



**LEARN FINANCIAL ACCOUNTING**

financial accounting basics

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## About the Tutorial

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This tutorial will help you understand the basics of financial accounting and its associated terminologies.

## Audience

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This tutorial has been designed to help beginners pursuing education in financial accounting or business management. Any enthusiastic reader with basic mathematics knowledge can comprehend this tutorial. After completing this tutorial, you will find yourself at a moderate level of expertise from where you can take yourself to next levels.

## Prerequisites

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Before you start proceeding with this tutorial, we assume that you have a basic understanding of commerce.

## Copyright & Disclaimer

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# 1. OVERVIEW

This chapter covers the following topics:

- Definition of Accounting
- Objectives & Scope
- Accounting Process
- Accounting Concepts
- Accounting Conventions
- Classification of Accounts
- System of Accounting
- Rules of Double Entry Accounting System

## Introduction

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Accounting is a business language. We can use this language to communicate financial transactions and their results. Accounting is a comprehensive system to collect, analyze, and communicate financial information.

The origin of accounting is as old as money. In early days, the number of transactions were very small, so every concerned person could keep the record of transactions during a specific period of time. Twenty-three centuries ago, an Indian scholar named **Kautilya** alias **Chanakya** introduced the accounting concepts in his book **Arthashastra**. In his book, he described the art of proper account keeping and methods of checking accounts. Gradually, the field of accounting has undergone remarkable changes in compliance with the changes happening in the business scenario of the world.

A bookkeeper may record financial transactions according to certain accounting principles and standards and as prescribed by an accountant depending upon the size, nature, volume, and other constraints of a particular organization.

With the help of accounting process, we can determine the profit or loss of the business on a specific date. It also helps us analyze the past performance and plan the future courses of action.

## Definition of Accounting

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The American *Institute of Certified Public Accountant* has defined Financial Accounting as:

*"the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which in part at least of a financial character and interpreting the results thereof."*

## Objectives and Scope of Accounting

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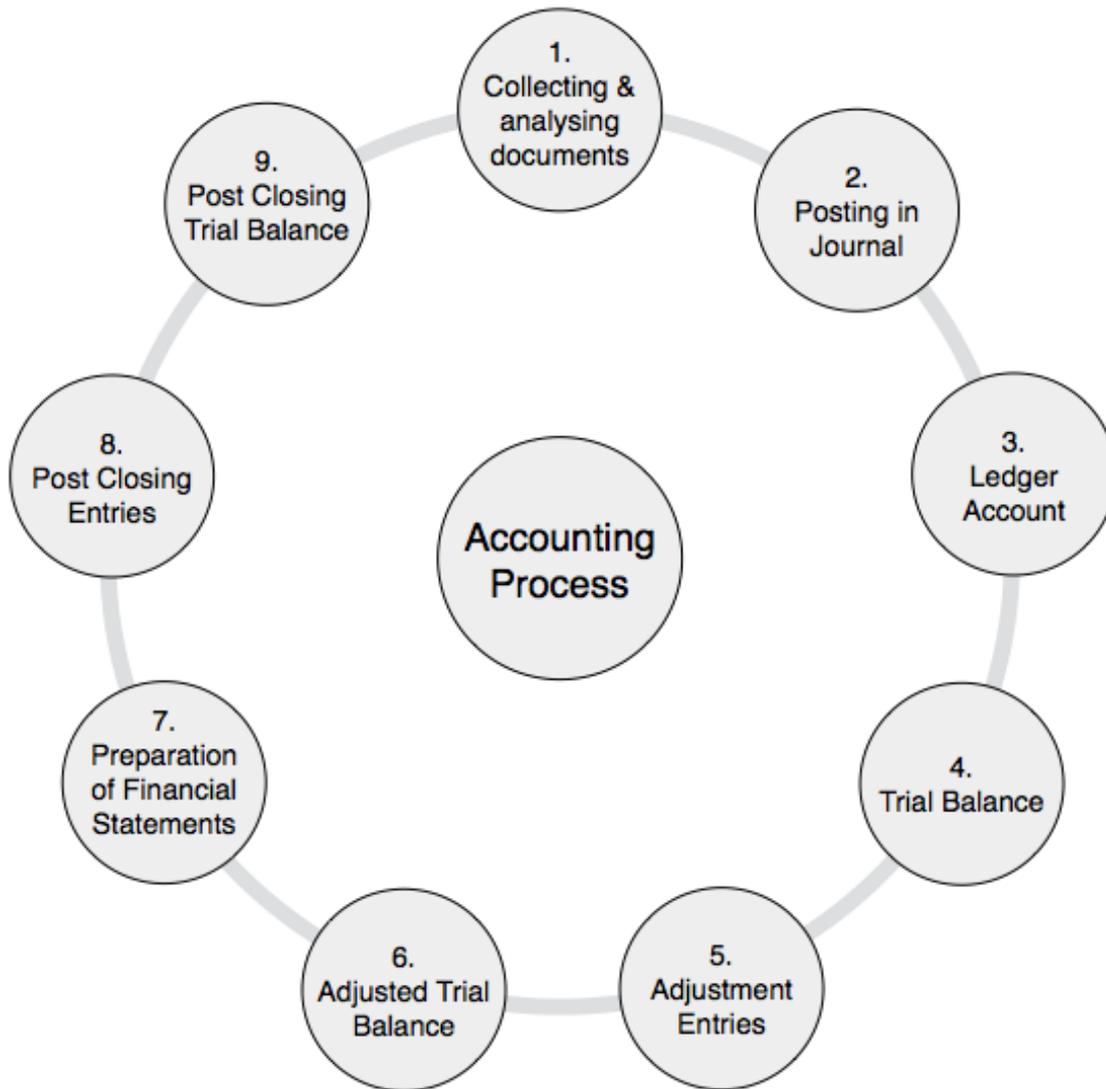
Let us go through the main objectives of Accounting:

- **To keep systematic records:** Accounting is done to keep systematic record of financial transactions. The primary objective of accounting is to help us collect financial data and to record it systematically to derive correct and useful results of financial statements.
- **To ascertain profitability:** With the help of accounting, we can evaluate the profits and losses incurred during a specific accounting period. With the help of a Trading and Profit & Loss Account, we can easily determine the profit or loss of a firm.
- **To ascertain the financial position of the business:** A balance sheet or a statement of affairs indicates the financial position of a company as on a particular date. A properly drawn balance sheet gives us an indication of the class and value of assets, the nature and value of liability, and also the capital position of the firm. With the help of that, we can easily ascertain the soundness of any business entity.
- **To assist in decision-making:** To take decisions for the future, one requires accurate financial statements. One of the main objectives of accounting is to take right decisions at right time. Thus, accounting gives you the platform to plan for the future with the help of past records.
- **To fulfill compliance of Law:** Business entities such as companies, trusts, and societies are being run and governed according to different legislative acts. Similarly, different taxation laws (direct indirect tax) are also applicable to every business house. Everyone has to keep and maintain different types of accounts and records as prescribed by corresponding laws of the land. Accounting helps in running a business in compliance with the law.

## Accounting Process

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Accounting cycle refers to the specific tasks involved in completing an accounting process. The length of an accounting cycle can be monthly, quarterly, half-yearly, or annually. It may vary from organization to organization but the process remains the same. The following chart shows the basic steps in an accounting cycle:



## Accounting Process

The following table lists down the steps followed in an accounting process:

<p>1. Collecting and Analyzing Accounting Documents</p>	<p>It is a very important step in which you examine the source documents and analyze them. For example, cash, bank, sales, and purchase related documents. This is a continuous process throughout the accounting period.</p>
<p>2. Posting in Journal</p>	<p>On the basis of the above documents, you pass journal entries using double entry system in which debit and credit balance remains equal. This process is repeated throughout the accounting period.</p>

3. Posting in Ledger Accounts	Debit and credit balance of all the above accounts affected through journal entries are posted in ledger accounts. A ledger is simply a collection of all accounts. Usually, this is also a continuous process for the whole accounting period.
4. Preparation of Trial Balance	As the name suggests, trial balance is a summary of all the balances of ledger accounts irrespective of whether they carry debit balance or credit balance. Since we follow double entry system of accounts, the total of all the debit and credit balance as appeared in trial balance remains equal. Usually, you need to prepare trial balance at the end of the said accounting period.
5. Posting of Adjustment Entries	In this step, the adjustment entries are first passed through the journal, followed by posting in ledger accounts, and finally in the trial balance. Since in most of the cases, we used accrual basis of accounting to find out the correct value of revenue, expenses, assets and liabilities accounts, we need to do these adjustment entries. This process is performed at the end of each accounting period.
6. Adjusted Trial Balance	Taking into account the above adjustment entries, we create adjusted trial balance. Adjusted trial balance is a platform to prepare the financial statements of a company.
7. Preparation of Financial Statements	Financial statements are the set of statements like Income and Expenditure Account or Trading and Profit & Loss Account, Cash Flow Statement, Fund Flow Statement, Balance Sheet or Statement of Affairs Account. With the help of trial balance, we put all the information into financial statements. Financial statements clearly show the financial health of a firm by depicting its profits or losses.
8. Post-Closing Entries	All the different accounts of revenue and expenditure of the firm are transferred to the Trading and Profit & Loss account. With the result of these entries, the balance of all the accounts of income and expenditure accounts come to NIL. The net balance of these entries represents the profit or loss of the company, which is finally transferred to the owner's equity or capital

	account. We pass these entries only at the end of accounting period.
9. Post-Closing Trial Balance	Post-closing Trial Balance represents the balances of Asset, Liabilities & Capital account. These balances are transferred to next financial year as an opening balance.

## Accounting Concepts

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The most important concepts of accounting are as follows:

- Business Entity Concept
- Money Measurement Concept
- Going Concern Concept
- Cost Concept
- Dual Aspects Concept
- Accounting Period Concept
- Matching Concept
- Accrual Concept
- Objective Evidence Concept

The first two accounting concepts, namely, Business Entity Concept and Money Measurement Concept are the fundamental concepts of accounting. Let us go through each one of them briefly:

### Business Entity Concept

According to this concept, the business and the owner of the business are two different entities. In other words, I and my business are separate.

For example, Mr A starts a new business in the name and style of M/s Independent Trading Company and introduced a capital of Rs 2,00,000 in cash. It means the cash balance of M/s Independent Trading Company will increase by a sum of Rs 2,00,000/-. At the same time, the liability of M/s Independent Trading Company in the form of capital will also increase. It means M/s Independent Trading Company is liable to pay Rs 2,00,000 to Mr A.

### Money Measurement Concept

According to this concept, "we can book only those transactions in our accounting record which can be measured in monetary terms."

### Example

Determine and book the value of stock of the following items:

Shirts	Rs 5,000/-
Pants	Rs 7,500/-

Coats                      500 pieces

Jackets                  1000 pieces

Value of Stock = ?

Here, if we want to book the value of stock in our accounting record, we need the value of coats and jackets in terms of money. Now if we conclude that the values of coats and jackets are Rs 2,000 and Rs 15,000 respectively, then we can easily book the value of stock as Rs 29,500 (as a result of  $5000+7500+2000+15000$ ) in our books. We need to keep quantitative records separately.

## Going Concern Concept

Our accounting is based on the assumption that a business unit is a going concern. We record all the financial transaction of a business in keeping this point of view in our mind that a business unit is a going concern; not a gone concern. Otherwise, the banker will not provide loans, the supplier will not supply goods or services, the employees will not work properly, and the method of recording the transaction will change altogether.

For example, a business unit makes investments in the form of fixed assets and we book only depreciation of the assets in our profit & loss account; not the difference of acquisition cost of assets less net realizable value of the assets. The reason is simple; we assume that we will use these assets and earn profit in the future while using them. Similarly, we treat deferred revenue expenditure and prepaid expenditure. The concept of going concern does not work in the following cases:

- If a unit is declared sick (unused or unusable unit).
- When a company is going to liquidate and a liquidator is appointed for the same.
- When a business unit is passing through severe financial crisis and going to wind up.

## Cost Concept

It is a very important concept based on the Going Concern Concept. We book the value of assets on the cost basis, not on the net realizable value or market value of the assets based on the assumption that a business unit is a going concern. No doubt, we reduce the value of assets providing depreciation to assets, but we ignore the market value of the assets.

The cost concept stops any kind of manipulation while taking into account the net realizable value or the market value. On the downside, this concept ignores the effect of inflation in the market, which can sometimes be very steep. Still, the cost concept is widely and universally accepted on the basis of which we do the accounting of a business unit.

## Dual Aspect Concept

There must be a double entry to complete any financial transaction, means debit should be always equal to credit. Hence, every financial transaction has its dual aspect:

- we get some benefit, and
- we pay some benefit.

For example, if we buy some stock, then it will have two effects:

- the value of stock will increase (get benefit for the same amount), and
- it will increase our liability in the form of creditors.

Transaction	Effect
Purchase of Stock for Rs 25,000	Stock will increase by Rs 25,000 (Increase in debit balance) Cash will decrease by Rs 25,000 (Decrease in debit balance) Or Creditor will increase by Rs 25,000 (Increase in credit balance)

## Accounting Period Concept

The life of a business unit is indefinite as per the going concern concept. To determine the profit or loss of a firm, and to ascertain its financial position, profit & loss accounts and balance sheets are prepared at regular intervals of time, usually at the end of each year. This one-year cycle is known as the accounting period. The purpose of having an accounting period is to take corrective measures keeping in view the past performances, to nullify the effect of seasonal changes, to pay taxes, etc.

Based on this concept, revenue expenditure and capital expenditure are segregated. Revenues expenditure are debited to the profit & loss account to ascertain correct profit or loss during a particular accounting period. Capital expenditure comes in the category of those expenses, the benefit of which will be utilized in the next coming accounting periods as well.

Accounting period helps us ascertain correct position of the firm at regular intervals of time, i.e., at the end of each accounting period.

## Matching Concept

Matching concept is based on the accounting period concept. The expenditures of a firm for a particular accounting period are to be matched with the revenue of the same accounting period to ascertain accurate profit or loss of the firm for the same period. This practice of matching is widely accepted all over the world. Let us take an example to understand the Matching Concept clearly.

The following data is received from M/s Globe Enterprises during the period 01-04-2012 to 31-03-2013:

Particulars	Amount
1. Sale of 1,000 Electric Bulbs @ Rs 10 per bulb on cash basis.	10,000.00
2. Sale of 200 Electric Bulb @ Rs. 10 per bulb on credit to M/s Atul Traders.	2,000.00
3. Sale of 450 Tube light @ Rs.100 per piece on Cash basis.	45,000.00
4. Purchases made from XZY Ltd.	40,000.00
5. Cash paid to M/s XYZ Ltd.	38,000.00
6. Freight Charges paid on purchases	1,500.00
7. Electricity Expenses of shop paid	5,000.00
8. Bill for March-13 for Electricity still outstanding to be paid next year.	1,000.00

Based on the above data, the profit or loss of the firm is calculated as follows:

Particulars	Amount	Total
<b>Sale</b>		
<b>Bulb</b>	12,000.00	
<b>Tube</b>	45,000.00	57,000.00
<b>Less:-</b>		
<b>Purchases</b>	40,000.00	
<b>Freight Charges</b>	5,000.00	
<b>Electricity Expenses</b>	1,500.00	
<b>Outstanding Expenses</b>	1,000.00	47,500.00
<b>Net Profit</b>		9,500.00

In the above example, to match expenditures and revenues during the same accounting period, we added the credit purchase as well as the outstanding expenses of this accounting year to ascertain the correct profit for the accounting period 01-04-2012 to 31-03-2013.

It means the collection of cash and payment in cash is ignored while calculating the profit or loss of the year.

## Accrual Concept

As stated above in the matching concept, the revenue generated in the accounting period is considered and the expenditure related to the accounting period is also considered. Based on the accrual concept of accounting, if we sell some items or we rendered some service, then that becomes our point of revenue generation irrespective of whether we received cash or not. The same concept is applicable in case of expenses. All the expenses paid in cash or payable are considered and the advance payment of expenses, if any, is deducted.

Most of the professionals use cash basis of accounting. It means, the cash received in a particular accounting period and the expenses paid cash in the same accounting period is the basis of their accounting. For them, the income of their firm depends upon the collection of revenue in cash. Similar practice is followed for expenditures. It is convenient for them and on the same basis, they pay their Taxes.

## Objective Evidence Concept

According to the Objective Evidence concept, every financial entry should be supported by some objective evidence. Purchase should be supported by purchase bills, sale with sale bills, cash payment of expenditure with cash memos, and payment to creditors with cash receipts and bank statements. Similarly, stock should be checked by physical verification and the value of it should be verified with purchase bills. In the absence of these, the accounting result will not be trustworthy, chances of manipulation in accounting records will be high, and no one will be able to rely on such financial statements.

## Accounting Conventions

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We will discuss the following accounting conventions in this section:

- Convention of Consistency
- Convention of Disclosure
- Convention of Materiality
- Conservation of Prudence

### Convention of Consistency

To compare the results of different years, it is necessary that accounting rules, principles, conventions and accounting concepts for similar transactions are followed consistently and continuously. Reliability of financial statements may be lost, if frequent changes are observed in accounting treatment. For example, if a firm chooses *cost or market price whichever is lower* method for stock valuation and *written down value method* for depreciation to fixed assets, it should be followed consistently and continuously.

Consistency also states that if a change becomes necessary, the change and its effects on profit or loss and on the financial position of the company should be clearly mentioned.

## **Convention of Disclosure**

The Companies Act, 1956, prescribed a format in which financial statements must be prepared. Every company that fall under this category has to follow this practice. Various provisions are made by the Companies Act to prepare these financial statements. The purpose of these provisions is to disclose all essential information so that the view of financial statements should be true and fair. However, the term 'disclosure' does not mean all information. It means disclosure of information that is significance to the users of these financial statements, such as investors, owner, and creditors.

## **Convention of Materiality**

If the disclosure or non-disclosure of an information might influence the decision of the users of financial statements, then that information should be disclosed.

For better understanding, please refer to General Instruction for preparation of Statement of Profit and Loss in revised scheduled VI to the Companies Act, 1956:

1. A company shall disclose by way of notes additional information regarding any item of income or expenditure which exceeds 1% of the revenue from operations or Rs 1,00,000 whichever is higher.
2. A Company shall disclose in Notes to Accounts, share in the company held by each shareholder holding more than 5% share specifying the number of share held.

## **Conservation or Prudence**

It is a policy of playing safe. For future events, profits are not anticipated, but provisions for losses are provided as a policy of conservatism. Under this policy, provisions are made for doubtful debts as well as contingent liability; but we do not consider any anticipatory gain.

For example, If A purchases 1000 items @ Rs 80 per item and sells 900 items out of them @ Rs 100 per item when the market value of stock is (i) Rs 90 and in condition (ii) Rs 70 per item, then the profit from the above transactions can be calculated as follows:

Partiulars	Condition (i)	Condition (ii)
Sale Value (A) (900 x 100)	90,000.00	90,000.00
Less:- Cost of Goods Sold		
Purchases	80,000.00	80,000.00
Less Closing Stock	8,000.00	7,000.00
Cost of Goods Sold (B)	72,000.00	73,000.00
Profit (A-B)	18,000.00	17,000.00

In the above example, the method for valuation of stock is '*Cost or market price whichever is lower*'.

The prudence however does not permit creation of hidden reserve by understating the profits or by overstating the losses.

## Classification of Accounts

It is necessary to know the classification of accounts and their treatment in double entry system of accounts. Broadly, the accounts are classified into three categories:

- Personal accounts
- Real accounts
  - Tangible accounts
  - Intangible accounts
- Nominal accounts

Let us go through them each of them one by one.

### Personal Accounts

Personal accounts may be further classified into three categories:

#### Natural Personal Account

An account related to any individual like David, George, Ram, or Shyam is called as a *Natural Personal Account*.

#### Artificial Personal Account

An account related to any artificial person like M/s ABC Ltd, M/s General Trading, M/s Reliance Industries, etc., is called as an *Artificial Personal Account*.

#### Representative Personal Account

Representative personal account represents a group of account. If there are a number of accounts of similar nature, it is better to group them like salary payable

account, rent payable account, insurance prepaid account, interest receivable account, capital account and drawing account, etc.

## Real Accounts

Every Business has some assets and every asset has an account. Thus, asset account is called a real account. There are two type of assets:

- **Tangible** assets are touchable assets such as plant, machinery, furniture, stock, cash, etc.
- **Intangible** assets are non-touchable assets such as goodwill, patent, copyrights, etc.

Accounting treatment for both type of assets is same.

## Nominal Accounts

Since this account does not represent any tangible asset, it is called nominal or fictitious account. All kinds of expense account, loss account, gain account or income accounts come under the category of nominal account. For example, rent account, salary account, electricity expenses account, interest income account, etc.

## Accounting Systems

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There are two systems of accounting followed:

- Single Entry System
- Double Entry System

### Single Entry System

Single entry system is an incomplete system of accounting, followed by small businessmen, where the number of transactions is very less. In this system of accounting, only personal accounts are opened and maintained by a business owner. Sometimes subsidiary books are maintained and sometimes not. Since real and nominal accounts are not opened by the business owner, preparation of profit & loss account and balance sheet is not possible to ascertain the correct position of profit or loss or financial position of business entity.

### Double Entry System

Double entry system of accounts is a scientific system of accounts followed all over the world without any dispute. It is an old system of accounting. It was developed by '**Luco Pacioli**' of Italy in 1494. Under the double entry system of account, every entry has its dual aspects of debit and credit. It means, assets of the business always equal to liabilities of the business.

Assets = Liabilities

If we give something, we also get something in return and vice versa.

## Rules of Debit and Credit under Double Entry System of Accounts

The following rules of debit and credit are called the golden rules of accounts:

Classification of accounts	Rules	Effect
<b>Personal Accounts</b>	Receiver is Debit Giver is Credit	Debit = credit
<b>Real Accounts</b>	What Comes In Debit What Goes Out Credit	Debit = credit
<b>Nominal Accounts</b>	Expenses are Debit Incomes are Credit	Debit = credit

### Example:

Mr A starts a business regarding which we have the following data:

Introduces Capital in cash	Rs 50,000
Purchases (Cash)	Rs 20,000
Purchases (Credit) from Mr B	Rs 25,000
Freight charges paid in cash	Rs 1,000
Goods sold to Mr C on credit	Rs 15,000
Cash Sale	Rs 30,000
Purchased computer	Rs 10,000
Commission Income	Rs 8,000

S.No.	Journal Entries	Classification	Rule
1	Cash A/c Dr. 50,000 To Capital A/c 50,000	Real A/c Personal A/c	Debit what comes in; Credit the giver(Owner)
2	Goods Purchase A/c Dr. 20,000 To Cash A/c 20,000	Real A/c Real A/c	Debit what comes in; Credit what goes out
3	Goods Purchase A/c Dr. 25,000	Real A/c	Debit what comes in;

	To B A/c		25,000	Personal A/c	Credit the giver
4	Freight A/c	Dr.	1,000	Nominal A/c	Debit all expenses;
	To Cash A/c		1,000	Real A/c	Credit what goes out
5	C A/c	Dr.	15,000	Personal A/c	Debit the receiver;
	To Sale A/c		15,000	Real Account	Credit what goes out
6	Cash A/c	Dr.	30,000	Real A/c	Debit what comes in;
	To Sale A/c		30,000	Real A/c	Credit what goes out
7	Computer A/c	Dr.	10,000	Real A/c	Debit what comes in;
	To Cash A/c		10,000	Real A/c	Credit what goes out
8	Cash A/c	Dr.	8,000	Real A/c	Debit what comes in;
	To Commission A/c		8,000	Nominal A/c	Credit all incomes

It is very clear from the above example how the rules of debit and credit work. It is also clear that every entry has its dual aspect. In any case, debit will always be equal to credit in double entry accounting system.

# 2. FINANCIAL ACCOUNTING

We will cover the following topics in this chapter:

- Rules of Journal
- Posting in Ledger Accounts
- Subsidiary Ledgers and Control Account
- Bank Reconciliation
- Trial Balance
- Final Accounts
- Owner's Equity
- Current Assets
- Current Liabilities

## Journal

*"The process of recording a transaction in a journal is called journalizing the transactions."*

*--Meigs and Meigs and Johnson*

Journal is a book that is maintained on a daily basis for recording all the financial entries of the day. Passing the entries is called journal entry. Journal entries are passed according to rules of debit and credit of double entry system.

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
1	2	3	4	5
Xxxx	*****A/c Dr.	xx	xxxx	Xxxx
	To *****A/c (Narration*****)	xx		

Column 1: It represents the date of transaction.

Column 2: Line 1 (\*\*\*\*\*) represents the name of account to be debited.

Line 2 (\*\*\*\*\*) represents the name of account to be credited.

Line 3 for narration of transaction.





		<p>Treatment:</p> <p>(1) To book bad debts</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Bad Debts</td> <td style="width: 20%; text-align: center;">A/c</td> <td style="width: 20%;"></td> <td style="width: 10%; text-align: right;">Dr.</td> <td style="width: 10%; text-align: right;">xx</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">To Debtor</td> <td style="text-align: center;">A/c</td> <td></td> <td></td> <td></td> <td style="text-align: right;">xx</td> </tr> </table> <p>(Being loss on account of bad debts)</p> <p>(2) To recover bad debts</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Cash</td> <td style="width: 20%; text-align: center;">A/c</td> <td style="width: 20%;"></td> <td style="width: 10%; text-align: right;">Dr.</td> <td style="width: 10%; text-align: right;">xx</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">To bad debts recovery</td> <td style="text-align: center;">A/c</td> <td></td> <td></td> <td></td> <td style="text-align: right;">xx</td> </tr> </table> <p>(Being recovery of bad debts)</p>	Bad Debts	A/c		Dr.	xx		To Debtor	A/c				xx	Cash	A/c		Dr.	xx		To bad debts recovery	A/c				xx
Bad Debts	A/c		Dr.	xx																						
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Cash	A/c		Dr.	xx																						
To bad debts recovery	A/c				xx																					
6	Expenses on purchase of Goods	<p>There are a few types of expenses incurred on the purchases of goods like inward freight, octroi, cartage, unloading charges, etc.</p> <p><b>Treatment:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Inward freight/Cartage/Octroi</td> <td style="width: 20%; text-align: center;">A/c</td> <td style="width: 20%;"></td> <td style="width: 10%; text-align: right;">Dr.</td> <td style="width: 10%; text-align: right;">xx</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">To Cash</td> <td style="text-align: center;">A/c</td> <td></td> <td></td> <td></td> <td style="text-align: right;">xx</td> </tr> </table> <p>(Being freight charges paid on purchase of goods)</p>	Inward freight/Cartage/Octroi	A/c		Dr.	xx		To Cash	A/c				xx												
Inward freight/Cartage/Octroi	A/c		Dr.	xx																						
To Cash	A/c				xx																					
7	Expenses on Sale of Goods	<p>Expenses are also incurred while selling products to customers such as freight outward, insurance charges, etc.</p> <p><b>Treatment:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Freight outward/Insurance Expenses</td> <td style="width: 20%; text-align: center;">A/c.</td> <td style="width: 20%;"></td> <td style="width: 10%; text-align: right;">Dr.</td> <td style="width: 10%; text-align: right;">xx</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">To Cash</td> <td style="text-align: center;">A/c</td> <td></td> <td></td> <td></td> <td style="text-align: right;">xx</td> </tr> </table> <p>(Being freight charges paid on sale of goods)</p>	Freight outward/Insurance Expenses	A/c.		Dr.	xx		To Cash	A/c				xx												
Freight outward/Insurance Expenses	A/c.		Dr.	xx																						
To Cash	A/c				xx																					
8	Expenses on Purchase of Assets	<p>Sometimes we need to pay expenses on the purchase of fixed assets like transportation charges, installation charges, etc.</p> <p><b>Treatment:</b></p> <p>Expenses incurred on purchases of fixed asset are added in the value of fixed assets and could not be treated like expenses on purchases of goods:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Fixed Asset</td> <td style="width: 20%; text-align: center;">A/c</td> <td style="width: 20%;"></td> <td style="width: 10%; text-align: right;">Dr.</td> <td style="width: 10%; text-align: right;">XX</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">To Cash</td> <td style="text-align: center;">A/c</td> <td></td> <td></td> <td></td> <td style="text-align: right;">XX</td> </tr> </table> <p>(Expenses incurred on purchase of asset)</p>	Fixed Asset	A/c		Dr.	XX		To Cash	A/c				XX												
Fixed Asset	A/c		Dr.	XX																						
To Cash	A/c				XX																					
9	Payment of Expenses	<p><b>Treatment:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Expenses</td> <td style="width: 20%; text-align: center;">A/c</td> <td style="width: 20%;"></td> <td style="width: 10%; text-align: right;">Dr.</td> <td style="width: 10%; text-align: right;">XX</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">To Cash</td> <td style="text-align: center;">A/c</td> <td></td> <td></td> <td></td> <td style="text-align: right;">XX</td> </tr> </table> <p>(Being expenses incurred)</p>	Expenses	A/c		Dr.	XX		To Cash	A/c				XX												
Expenses	A/c		Dr.	XX																						
To Cash	A/c				XX																					
		<p>Sometimes expenses remain outstanding at the end of the financial year, but due to the accrual basis of accounting,</p>																								

10	Outstanding Expenses	<p>we need to book those expenses which are due for payment and to be paid in the next accounting year. For example, the salary due on the last day of the accounting year to be paid in the next year.</p> <p><b>Treatment:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Salary</td> <td style="width: 10%; text-align: center;">A/c</td> <td style="width: 10%; text-align: center;">Dr.</td> <td style="width: 10%; text-align: center;">XX</td> <td style="width: 10%;"></td> </tr> <tr> <td style="padding-left: 20px;">To salary outstanding</td> <td style="text-align: center;">A/c</td> <td></td> <td></td> <td style="text-align: center;">XX</td> </tr> </table> <p>(Being salary for the month of .....due)</p>	Salary	A/c	Dr.	XX		To salary outstanding	A/c			XX
Salary	A/c	Dr.	XX									
To salary outstanding	A/c			XX								
11	Prepaid Expenses	<p>Sometimes we pay expenses in advance such as insurance paid three months before the closing of the accounting year. Since insurance is usually paid for the whole year, in this case, the insurance for nine months is treated as prepaid insurance. Similarly, rent for the first month of next accounting year may be paid in advance.</p> <p><b>Treatment:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Prepaid expenses</td> <td style="width: 10%; text-align: center;">A/c</td> <td style="width: 10%; text-align: center;">Dr.</td> <td style="width: 10%; text-align: center;">XX</td> <td style="width: 10%;"></td> </tr> <tr> <td style="padding-left: 20px;">To Expenses/ Cash</td> <td style="text-align: center;">A/c</td> <td></td> <td></td> <td style="text-align: center;">XX</td> </tr> </table> <p>(Being prepaid expenses for month paid)</p> <p><b>Note:</b> Expenses account is replaced with the respective head of expense account.</p>	Prepaid expenses	A/c	Dr.	XX		To Expenses/ Cash	A/c			XX
Prepaid expenses	A/c	Dr.	XX									
To Expenses/ Cash	A/c			XX								
12	Income Received	<p><b>Treatment:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Cash/Debtor</td> <td style="width: 10%; text-align: center;">A/c</td> <td style="width: 10%; text-align: center;">Dr.</td> <td style="width: 10%; text-align: center;">XX</td> <td style="width: 10%;"></td> </tr> <tr> <td style="padding-left: 20px;">To Income</td> <td style="text-align: center;">A/c</td> <td></td> <td></td> <td style="text-align: center;">XX</td> </tr> </table> <p>(Being Income received in cash)</p> <p><b>Note:</b> Income account will be replaced with the respective head of Income account</p>	Cash/Debtor	A/c	Dr.	XX		To Income	A/c			XX
Cash/Debtor	A/c	Dr.	XX									
To Income	A/c			XX								
13	Banking Transactions	<p><b>(1) Cheque deposited in bank</b> Cheque received from party is deposited in bank, Cheque direct deposit by party in our bank account, payment made by party through NEFT or RTGS, or cash directly deposited by party in our bank account. The entry remains same in all the above cases.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Bank</td> <td style="width: 10%; text-align: center;">A/c</td> <td style="width: 10%; text-align: center;">Dr.</td> <td style="width: 10%; text-align: center;">XX</td> <td style="width: 10%;"></td> </tr> <tr> <td style="padding-left: 20px;">To Debtor</td> <td style="text-align: center;">A/c</td> <td></td> <td></td> <td style="text-align: center;">XX</td> </tr> </table> <p>(Being payment received from..... and deposited in bank)</p> <p><b>(2) Payment made to party through cheque</b> Cheque issued to party or directly deposited in his bank account, or payment made through either by NEFT, RTGS, or cash directly deposited in his bank account. Entry remains same in all the above cases except in the case of cash deposited in his bank account.</p>	Bank	A/c	Dr.	XX		To Debtor	A/c			XX
Bank	A/c	Dr.	XX									
To Debtor	A/c			XX								



17	Advance received against supply of goods/services	<p>Sometimes the customers pay an advance amount for the supply of goods/services, which need to be adjusted later:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Bank /Cash</td> <td style="width: 10%; text-align: right;">A/c</td> <td style="width: 10%; text-align: left;">Dr.</td> <td style="width: 10%; text-align: right;">XX</td> <td style="width: 10%;"></td> </tr> <tr> <td style="padding-left: 20px;">To Advance from Customers</td> <td style="text-align: right;">A/c</td> <td></td> <td></td> <td style="text-align: right;">XX</td> </tr> </table> <p>(Being advance received from xxxxxxxx)</p>	Bank /Cash	A/c	Dr.	XX		To Advance from Customers	A/c			XX
Bank /Cash	A/c	Dr.	XX									
To Advance from Customers	A/c			XX								
18	Advance paid against supply of goods/services	<p>As above, we may also pay an advance amount to our supplier against supply of goods/services:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Advance against supply of goods</td> <td style="width: 10%; text-align: right;">A/c</td> <td style="width: 10%; text-align: left;">Dr.</td> <td style="width: 10%; text-align: right;">XX</td> <td style="width: 10%;"></td> </tr> <tr> <td style="padding-left: 20px;">To Cash/Bank</td> <td style="text-align: right;">A/c</td> <td></td> <td></td> <td style="text-align: right;">XX</td> </tr> </table> <p>(Being advance paid against supply of goods/services)</p>	Advance against supply of goods	A/c	Dr.	XX		To Cash/Bank	A/c			XX
Advance against supply of goods	A/c	Dr.	XX									
To Cash/Bank	A/c			XX								

## Posting in a Ledger

Now let us try to understand how a journal works. With the help of journal entries, we book each and every financial transaction of the organization chronically without considering how many times the same type of entry has been repeated in that particular accounting year or period.

Journal entries in any organization may vary from hundreds to millions depending upon the size and structure of the organization. With the help of a journal, each of the transactions might be recorded; however, we can conclude nothing from a journal. Let us consider the following cases. Suppose we want to know:

- the total sale value or purchase value
- the total of any particular income or expenses
- the total of amount payable to any particular creditor or receivable from a debtor

In such cases, it might be a tedious job for any bookkeeper or accountant. Hence, the next step is ledger accounts.

The ledger helps us in summarizing journal entries of same nature at single place. For example, if we pass 100 times a journal entry for sale, we can create a sales account only once and post all the sales transaction in that ledger account date-wise. Hence, an unlimited number of journal entries can be summarized in a few ledger accounts. Transferring journal entries into a ledger account is called '**posting**'.

## Ruling of Account in Ledger Account

Let us see various formats of ledger accounts:

### Format-1

In the books of M/s. ABC Company							
Ledger account of M/s XYZ LTD.							
Dr.				Cr.			
Date	Particulars	F	Amount (Rs.)	Date	Particulars	F	Amount (Rs.)
xxxx	To Balance b/d		xxx	Xxxx	By Balance b/d		xxx
xxxx	To Name of the debit account		xxx	Xxxx	By Name of Credit account		xxx
xxxx	To Balance c/d		xx	xxxx	By Balance c/d		xx
	Total Rs.		xxxx		Total Rs.		xxxx

### Format-2

Nowadays, the handwritten books are being replaced by computerized accounts. The companies majorly use a six-column format to maintain ledger accounts of their customers. It looks as follows:

In the books of M/s. ABC Bank Ltd.						
Ledger account of M/s XYZ Ltd.						
Date	Particulars	LF	Debit Amount (Rs.)	Credit Amount (Rs.)	Balance	
					Dr. or Cr.	Amount

Format-1 is used for academic purpose. Hence, this format is useful to learn the basics and principles of accounting.

Format-2 is used by banking and financial organization as well as well as by most of the business organizations.

## Important Points Regarding Ledger

- Each side of a journal entry is posted in the same side of the ledger. It means the debit entry of a journal is posted in the debit side and vice-a-versa.
- Balance c/d refers to the balance carried down and balance b/d refers to the balance brought down.
- After posting in ledger, balancing of ledger is done. In the column named Total, the figure comes on the basis of '**whichever is higher**'. Means, if the total of debit side is Rs 10,000 and the total of credit is Rs 5,000, we write Rs 10,000 in the column named Total of both, the debit and the credit side.
- The difference of both sides (in this case, it is Rs 5,000) is written in the last row of the credit side as '**balance c/d**'. This balance is called the debit balance of account or vice-a-versa.
- All expenses and assets represent debit balance.
- All the income and liabilities represent credit balance including capital account.
- Debit balance of personal account represents '**Amount Receivable**'. This comes under the category of assets. For example debtors.
- Credit balance of personal accounts signifies '**Amount Payable**'. This comes under liabilities side and represents that we need to pay this amount which is credited due to goods, service, loan, or advance received.
- Debit side of real account means stock in hand or any kind of assets. Credit balance of Real account is not possible.
- Debit balance of nominal account means expenses of organization.
- Credit balance of nominal accounts means income earned.
- Debit balance of cash book means cash in hand.
- Debit side of Bank book means balance at bank.
- Credit balance of Bank book indicates '**Bank Overdraft**'.
- Debit and credit balances of nominal account (Expenses and income will be nil, because these balances get transferred to trading, and profit & loss account to arrive at profit and loss of the company.
- Balances of real and personal account appear in balance sheet of the company and to be carried forward to next accounting years.

**Illustration:**

Journalize the following transactions and post them in to ledger account:

S.No.	Transactions	Amount
1	Commenced business and introduced cash	400,000.00
2	Goods purchased for cash	50,000.00
3	Goods purchaed from Mr. Abdul	135,000.00
4	Freight charges paid on purchases	1,500.00
5	Computer purchased- cash	35,000.00
6	Freight charges paid on purchases of computer	500.00
7	Sale made to Mr. Ram	200,000.00
8	Rent paid	12,000.00
9	salary paid	15,000.00
10	Cash received from Mr. Ram	150,000.00
11	Cash deposited in bank	75,000.00
12	Office Expenses paid	25,000.00

**Journal Entries**

S.No.	Particulars	L.F.	AMOUNT	
			Debit (Rs.)	Credit (Rs.)
1.	Cash                      A/c                      Dr. To Capital            A/c (Being capital introduced)	**	4,00,000	4,00,000
2.	Purchase                A/c                      Dr. To Cash               A/c (Being cash purchase made)	**	5,00,000	5,00,000
3.	Purchase                A/c                      Dr. To Abdhul            A/c (Being goods purchase from Abdhul)	**	135,000	1,35,000
4.	Inward Freight Charges   A/c            Dr.	**	1,500	

	To Cash	A/c				1,500
	(Being freight charges Paid)					
5	Computer	A/c	Dr.	**	35,000	
	To Cash	A/c				35,000
	(Being computer purchased on cash)					
6.	Computer	A/c	Dr.	**	500	
	To Cash	A/c				500
	(Being freight charges on computer paid)					
7.	Ram	A/c	Dr.	**	2,00,000	
	To Sale	A/c				2,00,000
	(Being sold to Mr. Ram)					
8	Rent	A/c	Dr.	**	12,000	
	To Cash	A/c				12,000
	(Being rent paid )					
9.	Salary	A/c	Dr.	**	15,000	
	To Cash	A/c				15,000
	(Being salary paid)					
10.	Cash	A/c	Dr.	**	1,50,000	
	To Ram	A/c				1,50,000
	(Being cash Received from Mr. Ram)					
11.	Bank	A/c	Dr.	**	75,000	
	To Cash	A/c				75,000
	(Being cash deposited in Bank)					
12.	Office Expenses	A/c	Dr.	**	25,000	
	To Cash	A/c				25,000
	(Being office expenses paid)					

# 3. SUBSIDIARY BOOKS

This chapter covers the following:

- Cash Book
- Simple cash book or single column cash book
- Double column cash book (with discount column)
- Three column cash book (with discount & Bank column)
- Petty Cash Book
- Purchase Book
- Sale Book
- Purchase Return Book
- Sale Return Book
- Bills receivable book
- Bills payable book
- Bank reconciliation
- Trial balance
- Financial statements
- Depreciation and its roles

Let us go through each one of them in detail.

## Cash Book

---

Cash book is a record of all the transactions related to cash. Examples include: expenses paid in cash, revenue collected in cash, payments made to creditors, payments received from debtors, cash deposited in bank, withdrawn of cash for office use, etc.

In double column cash book, a discount column is included on both debit and credit sides to record the discount allowed to customers and the discount received from creditors respectively.

In triple column cash book, one more column of bank is included to record all the transactions relating to bank.

**Note:** In modern accounting, simple cash book is the most popular way to record cash transactions. The double column cash book or three column cash book is practically for academic purpose. A separate bank book is used to record all the banking transactions as they are more than cash transactions. These days, cash

is used just to meet petty and routine expenditures of an organization. In most of the organizations, the salaries of employees are paid by bank transfer.

**Note:** Cash book always shows debit balance, cash in hand, and a part of current assets.

## Single Column Cash Book

Cash book is just like a ledger account. There is no need to open a separate cash account in the ledger. The balance of cash book is directly posted to the trial balance. Since cash account is a real account, ruling is followed, i.e. what comes in – debit, and what goes out – credit. All the received cash is posted in the debit side and all payments and expenses are posted in the credit side of the cash book.

**Format:**

CASH BOOK(Single Column)							
Dr.				Cr.			
Date	Particulars	L.F.	Amount	Date	Particulars	L.F.	Amount

## Double Column Cash Book

Here, we have an additional Discount column on each side of the cash book. The debit side column of discount represents the discount to debtors of the company and the credit side of discount column means the discount received from our suppliers or creditors while making payments.

The total of discount column of debit side of cash book is posted in the ledger account of '**Discount Allowed to Customers**' account as '**To Total As Per Cash Book**'. Similarly, credit column of cash book is posted in ledger account of '**Discount Received**' as '**By total of cash book**'.

**Format:**

CASH BOOK(Single Column)									
Dr.					Cr.				
Date	Particulars	L.F.	Discount	Amt.	Date	Particulars	L.F.	Discount	Amt.

## Triple Column Cash Book

When one more column of Bank is added in both sides of the double column cash book to post all banking transactions, it is called triple column cash book. All banking transactions are routed through this cash book and there is no need to open a separate bank account in ledger.

## Petty Cash Book

In any organization, there may be many petty transactions incurring for which payments have to be done. Therefore, cash is kept with an employee, who deals with it and makes regular payments out of it. To make it simple and secure, mostly a constant balance is kept with that employee.

Suppose cashier pays Rs 5,000 to Mr A, who will pay day-to-day organization expenses out of it. Suppose Mr A spend Rs 4,200 out of it in a day, the main cashier pays Rs 4,200, so his balance of petty cash book will be again Rs 5,000. It is very useful system of accounting, as it saves the time of the main cashier and provides better control.

We will soon discuss about '**Analytical or Columnar Petty Cash Book**' which is most commonly used in most of the organizations.

### Format:

PETTY CASH BOOK									
Amt Recd	C.B.F	Date	Particulars	Amt Paid	Stationery & Printing	Cartage	Loading	Postage	L.F.

## Purchase Book

Purchase book is prepared to record all the credit purchases of an organization. Purchase book is not a purchase ledger.

### Format:

PURCHASE BOOK				
Date	Particulars	Inward Invoice No.	L.F.	Amount


## Sale Book

The features of a sale book are same as a purchase book, except for the fact that it records all the credit sales.

**Format:**

SALE BOOK				
Date	Particulars	Outward Invoice No.	L.F.	Amount

## Purchase Return Book

Sometimes goods are to be returned back to the supplier, for various reasons. The most common reason being defective goods or poor quality goods. In this case, a debit note is issued.

**Format:**

PURCHASE RETURN BOOK				
Date	Particulars	Credit Note No.	L.F.	Amount

## Sale Return Book

The reason of Sale return is same as for purchase return. Sometimes customers return the goods if they don't meet the quality standards promised. In such cases, a credit note is issued to the customer.

**Format:**

SALE RETURN BOOK				
------------------	--	--	--	--

Date	Particulars	Debit Note No.	L.F.	Amount

## Bills Receivables Book

Bills are raised by creditors to debtors. The debtors accept them and subsequently return them to the creditors. Bills accepted by debtors are called as '**Bills Receivables**' in the books of creditors, and '**Bills Payable**' in the books of debtors. We keep them in our record called '**Bills Receivable Books**' and '**Bills Payable Book**'.

**Format:**

BILLS RECEIVABLE BOOK					
Date	Received From	Term	Due Date	L.F.	Amount

## Bills Payable Book

Bills payable issues to the supplier of goods or services for payment, and the record is maintained in this book.

**Format:**

BILLS PAYABLE BOOK					
Date	To Whom Given	Term	Due Date	L.F.	Amount

## Key Features of Subsidiary Books

There is a difference between a purchase book and a purchase ledger. A purchase book records only credit purchases and a purchase ledger records all the cash purchases in chronological order. The daily balance of purchase book is transferred to

purchase ledger. Therefore, purchase ledger is a comprehensive account of all purchases.

The same rule applies to sale book and sale ledgers.

1. It is quite clear that maintaining a subsidiary book is facilitation to journal entries, practically it is not possible to post each and every transaction through journal entries, especially in big organizations because it makes the records bulky and unpractical.
2. Maintenance of subsidiary books gives us more scientific, practical, specialized, controlled, and easy approach to work.
3. It provides us facility to divide the work among different departments like sale department, purchase department, cash department, bank department, etc. It makes each department more accountable and provides an easy way to audit and detect errors.
4. In modern days, the latest computer technology has set its base all over the world. More and more competent accounts professionals are offering their services. Accuracy, quick results, and compliance of law are the key factors of any organization. No one can ignore these factors in a competitive market.

## Bank Reconciliation

On a particular date, reconciliation of our bank balance with the balance of bank passbook is called bank reconciliation. The bank reconciliation is a statement that consists of:

- Balance as per our cash book/bank book
- Balance as per pass book
- Reason for difference in both of above

This statement may be prepared at any time as per suitability and requirement of the firm, which depends upon the volume and number of transaction of the bank.

In these days, where most of the banking transactions are done electronically, the customer gets alerts for every transaction. Time to reconcile the bank is reduced more.

### Format:

BANK RECONCILIATION STATEMENT		
PARTICULARS	(1) Debit Bank	(2) Credit Bank Balance as per Bank

	Balance as per Bank Book	Book (Overdraft)
Balance as per Bank Book	50,000	-50,000
1. Add: Cheque issued to parties but not presented in bank	3,25,000	3,25,000
2. Less: Cheque deposited in bank but not cleared yet	-50,000	-50,000
3. Less: Bank Charges debited by bank but not entered in our books of accounts	-1,200	-1,200
4. Less: Bank interest charged by bank but not entered in our books of accounts	-10,000	-10,000
5. Add: Payment direct deposited by party without intimation to us	1,75,000	1,75,000
Balance as per Bank Pass Book/ Statement	4,88,800	3,88,800

## Trial Balance

Trial balance is a summary of all the debit and credit balances of ledger accounts. The total of debit side and credit side of trial balance should be matched. Trial balance is prepared on the last day of the accounting cycle.

Trial balance provides us a comprehensive list of balances. With the help of that, we can draw financial reports of an organization. For example, the trading account can be analyzed to ascertain the gross profit, the profit and loss account is analyzed to ascertain the profit or Loss of that particular accounting year, and finally, the balance sheet of the concern is prepared to conclude the financial position of the firm.

### Format:

TRIAL BALANCE				
S.NO.	Ledger Accounts	L.F.	DEBIT (Rs)	Credit (Rs.)
1	ADVANCE FROM CUSTOMERS			XX
2	ADVANCE TO STFF		XX	
3	AUDIT FEES		XX	
4	BALANCE AT BANK		XX	
5	BANK BORROWINGS			XX
6	BANK INTEREST PAID			XX
7	CAPITAL			XX
8	CASH IN HAND		XX	
9	COMMISSION ON SALE		XX	
10	ELECTRICITY EXPENSES		XX	
11	FIXED ASSETS		XX	
12	FREIGHT OUTWARD		XX	

13	INTEREST RECEIVED			XX
14	INWARD FREIGHT CHARGES		XX	
15	OFFICE EXPENSES		XX	
16	OUTSTANDING RENT			XX
17	PREPAID INSURANCE		XX	
18	PURCHASES		XX	
19	RENT		XX	
20	REPAIR AND RENUWALS		XX	
21	SALARY		XX	
22	SALARY PAYABLE			XX
23	SALE			XX
24	STAFF WELFARE EXPENSES		XX	
25	STOCK		XX	
26	SUNDRY CREDITORS			XX
27	SUNDRY DEBTORS		XX	
	TOTAL		XXXXX	XXXXX

## Financial Statements

Financial statements are prepared to ascertain the profit or loss of the business, and to know the financial position of the company.

Trading, profit & Loss accounts ascertain the net profit for an accounting period and balance sheet reflects the position of the business.

All the above has almost a fixed format, just put all the balances of ledger accounts into the format given below with the help of the trial balance. With that, we may derive desired results in the shape of financial equations.

<b>Trading &amp; Profit &amp; Loss Account of M/s ABC Limited (For the period ending 31-03-2014)</b>			
<b>Particulars</b>	<b>Amount</b>	<b>Particulars</b>	<b>Amount</b>
To Opening Stock	XX	By Sales	XX
To Purchases	XX	By Closing Stock	XX
To Freight charges	XX	By Gross Loss c/d	XXX
To Direct Expenses	XX		
To Gross Profit c/d	XXX		
<b>Total</b>	<b>XXXX</b>	<b>Total</b>	<b>XXXX</b>
To Salaries	XX	By Gross Profit b/d	XXX
To Rent	XX		
To Office Expenses	XX	By Bank Interest received	XX
To Bank charges	XX	By Discount	XX
To Bank Interest	XX	By Commission Income	XX
To Electricity Expenses	XX	By Net Loss transfer to Balance sheet	XX
To Staff Welfare Expenses	XX		

To Audit Fees	XX		
To Repair & Renewal	XX		
To Commission	XX		
To Sundry Expenses	XX		
To Depreciation	XX		
To Net Profit transfer to Balance sheet	XX		
<b>Total</b>	<b>XXXX</b>	<b>Total</b>	<b>XXXX</b>

<b>Balance sheet of M/s ABC Limited as on 31-03-2014</b>			
<b>Liabilities</b>	<b>Amount</b>	<b>Assets</b>	<b>Amount</b>
Capital	XX	Fixed Assets	XXXX
Add: Net Profit	XX	Less: Depreciation	XX
Bank Borrowings	XX	Current Assets	XX
Long Term Borrowing	XX	Stock	XX
<b>Current Liabilities:</b>	XX	Debtors	XX
Advance From Customers	XX	Cash In hand	XX
Sundry Creditors	XXX	Cash at Bank	XX
Bills payable		Bills receivables	XX
Expenses Payable			
<b>Total</b>	<b>XXXX</b>	<b>Total</b>	<b>XXXX</b>

## Owner's Equity

The equation of equity is as follows:

$$\text{Owner Equity} = \text{Assets} - \text{liability}$$

The owner or the sole proprietor of a business makes investments, earns some profit on it, and withdraws some money out of it for his personal use called drawings. We may write this transaction as follows:

$$\text{Investment (capital) +- Profit or Loss - drawings} = \text{Owner's Equity}$$

## Current Assets

Assets that are convertible into cash within the next accounting year are called current assets.

Cash in hand, cash in bank, fixed deposit receipts (FDRs), inventory, debtors, receivable bills, short-term investments, staff loan and advances; all these come

under current assets. In addition, prepaid expenses are also a part of current assets.

**Note:** Prepaid expenses are not convertible into cash, but they save cash for the next financial or accounting year.

## Current Liabilities

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Like current assets, current liabilities are immediate liabilities of the firm that are to be paid within one year from the date of balance sheet.

Current liabilities primarily include sundry creditors, expenses payable, bills payable, short-term loans, advance from customers, etc.

## Depreciation

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Depreciation reduces the value of assets on a residual basis. It also reduces the profits of the current year.

Depreciation indicates reduction in value of any fixed assets. Reduction in value of assets depends on the life of assets. Life of assets depends upon the usage of assets.

There are many deciding factors that ascertain the life of assets. For example, in case of a building, the deciding factor is time. In case of leased assets, the deciding factor is the lease period. For plant and machinery, the deciding factor should be production as well as time. There can be many factors, but the life of assets should be ascertained on some reasonable basis.

## Why Do We Need to Account for Depreciation?

Here is why we need to provide depreciation:

- To ascertain the true profit during a year, it is desirable to charge depreciation.
- To ascertain the true value of assets, depreciation should be charged. Without calculating the correct value of assets, we cannot ascertain the true financial position of a company.
- Instead of withdrawal of overstated profit, it is desirable to make provisions to buy new assets to replace old asset. The accumulated value of depreciation provides additional working capital.
- Depreciation helps in ascertaining uniform profit in each accounting year.
- Depreciation allows to take the advantage of tax benefit.

## Accounting Entries Related to Assets and Depreciation

Let us see the accounting entries related to assets and depreciation:

S. No.	Journal Entries
1	<p><b>Purchase of Fixed Assets</b></p> <p>Asset A/c                      Dr.</p> <p style="padding-left: 40px;">To Bank A/c</p>
2	<p><b>Expenses on purchase of Fixed Assets</b></p> <p>Related Asset A/c            Dr.</p> <p style="padding-left: 40px;">To Cash/Bank A/c</p>
3	<p><b>For Providing depreciation</b></p> <p>Depreciation A/c            Dr.</p> <p style="padding-left: 40px;">To Assets A/c</p>
4	<p><b>Transfer of Depreciation to Profit and Loss A/c</b></p> <p>Profit &amp; Loss A/c            Dr.</p> <p style="padding-left: 40px;">To Depreciation A/c</p>
5	<p><b>Sale of Assets</b></p> <p>Bank A/c                      Dr.</p> <p style="padding-left: 40px;">To Assets A/c</p>

$$\text{Depreciation} = \frac{\text{Cost of Assets} - \text{Scrap Value of Assets}}{\text{Estimated Life of Assets}}$$

## Method of Depreciation

Depreciation can be calculated using any of the following methods, however the most popular methods remain (a) Straight Line Method and (b) Written Down Value Method.

- Straight Line Method
- Written Down Value Method
- Annuity Method
- Insurance Policy Method
- Machine Hour Rate Method
- Depletion Method
- Revaluation Method
- Depreciation Fund Method

### Format:

DEPRECIATION CHART							
Desc.	Opening Value	Addition during the year	Sale	Balance	Rate of Depreciation	Value of Depreciation	Closing value
1	2	3	4	5 (2+3-4)	6	7	8 (5-7)

### Format of ledger accounts:

ASSET ACCOUNT							
Date	Particulars	L.F.	Amt	Date	Particulars	L.F.	Amt
25-06-13	To Bank		xxx	31-03-	By Depreciation		xx
					By Balance c/d		xx
	Total		xxx		Total		xxx
01-04-14	To Balance b/d		xx		By Depreciation		Xx

# 4. COST ACCOUNTING

This chapter covers:

- Concepts of Cost Accounting
- Advantages of Cost Accounting
- Cost versus Financial Accounting
- Classification and Elements of Cost
- Preparation of Cost Sheet
- Cost Control and Cost Reduction

## Definition of Cost Accounting

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The definition of cost accounting goes as:

*Cost accounting is the application of accounting and costing principles, methods, and techniques in the ascertainment of costs and the analysis of saving or excess cost incurred as compared with previous experience or with standards.*

...Wheldon.

## Concepts of Cost Accounting

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Following are the main concepts of cost accounting:

### Cost

There is a cost involved to purchase or produce anything. Costs may be different for the same product, depending upon the stages of completion. The cost changes according to the stage a product is in, for example, raw material, work in progress, finished goods, etc. The cost of a product cannot be perfect and it may vary for the same product depending upon different constraints and situations of production and market.

### Expenses

Some costs are actual, such as raw material cost, freight cost, labor cost, etc. Some expenses are attributable to cost. To earn revenue, some expenses are incurred like rent, salary, insurance, selling & distribution cost, etc. Some expenses are variable, some are semi-variable, and some of fixed nature.

## Loss

Expenses are incurred to obtain something and losses are incurred without any compensation. They add to the cost of product or services without any value addition to it.

## Cost Center

Cost center refers to a particular area of activity and there may be multiple cost centers in an organization. Every cost center adds some cost to the product and every cost center is responsible for all its activity and cost. A cost center may also be called a department or a sub-department. There are three types of cost centers:

- **Personal and Impersonal Cost Centers** A group of persons in an organization responsible as a whole for a group activity is called a personal cost center. In case of impersonal call center, the activities are done with the help of plant and machinery.
- **Operation and Process Cost Centers** The same kind of activity is done in an operation department. In a process cost center, as the name suggests, different kinds of processes are involved.
- **Product and Service Cost Centers** A department where all activities refer to product is called a product department. When the centers render their services to a product department for its smooth functioning, they are called service cost centers.

## Profit Center

Profit centers are inclusive of cost centers as well as revenue activities. Profit centers set targets for cost centers and delegates responsibilities to cost centers. Profit centers adopt policies to achieve such targets. Profit centers play a vital role in an organization.

## Cost Drivers

Cost of any product depends upon cost drivers. There may be different types of cost drivers such as number of units or types of products required to produce. If there is any change in cost driver, the cost of product changes automatically.

## Conversion Cost

The cost required to convert raw material into product is called as conversion cost. It includes labor, direct expenses, and overhead.

## Carrying Costs

Carrying cost represents the cost to maintain inventory, lock up cost of inventory, store rent, and store operation expenses.

### **Out of Stock Cost**

Sometimes loss is incurred due to shortage of stock such as loss in sale, loss of goodwill of a business or idle machine. It is called out of stock cost.

### **Contribution Margin**

Contribution margin is the difference between sale price and variable cost.

### **Ordering Costs**

Ordering costs represent the cost to place an order, up to to stage until the material is included as inventory.

### **Development Cost**

To develop new product, improve existing product, and improved method in producing a product called development cost.

### **Policy Cost**

The cost incurred to implement a new policy in addition to regular policy is called policy cost.

### **Idle Facilities Cost and Idle Capacity Cost**

If available facilities remain idle and some loss incurred due to it, it is called idle facilities cost. If capacity is unused due to repair, shut down or any other reason, it is called capacity cost.

### **Expired Cost**

When the cost is fully consumed and no future monetary value could be measured, it is called expired cost. Expired cost relates to current cost. Suppose the expenses incurred in an accounting period do not have any future value, then it is called an expired cost.

### **Incremental Revenue**

Incremental revenue implies the difference in revenues between two alternatives. While assessing the profitability of a proposed alternative, incremental revenues are compared with incremental costs.

### **Added Value**

Added value means value addition to any product. Value addition of the product may be due to some process on product or to make the product available or there may be other reasons; but it also includes the profit share on it.

### **Urgent Cost**

There are some expenses that are to be incurred on an immediate basis. Delaying such expenses may result in loss to business. These expenses are called urgent cost. Urgent costs are not be postponed.

## Postponable Cost

Without avoiding any expenses, if we are able to defer some expenses to future, then it is called a postponable cost.

## Pre-production Cost

The cost incurred before commencing formal production or at the time of formation of new establishment or project is called pre-production cost. Some of these costs are of capital nature and some of these are called deferred revenue expenditure.

## Research Cost

Research costs are incurred to discover a new product or to improve an existing product, method, or process.

## Training Cost

The costs incurred on teaching, training, apprentice of staff or worker inside or outside the business premise to improve their skills is called training cost.

## Advantages of Cost Accounting

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The advantages of cost accounting are:

- Disclosure of profitable and unprofitable activities
- Guidance for future production policies
- Periodical determination of profit or losses
- To find out exact cause in decrease or increase in profit
- Control over material and supplies
- Relative efficiency of different workers
- Reliable comparison
- Helpful to government
- Helpful to the consumers
- Classification and sub division of cost
- To find out adequate selling price
- Proper investment in inventories
- Correct valuation of Inventories
- Decision on manufacturing or purchasing from outside
- Reliable check on accounting
- Budgeting

Let us go through them one by one.

### **Disclosure of profitable and unprofitable activities**

Since cost accounting minutely calculates the cost, selling price and profitability of product, segregation of profitable or unprofitable items or activities becomes easy.

### **Guidance for future production policies**

On the basis of data provided by costing department about the cost of various processes and activities as well as profit on it, it helps to plan the future.

### **Periodical determination of profit and losses**

Cost accounting helps us to determine the periodical profit and loss of a product.

### **To find out exact cause of decrease or increase in profit**

With the help of cost accounting, any organization can determine the exact cause of decrease or increase in profit that may be due to higher cost of product, lower selling price or may be due to unproductive activity or unused capacity.

### **Control over material and supplies**

Cost accounting teaches us to account for the cost of material and supplies according to department, process, units of production, or services that provide us a control over material and supplies.

### **Relative efficiency of different workers**

With the help of cost accounting, we may introduce suitable plan for wages, incentives, and rewards for workers and employees of an organization.

### **Reliable comparison**

Cost accounting provides us reliable comparison of products and services within and outside an organization with the products and services available in the market. It also helps to achieve the lowest cost level of product with highest efficiency level of operations.

### **Helpful to government**

It helps the government in planning and policy making about import, export, industry and taxation. It is helpful in assessment of excise, service tax and income tax, etc. It provides readymade data to government in price fixing, price control, tariff protection, etc.

### **Helpful to consumers**

Reduction of price due to reduction in cost passes to customer ultimately. Cost accounting builds confidence in customers about fairness of price.

## **Classification and subdivision of cost**

Cost accounting helps to classify the cost according to department, process, product, activity, and service against financial accounting which give just consolidate net profit or loss figure of any organization without any classification or sub-division of cost.

## **To find out adequate selling price**

In tough marketing conditions or in slump period, the costing helps to determine selling price of the product at the optimum level, neither too high nor too low.

## **Proper investment in inventory**

Shifting of dead stock items or slow moving items into fast moving items may help company to invest in more proper and profitable inventory. It also helps us to maintain inventory at the most optimum level in terms of investments as well as variety of the stock.

## **Correct valuation of inventory**

Cost accounting is an accurate and adequate valuation technique that helps an organization in valuation of inventory in more reliable and exact way. On the other hand, valuation of inventory merely depends on physical stock taking and valuation thereof, which is not a proper and scientific method to follow.

## **Decision on manufacturing or purchasing from outside**

Costing data helps management to decide whether in-house production of any product will be profitable, or it is feasible to purchase the product from outside. In turn, it is helpful for management to avoid any heavy loss due to wrong decision.

## **Reliable check on accounting**

Cost accounting is more reliable and accurate system of accounting. It is helpful to check results of financial accounting with the help of periodic reconciliation of cost accounts with financial accounts.

## **Budgeting**

In cost accounting, various budgets are prepared and these budgets are very important tools of costing. Budgets show the cost, revenue, profit, production capacity, and efficiency of plant and machinery, as well as the efficiency of workers. Since the budget is planned in scientific and systemic way, it helps to keep a positive check over misdirecting the activities of an organization.

## **Cost Accounting versus Financial Accounting**

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Both cost accounting and financial accounting help the management formulate and control organization policies. Financial management gives an overall picture of profit or loss and costing provides detailed product-wise analysis.

No doubt, the purpose of both is same; but still there is a lot of difference in financial accounting and cost accounting. For example, if a company is dealing in 10 types of products, financial accounting provides information of all the products in totality under different categories of expense heads such as cost of material, cost of labor, freight charges, direct expenses, and indirect expenses. In contrast, cost accounting gives details of each overhead product-wise, such as much material, labor, direct and indirect expenses are consumed in each unit. With the help of costing, we get product-wise cost, selling price, and profitability.

The following table broadly covers the most important differences between financial accounting and cost accounting.

<b>Point of Differences</b>	<b>Financial Accounting</b>	<b>Cost Accounting</b>
Meaning	Recoding of transactions is part of financial accounting. We make financial statements through these transactions. With the help of financial statements, we analyze the profitability and financial position of a company.	Cost accounting is used to calculate cost of the product and also helpful in controlling cost. In cost accounting, we study about variable costs, fixed costs, semi-fixed costs, overheads and capital cost.
Purpose	Purpose of the financial statement is to show correct financial position of the organization.	To calculate cost of each unit of product on the basis of which we can take accurate decisions.
Recording	Estimation in recording of financial transactions is not used. It is based on actual transactions only.	In cost accounting, we book actual transactions and compare it with the estimation. Hence costing is based on the estimation of cost as well as on the recording of actual transactions.
Controlling	Correctness of transaction is important without taking care of cost control.	Cost accounting done with the purpose of control over cost with the help of costing tools like standard costing and budgetary control.
Period	Period of reporting of financial accounting is at the end of financial year.	Reporting under cost accounting is done as per the

		requirement of management or as-and-when-required basis.
Reporting	In financial accounting, costs are recorded broadly.	In cost accounting, minute reporting of cost is done per-unit wise.
Fixation of Selling Price	Fixation of selling price is not an objective of financial accounting.	Cost accounting provides sufficient information, which is helpful in determining selling price.
Relative Efficiency	Relative efficiency of workers, plant, and machinery cannot be determined under it.	Valuable information about efficiency is provided by cost accountant.
Valuation of Inventory	Valuation basis is 'cost or market price whichever is less'	Cost accounting always considers the cost price of inventories.
Process	Journal entries, ledger accounts, trial balance, and financial statements	Cost of sale of product(s), addition of margin and determination of selling price of the product

## Classification of Cost

Costs can be classified based on the following attributes:

- By nature
- By degree of traceability of the product
- By controllability
- By relationship with accounting period
- By association with the product
- By functions
- By change in activity or volume
- By time
- According to planning and control
- For managerial decision

## By Nature

In this type, material, labor and overheads are three costs, which can be further sub-divided into raw materials, consumables, packing materials, and spare parts etc.

## By Degree of Traceability of the Product

Direct and indirect expenses are main types of costs come under it. Direct expenses may directly attributable to a particular product. Leather in shoe manufacturing is a direct expenses and salaries, rent of building etc. come under indirect expenses.

## By Controllability

In this classification, two types of costs fall:

- **Controllable:** These are controlled by management like material labor and direct expenses.
- **Uncontrollable:** They are not influenced by management or any group of people. They include rent of a building, salaries, and other indirect expenses.

## By Relationship with Accounting Period

Classifications are measured by the period of use and benefit. The capital expenditure and revenue expenditure are classified under it. Revenue expenses relate to current accounting period. Capital expenditures are the benefits beyond accounting period. Fixed assets come under category of capital expenditure and maintenance of assets comes under revenue expenditure category.

## By Association with the Product

There are two categories under this classification:

- **Product cost** Product cost is identifiable in any product. It includes direct material, direct labor and direct overheads. Up to sale, these products are shown and valued as inventory and they form a part of balance sheet. Any profitability is reflected only when these products are sold. The Costs of these products are transferred to costs of goods sold account.
- **Time/Period base cost** Selling expenditure and Administrative expenditure, both are time or period based expenditures. For example, rent of a building, salaries to employees are related to period only. Profitability and costs are depends on both, product cost and time/period cost.

## By Functions

Under this category, the cost is divided by its function as follows:

- **Production Cost** It represents the total manufacturing or production cost.

- **Commercial cost** It includes operational expenses of the business and may be sub-divided into administration cost, and selling and distribution cost.

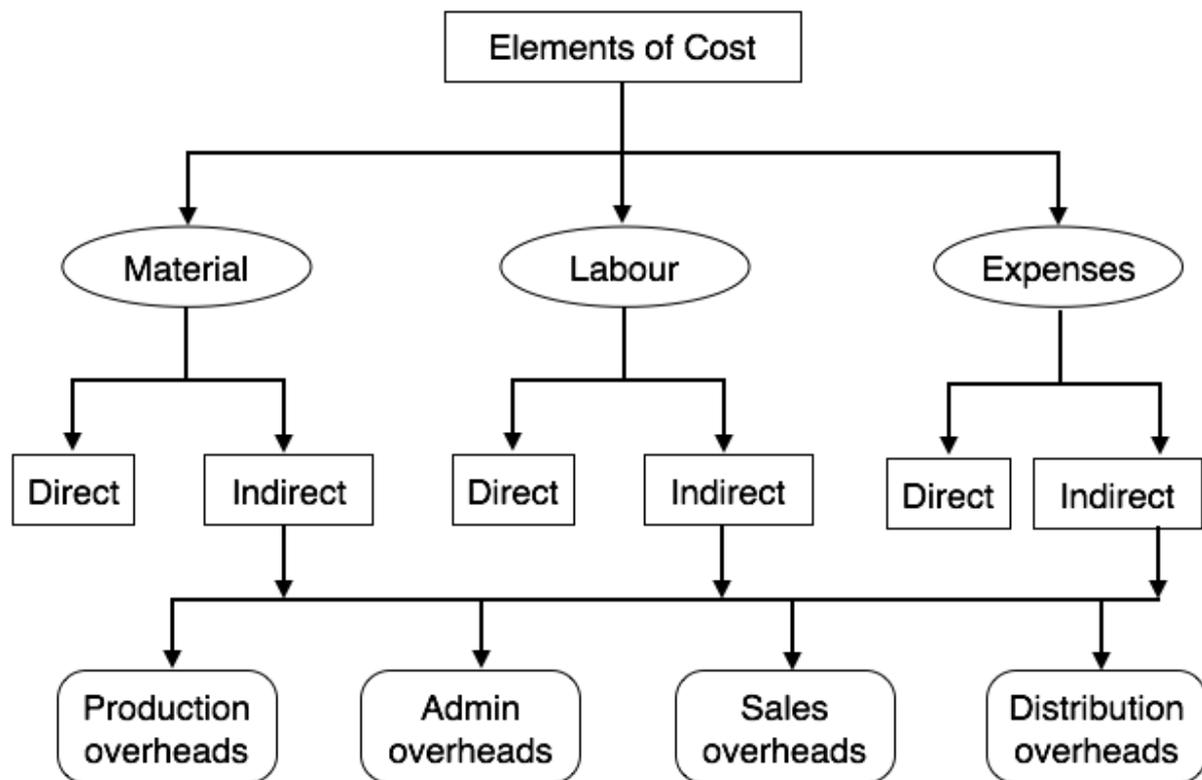
## By Change in Activity or Volume

Under this category, the cost is divided as fixed, variable, and semi-variable costs:

- **Fixed cost** It mainly relates to time or period. It remains unchanged irrespective of volume of production like factory rent, insurance, etc. The cost per unit fluctuates according to the production. The cost per unit decreases if production increases and cost per unit increases if the production decreases. That is, the cost per unit is inversely proportional to the production. For example, if the factory rent is Rs 25,000 per month and the number of units produced in that month is 25,000, then the cost of rent per unit will be Rs 1 per unit. In case the production increases to 50,000 units, then the cost of rent per unit will be Rs 0.50 per unit.
  - **Variable cost** Variable cost directly associates with unit. It increases or decreases according to the volume of production. Direct material and direct labor are the most common examples of variable cost. It means the variable cost per unit remains constant irrespective of production of units.
  - **Semi-variable Cost** A specific portion of these costs remains fixed and the balance portion is variable, depending on their use. For example, if the minimum electricity bill per month is Rs 5,000 for 1000 units and excess consumption, if any, is charged @ Rs 7.50 per unit. In this case, fixed electricity cost is Rs 5,000 and the total cost depends on the consumption of units in excess of 1000 units. Therefore, the cost per unit up to a certain level changes according to the volume of production, and after that, the cost per unit remains constant @ Rs 7.50 per unit.
-

## Elements of Cost

The following chart shows the various elements of cost and how they are classified.



### Direct or Indirect Materials

The materials directly contributed to a product and those easily identifiable in the finished product are called direct materials. For example, paper in books, wood in furniture, plastic in water tank, and leather in shoes are direct materials. They are also known as high-value items. Other lower cost items or supporting material used in the production of any finished product are called indirect material. For example, nails in shoes or furniture.

### Direct Labor

Any wages paid to workers or a group of workers which may directly co-relate to any specific activity of production, supervision, maintenance, transportation of material, or product, and directly associate in conversion of raw material into finished goods are called direct labor. Wages paid to trainee or apprentices does not comes under category of direct labor as they have no significant value.

### Overheads

Indirect expenses are called overheads, which include material and labor. Overheads are classified as:

- Production or manufacturing overheads
- Administrative expenses

- Selling Expenses
- Distribution expenses
- Research and development expenses

## Preparation of Cost Sheet or Statement of Cost

A cost sheet is prepared to know the outcome and breakup of costs for a particular accounting period. Columnar form is most popular. Although cost sheets are prepared as per the requirements of the management, the information to be incorporated in a cost sheet should comprise of cost per unit and the total cost for the current period along with the cost per unit and the total cost of preceding period. Data of financial statement is used for preparation of cost sheet. Therefore, reconciliation of cost sheet and financial statement should be done on a regular interval.

### Format:

<b>COST SHEET OR STATEMENT OF COST</b>		
		<b>Total Units.....</b>
Opening Stock of Raw material	.....	.....
Add: Purchases	.....	.....
	.....	.....
Less: Closing Stock	.....	.....
Cost of material Consumed →	.....	.....
Add: Direct Labor/wages	.....	.....
Prime Cost →	.....	.....
Add: Works overheads	.....	.....
Works Cost →	.....	.....
Add: Administration overheads	.....	.....
Cost of Production →	.....	.....
Add: Selling and distribution overheads	.....	.....
Total Cost or Cost of Sale →	.....	.....

## Cost Control and Cost Reduction

Let us go through cost control and its reduction:

### Cost Control

*Conceptually, accounting is the discipline that provides information on which external and internal users of the information may base decision that result in the allocation of economic resource in society.*

*...Slavin and Reynolds*

Accounting provides business-related information to the owner, the management, the employees of the company as well as to the government, creditors, investors, and customers.

Financial accounting is based on actual past and cost accounting is based on planning and controlling. Preparation of budget is a part of planning and controlling relates to putting a check on the actual function of planning. Comparison of budgeted with actual performance provide the management an idea to eliminate weak performances.

## Cost Control Techniques

Costs can be controlling by employing the following methods:

- Material Control
- Labor Control
- Overheads Control
- Standard costing
- Budgetary Control
- Capital Expenditure Control
- Productivity and Accounting Ratios

## Requirements for Successful Cost Control

The following requirements are to be fulfilled to implement successful cost control:

- A plan and a set of well-defined responsibilities to all executives are essential.
- Clear definition of tasks for performance and cost to execute those tasks.
- A fixed responsibility, in case of deviation between targeted and actual.
- Prompt collection of performance data from each department of an organization as the delay in information equals to no information and the management is unable to take correct decision due to lack of complete information.
- Highlights of good and bad, both performances to enable the management to take corrective steps.
- Reward for good performances and Punishment for the poor ones.

## Cost Reduction

*Cost reduction is to be understood as the achievement of real and permanent reduction in the unit cost of goods manufactured or services rendered without impairing their suitability for the use intended or diminution in the quality of product.*

*... The institute of Management Accountants, London*

There are only two ways to maximize profit of any organization: either to increase sale price of unit, or to reduce cost of that unit. Both above cases may result into

gaining good profit. As we are seeing today, most of the businesses are facing tough competitive market situation where increase in sale price may result in to loss of sale. Increasing sale price is possible only in case of those products where the company is dealing in monopoly items and we all are aware that this situation cannot prolong for any company and its products. Therefore, cost reduction is only one scientific way to deal with this situation; provided it is real and permanent. Cost reduction should not be the result of any temporary decrement in cost of raw material, change in government policies etc. and most importantly, reduction of cost should not be on price of quality of that product.

Reduction of cost should be in the following manner:

- Volume of production should be same but cost of expenditure should be reduced.
- Without changing level of production there should be increase in production.

### **Cost Reduction Program**

Followings are the essentials of a cost reduction program:

- Cost reduction program should be according to requirement of the company.
- Cost reduction program is a continuous activity that cannot be treated as one time or short term activity. Success of any cost reduction program may lie in only continuous improvement of efforts.
- Cost reduction program should be real and permanent.
- Example setter of cost reduction program should be top management employee. Success of this program depends on co-operation of all employees and department of an organization.
- Employees should be rewarded for their participation in cost reduction program and for giving innovative ideas related to this program.

### **Fields Covered under the Cost Reduction Program**

A number of fields come under the scope of cost reduction. They are discussed below.

#### **Design**

Manufacturing of any product starts with the design of product. At the time of improvement in design of old product as well as at the time of designing new product, some investment is recommended to find a useful design that may reduce the cost of the product in following terms:

#### **Material Cost**

Design of product should encourage to find out possibility of cheaper raw material as a substitute, maximum production, less quantity etc.

### **Labor Cost**

Design of product may reduce time of operation, cost of after-sale service, minimum tolerance, etc.

### **Organization**

Employees should be encouraged for cost reduction scheme. There should be no scope for doubts and frictions; there should be no communication gap between any department or any level of management; and there must be proper delegation of responsibilities with defined area of functions of an organization.

### **Factory Layout and Equipment**

There should be a proper study about unused utilization of material, manpower and machines, maximum utilization of all above may reduce cost of any product effectively.

### **Administration**

An organization should make efforts to reduce the cost of administrative expenses, as there is ample scope to do so. A company may evaluate and reduce the cost of following expenses, but not the cost of efficiency:

- Telephone expenses
- Travelling expenses
- Salary by reducing staff
- Reduction in cost of stationery
- Postage and Telegrams

### **Marketing**

Following areas can be covered under the cost reduction program:

- Advertisement
- Warehouse
- Sales Promotion
- Distribution Expenses
- Research & Development Program

Any cost accountant should keep the following points in mind while focusing on cost reduction for the Marketing segment:

- Check the distribution system of an organization about the overall efficiency of the system and how economically that system is working.
- Find out the efficiency of the sales promotion system
- Find out if the costs can be reduced from the sales and distribution system of an organization and whether the research and development system of market is sufficient.
- A cost accountant should also do an ABC analysis of customers in which customers may be divided into three categories. For example:

<b>ABC ANALYSIS OF CUSTOMERS</b>		
Category	Number of Dispatches	Volume of Sale Covered
Customer...A	About 10%	60% to 80%
Customer...B	About 20%	20% to 30%
Customer ...C	About 70%	5% to 10%

After performing this analysis, the organization can focus on the customers who are covering most of the sales volume. According to it, the cost reduction program may be run successfully in the area of category B and C.

### **Financial Management**

Attention should be given to the following areas:

- If there is any over-investment.
- How much economical is the cost of capital received?
- If the organization is getting maximum returns for the capital employed.
- If there is any over-investment, that should be sold and similarly, unutilized fixed assets should be eliminated. Slow-moving or non-moving inventories should be removed and should transfer this surplus to the working capital to re-invest it in a cycle of more profitable area of business.

### **Personal Management**

Cost reduction programs can be run using staff welfare measures and improving labor relation. Introduction of incentive schemes for labor and giving them better working conditions is very important to run an efficient cost reduction program.

### **Material Control**

Cost reduction program should be run by purchasing economical and more useful material. Economic Order Quantity (EOQ) technique should be used. Inventory should be kept low. Proper check on inward material, control over warehouse and proper issuance of material, and effective material yield should be done.

### **Production**

Using effective control over material, labor, and machine a better cost reduction program may be run.

## **Tools and Techniques of Cost Reduction**

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The following tools and techniques are used to reduce costs:

- Budgetary Control
- Standard Costing
- Simplification and Variety Reduction
- Planning and Control of Finance
- Cost Benefit Analysis

- Value Analysis
- Contribution Analysis
- Job Evaluation and Merit Rating
- Improvement in Design
- Material Control
- Labor Control
- Overhead Control
- Market Research

# 5. COSTING TECHNIQUES

This chapter includes various costing techniques such as:

- Marginal Costing
- Standard Costing
- Variance Analysis
- Cost Volume Profit Analysis
- Break Even Chart

## Marginal Costing

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Marginal cost is the change in the total cost when the quantity produced is incremented by one. That is, it is the cost of producing one more unit of a good. For example, let us suppose:

Variable cost per unit = Rs 25

Fixed cost = Rs 1,00,000

Cost of 10,000 units =  $25 \times 10,000 = \text{Rs } 2,50,000$

Total Cost of 10,000 units = Fixed Cost + Variable Cost  
=  $1,00,000 + 2,50,000$   
= Rs 3,50,000

Total cost of 10,001 units =  $1,00,000 + 2,50,025$   
= Rs 3,50,025

Marginal Cost =  $3,50,025 - 3,50,000$   
= Rs 25

## Need for Marginal Costing

Let us see why marginal costing is required:

- Variable cost per unit remains constant; any increase or decrease in production changes the total cost of output.
- Total fixed cost remains unchanged up to a certain level of production and does not vary with increase or decrease in production. It means the fixed cost remains constant in terms of total cost.

- Fixed expenses exclude from the total cost in marginal costing technique and provide us the same cost per unit up to a certain level of production.

## Features of Marginal Costing

Features of marginal costing are as follows:

- Marginal costing is used to know the impact of variable cost on the volume of production or output.
- Break-even analysis is an integral and important part of marginal costing.
- Contribution of each product or department is a foundation to know the profitability of the product or department.
- Addition of variable cost and profit to contribution is equal to selling price.
- Marginal costing is the base of valuation of stock of finished product and work in progress.
- Fixed cost is recovered from contribution and variable cost is charged to production.
- Costs are classified on the basis of fixed and variable costs only. Semi-fixed prices are also converted either as fixed cost or as variable cost.

## Ascertainment of Profit under Marginal Cost

'Contribution' is a fund that is equal to the selling price of a product less marginal cost. Contribution may be described as follows:

Contribution	=	Selling Price – Marginal Cost
Contribution	=	Fixed Expenses + Profit
Contribution – Fixed Expenses	=	Profit

## Income Statement under Marginal Costing

<b>Income Statement</b> <b>For the year ended 31-03-2014</b>		
Particulars	Amount	Total
Sales		25,00,000
Less: <u>Variable Cost</u> :		
Cost of goods manufactured	12,00,000	
Variable Selling Expenses	3,00,000	
Variable administration Expenses	50,000	
		15,50,000
<b>Contribution</b>		<b>9,50,000</b>

Less: <u>Fixed Cost</u> :		
Fixed Administration Expenses	70,000	
Fixed Selling Expenses	1,30,000	2,00,000
		<b>7,50,000</b>

## Advantages of Marginal Costing

The advantages of marginal costing are as follows:

- Easy to operate and simple to understand.
- Marginal costing is useful in profit planning; it is helpful to determine profitability at different level of production and sale.
- It is useful in decision making about fixation of selling price, export decision and make or buy decision.
- Break even analysis and P/V ratio are useful techniques of marginal costing.
- Evaluation of different departments is possible through marginal costing.
- By avoiding arbitrary allocation of fixed cost, it provides control over variable cost.
- Fixed overhead recovery rate is easy.
- Under marginal costing, valuation of inventory done at marginal cost. Therefore, it is not possible to carry forward illogical fixed overheads from one accounting period to the next period.
- Since fixed cost is not controllable in short period, it helps to concentrate in control over variable cost.

## Standard Costing

Planned cost is a key for effective cost control which is not provided by historical cost concepts. The standard costing system was developed to overcome the drawbacks of the historical costing system. Since historical costing deals only with the actual costs incurred, it is not an effective device of cost control.

Standard costing tells us what should be the cost of the product and if the actual cost exceeds the projected cost, the standard costing system can point to the reason of deviation.

## Points Related to Standard Costing

- Standard costing includes pre-determination of costs under specific working conditions.

- In this process, the standard quantity of machine time, labor time, and material is calculated and the future market trend for price standards is analyzed.
- Standard costing helps in variance analysis.
- Along with fixation of sale price, it also provides valuation of stock and work in progress.
- Material, labor, and overheads cost are ascertained.
- Actual cost is measured.

## Standard Cost Card

**Format:**

<b>Standard Cost Card</b>			
<b>No.....</b>		<b>Date of setting Standard.....</b>	
<b>Product.....</b>			
Element of Cost	Quantity or Hours	Rate Rs.	Standard Cost
1. Direct Material			
Material A	400 units	5.00	2,000
Material B	100 units	4.00	400
	500 units		2,400
Less: Normal Loss 5%	25 units	Scrap Value	400
Normal Output	475 units		2,000
2. Direct Labour	100 hrs	20	200
3. Overheads:			

## Variance Analysis

When the actual cost differs from the standard cost, it is called variance. If the actual cost is less than the standard cost or the actual profit is higher than the standard profit, it is called **favorable variance**. On the contrary, if the actual cost is higher than the standard cost or profit is low, then it is called **adverse variance**.

Each element of cost and sales requires variance analysis. Variance is classified as follows:

- Direct Material Variance
- Direct Labor Variance
- Overhead Variance
- Sales Variance

## Direct Material Variance

Material variances can be of the following categories:

- Material Cost Variance
- Material Price Variance
- Material Usage Variance
- Material Mix Variance
- Material Yield Variance

<b>Material Cost Variance</b>
Standard cost of materials for actual output – Actual cost of material used  Or  Material price variance + Material usage or quantity variance  Or  Material price variance + Material mix variance + Material yield variance
<b>Material Price Variance</b>
Actual usage ( Standard Quantity Price – Actual Unit Price) Actual Usage                      =    Actual Quantity of material (in units) used Standard Unit Price                =    Standard Price of material per unit Actual Unit Price                    =    Actual price of material per unit
<b>Material Usage or Quantity Variance</b>
Material usage or Quantity variance : Standard price per unit (Standard Quantity – Actual Quantity )
<b>Material Mix Variance</b>

Material mix variance arises due to the difference between the standard mixture of material and the actual mixture of Material mix.

Material Mix variance is calculated as a difference between the standard prices of standard mix and the standard price of actual mix.

**If there is no difference between the standard and the actual weight of mix, then:**

Standard unit cost (Standard Quantity – Actual Quantity )

Or

Standard Cost of Standard Mix – Standard cost of Actual Mix

Sometimes due to shortage of a particular type of material, standard is revised; then:

Standard unit cost (Revised Standard Quantity – Actual Quantity)

Or

Standard cost of revised Standard Mix – Standard Cost of Actual mix

**If the actual weight of mix differs from the standard weight of mix, then:**

$$\frac{\text{Total weight of actual mix}}{\text{Total weight of revised standard mix}} \times \text{Standard cost of revised standard mix}$$

### Material Yield Variance

When the standard and the actual mix do not differ, then

Yield Variance = Standard Rate × (Actual Yield – Standard Yield)

$$\text{Standard Rate} = \frac{\text{Standard cost of standard mix}}{\text{Net standard output (i. e. Gross output – Standard loss)}}$$

## Direct Labor Variance

Direct labor variances are categorized as follows:

- Labor Cost Variance
- Labor Rate of Pay Variance
- Total Labor Efficiency Variance
- Labor Efficiency Variance
- Labor Idle Time Variance

- Labor Mix Variance or Gang Composition Variance
- Labor Yield Variance or Labor Efficiency Sub Variance
- Substitution Variance

<b>Labor Cost Variance</b>
Standard Cost of Labor – Actual Cost of Labor
<b>Labor Rate of pay Variance</b>
Actual Time taken × (Standard Rate – Actual Rate)
<b>Total Labor Efficiency Variance</b>
Standard rate × (Standard time – Actual time)
<b>Labor Efficiency Variance</b>
Standard Rate (Standard time for actual output – Actual time worked)
<b>Labor Idle Time Variance</b>
<p>Idle Time Variance = Abnormal Idle Time × Standard Rate  Total Labor Cost Variance = Labor rate of Pay variance + Total labor Efficiency Variance  Total Labor Efficiency Variance = Labor Efficiency Variance + Labor Idle Time Variance</p>
<b>Labor Mix Variance or Gang Composition Variance</b>
<p>If actual composition of labor is equal to standard:</p> <p>LMV = Standard Cost of Standard Composition (for Actual time taken)  – Standard Cost of Actual Composition (for Actual time worked)</p> <p>If standard composition of labor revised due to shortage of any specific type of labor but the total actual time is equal to the total standard time:</p> <p>LMV = Standard Cost of Revised Standard Composition (for Actual Time Taken)  – Standard Cost of Actual Composition (for Actual Time Worked)</p> <p>If actual and standard time of labor differs:</p> $= \frac{\text{Total time of actual labor composition}}{\text{Total time of standard labor composition}} \times \text{Std. cost of std. composition} - \text{Std. cost of actual composition}$ <p>In case the Standard is revised and there is a difference in the total Actual and the Standard time:</p>

$= \frac{\text{Total time of actual labor composition}}{\text{Total time of revised std. labor composition}} \times \text{Std. cost of (revised std. composition – actual composition)}$
<b>Labor Yield Variance</b>
Std. Labor Cost per unit × (Actual Yield In units – Std. Yield in units expected from Actual time worked on production)
<b>Substitution Variance</b>
(Actual hrs x Std. Rate of Std. Worker) – (Actual hrs x Std. Rate actual worker)

## Cost-Volume-Profit Analysis

Cost-Volume-Profit (CVP) Analysis is also known as Break-Even Analysis. Every business organization works to maximize its profits. With the help of CVP analysis, the management studies the co-relation of profit and the level of production.

CVP analysis is concerned with the level of activity where total sales equals the total cost and it is called as the break-even point. In other words, we study the sales value, cost and profit at different levels of production. CVP analysis highlights the relationship between the cost, the sales value, and the profit.

### Assumptions

Let us go through the assumptions for CVP analysis:

- Variable costs remain variable and fixed costs remain static at every level of production.
- Sales volume does not affect the selling price of the product. We can assume the selling price as constant.
- At all level of sales, the volume, material, and labor costs remain constant.
- Efficiency and productivity remains unchanged at all the levels of sales volume.
- The sales-mix at all level of sales remains constant in a multi-product situation.
- The relevant factor which affects the cost and revenue is volume only.
- The volume of sales is equal to the volume of production.

## Marginal Cost Equation

Equations for elements of cost are as follows:

$$\text{Sales} = \text{Variable costs} + \text{Fixed Expenses} \pm \text{Profit /Loss}$$

Or

$$\text{Sales} - \text{Variable Cost} = \text{Fixed Expenses} \pm \text{Profit /Loss}$$

Or

$$\text{Sales} - \text{Variable Cost} = \text{Contribution}$$

It is necessary to understand the following four concepts, their calculations, and applications to know the mathematical relation between cost, volume, and profit:

- Contribution
- Profit Volume Ratio (P/V Ratio or Contribution/Sales (C/S))
- Break-Even Point
- Margin of Safety

## Contribution

$$\text{Contribution} = \text{Sales} - \text{Marginal Cost}$$

We have already discussed contribution in Marginal Costing topic above.

## Profit-Volume Ratio

Profit / Volume (P/V) ratio is calculated while studying the profitability of operations of a business and to establish a relation between Sales and Contribution. It is one of the most important ratios, calculated as under:

$$\begin{aligned} \frac{P}{V} \text{Ratio} &= \frac{\text{Contribution}}{\text{Sales}} \\ &= \frac{\text{Fixed Expenses} + \text{Profit}}{\text{Sales}} \\ &= \frac{\text{Sales} - \text{Variable Cost}}{\text{Sales}} \\ &= \frac{\text{Change in profits of Contributions}}{\text{Change in Sales}} \end{aligned}$$

The P/V Ratio shares a direct relation with profits. Higher the P/V ratio, more the profit and vice-a-versa.

## Break-Even Point

When the total cost of executing business equals to the total sales, it is called break-even point. Contribution equals to the fixed cost at this point. Here is a formula to calculate break-even point:

$$\begin{aligned} \text{B. E. P (in units)} &= \frac{\text{Total Fixed Expenses}}{\text{Selling Price per Unit} - \text{Marginal Cost per Unit}} \\ &= \frac{\text{Total Fixed Expenses}}{\text{Contribution per Unit}} \end{aligned}$$

Break-even point based on total sales:

$$= \frac{\text{Fixed Cost}}{\text{P/V Ratio}}$$

Calculation of output or sales value at which a desired profit is earned:

$$\begin{aligned} &= \frac{\text{Fixed Expenses} + \text{Desired Profit}}{\text{Selling Price per Unit} - \text{Marginal Cost per Unit}} \\ &= \frac{\text{Fixed Expenses} + \text{Desired Profit}}{\text{Contribution per Unit}} \end{aligned}$$

## Composite Break Even Point

A company may have different production units, where they may produce the same product. In this case, the combined fixed cost of each production unit and the combined total sales are taken into consideration to find out BEP.

- **Constant Product Mix Approach** In this approach, the ratio is constant for the products of all production units.
- **Variable Product Mix Approach** In this approach, the preference of products is based on bigger ratio.

## Margin of Safety

Excess of sale at BEP is known as margin of safety. Therefore,

Margin of safety = Actual Sales – Sales at BEP

Margin of safety may be calculated with the help of the following formula:

$$\begin{aligned} \text{Margin of Safety} &= \frac{\text{Profit}}{\text{P/V Ratio}} \\ &= \frac{\text{Profit}}{\text{Contribution per Unit}} \end{aligned}$$

## Break-Even Chart

Break-Even Chart is the most useful graphical representation of marginal costing. It converts accounting data to a useful readable report. Estimated profits, losses, and costs can be determined at different levels of production. Let us take an example.

### Example

Calculate break-even point and draw the break-even chart from the following data:

Fixed Cost	= Rs 2,50,000
Variable Cost	= Rs 15 per unit
Selling Price	= Rs 25 per unit

Production level in units 12,000, 15,000, 20,000, 25,000, 30,000, and 40,000.

### Solution:

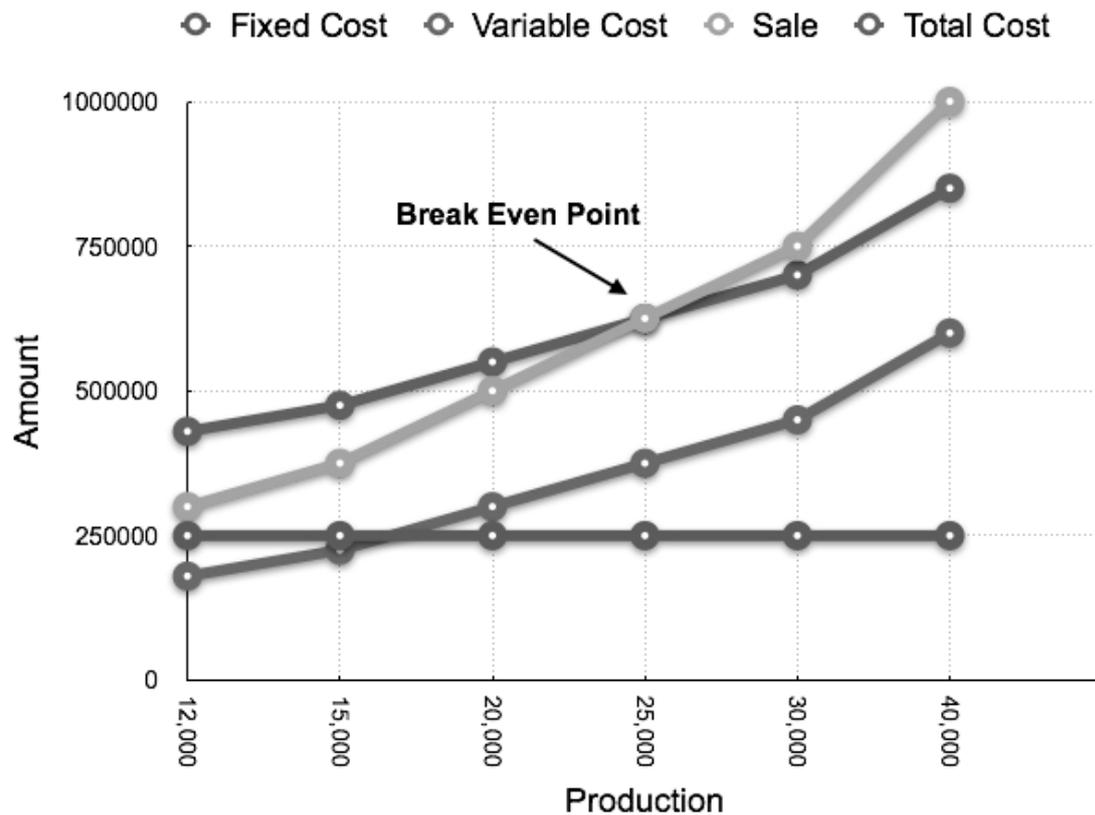
$$\text{B. E. P.} = \frac{\text{Fixed Cost}}{\text{Contribution per Unit}} = \frac{\text{Rs 2, 50, 000}}{\text{Rs 10} \times (\text{Rs 25} - \text{Rs 15})} = 25,000 \text{ units}$$

At production level of 25,000 units, the total cost will be Rs 6,25,000.

(Calculated as (25000 × 14) + 2,50000)

Statement showing Profit & Margin of safety at different level of production Break Even Sale = Rs 6,25,000 (25,000 x 25)				
Production (In Units)	Total Sale (In Rs)	Total cost (Rs)	Profit (Sales - Cost) (In Rs)	Margin of safety (Profit / Contribution per unit) (In Units)
12000	3,00,000	4,30,000	-1,30,000	
15000	3,75,000	4,75,000	-1,00,000	
20000	5,00,000	5,50,000	-50,000	
25000	6,25,000	6,25,000	(B.E.P)	(B.E.P)
30000	7,50,000	7,00,000	50,000	5,000
40000	10,00,000	8,50,000	1,50,000	15,000

The corresponding chart plotted as production against amount appears as follows:



# 6. MANAGEMENT ACCOUNTING

This chapter covers the following topics:

- Characteristics of Management Accounting
- Objectives of Management Accounting
- Comparison with Financial Accounting
- Comparison with Cost Accounting
- Ratio Analysis

## Definition

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Institute of Chartered Accountants of England and Wales defines management accounting as:

*Any form of accounting which enables a business to conduct more efficiently can be regarded as Management Accounting.*

American Accounting Association defines management accounting as:

*Management Accounting includes the methods and concepts necessary for effective planning, for choosing among alternative business actions, and for control through the evaluation and interpretation of performance.*

## Characteristics of Management Accounting

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Management accounting provides data to the management on the basis of which they take decisions to achieve organizational goals and improve their efficiency. In this section, we will discuss the main characteristics of management accounting.

### To Provide Accounting Information

Information is collected and classified by the financial accounting department, and presented in a way that suits managerial needs to review the various policy decisions of an organization.

### Cause and Effect Analysis

One step further from financial accounting, management accounting works to know the reasons of profit or loss of an organization. It works to find out the causes for loss and also study the factors which influence the profitability. Therefore, cause and effect is a feature of management accounting.

## Special Technique and Concepts

Budgetary control, marginal costing, standard costing are main techniques used in financial accounting for successful financial planning and analysis, and to make financial data more useful.

## Decision Making

Studying various alternative decisions, studying impact of financial data on future, supplying useful data to management, helping management to take decisions is a part of management accounting.

## Achieving Tasks

Financial data is used to set targets of the company and to achieve them. Corrective measures are used if there is any deviation in actual and targeted task. This all is done through management accounting with the help of budgetary control and standard costing.

## No Fixed Norms

No doubt, tools of management accounting are same, but at the same time; uses of these tools depend upon need, size, and structure of any organization. Thus, no fix norms are used in application of management accounting. On the other hand, financial accounting totally depends on certain rules and principals. Therefore, presentation and analysis of accounting data may vary from one organization to another.

## Increasing Efficiency

While evaluating the performance of each department of an organization, management accounting can spot the efficient and inefficient sections of an organization. With the help of that, corrective step can be taken to rectify the inefficient part for better performance. Hence, we can say that efficiency of a concern can increase using accounting information.

## Informative Instead of Decision Making

Decisions are taken only by top management using information provided by management accountant as classified in a manner which is useful in decision making. Decision making does not come under preview of accountant, it is only the top management, who can take decision. Thus, decision of an organization depends on caliber and efficiency of the management.

## Forecasting

Management accountant helps management in future planning and forecasting using historical accounting data.

## Objectives of Management Accounting

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Let us go through the objectives of management accounting:

### Planning and Formulating Policies

In the process of planning and formulating policies, a management accountant provides necessary and relevant information to achieve the targets of the company. Management accounting uses regression analysis and time series analysis as forecasting techniques.

### Controlling Performance

In order to assure effective control, various techniques are used by a management accountant such as budgetary control, standard costing, management audit, etc. Management accounting provides a proper managerial control system to the management. Reports are provided to the management regarding the effective and efficient use of resources.

### Interpreting Financial Statement

Collecting accounting data and analyzing the same is a key role of management accounting. Management accounting provides relevant information in a systematic way that can be used by the management in planning and decision-making. Cash flow, fund flow, ratio analysis, trend analysis, and comparative financial statements are the tools normally used in management accounting to interpret and analyze accounting data.

### Motivating Employees

Management accounting provides a selection of best alternative methods of doing things. It motivates employees to improve their performance by setting targets and starting incentive schemes.

### Making Decisions

Success of any organization depends upon accurate decision-making and effective decision-making is based on informational network as provided by management accounting. Applying techniques of differential costing, absorption costing, marginal costing, and management accounting provides useful data to the management to aid in their decision-making.

### Reporting to Management

It is the primary role of management accounting to inform and advice the management about the latest position of the company. It covers information about the performance of various departments on regular basis to the management which is helpful in taking timely decisions.

A management accountant also works in the capacity of an advisory to overcome any existing financial or other problems of an organization.

## Coordinating among Departments

Management accounting is helpful in coordinating the departments of an organization by applying thorough functional budgeting and providing reports for the same to the management on a regular basis.

## Administrating Tax

Any organization must comply with the tax systems prevailing in the country they are operating from. It is a challenge due to the ever-increasing complexity of the tax structure. Organization need to file various kinds of returns with different tax authorities. They need to calculate the correct amount of tax and assure timely deposit of tax. Therefore, the management takes guidance from management accountants to comply with the law of the land.

## Management Accounting Versus Financial Accounting

All monetary transactions are recorded in the books of accounts on historical cost basis. Financial statements are prepared to ascertain the actual profit or loss of the firm and to know the financial position of the firm of every accounting period.

Management accounting collects data from financial statements, analyzes, and then provides this data to the management.

S.no.	Financial Accounting	Management Accounting
1	Monitory transactions are the base of financial accounting.	Data as obtained from financial accounting is the base of management accounting.
2	Recognition, classification, recording of financial transactions on actual basis, and preparation of financial statement are the main functions of financial accounting.	Collection of data from financial accounting, provision of necessary information to the management for planning, decision-making, and evaluation are the main functions of management accounting.
3	Support of relevant figures is required in preparing the financial reports.	Subjective and objective, both figures may be present in the management accounting report.
4	Success of financial accounting does not depend on sound management accounting system.	Success of management accounting depends on sound financial accounting system of a concern.
5	Financial reports are used by the management of a company,	Financial reports are exclusively used by the management only.

	shareholders, creditors, and financial institutions.	
6	Statutory audit of financial statements of concerns is required as per applicable law.	No statutory requirement of audit for reports prepared by management accountants.
7	Financial statements of a concern are prepared at the end of every accounting period.	The reports are prepared as and when required by management of the concern.
8	To ascertain profit or loss of a concern on actual basis and to know financial position of a concern financial accounting is used.	Thorough management accounting evaluation of performance is done department and section-wise, as well as whole concern-wise.

## Management Accounting versus Cost Accounting

Management accounting collects data from cost accounting and financial accounting. Thereafter, it analyzes and interprets the data to prepare reports and provide necessary information to the management.

On the other hand, cost books are prepared in cost accounting system from data as received from financial accounting at the end of each accounting period.

The difference between management and cost accounting are as follows:

S. No.	Cost Accounting	Management Accounting
1	The main objective of cost accounting is to assist the management in cost control and decision-making.	The primary objective of management accounting is to provide necessary information to the management in the process of its planning, controlling, and performance evaluation, and decision-making.
2	Cost accounting system uses quantitative cost data that can be measured in monetary terms.	Management accounting uses both quantitative and qualitative data. It also uses those data that cannot be measured in terms of money.
3	Determination of cost and cost control are the primary roles of cost accounting.	Efficient and effective performance of a concern is the primary role of management accounting.

4	Success of cost accounting does not depend upon management accounting system.	Success of management accounting depends on sound financial accounting system and cost accounting systems of a concern.
5	Cost-related data as obtained from financial accounting is the base of cost accounting.	Management accounting is based on the data as received from financial accounting and cost accounting.
6	Provides future cost-related decisions based on the historical cost information.	Provides historical and predictive information for future decision-making.
7	Cost accounting reports are useful to the management as well as the shareholders and creditors of a concern.	Management accounting prepares reports exclusively meant for the management.
8	Only cost accounting principles are used in it.	Principals of cost accounting and financial accounting are used in management accounting.
9	Statutory audit of cost accounting reports are necessary in some cases, especially big business houses.	No statutory requirement of audit for reports.
10	Cost accounting is restricted to cost-related data.	Management accounting uses financial accounting data as well as cost accounting data.

## Cash Flow

It is very important for a business to keep adequate cash in hand to meet day-to-day expenditures and to invest as and when required in business. Thus, cash plays a very vital role to run a business successfully. Sometimes it has been observed that in spite of adequate profit in business, they are unable to meet their taxes and dividends, just because of shortage of cash flow.

We have read about two very important financial statements: first, revenue statement and second, balance sheet. Revenue statements provide provide essential information about the operating activities of a concern, and balance

sheets show the financial position of a firm. But, both are unable to convey anything about the generation of cash out of all business activities.

Keeping in view the above limitation, the financial accounting board, U.S.A., has emphasized on the need for a cash flow statement as:

“Financial reporting should provide information to help potential investors and creditors and other users in assessing the amounts, timing and uncertainty of prospective cash receipts from dividends or interest and proceeds from the sales, redemption or maturity of securities or loans. The prospects for those cash receipts of effected by an enterprises ability to generate enough cash to meet the obligation when due and its others operating needs to re-invest in operations and to pay cash dividends.”

In June 1995, the Securities and Exchange Board of India “SEBI” amended Clause 32 of the listing agreement requiring every listed companies to give along with the balance sheet and profit & loss account, a cash flow statement prepared in the prescribed format, showing cash flows from operating activities, investing activities and financing activities, separately. Recognizing the importance of cash flow statement, The Institute of Chartered Accountants of India (ICAI) issued AS-3 revised: Cash flow statements in March 1997. The revised accounting standards supersede AS-3 changes in financial position, issued in June 1981. The objectives of cash flow statement given in AS-3 (Revised) are as under:

“Information about the cash flows of an enterprise is useful in providing users of financial statements with a basis to assess the ability of the enterprises to generate cash and cash equivalents and the needs of the enterprises to utilize those cash flows. The economic decisions that are taken by users require an evaluation of the ability of an enterprise to generate cash and cash equivalents and the timing and certainty of their generations.

The statement deals with the provision of information about the historical changes in cash and cash equivalents of an enterprise by mean of cash flow the statement which classified cash flow during the period from operating, investing and financing activities.”

During a specified period of time, a cash flow statement describes the inflows and outflows of the cash and cash equivalents in an enterprise. A cash flow statement shows the net effect of various business transactions on cash and cash equivalents and consideration of receipts and payments of cash. Cash flow is a summary of change in cash position in between the dates of two balance sheets and revenue statements. The important terms used in a cash flow statement are as follows:

## Cash

The meaning of cash is cash in hand and cash at bank including deposits.

## Cash and Cash Equivalents

Here, cash and cash equivalents imply readily convertible, highly liquid investments, the value of which in cash is well-known to us without risk of change in its realization amount. The purpose of keeping cash equivalents is to meet our

current and short-term commitment rather than for investments. Only those investments having short maturity terms qualify as cash equivalents. Short maturity means maturity within three months.

## Cash Flows

There are two types of flows: inflows and outflows. If the increase in cash is the effect of transactions, it is called inflows of cash; and if the result of transactions is decrease in cash, it is called outflows of cash.

**Note:** If decrease in cash is due to cash management rather than its operating, investing, and financing activities, it will be excluded from cash outflows. Cash management means investment of cash in cash equivalents.

## Classification of Cash Flows

According to AS-3 (Revised), cash flows should be classified in three main categories:

- Cash Flow from operating activities
- Cash Flow from investing activities
- Cash Flow from financing activities

### Cash flow from operating activities

Inflow of cash from operating activities represents the level of sufficient cash generation necessary to maintain operating capability without recourse to external resource of financing.

In other words, operating activities mean principal revenue-producing activities of a firm. It represents the transactions those determine the profit or loss of a firm.

Examples of cash Flows from operating activities:

- Cash sale (goods or services)
- Cash receipts from commission, fees and royalties income etc.
- Cash payments to workers or employees in form of salary or wages.
- Cash payments to supplier of goods or services.
- Cash receipt on account of insurance premium by insurance companies.
- Cash payments in form of claims, annuity and other benefits.
- Cash payments or refund of income tax in case not included in investing or financing activities.
- Cash payments on account of current and future contracts.

**Note:** Cash receipt on sale of plant and machinery comes under category of investing activities.

### **Cash flow from investing activities**

Assets and long-term investments that do not come under cash equivalents are known as investing activities. Investing activity represents how much investment in long-term assets has been made to earn profit in future.

Examples of Cash Flows from investing activities:

- Cash payments to acquire tangibles and intangibles assets including construction of assets and capitalization of research and development cost.
- Cash receipts from sale of investments and disposal of fixed assets.
- Cash payment for investments in shares, warrants and debentures of other companies etc. excluding those which are covered under cash equivalents or purchased for trading purpose. If so, those come under operating activities.
- Cash received from disposal of or sale of shares, warrants or redemption of funds other than those which are kept for trading purpose.
- Advances or loan made to third party other than by financing companies.
- Cash payment for future contracts other than trading purpose.
- Cash received from future contracts other than trading purpose.

### **Cash flow from financing activities**

The activities which may result in change in size and composition of owner's capital including preference shares are called financing activities. Separate disclosure is important for financing activities.

Examples of Cash flows from financing activities include cash received on issue of shares, debentures, loans, bonds and other short- or long-term borrowings.

Cash payments on redemption of debentures bonds, preference shares etc.

### **Treatment of Some Typical Items**

The treatment of some typical cash flow items is discussed below.

#### **Extraordinary Items**

Inflow or outflow of cash is classified according to the nature of activities that may be operating, investing, or financing activities. Cash flow due to extraordinary items should be shown separately in the cash flow statement to enable users to understand its nature and effect on the cash flow statement.

#### **Interest and Dividends**

If cash flow arises due to interest paid or interest and dividend received, then that should be classified as operating activities in case of "financial enterprises". In case of "other than financial organizations", the interest paid should be classified as financing activity, and the interest and dividends received should be classified as investing activity.

**Note:** Dividend paid should be classified as financing activity in both the above cases.

### **Taxes on Income**

Taxes on income should be separately disclosed and should be classified under operating activities in most of the cases except where we can easily identify the taxes according to nature of income but if total amount of tax is given, then it should be classified as operating activities.

**Note:** Dividend distribution tax will be classified as financing activities.

Cash flows from acquisition and disposal of subsidiaries and other business units:

Cash flow arises due to acquisition or disposal of subsidiary should be shown separately and classified as investing activities. This transaction should be easily identifiable in cash flow statement to enable users to understand the effect of it. The cash flow of disposal is not deducted from cash flow of acquisition.

### **Foreign Currency**

Items appearing in a cash flow statement should be shown in local currency value, applying actual foreign currency rate of the particular day on which cash flow statement is going to be prepared. Effect on value of cash and cash equivalents as reflected in the cash flow statement due to change in rate of foreign currency should be shown separately as a reconciliation of changes.

Due to change in foreign currency rate, unrealized gains and losses are not cash flows. However, effect on cash and cash equivalents held or due in foreign currency are reported in cash flow statement in order to reconcile the cash and cash equivalents at the beginning and at the end of the period.

### **Non-Cash Transactions**

Some investing and financing activities do not have any direct impact on cash flows. For example, conversion of debt to equity, acquisition of an enterprise by means of issuance of share, etc.

Those transactions should be excluded from cash flow statements, in which there are no use of cash or cash equivalents. There are other financial statements in which those investing and financing activities appear separately.

**Format:** (Direct Method)

**M/s ABC LIMITED**

**Cash flow Statement for the year ended 31 March 2014**

<b>Particulars</b>	<b>Amount</b>
Cash Flows from Operating Activities (Schedule- 1)	XX
Cash Flows from Investing Activities (Schedule- 2)	XX
Cash Flows from Financing Activities (Schedule-3)	XX
Extraordinary Items	XX
Net Profit before Tax	XX
Income Tax Paid	XX
Net Increase or Decrease in cash or cash Equivalents	XX
Add: Cash & Cash Equivalents at the beginning of the period	XX
Cash and Cash Equivalents at the end of the period	XXX

**Schedule - 1****Cash flow from operating activities**

<b>Particulars</b>		<b>Amount</b>
Cash received from customers		XXX
Cash Paid for:		
- Suppliers for Purchases	XX	
- Wages & Salary	XX	
- Operating and General administrative expenses	XX	XX
Net Profit before Taxes	→	<b>XX</b>
Income Tax Paid	→	<b>XX</b>
Cash flow From Operating Activities	→	<b>XXX</b>

**Schedule-2****Cash flow from investing activities**

<b>Particulars</b>		<b>Amount</b>
Cash received for:		
- Sale of Fixed Assets	XX	
- Sale of Investment	XX	
- Interest received	XX	
- Dividend received	XX	XXX
Cash paid for:		
- Purchase of Fixed Assets	XX	
- Purchase of Investments	XX	XX
Net Cash Flow from Investing Activities	→	<b>XX</b>

**Schedule-3****Cash flow from financing activity**

Particulars		Amount
Cash received for:		
- Issue of Equity Shares	XX	
- Issue of Preference Share	XX	
- Long term borrowings	XX	
		XXX
Cash paid for:	XX	
- Interest paid	XX	
- Redemption of Preference shares	XX	
- Repayment of Loans	XX	
- Dividend paid	XX	XX
- Purchase of Investments	XX	XX
Net Cash Flow from Financing Activities →		

**Cash Flow Indirect Method**

- Two Balance Sheet requires
- No need of Profit & Loss account in Indirect Method
- Non Cash Item require.
- We need change in current Assets & Current Liabilities account.
- No need to open, Opening current assets and current Liabilities accounts

**Format:** (Indirect Method): Given by AS-3

**M/s XYZ LIMITED**

**Cash flow Statement for the year ended 31 March 2014**

<b>Particulars</b>		<b>Amount</b>
Cash Flows from Operating Activities	(Schedule- 1)	XX
Cash Flows from Investing Activities	(Schedule- 2)	XX
Cash Flows from Financing Activities	(Schedule-3)	XX
Extraordinary Items		XX
Net Profit before Tax	—————→	XX
Income Tax Paid	—————→	XX
<b>Net Increase or Decrease in cash or cash Equivalents</b>	—————→	XX
Add: Cash & Cash Equivalents at the beginning of the period	—————→	XX
<b>Cash and Cash Equivalents at the end of the period</b>	—————→	XXX

## Schedule-1

### Cash flow from operating activities

Particulars	Amount
Changes in Profit & Loss account	XX
Changes in Reserve (Any)	XX
(+) Interim Dividend	XX
Net Profit →	XXX
Non Cash Items:	
(+) Depreciation	XX
(+) Loss on Sale of Fixed Assets	XX
(+) Goodwill Amortization	XX
(+) Preliminary Expenses written off	XX
Non Cash Incomes:	
(-) Gain on Sale of Fixed Assets	XX
Operating Profit before working Capital changes →	XXX
± Changes in Current Assets & Current liabilities	XX
Cash operating Expenses before Tax	----
Tax Paid	<b>XXX</b>
Cash Flow from Operating Activities →	<b>X</b>
	---
	<b>XXX</b>
	---

**Schedule-2****Cash flow from investing activities**

Particulars		Amount
Cash received for:		
- Sale of Fixed Assets	XX	XXX
- Sale of Investment	XX	
- Interest received	XX	
- Dividend received	XX	
Cash paid for:		
- Purchase of Fixed Assets	XX	XX
- Purchase of Investments	XX	
Net Cash Flow from Investing Activities	—————>	XX

**Schedule-3****Cash flow from financing activity**

Particulars		Amount
Cash received for:		
- Issue of Equity Shares	XX	XXX
- Issue of Preference Share	XX	
- Long-term borrowings	XX	
Cash paid for:		
- Interest paid	XX	XX
- Redemption of Preference shares	XX	
- Repayment of Loans	XX	
- Dividend paid	XX	
- Purchase of Investments	XX	
Net Cash Flow from Financing Activities	—————>	XX

# 7. RATIO ANALYSIS

This chapter covers the following topics:

- Ratio analysis and its usage
- Advantages and limitations of ratio analysis
- Limitations
- Types of Ratio
- Working capital cycle
- Formulas of useful accounting ratios

## Accounting Ratio

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Ratio is an expression of relationship between two or more items in mathematical terms. Exhibition of meaningful and useful relation between different accounting data is called Accounting Ratio. Ratio may be expressed as a:b (a is to b), in terms of simple fraction, integer, or percentage.

If the current assets of a concern is Rs 4,00,000 and the current liabilities is Rs 2,00,000, then the ratio of current assets to current liabilities is given as  $4,00,000 / 2,00,000 = 2$ . This is called simple ratio. Multiply a ratio by 100 to express it in terms of percentage.

We can express the ratio between 200 and 100 in any of the following ways:

(a) 2 : 1    (b) 2/1    (c) 200%    (d) 2 to 1    (e) 2

Ratios are extremely useful in drawing the financial position of a concern.

## Accounting Analysis

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Comparative analysis and interpretation of accounting data is called Accounting Analysis. When accounting data is expressed in relation to some other data, it conveys some significant information to the users of data.

## Ratio Analysis and its Applications

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Ratio analysis is a medium to understand the financial weakness and soundness of an organization. Keeping in mind the objective of analysis, the analyst has to select appropriate data to calculate appropriate ratios. Interpretation depends upon the caliber of the analyst.

Ratio analysis is useful in many ways to different concerned parties according to their respective requirements. Ratio analysis can be used in the following ways:

- To know the financial strength and weakness of an organization.
- To measure operative efficiency of a concern.
- For the management to review past year's activity.
- To assess level of efficiency.
- To predict the future plans of a business.
- To optimize capital structure.
- In inter and intra company comparisons.
- To measure liquidity, solvency, profitability and managerial efficiency of a concern.
- In proper utilization of assets of a company.
- In budget preparation.
- In assessing solvency of a firm, bankruptcy position of a firm, and chances of corporate sickness.

## **Advantages of Ratio Analysis**

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- It is powerful tool to measure short and long-term solvency of a company.
- It is a tool to measure profitability and managerial efficiency of a company.
- It is an important tool to measure operating activities of a business.
- It helps in analyzing the capital structure of a company.
- Large quantitative data may be summarized using ratio analysis.
- It relates past accounting performances with the current.
- It is useful in coordinating the different functional machineries of a company.
- It helps the management in future decision-making.
- It helps in maintaining a reasonable balance between sales and purchase and estimating working capital requirements.

## **Limitations of Ratio Analysis**

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Although Ratio Analysis is a very useful accounting tools to analyze and interpret different accounting equations, it comes with its own set of limitations:

- If the data received from financial accounting is incorrect, then the information derived from ratio analysis could not be reliable.

- Unauthenticated data may lead to misinterpretation of ratio analysis.
- Future prediction may not be always dependable, as ratio analysis is based on the past performance.
- To get a conclusive idea about the business, a series of ratios is to be calculated. A single ratio cannot serve the purpose.
- It is not necessary that a ratio can give the real present situation of a business, as the result is based on historical data.
- Trend analysis is done with the help of various calculated ratios that can be distorted due to the changes in the price level.
- Ratio analysis is effective only where same accounting principles and policies are adopted by other concerns too, otherwise inter-company comparison will not exhibit a real picture at all.
- Through ratio analysis, special events cannot be identified. For example, maturity of debentures cannot be identified with ratio analysis.
- For effective ratio analysis, practical experience and knowledge about particular industry is essential. Otherwise, it may prove worthless.
- Ratio analysis is a useful tool only in the hands of an expert.

## Types of Ratio

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Ratios can be classified on the basis of financial statements or on the basis of functional aspects.

### Classification on the Basis of Financial Statement

**Balance Sheet Ratios:** Ratios calculated from taking various data from the balance sheet are called balance sheet ratio. For example, current ratio, liquid ratio, capital gearing ratio, debt equity ratio, and proprietary ratio, etc.

**Revenue Statement Ratio:** Ratios calculated on the basis of data appearing in the trading account or the profit and loss account are called revenue statement ratios. For example, operating ratio, net profit ratio, gross profit ratio, stock turnover ratio.

**Mixed or Composite Ratio:** When the data from both balance sheet and revenue statements are used, it is called mixed or composite ratio. For example, working capital turnover ratio, inventory turnover ratio, accounts payable turnover ratio, fixed assets turnover ratio, return of net worth ratio, return on investment ratio.

<b>Classification of Ratios on the Basis of Financial Statements</b>		
<b>Balance Sheet Ratios</b>	<b>Profit and Loss A/c Ratios</b>	<b>Composite or Mixed Ratios</b>
<ul style="list-style-type: none"> <li>• Current Ratio</li> <li>• Liquid Ratio</li> <li>• Absolute Liquidity</li> <li>• Ratios</li> <li>• Debt Equity Ratio</li> <li>• Proprietorship Ratio</li> <li>• Capita Gearing Ratio</li> <li>• Assets Proprietorship</li> <li>• Ratio</li> <li>• Capital Inventory to</li> <li>• Working Capital Ratio</li> <li>• Ratio of Current Assets to Fixed Assets</li> </ul>	<ul style="list-style-type: none"> <li>• Gross Profit Ratio</li> <li>• Operating Ratio</li> <li>• Operating Profit Ratio</li> <li>• Net Profit Ratio</li> <li>• Cash Profit Ratio</li> <li>• Expenses Ratio</li> <li>• Interest Coverage Ratio</li> </ul>	<ul style="list-style-type: none"> <li>• Stock Turnover Ratio</li> <li>• Receivable Turnover Ratio</li> <li>• Payable Turnover Ratio</li> <li>• Fixed Assets Turnover Ratio</li> <li>• Total Assets Turnover Ratio</li> <li>• Working Capital turnover Ratio</li> <li>• Capital Turnover Ratio</li> <li>• Return on Capital Employed</li> <li>• Return on Equity Ratio</li> <li>• Return on Shareholders Fund</li> <li>• Capital Turnover Ratio</li> </ul>

## Functional Classification of Ratios

Ratios can be further classified based on their functional aspects as discussed below.

### Liquidity Ratios

Liquidity ratios are used to find out the short-term paying capacity of a firm, to comment short term solvency of the firm, or to meet its current liabilities. Similarly, turnover ratios are calculated to know the efficiency of liquid resources of the firm, Accounts Receivable (Debtors) Turnover Ratio and Accounts Payable (Creditors).

### Long-Term Solvency and Leverage Ratios

Debt equity ratio and interest coverage ratio are calculated to know the efficiency of a firm to pay long-term debts and to meet interest costs. Leverage ratios are calculated to know the proportion of debt and equity in the financing of a firm.

## Activity Ratios

Activity ratios are also called turnover ratios. Activity ratios measure the efficiency with which the resources of a firm are employed.

## Profitability Ratios

The results of business operations can be calculated through profitability ratios. These ratios can also be used to know the overall performance and effectiveness of a firm. Two types of profitability ratios are calculated in relation to sales and investments.

<b>FUNCTIONAL CLASSIFICATION OF RATIOS</b>			
<b>Liquidity Ratios</b>	<b>Long-term Solvency and Leverage Ratios</b>	<b>Activity Ratios Asset management Ratios</b>	<b>Profit abilities Ratios</b>
<p>(A)</p> <ul style="list-style-type: none"> <li>• Current Ratio</li> <li>• Liquid Ratio</li> <li>• Absolute Liquid or Cash Ratios</li> <li>• Interval Measure</li> </ul> <p>(B)</p> <ul style="list-style-type: none"> <li>• Debtors Turnover Ratio</li> <li>• Creditor Turnover Ratio</li> <li>• Inventory Turnover Ratio</li> </ul>	<ul style="list-style-type: none"> <li>• Debt/ Equity Ratio</li> <li>• Debt to total Capital Ratio</li> <li>• Interest Coverage Ratio</li> <li>• Cash Flow/ Debt</li> <li>• Capital Gearing</li> </ul>	<ul style="list-style-type: none"> <li>• Inventory Turnover Ratio</li> <li>• Debtors Turnover Ratio</li> <li>• Fixed Assets Turn over Ratio</li> <li>• Total Assets Turnover Ratio</li> <li>• Working Capital Turnover Ratio</li> <li>• Payable Turnover Ratio</li> <li>• Capital Employed Turnover Ratio</li> </ul>	<p><b>(A) In relation to Sales</b></p> <ul style="list-style-type: none"> <li>• Gross Profit Ratio</li> <li>• Operating Ratio</li> <li>• Operative Profit Ratio</li> <li>• Net Profit Ratio</li> </ul> <p><b>B) In relation to Investments</b></p> <ul style="list-style-type: none"> <li>• Expenses Ratio</li> <li>• Return on Investment</li> <li>• Return on Capital</li> <li>• Return on Equity</li> <li>• Return on Total</li> </ul>

			<ul style="list-style-type: none"> <li>• Resources</li> <li>• Earnings per Share</li> <li>• Price Earnings Ratio</li> </ul>
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## Chart of Useful Ratios

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OBJECTIVES	RATIOS TO BE COMPUTED
<p><b>Short-term Financial Position or Test of Liquidity:</b></p> <p>(a) Current Ratios</p> <p>(b) Quick or Acid Test or Liquid Ratio</p> <p>(c) Absolute Liquid Ratio</p> <p>(d) Interval Measure</p>	$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$ $\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$ $\text{Absolute Liquid Ratio} = \frac{\text{Absolute Liquid Assets}}{\text{Current Liabilities}}$ $\text{Interval Measure} = \frac{\text{Liquid Assets}}{\text{Avg. Daily Operating Expenses}}$

<p><b>Current Assets Movement (Asset Management Ratios):</b></p> <p>(a) Inventory /Stock Turnover Ratio</p> <p>(b) Debtors or receivables Turnover Ratio/Velocity</p> <p>(c) Average Collection Period</p> <p>(d) Creditors / Payable Turnover Ratio / Velocity</p> <p>(e) Average Payment Period</p> <p>(f) Working Capital Turnover Ratio</p>	$= \frac{\text{Cost of Goods Sold}}{\text{Avg. Inventory at Cost}}$ $= \frac{\text{Net Credit Annual Sale}}{\text{Avg. Trade Debtors}}$ $= \frac{\text{Total Trade Debtors}}{\text{Sale per Day}}$ $= \frac{\text{Net Credit Annual Purchase}}{\text{Avg. Trade Creditors}}$ $= \frac{\text{Total Trade Creditos / Payable}}{\text{Avg. Daily Purchase}}$ $= \frac{\text{Sales or Cost of Sales}}{\text{Net Working Capital}}$
<p><b>Analysis of Long-term Financial Position or Test of Solvency:</b></p> <p>(a) Debt Equity Ratio</p> <p>(b) Funded Debt to Total Capitalization Ratio</p> <p>(c) Ratio of Long term Debt to Shareholders, Funds (Debt Equity)</p>	$= \frac{\text{Outsiders Funds}}{\text{Shareholders' Funds}} \text{ or } \frac{\text{Outsiders' Equities}}{\text{Internal Equities}}$ $= \frac{\text{Funded Debts}}{\text{Total Capitalization}} \times 100$ $= \frac{\text{Long term Debts}}{\text{Shareholders' Funds}}$

(d) Proprietary or Equity Ratio	$= \frac{\text{Shareholders Funds}}{\text{Total Assets}}$
(e) Solvency Ratio	$= \frac{\text{Total Liabilities to Outsiders}}{\text{Total Assets}}$
(f) Fixed Assets Net Worth Ratio	$= \frac{\text{Fixed Assets after Depreciation}}{\text{Shareholders' Funds}}$
(g) Fixed Assets Ratio or Fixed Assets to Long Term Funds	$= \frac{\text{Fixed Assets after Depreciation}}{\text{Total long term Fund}}$
(h) Ratio of Current Assets to Proprietary funds	$= \frac{\text{Current Assets}}{\text{Shareholders' Funds}}$
(i) Debt-Service or Interest Coverage	$= \frac{\text{Net Profit (before Int. \& Taxes)}}{\text{Fixed Interest Charges}}$
(j) Total Coverage or Fixed Charge Coverage	$= \frac{\text{EBIT}}{\text{Total Fixed Charges}}$
(k) Preference Dividend Coverage Ratio	$= \frac{\text{Net Profit (before Int. \& Tax)}}{\text{Preference Dividend}}$
(l) Cash to debt-Service Ratio or Debt Cash Flow Coverage	$= \frac{\text{CF}}{1 + \frac{\text{SFD}}{1 - \text{Tax Rate}}}$
	CF = Annual cash flow before Int. & Tax SFD = Sinking fund appropriation on debt

**Analysis of Profitability:**

(i) General Profitability:

(a) Gross Profit Ratio

$$= \frac{\text{Gross Profit}}{\text{Net Sale}} \times 100$$

(b) Operating Ratio

$$= \frac{\text{Operating Cost}}{\text{Net Sale}} \times 100$$

(c) Expenses Ratio

$$= \frac{\text{Particular Expense}}{\text{Net Sale}} \times 100$$

(d) Net Profit Ratio

$$= \frac{\text{Net Profit after Tax}}{\text{Net Sale}} \times 100$$

(e) Operating Profit Ratio

$$= \frac{\text{Operating Profit}}{\text{Net Sale}} \times 100$$

<p><b>Overall Profitability:</b></p> <p>(a) Return on Shareholders' Investment (RoI)</p> <p>(b) Return on Equity Capital</p> <p>(c) Earnings per Share (EPS)</p> <p>(d) Return on Gross Capital Employed</p> <p>(e) Return on Net Capital Employed</p> <p>(f) Return on Assets</p> <p>(g) Capital Turnover Ratio</p> <p>(h) Fixed Assets Turnover Ratio</p> <p>(i) Working Capital Turnover Ratio</p>	$= \frac{\text{Net Profit after Tax \& Interest}}{\text{Shareholders' Fund}} \times 100$ $= \frac{\text{Net Profit after Tax} - \text{Pref. Dividend}}{\text{Paid up Equity Capital}} \times 100$ $= \frac{\text{Net Profit after Tax} - \text{Pref. Dividend}}{\text{Number of Equity Share}}$ $= \frac{\text{Adjusted Net Profit}}{\text{Gross Capital Employed}} \times 100$ $= \frac{\text{Adjusted Net Profit}}{\text{Net Capital Employed}} \times 100$ $= \frac{\text{Net Profit after Tax}}{\text{Avg. Total Assets}}$ $= \frac{\text{Sale or Cost of Sale}}{\text{Capital Employed}}$ $= \frac{\text{Sale or Cost of Goods Sold}}{\text{Fixed Assets}}$ $= \frac{\text{Sales or Cost of Goods Sold}}{\text{Net Working Capital}}$
<p><b>Market Test or Valuation Ratio:</b></p> <p>(a) Dividend Yield Ratio</p> <p>(b) Dividend Payout Ratio</p>	$= \frac{\text{Dividend per Share}}{\text{Market Value per Share}}$ $= \frac{\text{Dividend per Equity Share}}{\text{Earnings per Share}}$

(c) Price/Earnings (P/E) Ratio	$= \frac{\text{Market Price per Equity Share}}{\text{Earnings per Share}}$
(d) Earning Yield Ratio	$= \frac{\text{Earnings per Share}}{\text{Market price per share}}$
(e) Market Value Book Value Ratio	$= \frac{\text{Market value per share}}{\text{Book value per share}}$
(f) Market Price to Cash Flow Ratio	$= \frac{\text{Market price per share}}{\text{Cash flow per share}}$

<b>Market Test or Valuation Ratio:</b>	
(a) Dividend Yield Ratio	$= \frac{\text{Dividend per Share}}{\text{Market Value per Share}}$
(b) Dividend Payout Ratio	$= \frac{\text{Divident per Equity Share}}{\text{Earnings per Share}}$
(c) Price Earnings Ratio (P/E Ratio)	$= \frac{\text{Market Price per Equity Share}}{\text{Earnings per Share}}$
(d) Earning Yield Ratio	$= \frac{\text{Earnings per Share}}{\text{Market Price per Share}}$
(e) Market Value Book Value Ratio	$= \frac{\text{Market Value per Share}}{\text{Book Value per Share}}$
(f) Market Price to Cash Flow Ratio	$= \frac{\text{Market Price per Share}}{\text{Cash Flow per Share}}$

<b>Market Test or Valuation Ratio:</b>	
(a) Capital Gearing Ratio	$= \frac{\text{Equity Share Capital} + \text{Reserve \& Surplus}}{\text{Pref. Capital} + \text{Long term Debt bearing Fixed Interest}}$
(b) Total Investment to Long Term Liabilities	$= \frac{\text{Shareholders Fund} + \text{Long term Liabilities}}{\text{Long term Liabilities}}$
(c) Debt Equity Ratio	$= \frac{\text{Outsiders Funds}}{\text{Shareholders Funds}}$
(d) Ratio to Fixed Assets to Funded Debt	$= \frac{\text{Fixed Assets}}{\text{Funded Debts}}$
(e) Ratio of Current Liabilities to Proprietors fund	$= \frac{\text{Current Liabilities}}{\text{Shareholders' Funds}}$
(f) Ratio of Reserve to Equity Capital	$= \frac{\text{Reserves}}{\text{Equity Share Capital}} \times 100$
(g) Financial Leverage	$= \frac{\text{EBIT}}{\text{EBIT} - \text{Interest \& Pref. Dividend}}$
(h) Operating Leverage	$= \frac{\text{Contribution}}{\text{EBIT}}$

## Working Capital

As per the definitions phrased by experts,

*"Working capital is the amount of funds necessary to cover the cost of operating the enterprises."*

---Shubin

*"Circulating capital means current assets of a company that are changed in the ordinary course of business from one form to another, as for example, from cash to inventories, inventories to receivables, receivables in to cash."*

---Genestenberg

Broadly, there are two types of capital required for a business:

- Fixed Capital
- Working Capital

Fixed capital requires investing in long term investments of business to create production facility through purchase of fixed assets such as building, plant, machinery, furniture etc. Investment in these assets means permanent blockage of capital or for a long term fixed term blockage of funds.

Capital is required for short term purposes to purchase raw material, payment of day to day needs of organization, routine business expenditure, payment of salaries, wages, taxes etc. These funds are called working capital. Working capital refers to capital to finance short term or current assets such as cash, securities, debtors and inventories.

### Gross Working Capital and Net Working Capital

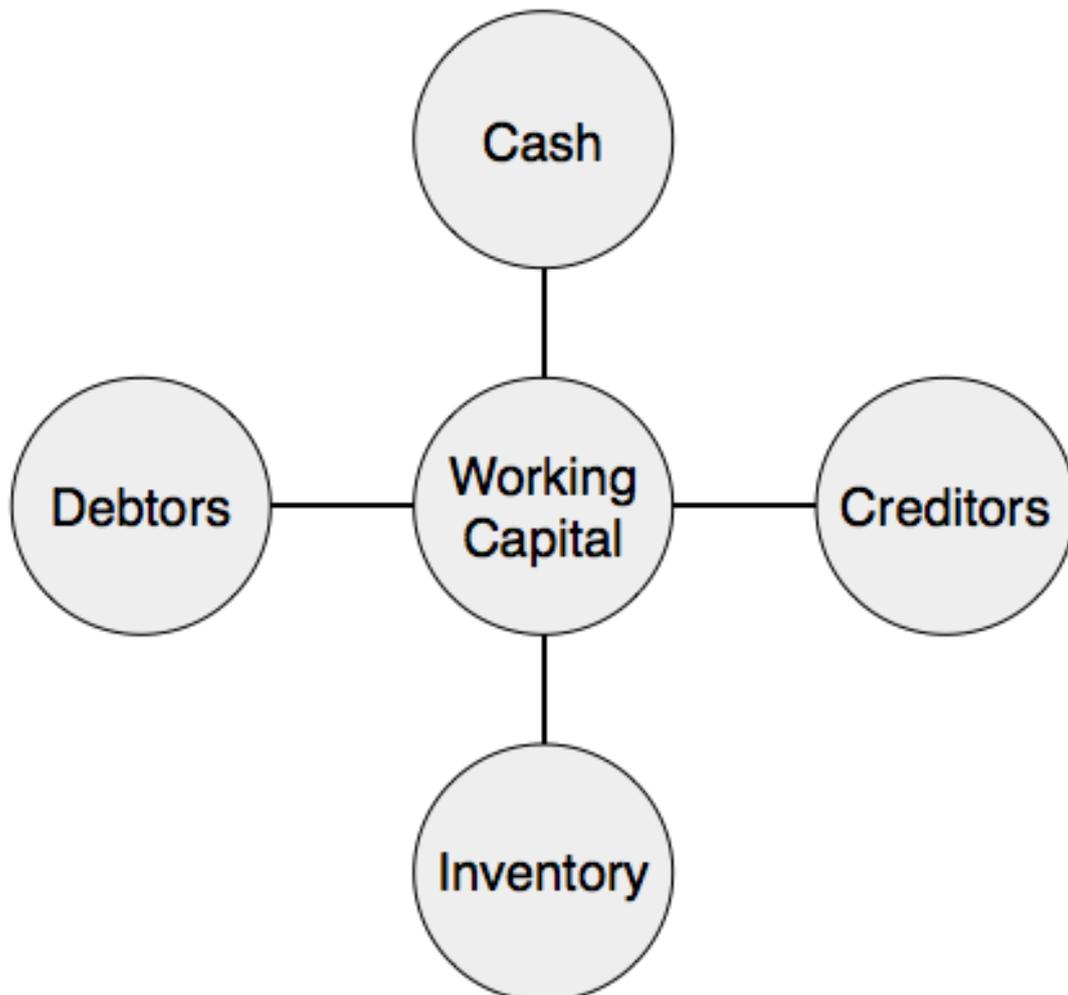
Gross working capital means the investment in current assets, whereas the Net working capital means the difference of current assets and current liabilities. Net working capital can be positive or negative.

<b>NET WORKING CAPITAL</b>	
<b>A) Current Assets:</b>	
Cash in hand	XXX
Cash at Bank	XXX
Sundry Debtors	XXX
Bills receivables	XXX
Inventories of Stock	
----Raw Material	XXX
----Work-in-Process	XXX
--- Finished Goods	XXX
Short Term Investments	XXX
Prepaid Expenses	XXX
Accrued Incomes	XXX
<b>Total Current Assets</b>	<b>XXXXX</b>
<b>B) Less: Current Liabilities</b>	
Sundry Creditors	XXX
Short term Loans, advances and deposits	XXX
Bank Overdraft	XXX
Bills payable	XXX
Provisions	XXX
Expenses Payable	XXX
<b>Total Current Liabilities</b>	<b>XXXX</b>

<b>Working Capital (A - B)</b>	XX
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## Working Capital Cycle

Generation and disbursement of cash is carried out in the manner depicted by the following diagram:



# 8. BUDGETING ANALYSIS

This chapter covers the following topics:

- Budget, budgeting, and budgetary control
- Flexible budget vs Fixed budget
- Preparation of Simple flexible budget
- Preparation of Simple cash budget

## Definition

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We are all well-familiar with the term **budget**. Budgeting is a powerful tool that helps the management in performing its functions such as planning, coordinating, and controlling the operations efficiently. The definition of budget is,

*A plan quantified in monetary terms prepared and approved prior to a define period of time usually showing planned income to be generated and/or expenditure to be incurred during the period and the capital to be employed to attain a given objective.*

---CIMA, England

## Budget, Budgeting, and Budgetary Control

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Let us go through the terms sequentially.

### Budget

Budget represents the objectives of any organization that is based on the implication of forecast and related to planned activities.

Budget is neither an estimate nor a forecast because an estimation is a predetermination of future events, may be based on simple guess or any scientific principles.

Similarly, a forecast may be an anticipation of events during a specified period of time. A forecast may be for a specific activity of the company. We normally forecast likely events such as sales, production, or any other activity of the organization.

On the other hand, budget relates to planned policy and program of the organization under planed conditions. It represents the action according to a situation which may or may not take place.

## Budgeting

Budgeting represents the formation of the budget with the help and coordination of all or the various departments of the firm.

## Budgetary Control

Budgetary control is a tool for the management to allocate responsibility and authority in planning for future and to develop a basis of measurement to evaluate the efficiency of operations.

A budget is a plan of the policy to be pursued during a defined time period. All the actions are based on planning of budget because budget is prepared after studying all the related activities of the company. Budget gives a communication ground to the top management with the staff of the firm who are implementing the policies of the top management.

Budgetary control helps in coordinating the economic trends, financial position, policies, plans, and actions of an organization.

Budgetary control also helps the management to ensure and control the plan and activities of the organization. Budgetary control makes it possible by continuous comparison of actual performance with that of the budgets.

*Budgets are the individual objectives of a department whereas budgeting may be said to be the act of building budgets. Budgetary Control embraces all this and in addition, includes the science of planning the budgets themselves and utilization of such budget to effect an overall management tool for the business planning and control.*

...Rowland and William

## Types of Budgets

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Budgets can be categorized in various ways. Let us go through the types of budgets in detail.

### Functional Budgets

It relates to any function of the firm such as sales, production, cash, etc. Following budgets are prepared in functional budgets:

- Sales Budget
- Production Budget
- Material Budget
- Manufacturing Budget
- Administrative Cost Budget
- Plant Utilization Budget
- Capital Expenditure Budget

- Research and Development Cost Budget
- Cash Budget

### **Master Budget or Summarized Budget or Finalized Profit plan**

This budget is very useful for the top management of the company because it covers all the information in a summarized manner.

### **Fixed Budget**

It is a rigid budget and is drawn on the assumption that there will be no change in the budget level.

### **Flexible Budget**

It is also called a sliding scale budget. It is useful in:

- the new organizations where it is difficult to foresee,
- the firms where activity level changes due to seasonal nature or change in demand,
- the industries based on change of fashion,
- the units which keep on introducing new products, and
- the firms which are engaged in ship-building business.

### **Zero Base Budgeting**

Zero base budgeting is not based on the incremental approach; previous year figures are not adopted as base.

CIMA has defined it as:

*As a method of budgeting, where all activities are revaluated each time a budget is set, discrete levels of each activity are valued and combination is chosen to match the funds available.*

### **Control Ratios**

Following ratios are used to evaluate the deviations of the actual performance from the budgeted performance. If the ratio is 100% or more, it represents favorable results and vice-a-versa.

$$\text{Capacity Ratio} = \frac{\text{Actual hours worked}}{\text{Budgeted hours}} \times 100$$

$$\text{Activity Ratio} = \frac{\text{Standard hours for actual production}}{\text{Budgeted hours}} \times 100$$

$$\text{Efficiency Ratio} = \frac{\text{Standard hours for actual production}}{\text{Actual hours worked}} \times 100$$

$$\text{Calendar Ratio} = \frac{\text{Number of actual working days in a period}}{\text{Number of working days in the budgeted period}} \times 100$$

## Flexible Budget v/s Fixed Budget

Points	Flexible Budget	Fixed Budget
Flexibility	Due to its nature of flexibility, it may be quickly re-organized according to the level of production.	After the commencement of a period, fixed budget cannot change according to actual production.
Condition	Flexible budget may change according to change in conditions.	Fixed budget is based on the assumption that conditions will remain unchanged.
Cost Classification	Classification of costs is done according to the nature of their variability.	It is suitable for fixed costs only; no classification is done in fixed budget.
Comparison	Comparisons of actual figures with revised standard figures are done according to change in the production level of a concern.	If there is change in production level, then it is not possible to do a correct comparison.
Ascertainment of cost	It is easy to ascertain costs even at different levels of activity.	If there is change in the production level or circumstances, it is not possible to ascertain costs correctly.
Cost Control	It is used as an effective tool to control costs.	Due to its limitations, it is not used as cost control tool.

## Flexible Budget

Flexible budget provides logical comparison. The actual cost at the actual activity is compared with the budgeted cost at the time of preparing a flexible budget. Flexibility recognizes the concept of variability.

Flexible budget helps in assessing the performance of departments in relation to the activity level achieved. Cost ascertainment is possible at different levels of activities. It is also useful in fixation of price and preparation of quotations.

### Example

With the help of the following given expenses, prepare a budget for production of 10,000 units. Prepare flexible budgets for 5,000 and 8,000 units.

Costs	Price per Unit (Rs)
Material	75
Labor	20
Variable Factory Overheads	15
Fixed Factory Overheads (Rs 50,000)	5
Variable Expenses (Direct)	6
Selling Expenses (20% Fixed)	20
Distribution Expenses (10% fixed)	10
Administrative Expenses ( Rs 70,000)	7
Total cost of Sale per unit	158

**Solution:**

Particulars	Output 5000 units		Output 8000 units	
	Rate (Rs)	Amount	Rate (Rs)	Amount
<b>Variable or Production Expenses:</b>				
Material	75.00	3,75,000	75.00	6,00,000
Labour	20.00	1,00,000	20.00	1,60,000
Direct Variable Overheads	6.00	30,000	6.00	48,000
<b>Prime Cost</b>	<b>101.00</b>	<b>5,05,000</b>	<b>101.00</b>	<b>8,08,000</b>
<b>Factory Overheads:</b>				
Variable Overheads	15.00	75,000	15.00	1,20,000
Fixed Overheads	10.00	50,000	6.25	50,000
<b>Works Cost</b>	<b>126.00</b>	<b>6,30,000</b>	<b>122.25</b>	<b>9,78,000</b>
Fixed Administrative Expenses	14.00	70,000	8.75	70,000
<b>Cost of Production</b>	<b>140.00</b>	<b>7,00,000</b>	<b>131.00</b>	<b>10,48,000</b>
<b>Selling Expenses:</b>				
Fixed 20% of Rs.20/-	8.00	40,000	5.00	40,000
Variable Cost 80% of Rs.20/-	16.00	80,000	16.00	1,28,000
<b>Distribution Expenses:</b>				
Fixed 10% of Rs. 10/-	2.00	10,000	1.25	10,000
Variable 90% of Rs.10/-	9.00	45,000	9.00	72,000
<b>Total Cost of Sale</b>	<b>175.00</b>	<b>8,75,000</b>	<b>162.25</b>	<b>12,98,000</b>

## Cash Budget

Cash budget comes under the category of financial budget. It is prepared to calculate budgeted cash flows (inflows and outflows) during a specific period of time. Cash budget is useful in determining the optimum level of cash to avoid excessive cash or shortage of cash, which may arise in future.

With the help of cash budget, we can arrange cash through borrowing funds in case of shortage, and we may invest cash if it is present in excess.

It is necessary for every business to keep a safe level of cash. Being a part of master budget, the following tasks are included in a cash budget:

- Collection of Cash
- Cash payments
- Selling Expenses and administrative expensive budget

**Format:**

If a firm wants to maintain cash balance of Rs 50,000 and in case of shortage the firm borrows funds from Bank, following cash budget is prepared:

Particulars	Q-1	Q -2	Q-3	Q-4	Total (Yearly)
Opening Cash Balance	40,000	50,000	50,000	50,500	40,000
Add; Cash receipts	80,000	1,00,000	90,000	1,25,000	3,95,000
<b>Total available Cash (A)</b>	<b>1,20,000</b>	<b>1,50,000</b>	<b>1,40,000</b>	<b>1,75,500</b>	<b>4,35,000</b>
Less: Cash Payments:					
Direct Material	30,000	40,000	38,000	42,000	1,50,000
Direct Labour	12,000	15,000	14,000	16,000	57,000
Factory Overheads	18,000	19,000	17,000	20,000	74,000
Administrative Expenses	16,000	16,000	16,000	16,000	64,000
Selling & Distribution Exp.	9,000	10,000	11,000	12,000	42,000
Purchase of Fixed Assets	-	-	40,000	-	40,000
<b>Total Cash Payments (B)</b>	<b>85,000</b>	<b>1,00,000</b>	<b>1,36,000</b>	<b>1,06,000</b>	<b>4,27,000</b>
<b>Cash in hand C (A-B)</b>	<b>35,000</b>	<b>50,000</b>	<b>4,000</b>	<b>69,500</b>	<b>8,000</b>
Financing Activities:	15,000	-	50,000	-	65,000
Borrowings		-	-3,000	-18,000	-21,000
Repayments of Borrowings		-	-500	-1,500	-2,000
Interest paid					
Net Cash Flows from financing Activities (D)	23,000	0	46,500	-19,500	50,000
<b>Closing Cash Balance E (C+D)</b>	<b>58,000</b>	<b>50,000</b>	<b>50,500</b>	<b>50,000</b>	<b>50,000</b>