profitability} = \frac{Contribution}{Direct\ Labour\ hours}$$

Illustration: Indu manufactures two products 'Lux' and 'Lifeboy' for which certain material used is in short supply. (i.e. material is a key factor). According to productioncapacity of factor 2000 units of 'Lux' and 1,000 units of 'Lifeboy' can be manufactured. For manufacture of 1 unit of 'Lux' 5 kgs of raw material is used and for 1 unit of 'Lifeboy' 4 kgs of raw material is used. Total raw material available 11,000 kgs.Selling price per unit of 'Lux' is ₹ 40 and per unit of 'Lifeboy' is ₹ 30. Variable expenses per unit in respect of both the products are ₹27.5 and ₹ 15 respectively.

How many units of both the products should be manufactured to get maximum profit

Key Factor calculation

1. contribution per unit

Particulars		LUX		LIFEBOY
Sales		40		30
Less: Variable Expenses		27.5		15
Contribution		12.5		15
Contribution per unit (Material)		$\frac{₹\,12.5}{5Kg.}$ ₹ 2.50		$\frac{₹\,15}{4Kg.}$ ₹ 3.75

Contribution of 'Lifeboy' is more than contribution 'Lux' so first product 'Lifeboy' should be manufactured fully and the remaining materials of product 'Lux' should be manufactured according to availability of materials

Total required of material for full production	LUX 2,000 Unit. X 5 K.g. LIFEBOY 1,000 Unit X 4 K.g.	10,000 Kg. 4,000 K.g.
available materials	make full production of 'Life boy' remaning because contribution is more than Lux aining materials is used for product "Lux" manufacturation	11,000 K.g. 4,000 K.G. 7,000 K.G

Quantity Mix (Optimum Mix)

Lux 7,000 K.g. /5 k.g. per unit = 1400 Unit

Lifeboy 4,000 k.g./4 kg.per no= 1,000 Unit

VI. Decision to make or buy: A firm may make some product, parts or tools or sometimes it may buy the same thing from outside. The management must decide which is more profitable to the firm. If the marginal cost of the product lower than the price of buying from outside, then the firm can make the product.

Illustration:

Kirit manufacturing company manufacture "Tyre and Tube' finds that while it costs ₹ 12.50 to make each component 'Tyre' 2,000, the same is available in the market at ₹ 9.75 each, with an assurance of continued supply. Cost is as follow:

Materials	₹ 5.50
Labour	₹ 3.50
Other variables	₹1.00
Depreciation and other Fixed Cost is	₹ 2.50
Total cost	₹ 12.50

Should you make or buy ?

Solution:

Fixed Cost:₹ 2.50

Variable Cost ₹ 10

Variable cost of manufacturing is ₹ 10 but the market price is ₹ 9.75. If the fixed cost ₹ 2.50 is also added, it is not profitable to make the component. Because there is a profit of ₹ 0.25 even in variable cost, it is profitable to purchase from outside.

VII. Sales in foreign Market : If company have unutilized production capacity and fixed expenses are fully recovered from localmarket, company sell goods at a price which is less than the total cost he can sell at a price which is somewhat more than marginal cost so company can increase its total profit

3.7 Illustration

Illustration 1 :

The following information of a Himesh Ltd. company is available for March 2020

Production	10,000 Units
Sales price per unit	₹ 50
Variable expenses per unit	₹ 42
Total Fixed expenses	₹ 64,000

Find out Break-even point

ANS: BEP (Units) = 8,000 Units

BEP = F/(S-V) = 64,000/(50-42)

= 64,000/8 = 8,000

Illustration 2 :

The total sales of Shweta Co. Ltd. during March, 2020 are ₹ 35,000. Variable costs are ₹ 28,000 and fixed costs are ₹ 21,000. Find out the Break-even Point.

Notes: Here per unit Sales price and per unit variable cost are not given. So first we will find out P/V Ratio than we will find out BEP

- Profit Volume Ratio = $\frac{C}{S} \times 100$

C = S – V

= 35,000 – 28,000

= ₹ 7,000

P/V Ratio = C/S X 100

= 7,000/35,000 X 100

= 20%

BEP (Rupees) = F/ PV Ratio

= 21,000/ 20%

= ₹ 1, 05,000

Sales to earn a profit

Illustration 3 :

The following information of a Kavisha Co. Ltd. is available for March 2020

Production	10,000 Units
Sales price per unit	₹ 50
Variable expenses per unit	₹ 42
Total Fixed expenses	₹ 64,000
Find out sales to earn a profit	₹ 32,000

ANS : SALES =(F + P) / (S -V)

= (64,000 + 32,000)/(50 - 42)

= 96,000/ 8

= 12,000 UNIT

3.8 Let Us Sum Up

Any change in the total production by an increase or decrease of one unit of a product is termed as "Marginal Cost" in Economics. In Cost Accounts, the same concept is put in another way. A system of determining cost of production by excluding fixed from expenses from total cost is known as Marginal Costing.

Under marginal costing, the total cost is classified into fixed and variable expenses and only variable expenses are recorded. Whereas fixed expenses are excluded and they are charged against the fund arising out of the excess of selling price over variable expenses.

3.9 Answer for Check Your Progress

Check your progress 1

Answer: (1 - a)

Check your progress 2

Answer: (1 - b)

Check your progress 3

Answer: (1 - c)

Check your progress 4

Answer: (1 - d)

Check your progress 5

Answer: (1 - d)

3.10 Glossary

- **Marginal Cost**: Any change in the total production by an increase or decrease of one unit of a product is termed as Marginal Cost
- **Variable expenses:** The variable expenses very directly with the number of unit produced and they remain constant per unit of production.
- **Fixed (constant) expenses**: total fixed expenses remain constant irrespective of the changes in the volume of production and the rate per unit will consequently very with the changes in output.
- **Contribution:** The difference between sales price and variable cost is termed as "Contribution"
- **Break-Even Point (BEP)**: It is that volume of output at which neither a profit is made nor a loss is incurred, at this point contribution just covers the fixed cost, at break-even point

3.11 Assignment

I. What is Marginal Costing.

II. Write Advantages of Marginal Costing.

3.12 Case Study

Write Characteristics of Marginal Costing.

Discuss Break-even Analysis

3.13 Further Reading

Principals and Practice of Accountancy: R.L.Gupta&V.K.Gupta. S.Chand& Sons.

Cost Accountancy by P.V.Ratnam &D.HanumanthRaju. Himalaya Publishing House.

: UNIT STRUCTURE :

4.0 Learning Objective
4.1 Introduction
4.2 Definitions
4.3 Objectives of Management Audit
4.4 Difference between Financial Audit and Management Audit
4.5 Need for Management Audit
4.6 Conducting Management Audit
4.7 Let Us sum up
4.8 Answer for check Your Progress
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4.11 Case Study
4.12 Further Reading

4.0 Learning Objective

After reading this unit, you will be able to understand:

- Objectives of Management Audit
- Difference between Financial Audit and Management Audit
- Need for Management Audit
- Conducting Management Audit

4.1 Introduction

Management audit is a new concept in the sphere of auditing. The word 'Audit' takes its origin from Latin word 'Audire' which means 'To hear'. The person who conducts audit is known as the auditor. In olden days, the original object of an audit was principally to see whether the Accountant had properly accounted for the receipts and payment of cash. In those days, audit was simply a comparison of records. That is, auditors are generally expected to detect errors and omissions in the books of accounts. In the context of financial accounting, the term auditing means examination of books of accounts to ensure that the financial statements are prepared in accordance with the statutory requirements and that they reflect a true and a fair view of the affairs of the concern. Cost audit which is concerned with the audit of cost accounts is a part of the work of the internal auditor. The principles underlying cost audit differs from financial audit not only in scope but objectives also. The term 'cost audit', according to ICWA, India," It is an audit of efficiency of minute details of expenditure while the work is in progress and not a post-mortem examination. Financial audit is a faith accompli. Cost audit is mainly

a preventive measure, a guide for management policy and decision, in addition to being a barometer of performance. "The difference of the two is clear from the definition.

Check your progress 1

1. The management audit is an expansion of ….
   a. Internal audit
   b. External audit
   c. Depth audit
   d. None of above

The management audit is an expansion of internal audit and which is now called Management Audit. It is the latest development of internal audit. Through, this concept is still in its infancy, yet it has caught world-wide attention of the Accountants, Management and Auditors. Management audit is concerned with management process as a whole; it covers review and appraisal of managerial policies and plans in comparison to pre-determined standards.

4.2 Definitions

As its name signifies, the management audit means the audit of management process and functions. It is an independent appraisal activity for the review of control of managerial functions. So as to ensure compliance with the organisational objectives, policies and procedures and the management methods and purposes.

William P Leonard defines Management Audit, as "A comprehensive and constructive examination of an organisational structure of a company, institution or branch of Government, or of any component thereof, such as a division department, and its plans and objectives, its means of operations, and its use of human and physical facilities"

Leslie R Howard has given a comprehensive definition of Management Audit. According to him, Management audit is an investigation of a business from the highest level downward in order to ascertain whether sound management prevails throughout, thus facilitating the most effective relationship with the outside world and the most efficient organisation and smooth running of internal organisation."

According to Bhandari, "Management audit is a comprehensive examination of an organisational system which comprises a review of final and results and an intensive examination of objective, programmes, policies, procedures, organisational structure, decisions and internal controls."

Taylor and Parry have given another definition. According to them, "Management auditing is a method to evaluate the efficiency of management at all level throughout the organisation, or more specifically, it comprises the investigation of a business by an independent body from the highest executive level downwards, in order to ascertain whether sound management prevails throughout, and to report as to its efficiency or otherwise, with recommendations to ensure its effectiveness where such is not case."

Check your progress 2

1. Which following sentence defined in the definition of William P Leonard for Management Audit.

a. A comprehensive and constructive examination of an organisational structure of a company

b. An investigation of a business from the highest level downward in order to ascertain whether sound management prevails throughout,

c. Management audit is a comprehensive examination of an organisational system which comprises a review of final and results and an intensive examination of objective

d. To evaluate the efficiency of management at all level throughout the organisation, or more specifically, it comprises the investigation of a business by an independent body from the highest executive level downwards

4.3 Objectives of Management Audit

The basic objectives are contained in the definitions are:

I. The management audit aims at achieving the efficiency of the management.

II. It suggests ways and means of increasing managerial efficiency.

III. It examines the organisational structure. If there are deficiencies then changes in organisations are suggested.

IV. It studies the relationship of the concern with the outside world and the economic environment.

V. It is the main objective of management audit to see whether the business is managed efficiently or not.

VI. It helps the management at all levels in the efficient discharge of duties are responsibilities.

VII. It evaluates the performance of various management processes and functions.

Check your progress 3

1. Which following basic objectives are not contained in the definitions ….

a. The management audit aim is not the efficiency of the management.

b. It suggests ways and means of increasing managerial efficiency.

c. It helps the management at all levels in the efficient discharge of duties are responsibilities.

d. It evaluates the performance of various management processes and functions.

4.4 Difference between Financial Audit and Management Audit

The following are the differences between the two in brief:

I. It is concerned with the certification of true and fair character of financial accounts while management audit is not intended data but is concerned with an appraisal of means and results.

II. It is simply a post mortem examination while it is preventive as well as curative check up

III. Financial audit requires accounting expertise while management audit requires inter-disciplinary expertise.

IV. It is mainly based on internal financial data while management audit is based on financial and non-financial data obtained from internal as well as external.

V. It is statutory in case of Joint Stock Company while management audit is still voluntary.

VI. Scope of audit is determined by law while in management audit based on mutual agreement.

VII. It is well developed and professionally controlled activity while management audit is its infancy stage.

VIII. Motivation for audit comes from tradition and law. While management audit depends upon the consciousness of management.

IX. It is useful for share-holders and other while management audit is mainly useful for management itself.

Check your progress 4

1. Difference between Financial Audit and Management Audit Which following difference/ statement is not true.

a. It is simply a post mortem examination while it is preventive as well as curative check up

b. Financial audit requires inter-disciplinary expertise. While management audit requires accounting expertise

c. It is statutory in case of Joint Stock Company while management audit is still voluntary.

d. Scope of audit is determined by law while in management audit based on mutual agreement.

It is an annual feature while management audit is depends on management and need not be annual-may be 2 or 3 or 4 yearly programs.

4.5 Need for Management Audit:

Financial audit is concerned with the certification of true and fair character of financial accounts. It is not concerned with evaluation of either 'means' or 'results'. The financial auditor does not report whether the policies lay down by the concern are carried out properly or not. He looks only at the history of financial transactions. He is concerned with financial aspects of the organisation. He does not suggest ways and means to eliminate wastages or reduce the cost of production.

The management of the business at present is becoming more and more complex. The Directors are not experts in every field of management. Management audit is a kind of internal audit which reveals defects in the working of the organisation and suggests improvements to obtain best result of the operations of concern. It is

a comprehensive examination- an appraisal of all functions of management auditor.

Some of the uses of management audit, in brief, are:

I. Management audit makes substantial contribution to systems of goal setting in the organisation.

II. It is a kind of internal audit which reveals defects in the working of the concern and suggests improvements to obtain best results.

III. It helps in the improvement of Management Information System to expedite flow of information among responsibility centres.

IV. It guides the management in pin-pointing key functions or operations in the profit-making process.

V. It helps in establishing, reviewing and improving the planning system.

VI. It facilitates the management in getting the adequate information for correct decisions.

VII. It sees whether the management is properly using the information that it is getting.

VIII. It enable appraisal of performance of various managers.

IX. It assists all members of management to overcome delays, wasteful expenditure, recurring losses, gaps between budgeted and actual achievements etc.

"Management Audit is performed with the object of examining the efficacy of the information control system, management procedures towards the achievement of enterprise goals."

"Management audit can be defined as an objective and independent appraisal of the effectiveness of managers and the effectiveness of the corporate structure in the achievement of company objectives and policies. Its aim is to identify existing and potential management weakness within an organisation and to recommend ways to rectify this weakness."

Check your progress 5

5. Which following uses of management auditis not true ?

a. It does not help in establishing, reviewing and improving the planning system.

b. It facilitates the management in getting the adequate information for correct decisions.

c. It enable appraisal of performance of various managers.

d. It helps to avoid wasteful, unnecessary and extravagant use of resources.

4.6 Conducting Management Audit

Management audit is primarily concerned with evaluation of management functions and organisational functions keeping in view the overall organisational objectives. Management audit requires the review of all aspects of management. One man cannot be expert in every field of management. Therefore, there should be a

team to conduct the management audit. It will be good, if the team of management auditors consists of an accountant, operational research specialist, industrial engineer, social scientist etc. All the members must have "ability to think like managers".

The following procedure may be followed:

I. The management audit term must have a clearly defined authority from the management of the enterprise.

II. Management auditor requires information for the appraisal of various managerial aspects. For this purpose, management auditor can make use of standard questionnaire, which may be specially designed.

III. The management auditor carefully examine the information collected by him, Whenever information is received from any source, the persons supplying it must put their signatures to authenticate it.

IV. The management auditor, who consciously observes, will become aware of many problems that are not recorded or are incapable of analysis through data.

V. The management auditor should also evaluate the internal audit report, inspection report etc. to form his own opinion.

VI. In the process of conducting a review of the various activities of the concern, management auditor can adopt and use a number of techniques of verificatory audit, such as enquiry, examination, confirmation, observation of an activity or condition etc.

VII. He is concerned with the appraisal of performance in the various areas of management, such as planning, organisation, control, systems and procedures, inventory management, production and sales management etc.

VIII. In the last, management auditor has to prepare a report, which should be concise and free from ambiguity. He can criticise the management. The management auditor has to compare the actual performances with the standards laid down of performance in the various years. On the basis of the above analysis and evaluation, a useful course of action is to be suggested.

Check your progress 6

1. Which following statement is irrelevant for Conducting Management Audit

a. The management audit term must have a clearly defined authority from the management of the enterprise.

b. The management auditor carefully examine the information collected by him, Whenever information is received from any source, the persons supplying it must put their signatures to authenticate it.

c. The management auditor should also evaluate the internal audit report, inspection report etc. to form Accountants opinion.

d. The management auditor, who consciously observes, will become aware of many problems that are not recorded or are incapable of analysis through data.

4.7 Let Us Sum Up

Financial auditor is concerned with; He looks only at the history of financial transactions. He is concerned with financial aspects of the organisation. He does not suggest ways and means to eliminate wastages or reduce the cost of production. The management of the business at present is becoming more and more complex. The Directors are not experts in every field of management. Management audit is a kind of internal audit which reveals defects in the working of the organisation and suggests improvements to obtain best result of the operations of concern. It is a comprehensive examination- an appraisal of all functions of management auditor.

Management audit is a comprehensive examination of an organisational system which comprises a review of final and results and an intensive examination of objective, programmes, policies, procedures, organisational structure, decisions and internal controls.

4.8 Answer for Check Your Progress

Check your progress 1

Answer :(1-a)

Check your progress 2

Answer :(1-a)

Check your progress 3

Answer :(1-a)

Check your progress 4

Answer: (1-b)

Check your progress 5

Answer :(1- a)

Check your progress 6

Answer :(1-c)

4.9 Glossary

Appraisal - Evaluation, an act of assessing something or someone

Infancy-The state or period of early childhood or babyhood

Ambiguity- Uncertainty or inexactness

Extravagant-Lacking restraint in spending money, Thrifty

Expedite flow-Make happen sooner or be accomplished more quickly

4.10 Assignment

I. What is management audit ?

II. Distinguish between financial audit and management audit.

4.11 Case Study

The objectives of management audit

4.12 Further Reading

- Management Accounting by S. Chand

BLOCK SUMMARY

This block gives detailed information about controlling tools and management audit. The block explained more about controlling tools one of these important tools is business budgeting. The modern management have now realised the importance of planning their business operations in advance. One of the important functions of management is to plan, to co-ordinate and to control the operations of business organisation in such a manner that its basic objectives may be realised. In fact, budgeting is necessary in all walks of life.

Management will adopt fixed budget when it is possible to forecast sales, revenue and expenditure with reasonable degree of accuracy. Under this method, budgets are prepared for different departments of business on the basis of fixed level of activity. But when accurate forecast of sales and revenue are not possible, demand for the product is uncertain and, for any reason, level of production is unstable during the Budget period; management will make use of flexible budgeting. Any change in the total cost of production by an increase or decrease of one unit Of a product is termed as "Marginal Cost" in Economics. In Cost Accounts, the same concept is put in another way. On the other hand, total fixed expenses remain constant irrespective of the changes in the volume of production and the rate per unit will consequently very with the changes in output.

Thus if the output varies in different periods, the cost per unit will differ accordingly. If selling price is based on cost per unit, it will have to be changed every time with the variation in cost. This would be neither feasible nor practical. In order to overcome this difficulty, only variable expenses are taken into account for ascertainment of cost and fixed expenses are written off against profit in the period in which they arise.

After studying this block, students understand correctly about management audit. Management audit is a new concept in the sphere of auditing. The person who conducts audit is known as the auditor. In those days, audit was simply a comparison of records. That is, auditors are generally expected to detect errors and omissions in the books of accounts. In the context of financial accounting, the term auditing means examination of books of accounts to ensure that the financial statements are prepared in accordance with the statutory requirements and that they reflect a true and a fair view of the affairs of the concern.

BLOCK ASSIGNMENT

Short Answer Questions

1. Explain mining of Budget.
2. What is difference between fixed cost and variable cost.
3. Explain Break Even Point.
4. Explain contribution
5. Give any two procedure to conducting Management Audit

Long Answer Questions

1. Characteristics of Budget
2. Method of Constructing a Flexible Budget
3. Write Limitations of Marginal Costing.
4. Need for Management Audit

Enrolment No.: [ ]

1. How many hours did you need for studying the units ?

Unit No.	1	2	3	4
Nos of Hrs				

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	☐	☐	☐	☐	______
Language and Style	☐	☐	☐	☐	______
Illustration used (Diagram, tables etc)	☐	☐	☐	☐	______
Conceptual Clarity	☐	☐	☐	☐	______
Check your progress Quest	☐	☐	☐	☐	______
Feed back to CYP Question	☐	☐	☐	☐	______

3. Any Other Comments

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