
ALL THE VERY BEST FOR YOUR EXAMS

SHORT NOTES FOR CAIIB ADVANCED BANK MANAGEMENT

Though we had taken enough care to go through the notes provided here, we shall not be responsible for any loss or damage, resulting from any action taken on the basis of the contents. Creation of these short notes is the efforts of so many persons. First of all we thank all of them for their valuable contribution. We request everyone to go through the Macmillan book and update yourself with the latest information through RBI website and other authenticated sources. In case you find any incorrect/doubtful information, kindly update us also (along with the source link/reference for the correct information).

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CAIIB – GENERAL INFORMATION

Consists of 5 papers :

I. Compulsory Paper

1. Advanced Bank Management
2. Bank Financial Management
3. Advanced Business & Financial Management
4. Banking Regulations and Business Laws

II. Elective Papers (Candidates to choose any one of their Choice)

1. Rural Banking
2. Human Resources Management
3. Information Technology & Digital Banking
4. Risk Management
5. Central Banking

- Only existing employees of banks who had cleared JAIIB can appear for CAIIB Exam.
- CAIIB exams are conducted in on-line mode only.
- The examination will be conducted normally twice a year in May / June and November / December on Sundays.
- The duration of the examination will be of 2 hours.
- **Examination Pattern :**
 - (i) Question Paper will contain 100 objective type multiple choice questions for 100 marks including questions based on case studies/ case lets. The Institute may however vary the number of questions to be asked for a subject.
 - (ii) There may be some numerical questions in some of the CAIIB subjects where, no options will be provided. These questions will not be in the MCQ pattern and the answer has to be keyed in by the candidate.
 - (iii) The examination will be held in Online Mode only.
 - (iv) There will be no negative marking for wrong answers.
 - (v) Questions for the examination will be asked for:
 - a. Knowledge testing
 - b. Conceptual grasp
 - c. Analytical/ logical exposition
 - d. Problem solving
 - e. Case analysis

➤ **Passing Criteria :**

1. Minimum marks for pass in the subject is 50 out of 100.
2. Candidates securing at least 45 marks in each subject with an aggregate of 50% marks in all subjects of examination in a single attempt will also be declared as having completed the Examination.
3. Candidates will be allowed to retain credits for the subject they have passed in an attempt till the expiry of the time limit for passing the examination.

Note : A candidate will be given 5 attempts for completion of exam (CAIIB) but, within a maximum period of three years, whichever is earlier, from the time he/she registers for the exam. These 5 attempts need not be consecutive.

➤ **"Class of Pass" Criteria :**

- ❖ **First Class** : 60% or more marks in aggregate and pass in all the subjects in the FIRST PHYSICAL ATTEMPT.
- ❖ **First Class with Distinction** : 70% or more marks in aggregate and 60% or more marks in each subject in the FIRST PHYSICAL ATTEMPT.
- ❖ Candidates who have been granted exemption in the subject/s will be given "**Pass Class**" only.

➤ **Cut-off Date of Guidelines /Important Developments for Examinations :**

- ❖ In respect of the exams to be conducted by the Institute for the Period from February to July of a calendar year, instructions/guidelines issued by the regulator(s) and important developments in banking and finance up to 31st December will only be considered for the purpose of inclusion in the question papers.
- ❖ In respect of the exams to be conducted by the Institute for the period from August to January of a calendar year, instructions/guidelines issued by the regulator(s) and important developments in banking and finance up to 30th June will only be considered for the purpose of inclusion in the question papers.

➤ **Exam Fees**

Description	Fees*
First attempt fee	5,000
Second attempt fee	1,300
Third attempt fee	1,300
Fourth attempt fee	1,300
Fifth attempt fee	1,300

* Plus Convenience charges and Taxes as applicable.

Please Note: Candidates are required to Register for every attempt separately

SYLLABUS

The details of the prescribed syllabus which is indicative are furnished in the booklet. However, keeping in view the professional nature of examinations, all matters falling within the realm of the subject concerned will have to be studied by the candidate as questions can be asked on all relevant matters under the subject.

Candidates appearing for the examination should particularly prepare themselves for answering questions that may be asked on the latest developments taking place under the various subject/s of the said examination although those topics may not have been specifically included in the syllabus. Further, questions based on current developments in banking and finance may be asked. **Candidates are advised to refer to financial news papers / periodicals more particularly "IIBF VISION" and "BANK QUEST" published by IIBF.**

MODULE A: STATISTICS

Definition of Statistics, Importance & Limitations & Data Collection, Classification & Tabulation

Importance of Statistics; Functions of Statistics; Limitation or Demerits of Statistics; Definitions; Collection of Data; Classification and Tabulation; Frequency Distribution

Sampling Techniques

Random Sampling; Sampling Distributions; Sampling from Normal Populations; Sampling from Non-Normal Populations; Central Limit Theorem; Finite Population Multiplier

Measures of Central Tendency & Dispersion, Skewness, Kurtosis

Arithmetic Mean; Combined Arithmetic Mean; Geometric Mean; Harmonic Mean; Median and Quartiles; Mode; Introduction to Measures of Dispersion; Range and Coefficient of Range; Quartile Deviation and Coefficient of Quartile Deviation; Standard Deviation and Coefficient of Variation; Skewness and Kurtosis

Correlation and Regression

Scatter Diagrams; Correlation; Regression; Standard Error of Estimate

Time Series

Variations in Time Series; Trend Analysis; Cyclical Variation; Seasonal Variation; Irregular Variation; Forecasting Techniques

Theory of Probability

Mathematical Definition of Probability; Conditional Probability; Random Variable; Probability Distribution of Random Variable; Expectation and Standard Deviation; Binomial Distribution; Poisson Distribution; Normal Distribution; Credit Risk; Value at Risk; Option Valuation

Estimation

Estimates; Estimator and Estimates; Point Estimates; Interval Estimates; Interval Estimates and Confidence Intervals; Interval Estimates of the Mean from Large Samples; Interval Estimates of the Proportion from Large Samples

Linear Programming

Graphic Approach; Simplex Method

Simulation

Simulation Exercise; Simulation Methodology

MODULE B: HUMAN RESOURCE MANAGEMENT

Fundamentals of Human Resource Management

The Perspective; Relationship between HRM & HRD and their Structure and Functions; Role of HR Professionals; Strategic HRM; Development of HR Functions in India

Development of Human Resources

HRD and its Subsystems; Learning and Development – Role and Impact of Learning; Attitude Development; Career Path Planning; Self-Development; Talent Management; Succession Planning

Human Implications of Organisations

Human Behaviour and Individual Differences; Employees Behaviour at Work; Diversity at Workplace and Gender Issues; Theories of Motivation and their Practical Implications; 'Role' : Its Concept & Analysis

Employees' Feedback and Reward System

Employees' Feedback; Reward and Compensation System

Performance Management

Appraisal Systems; Performance Review and Feedback; Counselling; Competency Mapping and Assessment of Competencies; Assessment Centres; Behavioural Event Interview (BEI)

Conflict Management and Negotiation

Conflict: Concept & Definition; Characteristics of Conflict; Types of Conflicts; Reasons for Conflict; Different Phases of Conflict; Conflict Resolution; Conflict Management; Negotiation Skills for Resolution of Conflicts

HRM and Information Technology

Role of Information Technology in HRM; HR Information and Database Management; Human Resource Information System (HRIS); Human Resource Management System (HRMS); e-HRM; HR Research; Knowledge Management; Technology in Training; HR Analytics

MODULE C: CREDIT MANAGEMENT

Overview of Credit Management

Importance of Credit; Historical Background of Credit in India; Principles of Credit; Types of Borrowers; Types of Credit; Components of Credit Management; Role of RBI Guidelines in Bank's Credit Management

Analysis of Financial Statements

Which are the Financial Statements; Users of Financial Statements; Basic Concepts Used in Preparation of Financial Statements; Accounting Standards (AS); Legal Position Regarding Financial Statements; Balance Sheet; Profit and Loss Account; Cash Flow Statement; Funds Flow Statement; Projected Financial Statements; Purpose of Analysis of Financial Statements by Bankers; Rearranging the Financial Statements for Analysis; Techniques used in Analysis of Financial Statements; Creative Accounting; Related Party Transactions

Working Capital Finance

Concept of Working Capital; Working Capital Cycle; Importance of Liquidity Ratios; Methods of Assessment of Bank Finance; Working Capital Finance to Information Technology and Software Industry; Bills/Receivables Finance by the Banks; Guidelines of RBI for Discounting/Rediscounting of Bills by Banks; Trade Receivables Discounting System (TReDS); Non-Fund Based Working Capital Limits; Other Issues Related to Working Capital Finance

Term Loans

Important Points about Term Loans; Deferred Payment Guarantees (DPGs); Difference between Term Loan Appraisal and Project Appraisal; Project Appraisal; Appraisal and Financing of Infrastructure Projects

Credit Delivery and Straight Through Processing

Documentation; Third-Party Guarantees; Charge over Securities; Possession of Security; Disbursal of Loans; Lending under Consortium/Multiple Banking Arrangements; Syndication of Loans; Straight-Through Loan Processing or Credit Underwriting Engines

Credit Control and Monitoring

Importance and Purpose; Available Tools for Credit Monitoring/Loan Review Mechanism (LRM)

Risk Management and Credit Rating

Meaning of Credit Risk; Factors Affecting Credit Risk; Steps taken to Mitigate Credit Risks; Credit Ratings; Internal and External Ratings; Methodology of Credit Rating; Use of Credit Derivatives for Risk Management; RBI guidelines on Credit Risk Management; Credit Information System

Restructuring/Rehabilitation and Recovery

Credit Default/Stressed Assets/NPAs; Wilful Defaulters; Non-cooperative borrowers; Options Available to Banks for Stressed Assets; RBI Guidelines on Restructuring of Advances by Banks; Available Frameworks for Restructuring of Assets; Sale of Financial Assets

Resolution of Stressed Assets under Insolvency and Bankruptcy Code 2016

Definition of Insolvency and Bankruptcy; To Whom the Code is Applicable; Legal Elements of the Code; Paradigm Shift; Corporate Insolvency Resolution Process; Liquidation process; Pre-packed Insolvency Resolution Process for stressed MSMEs

MODULE D: COMPLIANCE IN BANKS & CORPORATE GOVERNANCE

Compliance Function in Banks

Compliance Policy; Compliance Principles, Process and Procedures; Compliance Programme; Scope of Compliance Function; Role & Responsibilities of Chief Compliance Officer (CCO)

Compliance Audit

Role of Risk Based Internal Audit and Inspection; Reporting Framework and Monitoring Compliance; Disclosure Requirements; Accounting Standards; Disclosures under Listing Regulations of SEBI

Compliance Governance Structure

Organisational Structure; Responsibility of the Board and Senior Management; Compliance Structure at the Corporate Office; Functional Departments; Compliance Structure at Field Levels; Internal Controls and its Importance

Framework for Identification of Compliance Issues and Compliance Risks

Compliance Issues; Compliance Risk; Inherent Risk and Control Risk; Independent Testing and Effective Audit Programme; Reporting Framework and Monitoring Compliance; Role of Inspection and Audit; Loan Review Mechanism/Credit Audit; What is Good Compliance

Compliance Culture and GRC Framework

How to Create Compliance Culture Across the Organisation; Governance, Risk and Compliance – GRC Framework; Benefits of an Integrated GRC Approach; Whistle-blower Policy; The Components of a Whistle-blower Policy; Reasons for Compliance Failures

Compliance Function and Role of Chief Compliance Officer in NBFCs

Framework for Scale Based Regulation for Non-Banking Financial Companies; Transition Path; Framework for Compliance Function and Role of Chief Compliance Officer in Non-Banking Financial Companies in Upper Layer and Middle Layer (NBFC-UL & NBFC-ML)

Fraud and Vigilance in Banks

Definition of Fraud; Definition of Forgery; Areas in which Frauds are committed in Banks; Banking and Cyber Frauds; Fraud Reporting and Monitoring System; Vigilance Function in Banks; RBI Guidelines for Private Sector and Foreign

MODULE - A - STATISTICS

UNIT - 1 - Definition of Statistics, Importance & Limitations & Data Collection, Classification & Tabulation

INTRODUCTION

- The word '**Statistics**' has been derived from the Latin word 'statisticum', Italian word 'statistia' and German word 'statistik', each of which means a **group of numbers or figures that represent some information of human interest**.
- It was first used by professor Achenwell in 1749 to refer to the subject-matter as a whole.
- Achenwell defined statistics as the political science of many countries.

- Data mean information, which can be of two types – Qualitative and Quantitative.
- Statistics means quantitative or numerical data, which can be used for further calculations.
- **Statistical analysis of data can be comprised of four distinct phases:**
 - 1. Collection of data:** In this first stage of investigation, numerical data is collected from different published or unpublished sources, primary or secondary.
 - 2. Classification and Tabulation of data:** The raw data collected is to be represented properly for further calculations. The raw data is divided into different groups or classes and represented in a form of a table.
 - 3. Analysis of data:** Classified and Tabulated data is analysed using different formulas and methods according to purpose of the study or investigation.
 - 4. Interpretation of data:** At the final stage, relevant conclusions are drawn after the data is thoroughly analysed

IMPORTANCE OF STATISTICS

Applications of Statistics is important in every sphere of field

- ❖ Business and economics
- ❖ Medical
- ❖ Sports
- ❖ Weather forecast
- ❖ Stock Market
- ❖ Quality Testing
- ❖ Government decisions and policies
- ❖ Banks
- ❖ Different educational and research organisations, etc.

FUNCTION OF STATISTICS

1. Statistics present the facts in definite form
2. Statistics simplify complex data
3. It provides a techniques of comparison
4. Statistics study the relationship between two or more variables
5. It helps in formulating policies
6. It helps in forecasting outcomes

LIMITATIONS OR DEMERITS OF STATISTICS

1. Statistics do not deal with Individuals
2. Statistics does not study Qualitative Data
3. Statistics give Result only on an Average
4. The results can be biased

DEFINITIONS

Population: It is the entire collection of observations (person, animal, plant or things which is actually studied by a researcher) from which we may collect data. It is the entire group we are interested in and from which we need to draw conclusions.

Example

1. If we are studying the weight of adult men in India, the population is the set of weights of all men in India.
2. If we are studying the grade point average of students of Mumbai University, the population is the set of GPA's of all students of Mumbai University.

Sample: Sometimes the population from which we need to draw conclusion is too large to study. At times collecting data from too large a population becomes time-consuming and expensive. To save time and money, generally a part of population is selected for study. A sample is a part (a group of units) of population which is representative of the actual population. By studying the sample, it is expected that valid conclusions are drawn about the whole group.

Example: The population for a study of infant health might be all children born in India in one particular year. The sample might be all babies born on one particular day in that year.

Data can be classified into two types, based on their characteristics.

1. Variates: A characteristic that varies from one individual to another and can be expressed in numerical terms is called variate.

Example: Prices of a given commodity, wages of workers, heights and weights of students in a class, marks of students, etc.

2. Attributes: A characteristic that varies from one individual to another but can't be expressed in numerical terms is called an attribute.

Example: Colour of the ball (black, blue, green, etc.), religion of human, etc.

Quantitative or Numerical variables can be further classified as discrete and continuous.

Discrete Variable: A variate which takes discrete or distinct value or in other words can take only a countable and usually finite number of values is called Discrete Variable.

Example: Number of members in a family, Number of accidents, Age in years.

Continuous Variable: A variate that can take any value within a range (integral/fractional) is called Continuous Variable.

Example: Percentage of marks, Height, Weight.

Parameter: A parameter is a numerical value or function of the observations of the entire population being studied. A parameter is usually an unknown value that is fixed.

Example: Population mean, population median, population standard deviation, etc.

COLLECTION OF DATA

Researchers or investigators need to collect data from respondents. There are two types of data.

Primary Data

Primary data is the data which is collected directly or first time by the investigator or researcher from the respondents. Primary data is collected by using the following methods:

- ❖ Direct Interview Method
- ❖ Questionnaires
- ❖ Census and sample survey

Secondary Data

Secondary data are the Second hand information. The data which have already been collected and processed by some agency or persons and is collected for the second time are termed as secondary data. According to M. M. Blair, "Secondary data are those already in existence and which have been collected for some other purpose."

Secondary data may be collected from existing records, different published or unpublished sources, like WHO, UNESCO, LIC, etc., various research and educational organisations, banks and financial places, magazines, internet, etc.

Distinction between primary and secondary data

1. The data collected for the first time is called Primary data and data collected through some published or unpublished sources is called Secondary data.

2. The primary data in the hands of one person can become secondary for all others. For example, the population census report is primary for the Registrar General of India and the information from the report is secondary for others.

3. Primary data are original as they are collected first time from the respondents directly or by preparing questionnaires. So they are more accurate than the secondary data. But the collection of primary data requires more money, time and energy than the secondary data. A proper choice between the two forms of information should be made in an enquiry.

CLASSIFICATION AND TABULATION

Classification: To make the data understandable, comparable and to locate similarities, the next step is classification of data. The method of arranging data into homogeneous group or classes according to some common characteristics present in the data is called Classification.

Example: The process of sorting letters in a post office, the letters are classified according to the cities and further arranged according to the streets.

Tabulation: Classified data is presented in a more organised way so it is easier to interpret and compare them, which is known as Tabulation.

There are four important bases of classifications:

- 1. Qualitative Base:** Here the data is classified according to some quality or attribute such as sex, religion, literacy, intelligence, etc.
- 2. Quantitative Base:** Here the data is classified according to some quantitative characteristic like height, weight, age, income, marks, etc.
- 3. Geographical Base:** Here the data is classified by geographical regions or location, like states, cities, countries, etc. like population in different states of India.
- 4. Chronological or Temporal Base:** Here the data is classified or arranged by their time of occurrence, such as years, months, weeks, days, etc. This classification is also called Time Series data. Example: Sales of a company for different years.

Types of Classification

1. If we classify observed data for a single characteristic, it is known as **One-way Classification**. Ex: Population can be classified by Religion – Hindu, Muslim, Christians, etc.
2. If we consider two characteristics at a time to classify the observed data, it is known as a **Two-way classification**. Ex: Population can be classified according to Religion and sex.
3. If we consider more than two characteristics at a time in order to classify the observed data, it is known as **Multi-way Classification**. Ex: Population can be classified by Religion, sex and literacy.

Frequency Distribution

Frequency: If the value of a variable (discrete or continuous) e.g., height, weight, income, etc. occurs twice or more in a given series of observations, then the number of occurrences of the value is termed as the “frequency” of that value.

Frequency Distribution: The way of representing a data in a form of a table consisting of the values of the variable with the corresponding frequencies is called “frequency distribution”. So, in other words, Frequency distribution is a table used to organise the data. The left column (called classes or groups) includes numerical intervals on a variable under study. The right column contains the list of frequencies, or number of occurrences of each class/group.

Intervals are normally of equal size covering the sample observations range.

1. Class-limits or Class Intervals

A class is formed within the two values, class-limits or class-intervals. The lower value is called lower class limit or lower-class interval and the upper value is called upper class limit or class interval.

2. Class Length or Class Width

The difference between the class’ upper and lower class limit is called the length or the width of class.

Class Length = Class Width = Upper Class Interval – Lower Class Interval

3. Mid-Value or Class Mark

The mid-point of the class is called mid-value or class mark.

Class Mark = (Lower class-limit + Upper Class limit)/2

4. Types of Class Intervals.

There are two types of class-interval.

(i) Exclusive type

Class intervals like 0–10, 10–20; 500–1000, 1000–1500 are called exclusive types. Here the upper limits of the classes are excluded from the respective classes and put in the next class while considering the frequency of the respective class. For example, the value 15 is excluded from the class 10–15 and put in the class 15–20.

(ii) Inclusive type

Class intervals like 60–69, 70–79, 80–89, etc. are inclusive type. Here both the lower and upper class limits are included in the class-intervals while considering the frequency of the respective class, e.g., 60 and 69 are both included in the class 60–69.

5. Class Boundaries

Inclusive classes can be converted to exclusive classes and the new class intervals are called class boundaries.

Example 3: The classes 5–9, 10–14 can be converted to exclusive type of classes using the formula →
New UCI = Old UCI + $(10 - 9)/2 = 9 + 0.5 = 9.5$. New LCI = Old LCI – $(10 - 9)/2 = 5 - 0.5 = 4.5$. So the class-boundaries are 4.5–9.5, 9.5–14.5, etc.

6. Open-end Class Interval: In open-end class interval either the lower limit of the first class or upper limit of the last class or both are missing.

Example 4: Below 10 10–20 20–30 30–40 Above 40

7. Relative Frequency

Relative Frequency = Frequency / Total frequency

Example 5: Relative frequency of the class interval = 20–30 in Example 2 is $12/32 = 0.375$

8. Percentage Frequency

Percentage Frequency = (Class frequency/Total Frequency) × 100

Example 6: Percentage frequency of the class interval = 20–30 in Example 2 is $(12/32) 100 = 37.5$.

9. Frequency Density

Frequency density of a class interval = Class frequency/Width of Class

Frequency Distribution is of two types.

1. Discrete Frequency Distribution: Variable takes distinct values.

2. Continuous Frequency Distribution: Variable takes values which are expressed in class intervals within certain limits.

Unit – 2 : Sampling Techniques

Sampling

A process used in statistical analysis in which a predetermined number of observations will be taken from a larger population. When taking a sample from a larger population, it is important to consider how the sample will be drawn. To get a representative sample, the sample must be drawn randomly and encompass the entire population.

For example, a lottery system could be used to determine the average age of students in a University by sampling 10% of the student body, taking an equal number of students from each faculty.

There are three types of sampling:

- 1. Probability sampling:** it is the one in which each sample has the same probability of being chosen.
- 2. Purposive sampling:** it is the one in which the person who is selecting the sample is who tries to make the sample representative, depending on his opinion or purpose, thus being the representation subjective.
- 3. No-rule sampling:** we take a sample without any rule, being the sample representative if the population is homogeneous and we have no selection bias.

We will always make probability sampling, because in case we choose the appropriate technique, it assures us that the sample is representative and we can estimate the errors for the sampling.

There are different types of probability sampling:

- Random sampling with and without replacement.
- Systematic sampling.
- Stratified sampling.
- Cluster sampling.
- Other types of sampling techniques

Random sampling with and without replacement

When a certain element is selected and we have measured the variables needed in a certain study and it can be selected again, we say that we make sampling with replacement. This sampling technique is usually called simple random sampling.

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In the case that the element cannot be selected again after being selected once, we say that we have obtained the sample through a random sampling without replacement.

Systematic Sampling

In systematic sampling, elements are selected from the population at a uniform level that is measured in time, order, or space. If we wanted to interview every twentieth student on a college campus, we would choose a random starting point in the first twenty names in the student directory and then pick every twentieth name thereafter.

Stratified Sampling

To use stratified sampling, we divide the population into relatively homogenous groups, called strata. Then we use one of two approaches. Either we select at random from each stratum a specified number of elements corresponding to the proportion of that stratum in the population as a whole or we draw an equal number of elements from each stratum and give weight to the results according to the stratum's proportion of total population.

Cluster Sampling

In cluster sampling, we divide the population into groups or clusters and then select a random sample of these clusters. We assume that these individual clusters are representative of the population as a whole. If a market Research team is attempting to determine by sampling the average number of television sets per household in a large city, they could use a city map and divide the territory into blocks and then choose a certain number of blocks (clusters) for interviewing. Every household in each of these blocks would be interviewed. A well designed cluster sampling procedure can produce a more precise sample at considerably less cost than that of simple random sampling.

Sampling distribution

Sampling distribution is the distribution of all possible values of a statistic from all possible samples of a particular size drawn from the population.

Standard Error

Standard deviation of the distribution of the sample means is called the standard error of the mean.

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Unit - 3 : Measures of Central Tendency & Dispersion, Skewness, Kurtosis

Central Tendency and Dispersion are the most common and widely used statistical tool which handles large quantity of data and reduces the data to a single value used for doing comparative studies and draw conclusion with accuracy and clarity.

According to the statistician, Professor Bowley “Measures of Central Tendency (averages) are statistical constants which enable us to comprehend in single effort the significant of the whole”.

Main objectives of Measure of Central Tendency

1. To condense data in a single value
2. To facilitate comparisons between data

Requisites of a Good Measure of Central Tendency

1. It should be rigidly defined
2. It should be simple to understand and easy to calculate
3. It should be based on all the observations of the data
4. It should be capable of further mathematical treatment
5. It should be least affected by the fluctuations of the sampling
6. It should not be affected by the extreme values
7. It should be easy to interpret

Three types of averages

1. Mean
3. Median
3. Mode

Mean: Mean or Average is the most commonly used single descriptive measure of Central Tendency. Mean is simple to compute, easy to understand and interpret. Mean is of three types:

1. Arithmetic Mean
2. Geometric Mean
3. Harmonic Mean

Arithmetic Mean: The arithmetic mean is the simplest and most widely used measure of a mean, or average. It simply involves taking the sum of a group of numbers, then dividing that sum by the count of the numbers used in the series.

Arithmetic Mean of ungrouped Raw Data:

$$\bar{x} = (x_1+x_2+x_3+x_4+x_5.....+x_n)/n$$

$$\bar{x} = \Sigma x/n$$

where $x_1, x_2, x_3, x_4 \dots, x_n$, are n observations of x .

Example: Consider the marks scored by 10 students in Mathematics in a certain examination 35, 30, 18, 15, 40, 30, 52, x , 47, 10.

If the arithmetic mean is 30, find the value of x .

Solution:

$$\bar{x} = (x_1 + x_2 + x_3 + x_4 + x_5 + x_6 + x_7 + x_8 + x_9 + x_{10}) / n$$

$$\bar{x} = 30 \text{ [given]}$$

$$30 = (35 + 30 + 18 + 15 + 40 + 30 + 52 + x + 47 + 10) / 10$$

$$30 = (277 + x) / 10$$

$$300 = 277 + x$$

$$x = 300 - 277 = 23$$

Arithmetic Mean of Grouped Raw Data:

If a variate x take values x_1, x_2, \dots, x_n with corresponding frequencies f_1, f_2, \dots, f_n respectively, then the arithmetic mean of these values is given by:

$$\bar{x} = \frac{\sum fx}{N}$$

x_i are the class marks (mid-point) of the class intervals for grouped continuous data.

Example: Find the Arithmetic mean for following:

X	1	2	3	4	5	6	7	8
F	5	6	5	10	8	4	3	2

Solution:

x	f	$x \cdot f$
1	5	5
2	6	12
3	5	15
4	10	40
5	8	40
6	4	24
7	3	21
8	2	16
Total	N= 43	$\sum fx = 173$

$$\text{Arithmetic Mean} = \frac{\sum fx}{N}$$

$$= 173 / 43$$

$$= 4.02$$

Combined Arithmetic Mean:

If \bar{x}_1 , and \bar{x}_2 are the arithmetic mean of two samples of size n_1 and n_2 respectively then, the Combined arithmetic mean \bar{x} of the distribution combining the two can be calculated as

$$\bar{x} = \frac{(n_1\bar{x}_1 + n_2\bar{x}_2)}{(n_1 + n_2)}$$

Example: The average marks of a group of 100 students in Mathematics are 60 and for other group of 50 students, the average marks are 90. Find the average marks combined group of 150 students.

Solution:

$$n_1 = 100, x_1 = 60$$

$$n_2 = 50, x_2 = 90$$

$$\bar{x} = \frac{(n_1\bar{x}_1 + n_2\bar{x}_2)}{(n_1 + n_2)}$$

$$= \frac{\{(100 \times 60) + (50 \times 90)\}}{150}$$

$$= \frac{(6000 + 4500)}{150}$$

$$= \frac{10500}{150}$$

$$= 70$$

Merits of Arithmetic Mean

1. It is rigidly defined
2. It is easy to calculate and simple to follow
3. It is based on all the observations
4. It is determined for almost every kind of data
5. It is finite
6. It is readily put to algebraic treatment
7. It is least affected by fluctuations of sampling

Demerits of Arithmetic Mean

1. It is highly affected by extreme values
2. It cannot average the ratios and percentages properly
3. It is not an appropriate average for highly skewed distribution
4. It cannot be computed accurately if any item is missing
5. The mean sometimes does not coincide with any of the observed value
6. Mean cannot be calculated when open-end class intervals are present in the data

Geometric Mean

The Geometric Mean (GM) is the average value or mean which measures the central tendency of the set of numbers by taking the root of the product of their values.

Geometric mean takes into account the compounding effect of the data that occurs from period to period.

Geometric mean is always less than Arithmetic Mean and is calculated only for positive values.

Applications of Geometric Mean

- It is used in stock indexes.
- It is used to calculate the annual return on the portfolio.
- It is used in finance to find the average growth rates which are also referred to the compounded annual growth rate.
- It is also used in studies like cell division and bacterial growth, etc.

Merits of Geometric Mean

1. It is useful in the construction of index numbers
2. It is not much affected by the fluctuations of sampling
3. It is based on all the observations

Demerits of Geometric Mean

1. It cannot be easily understood
2. It is relatively difficult to compute as it requires some special knowledge of logarithms
3. It cannot be calculated when any item or value is zero or negative

Harmonic Mean:

Harmonic Mean is defined as the reciprocal of the arithmetic mean of reciprocals of the observations. Arithmetic mean is appropriate measure of central tendency when the values have the same units whereas the Harmonic mean is appropriate measure of central tendency when the values are the ratios of two variables and have different measures.

So, generally Harmonic mean is used to calculate the average of ratios or rates.

Applications of Harmonic Mean

- It is used in finance to find average of different rates
- It can be used to calculate quantities such as speed

This is because speed is expressed as a ratio of two measuring units such as km/hr

Comparison between Arithmetic, Geometric and Harmonic Mean

The arithmetic mean is appropriate if the values have the same units(ex. Age or height)

The geometric mean is appropriate if the data contains values with different units of measure, e.g. some measure are height some are dollars, some are miles, etc.)

Harmonic mean is appropriate if the data values are rate or ratios of two variables with different measures, called rates (Km/h).

Arithmetic Mean > Harmonic Mean > Geometric Mean

$$A.M. \times H.M. = (G.M.)^2$$

Example: Find the Harmonic mean of two numbers a and b, if their Arithmetic mean is 16 and Geometric mean is 8.

Solution: Let's say a and b are the two numbers.

Given: A.M. = 16 and G.M. = 8

A.M. \times H.M. = (G.M.)²

16 \times H.M. = 8²

16 \times H.M. = 64

H.M. = 64/16 = 4

Median

The median is the middle value of a distribution, i.e., median of a distribution is the value of the variable which divides it into two equal parts.

Observations are arranged either in ascending order or descending order of their magnitude.

It is the value of the variable such that the number of observations above it is equal to the number of observations below it.

Median is a position average whereas the arithmetic mean is a calculated average.

Median of Ungrouped Raw data

The formula to calculate the median of the data is different for odd and even number of observations.

Median of odd Number of Observations:

If the total number of given observations is odd, then the formula to calculate the median for a number of "n observations" is:

Median = (n+1)/2 th observation

Example: Find the median of the daily wages of nine workers from the following data: 20, 17, 18, 8, 15, 22, 11, 9, 14.

Solution: First arrange the wages in ascending order:

8, 9, 11, 14, 15, 17, 18, 20, 22

Total number of observation (n) = 9

Median = (n+1)/2 th observation

= (9+1)/2 = 5th observation

Median = 5th observation = 15

Median of even Number of Observations

If the total number of given observations is even, then the median formula to calculate the median for n number of observations is:

Median = {n/2th observation + (n+1)/2 th observation}/2

Example: Find Median of 34, 32, 48, 38, 24, 30, 27, 21, 35, 58.

Solution: Arranging the data in ascending order, we have

21, 24, 27, 30, 32, 34, 35, 38, 48, 58.

$n = 10$

Median = $\{n/\text{th observation} + (n+1)/2 \text{ th observation}\}/2$

= $(5\text{th observation} + 6\text{th observation})/2$

= $(32+34)/2 = 33$

Merits of Median

1. It is rigidly defined
2. It is not affected by extreme values
3. Even if the extreme values are not known, median can be calculated if the number of items are known

Demerits of Median

1. It is not based on all observations
2. It is affected by sampling fluctuations

Mode

The mode of a set of numbers is that number, which occurs more number of times than any other number in the set.

It is the most frequently occurring value.

If two or more values occur with equal or nearly equal number of times, then the distribution is said to have two or more modes.

In case, there are three or more modes and the distribution or data set is said to be multimodal.

Mode of ungrouped raw data

Example: Find Mode for the following data:

23, 25, 20, 23, 26, 21, 27, 28, 30, 27, 23.

Solution

Value 23 occurs maximum number of times, so

Mode = 23

Mode of Grouped data:

If a variate X take values x_1, x_2, \dots, x_n with corresponding frequencies f_1, f_2, \dots, f_n respectively, then the mode is

Mode = $l_1 + \{(l_2 - l_1)(f_1 - f_0)/(2f_1 - f_0 - f_2)\}$

where, l_1 = lower limit of the modal class

l_2 = upper limit of the modal class

f_1 = frequency of the modal class

f_0 = frequency of the class preceding the modal class

f_2 = frequency of the class succeeding the modal class

Modal class is the class which has highest frequency.

Merits of Mode

1. It is easy to calculate and understand
2. It is not affected much by sampling fluctuations
3. It is not necessary to know all items. Only the point of maximum concentration is required

Demerits of Mode

1. It is ill defined as it is not based on all observations
2. It is not capable of further algebraic treatment
3. It is not a good representative

Relationship among Mean, Media and Mode

Mode = 3 Median – 2 Mean

Example: What is the mode, if mean =20 and median =15?

Solution:

Mode = 3 Median – 2 Mean

Mode= 3*15-2*20 = 45-40 = 5

Quartiles:

A quartile represents the division of data into four equal parts.

By dividing the distribution into four groups, the quartile calculates the range of values above and below the mean.

A quartile divides data into three points – the lower quartile Q1, the median Q2, and the upper quartile Q3, to create four dataset groupings.

How to calculate Q1, Q2 and Q3?

$Q_1 = l_1 + \frac{(q_1 - cf)(l_2 - l_1)}{f}$ where $q_1 = N/4$

$Q_2 = l_1 + \frac{(q_2 - cf)(l_2 - l_1)}{f}$ where $q_2 = 2N/4$

$Q_3 = l_1 + \frac{(q_3 - cf)(l_2 - l_1)}{f}$ where $q_3 = 3N/4$

where, l_1 = lower limit of the quartile class

l_2 = upper limit of the quartile class

cf = Cumulative frequency of the class interval immediately preceding the quartile class

f = frequency of the quartile class

Quartile class will be find out using q_1, q_2, q_3 formula.

Measure of Dispersion

A single value that attempts to describe a set of data by identifying the central position within the set of data is called measure of central tendency (average).

Measure of Dispersion is another property of a data which establishes the degree of variability or the spread out or scatter of the individual items and their deviation from (or the difference with) the averages or central tendencies.

Various measures of dispersion

Four Absolute Measures of Dispersion

1. Range
2. Quartile Deviation
3. Mean Deviation
4. Standard Deviation

Four Relative Measures of Dispersion

1. Coefficient of Range
2. Coefficient of Quartile Deviation
3. Coefficient of Mean Deviation
4. Coefficient of Variation

Characteristics of a Good Measure of Dispersion

1. It should be rigidly defined
2. It should be based on all observations
3. It should be easy to calculate and understand
4. It should be capable of further algebraic treatment

Range and Coefficient of Range

It is the simplest absolute measure of dispersion.

Range (R) = Maximum – Minimum

Coefficient of Range = $(\text{Max} - \text{Min}) / (\text{Max} + \text{Min})$

Example: Find the range and coefficient of range of the following items: 18, 15, 20, 17, 22, 16.

Solution: Range = Max – Min = 22 – 15 = 7

Coefficient of Range = $(\text{Max} - \text{Min}) / (\text{Max} + \text{Min})$

= $(22 - 15) / (22 + 15) = 7/37$

= 0.19

Merits of Range

1. It is easy to understand
2. It is easy to calculate

Demerits of Range

1. It is not based on all observations
2. It does not have sampling stability. A single observation may change the value of range
3. As the amount of data increases, range becomes less satisfactory

Quartile Deviation and Coefficient of Quartile Deviation

It is the mid-point of the range between two quartiles

Quartile Deviation is defined as

$$QD = (Q3 - Q1) / 2$$

Where Q1 = 1st quartile and Q3 = 3rd quartile

How to calculate Q1, Q2 and Q3?

$$Q1 = l1 + \{(q1 - cf)(l2 - l1) / f\} \text{ where } q1 = N/4$$

$$Q2 = l1 + \{(q2 - cf)(l2 - l1) / f\} \text{ where } q2 = 2N/4$$

$$Q3 = l1 + \{(q3 - cf)(l2 - l1) / f\} \text{ where } q3 = 3N/4$$

$$\text{Co-efficient of QD} = (Q3 - Q1) / (Q3 + Q1)$$

Merits of Quartile Deviation

1. It is easy to calculate and understand
2. It is not affected by extreme values

Demerits of Quartile Deviation

1. It is not based on all observations
2. It is not capable of further algebraic treatment
3. It is affected by sampling fluctuations

Mean Deviation and Coefficient of Mean Deviation

Mean deviation of a set of observations is the arithmetic mean of all the deviations

It is the deviations from mean when calculated considering their absolute values and are averaged

Merits of Mean Deviation

1. It is based on all observations
2. It is easy to understand and also easy to calculate
3. It is not affected by extreme values

Demerits of Mean Deviation

1. Mean deviation ignores algebraic signs; hence it is not capable of further algebraic treatment
2. It is not very accurate measure of dispersion

Standard Deviation (SD) and Coefficient of Variation

Standard deviation is the most important and commonly used measure of dispersion

It measures the spread or variability of a distribution

Merits of Standard Deviation

1. It is rigidly defined and has a definite value
2. It is based on all observations
3. It is not affected much by sampling fluctuations

Demerits of Standard Deviation

1. It is not easy to calculate
2. It is not easy to understand
3. It gives more weight to extreme items

Moments

Moments tell us about the nature of any frequency distribution.

μ_1 = first central moment = $\Sigma(x-\bar{x})^1/n$

μ_2 = second central moment = $\Sigma(x-\bar{x})^2/n$

μ_3 = third central moment = $\Sigma(x-\bar{x})^3/n$

μ_4 = fourth central moment = $\Sigma(x-\bar{x})^4/n$

Skewness

Skewness is the degree of distortion from the symmetrical bell curve or the normal distribution.

It measures the lack of symmetry in data distribution

There are two types of skewness— positive and negative

Positive Skewness

If bulk of observations is in the left side of mean and the positive side is longer, it is called positive skewness or right skewness of the distribution.

In this case, mean and median are greater than mode

Negative Skewness

If bulk of observations is in the right side of mean and the negative side is longer, it is called negative skewness or left skewness of the distribution.

In this case, mean and median are less than mode.

Karl Pearson's measure of skewness

$$\text{Skewness} = \beta_1 = \frac{(\mu_3)^2}{(\mu_2)^3} = \frac{\mu_3^2}{\mu_2^3}$$

Where μ_3 = third central moment = $\frac{\sum(x-x)^3}{n}$

And μ_2 = second central moment = $\frac{\sum(x-x)^2}{n}$

The direction of skewness is measured by sign of β_1 , where the sign of β_1 is the sign of μ_3 .

$\beta_1 = 0$ (symmetrical distribution)

$\beta_1 > 0$ (positive skew)

$\beta_1 < 0$ (negative skew)

Kurtosis

Kurtosis is all about the tails of the distribution – peakiness or flatness.

It is used to describe the extreme values in one versus the other tail.

It is actually the measure of outliers present in the distribution.

The distributions whose peaks are same as of Normal distribution's peak, are called Mesokurtic.

The distributions whose peaks are higher and sharper than mesokurtic, which means tails are fatter, are called Leptokurtic distributions.

The distributions whose peaks are lower and shorter than mesokurtic, which means tails are thinner, are called Platykurtic distributions.

Unit - 4 : Correlation and Regression

Correlation - Regression :

- Regression and correlation analyses show us how to determine both the nature and strength of the relationship between the two variables. Through this method we will learn to predict, with some accuracy, the value of the unknown variable based on past observation and other factors.
- Correlation analysis is the statistical tool to describe the degree to which one variable is linearly related to other.

Correlation is a **relationship** or dependency that exists **between two variables**.

If a correlation exists, it is said that the variables are correlated or there is a correlation between them.

The **linear correlation coefficient** is the **ratio** between the **covariance** and the **product of standard deviations** of both variables.

The **linear correlation coefficient** is denoted by the letter **r**.

$$r = \frac{\text{COV}(X, Y)}{\sigma_x \sigma_y}$$

The regression line is the line that best fits or represents the data on the scatter plot.

Line of Regression of Y on X

The regression line of y on x is used to estimate the values of y from x.

The slope of the line is the quotient between the **covariance** and **variance** of the variable X.

Unit - 5 : Time Series

Time Series:

- **4 Types of variation in Time series:**
 - **Secular Trend – Over a long period of time - Consumer price Index**
 - **Cyclical Fluctuation – Business cycle**
 - **Seasonal variation – Doctor – Seasons (changes within a year)**
 - **Irregular variation – Unpredictable, Earth Quake, war etc.**
-

Unit 6. Theory of Probability

Probability

- ❖ Probability means chance or possibility of happening of an event
- ❖ Probability gives a numerical measure of this chance or possibility.
- ❖ Suppose it says that there is a 50% chance that rain may occur in this weekend, 50% or 0.5 is called the probability of raining

Factorial:

In mathematics, Factorial is equal to the product of all positive integers which are less than or equal to a given positive integer

The Factorial of an integer is denoted by that integer and an exclamation point.

Thus, factorial five is written as 5! which is equal to

$$5! = 5 \times 4 \times 3 \times 2 \times 1 = 120$$

The product of the first n natural numbers is called factorial n and is denoted by n!

$$n! = n \times (n-1) \times (n-2) \times \dots \times 2 \times 1$$

The above formula can also be represented as

$$n! = n \times (n-1) \times \dots \times (n-r+1) \times (n-r)!$$

Where $r < n$

Permutations and Combinations:

A permutation is the arrangement of objects in which order is the priority.

[A,B,C] , [B,A,C], [C,A,B] all these are different in permutation.

The fundamental difference between permutation and combination is the order of objects. In permutation, the order of objects is very important, i.e., the arrangement must be in the stipulated order of the number of objects, taken only some or all at a time.

The combination is the arrangement of objects in which order is irrelevant.

[A,B,C] , [B,A,C], [C,A,B] all these are same in combination

The notation for permutation is $P(n, r)$ or nPr , denoting the number of permutations of n things when r things are selected at a time.

If there are three things a, b and c , then permutations of three things taken two at a time is denoted by

$P(3, 2)$ or 3P_2 .

It is given by $(a, b), (a, c), (b, c), (b, a), (c, a), (c, b) = 6$

In general,

$P(n, r) = nPr = \frac{n!}{(n-r)!}$

$P(n, r)$ is the number of permutations when r things are selected at a time from n items.

The notation for combination is $C(n, r)$ or nCr , which is the number of combinations or selections of n things if only r things are selected.

If there are three things a, b and c then combination of these three things taken two at a time is denoted by 3C_2 and is given by $(a, b), (a, c), (b, c) = 3$

In General,

$nCr = \frac{n!}{r!(n-r)!}$

Note:

Permutation and Combination are related to each other by formula

$P(n, r) = r! * C(n, r)$.

Example

In how many ways 3 pen can be selected from 5 pen?

Solution

3 pens can be selected from 5 pens in 5C_3 ways

${}^5C_3 = \frac{5!}{3! \times 2!}$

$= \frac{(5 \times 4 \times 3 \times 2 \times 1)}{\{(3 \times 2 \times 1) (2 \times 1)\}}$

$= 10$ ways

Random Experiment or Trial

An operation or experiment conducted under identical conditions and which has a number of possible outcomes is called Random Experiment or Trial.

Example

Tossing a coin, throwing a dice, selecting a card form a pack of cards.

Sample Space and Sample Points

The set of all possible outcomes of a random experiment is called sample space (S).

The elements of the sample space are called sample points.

Sample space is denoted by S.

The number of sample points in a sample space of random experiment is denoted by n (S).

Example

In an experiment of throwing a coin, $S = \{H, T\}$ and $n(S) = 2$

In an experiment of throwing a dice, $S = \{1, 2, 3, 4, 5, 6\}$ and $n(S) = 6$

Event

Any subset of the sample space S is called an event.

If S is a sample space and A is a subset of S (i.e., $A \subset S$), then A is called an event.

Example

In an experiment of throwing dice where $S = \{1, 2, 3, 4, 5, 6\}$,

the event of getting odd numbers is $A = \{1, 3, 5\}$

the event of getting even numbers is $A = \{2, 4, 6\}$

Certain Event

If sample points in an event are same as sample points in sample space of that random experiment, then the event is called a certain event.

Example

Getting any number between 1 to 6 on a dice is a certain event.

Impossible Events

An event which never occurs or which has no favourable outcomes is called an impossible event.

In other words, the event corresponding to the set φ (null set) is called an impossible event.

Example

Getting a number 7 on a dice is an impossible event

Mutually Exclusive Events

Events are said to mutually exclusive if the happening of any of them restricts the happening of the others i.e., if no two or more of them can happen together or simultaneously in the same trial.

Example

In tossing a coin event head and tail are mutually exclusive.

Note: If A & B are mutually exclusive events of sample space S, then $A \cap B = \varnothing$.

Equally Likely Events

Events are said to be equally likely if they have equal chance to occur.

In other words, outcomes of a trial are said to be equally likely if taking into consideration all relevant evidences, there is no reason to prefer one with respect to other.

Example

In throwing a dice all the six faces are equally likely to occur.

Exhaustive Events

If the sample points of the events taken together constitute the sample space of the random experiment, the events are called exhaustive events.

Note: If A & B are exhaustive events of sample space S, then $A \cup B = S$

Complementary Event

If A is an event in sample space S, then the non-occurrence event of A is called Complementary event of A.

Two events A and B are called complementary events, if A and B are exhaustive as well as mutually exclusive events.

In other words, A and B are called complementary events if $A \cup B = S$ and $A \cap B = \varnothing$.

Example

Random Experiment: Throwing a dice,

$S = \{1, 2, 3, 4, 5, 6\}$, $A = \{1, 2\}$, $B = \{3, 4, 5, 6\}$

As $A \cup B = S$ and $A \cap B = \varnothing$, A and B are complementary events.

Complementary event of A is denoted by $[A^c]$, $[A/]$ or $[A.]$

Probability

If the sample space S of a random experiment consists of n equally likely, exhaustive and mutually exclusive sample points and m of them are favourable to an event A, then the probability of event A is given by

$P(A) = m/n = \text{Number of Sample Point in A} / \text{Number of Sample Point in S}$

$= n(A) / n(S)$

$P(A) = \text{Number of favourable outcomes} / \text{Total number of outcomes}$

Since $0 \leq m \leq n$,

$0/n \leq m/n \leq n/n \Rightarrow 0 \leq P(A) \leq 1$

Value to probability is always in between from 0 to 1.

Example

Two unbiased dice are thrown. Find the probability that

- (i) Both the dice show same number.
- (ii) First dice shows 6.
- (iii) The total of the numbers on the dice is 8.

Solution:

Here, $n(S) = 36$

(i) Event A: Both the dice show same number

$$P(A) = \frac{A}{S} = \frac{6}{36} = \frac{1}{6}$$

(ii) Event B: First die shows 6

$$P(B) = \frac{A}{S} = \frac{6}{36} = \frac{1}{6}$$

(iii) Event C: Total of the number on the dice is 8

$$P(C) = \frac{c}{S} = \frac{5}{36}$$

Unit - 7 : Estimation

Estimation refers to the process by which one makes inferences about a population, based on information obtained from a sample.

Point Estimate vs. Interval Estimate

Statisticians use sample statistics to estimate population parameters. For example, sample means are used to estimate population means; sample proportions, to estimate population proportions. An estimate of a population parameter may be expressed in two ways:

- **Point estimate.** A point estimate of a population parameter is a single value of a statistic. For example, the sample mean \bar{x} is a point estimate of the population mean μ . Similarly, the sample proportion p is a point estimate of the population proportion P .
- **Interval estimate.** An interval estimate is defined by two numbers, between which a population parameter is said to lie. For example, $a < x < b$ is an interval estimate of the population mean μ . It indicates that the population mean is greater than a but less than b .

Confidence Intervals

Statisticians use a **confidence interval** to express the precision and uncertainty associated with a particular sampling method. A confidence interval consists of three parts.

- A confidence level.
- A statistic.
- A margin of error.

The confidence level describes the uncertainty of a sampling method. The statistic and the margin of error define an interval estimate that describes the precision of the method. The interval estimate of a confidence interval is defined by the *sample statistic \pm margin of error*.

For example, suppose we compute an interval estimate of a population parameter. We might describe this interval estimate as a 95% confidence interval. This means that if we used the same sampling method to select different samples and compute different interval estimates, the true

population parameter would fall within a range defined by the *sample statistic \pm margin of error* 95% of the time.

Confidence intervals are preferred to point estimates, because confidence intervals indicate (a) the precision of the estimate and (b) the uncertainty of the estimate.

Confidence Level

The probability part of a confidence interval is called a **confidence level**. The confidence level describes the likelihood that a particular sampling method will produce a confidence interval that includes the true population parameter.

Here is how to interpret a confidence level. Suppose we collected all possible samples from a given population, and computed confidence intervals for each sample. Some confidence intervals would include the true population parameter; others would not. A 95% confidence level means that 95% of the intervals contain the true population parameter; a 90% confidence level means that 90% of the intervals contain the population parameter; and so on.

Margin of Error

In a confidence interval, the range of values above and below the sample statistic is called the **margin of error**.

For example, suppose the local newspaper conducts an election survey and reports that the independent candidate will receive 30% of the vote. The newspaper states that the survey had a 5% margin of error and a confidence level of 95%. These findings result in the following confidence interval: We are 95% confident that the independent candidate will receive between 25% and 35% of the vote.

Note: Many public opinion surveys report interval estimates, but not confidence intervals. They provide the margin of error, but not the confidence level. To clearly interpret survey results you need to know both! We are much more likely to accept survey findings if the confidence level is high (say, 95%) than if it is low (say, 50%).

Consider the following results of 10 tosses of a coin: H, T, T, T, T, H, T, H, T, T a) Estimate the probability of head (H) for this coin. b) Estimate the standard error of your estimate.

Let X denote the toss of a single coin. Further, let $X = 1$ if a head results, and $X = 0$ if a tail results. This X is a Bernoulli (p) random variable, where p denotes the probability of head. Let \hat{p} denote the estimator of p .

- a) The estimated value of p is $\hat{p} = (1 + 0 + 0 + \dots + 1 + 0 + 0)/10 = 0.3$.
b) The estimated standard error of \hat{p} is $\sqrt{\hat{p}(1 - \hat{p})/n} = \sqrt{0.3(0.7)/10} = 0.14$.

Suppose the following data shows the number of the problems from the Practice Problems Set attempted in the past week by 10 randomly selected students: 2, 4, 0, 7, 1, 2, 0, 3, 2, 1.

- a) Find the sample mean.
b) Find the sample variance.
c) Estimate the mean number of practice problems attempted by a student in the past week.
d) Estimate the standard error of the estimated mean.

a) $\bar{X} = \sum_{i=1}^n X_i/n = (2 + 4 + \dots + 2 + 1)/10 = 2.2$

b) $S^2 = \sum_{i=1}^n (X_i - \bar{X})^2/(n - 1) = (2 - 2.2)^2 + (4 - 2.2)^2 + \dots + (2 - 2.2)^2 + (1 - 2.2)^2/(10 - 1) = 4.4$

c) The estimate is $\bar{X} = 2.2$

d) Estimated standard error of \bar{X} is $S/\sqrt{n} = \sqrt{4.4/10} = 0.66$

Unit - 8 : Linear Programming

Linear Programming – Decision Making:

- This can be solved either 'graphical' or 'simplex' method.
- Linear Programming refers to several related mathematical techniques that are used to allocate limited resources among competing demands in an optimum way.
- Some examples of resource and marketing constraints:
 - ❖ Bank may stipulate certain working capital requirements.
 - ❖ Market may not absorb the whole output
 - ❖ Capacity constraints
 - ❖ Labor availability
 - ❖ Raw Material availability

Unit - 9 : Simulation

- Simulation is a way of studying effects of changes in the real system through models. We manipulate a model of the system so that we came to know the end results, without having to go through the problems in reality.
- Queuing problems have been extensively studied through simulation.
- Simulation is useful in training managers and workers in how the real system operates, in demonstrating the effects of changes in system variables and real time control.

Normal Distribution

A normal distribution is a distribution that occurs naturally in many situations where 50% of the data will fall to the left of the mean and 50% will fall to the right.

Note

μ and σ^2 are called parameters of Normal Distribution.

μ is mean and σ^2 is called Standard Deviation

Properties

1. If $\mu = 0$ and $\sigma^2 = 1$, then the Normal variable is called Standard Normal Variable.
 2. The graph of Normal Distribution is bell shaped and symmetric.
 3. The total area under normal curve is 1.
 4. Quartile deviation is 0.67450σ
 5. Mean deviation is 0.79790σ
 6. Mean = Median = Mode = μ
- $N(0,1) \Rightarrow \mu = 0$ and $\sigma^2 = 1$
 $N(100,25) \Rightarrow \mu = 100$ and $\sigma^2 = 25$

Problems: Normal population of 1000 employees has mean income Rs. 800 per day and variance 400, Find no. of employees where income between

(i) $P(750 < x < 820)$

(ii) $P(x > 700)$

(iii) $P(x > 760)$

where $P(Z=1) = 0.3413$, $P(Z=2) = 0.4772$, $P(Z=2.5) = 0.4938$, $P(Z=5) = 0.5$.

Solution:

$x \sim N(\mu = 800, \sigma^2 = 400)$ & $\mu = 800$

Let $Z = \frac{X - \mu}{\sigma}$ (i) $P(750 < x < 820)$

(a) if $X = 750$ then $Z = \frac{X - \mu}{\sigma} = \frac{750 - 800}{20} = -2.5$

So $P(Z = 2.5)$ so $P = 0.4938$

(b) if $X = 820$ then $Z = \frac{X - \mu}{\sigma} = \frac{820 - 800}{20} = 1$

So $P(Z = 1)$ so $P = 0.3413$

Now $P(750 < x < 820) = 0.3413 + 0.4938 = 0.8351$

So, No. of employees where income between 750 and 820 is $1000 \times 0.8351 = 835$

(ii) $P(x > 700)$

if $X = 700$ then $Z = \frac{X - \mu}{\sigma} = \frac{700 - 800}{20} = -5$

So $P(Z = -5)$ so $P = 0.5$

Now $P(x > 700) = 0.5 + 0.5 = 1$

So, No. of employees where income more than 700 is

$1000 \times 1 = 1000$

(iii) $P(x > 760)$

if $X = 760$ then $Z = \frac{X - \mu}{\sigma} = \frac{760 - 800}{20} = -2$

So $P(Z = -2)$ so $P = 0.4772$

Now $P(x > 760) = 0.4772 + 0.5 = 0.9772$

So, No. of employees where income more than 760 is

$1000 \times 0.9772 = 977$

MODULE - B : Human Resource Management

Unit - 10 : Fundamentals of Human Resource Management

The Perspective

An organisation is primarily a ramification of the fact that there is an interdependency implied in the satisfaction of needs of individuals alongside with the achievement of organisational objectives

- Formal or Informal
- Two streams of thoughts:
 - How to organise the activities most systematically and analytically so that specificity in the work processes and operations can be brought about
 - How to understand an individual's relation to a given activity now recognised as 'work'
- Robert Owen (1771-1858): Advocate of better working conditions for 'vital machines'
- Charles Babbage (1792-1871): Division of labour
- Frederick Taylor (1856-1915): Scientific Management Approach
 - Conducted 'Division of Labour' and 'Time and Motion' studies
- Elton Mayo: Hawthorne Studies 1924-33
 - Pointed to various dimensions of human behaviour that were not considered to be of any significance in the restricted approach taken earlier
- Followed by Human relations movement that replaced 'rational-economic man' by 'social man' perspective
- Later researchers like Chris Argyris, Abraham Maslow, Douglas McGregor and Frederick Herzberg pointed out that individuals are motivated by other than monetary factors too
- Line managers are the delivery points

Development of People Management Functions

- A distinct managerial function since end of nineteenth century
 - Few organisations had the post of welfare secretary (also referred to as social secretaries)
- Experiment on group behaviour by Prof A K Rice in Ahmedabad Rice Mills in 1952
- The term personnel officer was perhaps first used in the chemical and pharmaceutical industries in 1960s
- The concern for human element did not occur until the socio-psychological upheavels in the late 1920s and early 1930s
- Two major traditions or trends:
 - Hard headed, profit minded approach to utilisation of human resources
 - Social welfare viewpoint

RELATIONSHIP BETWEEN HRM & HRD AND THEIR STRUCTURES AND FUNCTIONS

Labour and Welfare Department

Personnel Department

HR Department

Classification of HRM Activities

Administration and Maintenance (Personnel)

- Conventional component of people management
- Administration
- Systems related to acquisition, promotion & evaluation, administration, salary and long term benefits
- Maintenance Systems
- Traditional labour management, grievances and discipline management activities

Human Resource Development

- Developmental systems such as induction and socialisation of the individuals, development and growth, performance appraisal and counseling, career planning
- Organisational interventions for climate development, employee and organisational development

ROLE OF HR PROFESSIONALS

Supportive Role

- Developing systems that deal with people, their problems and organisational dynamics

Systems Development and Research

- Planning Future manpower, Recruiting, Utilizing by placement, Motivating, Retaining, Integrating people and their role, Performance and potential assessment, Planning growth of individuals etc

Managerial Role

- Technical, managerial, helping, coping and processing competence

Developing Competence

- Creating necessary culture and values in the organisation, diagnosing the problem at organisational level and taking corrective steps

Process Role

- Creating necessary culture and values in the organisation, diagnosing the problem at organisational level and taking corrective steps

Critical Attributes

Technical

Knowledge of -

- Performance Appraisal Systems and their functioning
- Potential appraisal and mechanism of developing a system
- Various tests and measurements of behaviour
- Personnel and management
- Behavioural Sciences
- Career planning processes and practices
- Counselling
- Behavioural research techniques
- Ability to design and coordinate training programmes at worker, supervisor and managerial levels
- Understanding of overall organisational culture
- Counselling skills

Managerial

- Organizing Ability
- Systems Development Skills

Personality

- Initiative
- Faith in human beings and their capabilities
- Positive attitude to others
- Imagination and creativity
- Concern for excellence
- Concern for people and their development
- Friendly, sociable and affable
- Attitude for research and development work
- Interest in learning new things
- Ability to work as a team member

Competencies for HR Heads

Behavioural

- Communication
- Initiative
- Drive
- Creativity
- Self-confidence
- Teamwork
- Influencing Ability
- Problem Solving
- Inter Personal Skills

Functional

- Business Knowledge
- Change Management
- Diversity Management
- Service Orientation
- Execution Excellence
- Financial perspective
- Building expertise
- Personal credibility
- Relationship management
- Strategic Thinking and Alignment

Strategic Role in the Future

- To become a partner with senior and line managers in strategy execution, helping to move planning from conference room to the market place
- To become an expert in the way work is organized and executed, delivering administrative efficiency to ensure that costs are reduced while quality is maintained
- To become a champion for employees, vigorously representing their concerns to senior management and at the same time, working to increase employee contribution
- To become an agent of continuous transformation, shaping processes and a culture that together improve an organisation's capacity for change

Development of HR functions in India

- During the British raj, the ripples of whatever happened were felt in India
 - Labour Welfare Officers under the Factories Act
 - By 1950s the provisions of the Industrial Disputes Act, 1947 began to percolate down
 - By 1960s demand for personnel professionals with specific knowledge about people management systems and laws rose
 - Institutes were setup:
 - ❖ Indian Institute of Personnel Management (IIPM), 1947
 - ❖ National Institute of Labour Management
 - ❖ National Institute of personnel Management (NIPM), 1982: Formed upon merger of the above two institutes
 - ❖ Indian Society for Training and Development , 1970
 - MNCs gave more attention to personnel issues based on home country experience
 - In India TISCO took proactive measures in the field
 - Govt. enacted legislations related to employment and employee welfare:
 - ❖ Article 16(1) of the Indian Constitution: Equal opportunity for employment
 - ❖ Apprentices Act, 1961: Training linked to employment
 - ❖ Child Labour Act, 1986
 - ❖ Bonded Labour System Act, 1976
 - ❖ Interstate Migrant Workmen Act, 1979
 - Next major transformation in 1980s with the onset of the HRD era
 - Establishment of National HRD network in 1985
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Unit - 11 : Development of Human Resources

HRD and its subsystems

- Organized learning experience in a definite time period to increase the possibility of improving job performance growth
- A process by which employees of an organisation are helped in a continuous and planned way to:
 - ❖ Acquire or sharpen capabilities required to perform various functions associated with their present or expected future jobs
 - ❖ Develop their general capabilities as individuals and discover and exploit their own inner potential for their own and/or organisational development purpose
 - ❖ Develop an organisational culture in which supervisor-subordinate relationships, teamwork and collaboration among subunits are strong and contribute to the professional well-being, motivation and pride of employees

Goals of HRD

To develop:

- Capabilities of each employee as an individual
- Capabilities of each individual in relation to his or her present role
- Capabilities of each employee in relation to his or her expected future role(s)
- Dyadic relationship between each employee and his/her supervisor
- Team spirit and functioning in every organisational unit (department, group etc)
- Collaboration among different units of the organisation
- Organisation's overall health and self-renewing capabilities, which, in turn increase the enabling capabilities of individuals, dyad teams, and the entire organisation

Job/Role Analysis

Job Description

- List of requirements: Skills, Qualifications etc. for performing the job

Job Specifications

- Used to compare two jobs within an organisation or between organisations or even an industry

Job Evaluation

- Used to compare two jobs within an organisation or between organisations or even an industry

Task

- Complex system of tasks
- Requires a person to achieve an overall product
- The relationship is irrelevant

Job

- Puts an individual in a hierarchical position

Position

- Emphasises on the pattern of mutual expectations

Role

- Goes a step further to encompass socio-psychological relationship

Work

- Goes a step further to encompass socio-psychological relationship

Training and Development – Role and Impact of Training

Involves:

- Identification of Training Needs
- Conducting the training
- Evaluation of Training
- Selection and development of trainers

Purpose of Training and Development

Training

- Improved performance of individual on his present job
- Learning related to present job

Education

- His preparation for an identified job in a not too distant future
- Learning to prepare the individual for a different but identified job
- General Learning

Development

- His general growth (development) not related to any specific job
- Learning for growth of the individual not related to a specific present or future job
- Futuristic Learning

Importance of clarity of purpose

- Purpose will determine the choice as shown earlier
- It will make the expected outcomes clear to both the parties
- Helps in identifying who is responsible for what activity

Imperatives of Adult Learning

- Andragogy – Adult learning process. Analogous to pedagogy
- A cooperative venture in non-authoritarian, informal learning, the chief purpose of which is to discover the meaning of experience, a quest of mind which digs down to the roots of the preconceptions which formulate our conduct; a technique of learning for adults which makes education coterminous with life and hence elevates living itself to the level of adventurous experiment.

Learning Theories

Mechanistic (or Behaviorist) Theories

- Hold that learner is passive in the learning process
- Every input/stimulus will get a predetermined response
- Learning occurs when a learner is conditioned to give the 'right' response to a given stimulus
- Mechanistic (or Behaviorist) Theories

Cognitive Theories

- Equate man with his brain – humans are capable of critical thinking and problem solving
- Purpose of learning is to teach the brain to engage in such critical thinking and problem solving

Cognitive Theories

- Organismic (or Humanistic) Theories
- Learning occurs when learners have 'freedom to learn' what is particularly relevant to their personal life situation
- Purpose of learning is to encourage each individual to develop his or her full, unique potential

Variables associated with actual Teaching-Learning situation

- Learning is enhanced when learner is motivated
- Learning requires feedback
- Reinforcement increases the likelihood that a learned behaviour will be repeated
- Practice increases a learner's performance
- Learning must be transferable to the job

Systematic Approach to Learning (SAT)

- Will the training be done internally or externally?
- How much and what kind of training will be done externally and is this also an essential part?
- Who are the functionaries responsible for administering the training system?

SAT – The process

- Training Need Analysis(TNA) and Identification of Training Needs
 - Preparation of a Training Plan
 - Conduct of the Training
(including designing the programme)
 - Evaluation of the Training Programme and the plan
(Reaction Level, Learning Level, Behaviour Level and Functioning Level)
 - Selection and Development of Trainers

Support systems for Training and Development

- Performance Appraisal System
- Human Resource Information System
- Organisational Culture

Attitude Development

- Persistent tendency to feel and behave in a particular way towards some object
- Characteristics:
 - ❖ Tends to persist unless something is done to change it
 - ❖ Can fall anywhere in the continuum from very favourable to very unfavourable or positive to negative
 - ❖ Directed towards some object about which a person has perception, feelings and beliefs, which may result in emotionally charged opinion and prejudices

Components of Attitudes

Emotional Component

- Person's feelings or their effect – positive, neutral or negative – about an object

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- Expression of emotions, whether positive or negative, is important to work behaviour

Information Component

- Beliefs and information that an individual has about an object
- Usually founded on insufficient observations or opinions which may not be empirically correct

Behavioural Component

- Person's tendency to behave in a particular way towards the object

Significance of Attitude at Workplace

Adjustment Function

- Help people adjust to their work environment

Ego-defensive Function

- Help people defend their self-image

Value-Expression Function

- Provide people a basis for expressing their values
- Helps to subscribe to the ethics

Knowledge Function

- Help supply standards and frames of reference that allow people to organise and explain the world around them
- Regardless of how accurate a person's view of reality is, attitudes toward people, event and objects impact the sense the individual makes out of what is going on.

Changing Attitudes

Barriers to attitude change:

- Prior commitment to a particular thing
- Insufficient information

Overcoming the Barriers to attitude change:

- Use of Fear
- Provide New Information
- Resolving discrepancies between attitude and behaviour
- Influence of peers, friends and opinion leaders Co-Opting – Getting the dissatisfied people involved in improvement process

Career Path Planning

The idea behind Career Path Planning

- Individuals desire and expect change at certain stages in life
- There is a (predictable) pattern in these changes
- There is a feeling of frustration if things do not happen as desired or expected

Life (Adulthood) Stages

Adolescence

- Individual's development is to achieve an ego identity
- A reconciliation process of what he perceives himself to be, what he thinks others perceive him to be and make an adjusted assessment to form his identity

Young Adulthood

- Starts developing relationship with individuals, groups (interest group or work group) or occupation.

Adulthood

- Guiding the next generation
- Passing on the knowledge, values or sponsoring the younger colleagues

Maturity

- Person attempts to achieve ego integrity by examining whether life has been meaningful or satisfying

Career Roles

Apprentice

- Beginning of the career
- Does routine work under the supervision of the mentor
- Needs to accommodate himself to a certain level of dependency

Colleague

- Beginning of making independent contribution
- Less dependence on superiors for advice and direction

Mentors

- Beginning of complex functions

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- Individual develops ideas, manages others and must learn to assume responsibility for subordinates' work

Sponsors

- Needs to broaden perspective and think long term
- Needs to define the direction in which the entire organisation or atleast a major segment would develop
- Needs to develop the capability to choose the right people in the organisation who can support the process of influencing

Career Concepts

Linear Career Concept

- Plan for upward movement within the same profession using organisational hierarchy

Steady State Career

- Individuals choose a profession, acquire higher skills, but do not choose to go higher up in the hierarchy

Transitory Pattern

- Individuals shift from one job to another not necessarily related to the previous one

Spiral Career

- Individuals take on a new job, work hard, perform well, move up in the status and rank, then move on to another type of work and follow the same pattern of development and performance

Plateau Career

- Reaching a level higher than where one started but then continuing on the same level

Career Path

- When these movements are predetermined in a logical sequence to enable an individual to have knowledge of all activities of the organisation (horizontal movement), different perspectives of management (field and controlling) and different levels of management (heirarchial) it could be said that the organisation has developed a **career path**
- With an established Career Path Planning Subsystem the organisation can have a continuous supply of individuals with required capabilities for future roles

Components of Career Anchors

- Self perception of talents and abilities based on one's performance
- Self perceived motives and needs based on self diagnosis and feedback
- Self perceived attitudes and values based on interactions with the norms and values implicit in the organisation

Schein's Career Anchors

Technical/Functional Competence

- 'in love' with a particular field or function

Managerial Competence

- Early experiences indicate an individual will be able to rise in the management hierarchy

Security

- Secure work environment and career

Creativity

- Desire to create something new

Autonomy

- Some find organisational life unpleasant or difficult. Prefer to maintain their freedom

Career Path Planning System

Main responsibilities of the organisation while developing and implementing a career plan are:

- The policy of career planning is made explicit. It lays down the benchmarks for performance at critical stages which the employees must attain
- It is made clear that the career path is a facility for growth and not a right for advancement
- The career path – a sequence of job assignments, training requirements and promotion to higher level – is made known to the employees from the time of entry. Performance feedback is a part of the career path
- The career path is followed uniformly for all employees without any bias/prejudices
- It should be flexible to accommodate variations which may be needed to deal with the given circumstances

Career Path Planning Process

- Define the career stages (Role) in relation to the organisational levels
- Identify the core jobs at each level

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- Define and spell out the criteria for each successive level
 - Placement in the next career role

Multiple Careers in one organisation

- In flatter organisations hierarchy is neither desired, nor available
 - What is needed is to develop expertise in different areas
 - The concept of spiral careers is becoming an ideal one in this situation
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Self Development

Self development essentially refers to developing a mature personality who can handle different tasks and situations with comparative ease. Process of discovering and utilising the tremendous potential within one's individual personality

Patent Self

- External self comprising individual's identity and physical features

Inner Self

- Signifies the behavior patterns, values and other psychological factors including strengths and weaknesses

Aspects of Self Development in relation to an organisation Individual Level

Individual Level

- Motivational Pattern
- Locus of Control
- Power Bases

Interpersonal Level

- Interpersonal Needs
- Transactional Analysis

Group Level

- Being effective member in the work group
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Locus of Control

- Belief of an individual about who is responsible for what happens in life
- Types:
 - ❖ External: Believe that events are determined by external forces like other influential persons in society, luck, destiny and so on
 - ❖ Internal: Believe individuals can determine events
- Motivation has to come from within for real growth. Internal locus of control ensures growth

Power Bases

- Power: A person's potential to get others to do what he or she wants them to do, as well as avoid being forced to do what he or she does not want to do
- Types:
 - ❖ Coercive Bases: Organisational position, punishment, charisma, personal relationship, closeness to a source of power, withholding information on resources
 - ❖ Persuasive Bases: Expertise, competence and modelling

Interpersonal interactions: Dyadic relationship

- In organisations most of the situations imply interacting with and influencing others
- Dyad: Two individuals maintaining a sociologically significant relationship - Interpersonal relationship
- Underlying concepts:
 - ❖ Interpersonal Needs
 - ❖ Interpersonal Interactions (Transactional Analysis)

Interpersonal Needs

Need for Inclusion

- To establish and maintain a satisfactory relationship with people with respect to interaction and association

Need to Control

- To establish and maintain satisfactory relationship including:
- Psychologically comfortable relationship in controlling all behaviour of other people
- Eliciting behaviour from them which controls one's own behaviour

Need for Affection

Transactional Analysis (TA)

- Ego states: 'consistent pattern of feeling and experience directly related to a corresponding consistent pattern of behaviour'

Parent

- Regulates behaviour and nurtures it
- Ethical, conscientious behaviour
- Influenced by preaching's from parents and elders

Adult

- Collects information and processes it
- Analytical, rational and practical orientation

Child

- Concerned with creativity, curiosity, reactions to others and adjusting behaviour (Little Professor)
- Instinctive behaviour with motive of enjoyment

TA - Types of Transactions

- Complementary (Most Desirable)
- Crossed (Not Desirable)
- Angular
- Duplex

TA - Life Positions

- I AM OK YOU ARE OK (Ideal Situation)
- I AM OK YOU ARE NOT OK
- I AM NOT OK YOU ARE OK
- I AM NOT OK YOU ARE NOT OK
- I AM OK YOU ARE OK THEY ARE NOT OK

Working in Teams

- Team: A group of people with high degree of interdependence geared towards the achievement of a goal or the completion of task
- Group Dynamics:
 - ❖ Internal nature of groups
 - ❖ How they form
 - ❖ Their structure and processes
 - ❖ How they function and affect individuals and organisation

Stages in Group Formation and Behaviour

- Forming (Awareness) Members with varied awareness get acquainted, understand the team's goal and its role
- Storming (Conflict) Conflict among the members helps the team in defining itself

- Norming (Cooperation) How the task will be accomplished? Rules and regulations of the team?
- Conforming (Adjustment) Adjusting one with the team expectations and norms
- Performing (Productivity) Members behave in mature fashion and focus on accomplishing their goal. Full energy dedicated to work.

Self-Awareness

- Understanding self helps in the process of self-development
- Johari Window by Luft and Ingham
- The more one knows oneself, the better equipped he is to face challenges

	KNOWN TO SELF	NOT KNOWN TO SELF
KNOWN TO OTHERS	ARENA	BLIND
NOT KNOWN TO OTHERS	CLOSED	DARK

Emotional Intelligence

- Abilities such as being able to motivate oneself and persist in the face of frustration, to control impulse and delay gratification, to regulate one's moods and keep away distress from swamping the ability to think, to empathise and to hope.
- Unlike IQ, EQ grows throughout adulthood

Five components of Emotional Intelligence

Self Awareness

- Ability to recognize, understand one's mood, emotions and drives, as well as their effects on others

Self-Regulation

- Ability to control or redirect disruptive impulses and moods and propensity to suspend judgement – to think before acting

Self-Motivation

- Passion to work for reasons that go beyond money or status and propensity to pursue goals with energy and persistence

Empathy

- Ability to understand the emotional make up of others and skill to treat people according to their emotional reactions

Social Skills

- Proficiency in managing relationships and building networks and ability to find common ground and build rapport

Morale

- The morale denotes a spirit as of dedication to a common goal that unites a group
- Displays the emotional or mental condition w.r.t. cheerfulness, confidence, zeal etc
- High morale translates into positive motivation, increased productivity, exceeding expectations for performance and happy employees

Employee Morale Boosters

- Welcome Ideas
 - Keep Score
 - Inspect Thank You Notes
 - Huddle
 - Open Up
 - Have Fun
 - Show Charity
 - Add Perks
 - Fire Staff
 - Measure It
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Unit - 12 : Human Implications of Organizations

HUMAN BEHAVIOUR AND INDIVIDUAL DIFFERENCES

The behaviour of an individual is influenced by several factors. These can be grouped under the following heads:

- 1. Environmental Factors:** (a) Economic, (b) Social (norms and cultural values), and (c) Political;
- 2. Personal Factors:** (a) Age, (b) Sex, (c) Education, (d) Abilities, (e) Marital Status, (f) No. of dependents;
- 3. Organizational Factors:** (a) Physical Facilities, (b) Organization Structure and Design, (c) Leadership, (d) Compensation and Reward System; and
- 4. Psychological Factors:** (a) Personality, (b) Perception, (c) Attitudes, (d) Values. (e) Learning.

EMPLOYEES BEHAVIOUR AT WORK

There are some basic assumptions about human behaviour at work:

1. There are differences between individuals.
2. Concept of a whole person.
3. Behaviour of an individual is caused.
4. An individual has dignity.
5. Organizations are social systems.
6. There is mutuality of interest among organizational members.
7. Organization behaviour is holistic.

While the first four concepts centred around people, the next two are concerned with organizations. The last one is a combination of the first six assumptions.

Persons differ and again, there are certain 'commonalities' in the persons. Every person is, in certain respects,

1. like all other persons,
2. like some other persons, and
3. like no other person.

By understanding certain dimensions of personality and behaviour, managers can, to a great extent, predict the likely behaviour in terms of actions and outcomes of actions in respect of employees.

There are several theories to explain the concept of personality. One dimension of personality which is getting attention both from organizational as well as medical researchers is the Type A and Type B behaviour profiles.

A person exhibiting Type A behaviour is generally restless, impatient with a desire for quick achievement and perfectionism.

Type 'B' personality people are much more easy going, relaxed about time pressure, less competitive and more philosophical in nature.

Friedman, Meyer and Ray Roseman have mentioned the following characteristics of Type A personality:

1. Restless by nature, so that he always moves, walks and eats rapidly.
2. Is impatient with the pace of things, dislikes waiting and is impatient with those who are not impatient.
3. Multitasker – does several things at once.
4. Tries to schedule more and more in less and less time, irrespective of whether everything is done or not.
5. Usually does not complete one thing before starting on another.
6. Often displays nervous gestures such as clenched fist and banging on a table.
7. Does not have time to relax and enjoy life.

Type B personality exhibits just the opposite characteristics and is more relaxed, sociable and has a balanced outlook on life.

Erikson has identified eight developmental stages in explaining the personality. These stages which are based on a person's state of mind at a given point of time are mentioned below:

- Stage 1: Trust versus Mistrust
- Stage 2: Autonomy versus Shame and Doubt
- Stage 3: Initiative versus Guilt
- Stage 4: Industry versus Inferiority
- Stage 5: Identity versus Role Diffusion
- Stage 6: Intimacy versus Isolation
- Stage 7: Growth versus Stagnation
- Stage 8: Integrity versus Despair

Theories of Motivation and Their Practical Implications

What is Motivation?

Motivation in an organizational context is referred as 'the extent of willingness of an employee to respond to the organizational requirements'. Motivation is generally directed, consciously or unconsciously, towards satisfaction of needs (motives). Motivation as a behavioural concept is of great interest to the executives and managers in organizations today.

Theories of Motivation

The various theories of motivation are:

1. Scientific Management or Rational Economic View
2. Human Relations Model
3. Abraham Maslow's Need Hierarchy Theory
4. Frederick Herzberg's Two-Factor Theory
5. Clayton Alderfer's ERG Theory
6. Achievement Motivation Theory
7. Victor H Vroom's Expectancy Model
8. James Stacy Adams' Equity Theory
9. Lyman W. Porter and Edward E Lawler - Performance Satisfaction Model.
10. Reinforcement Theory

(Go through all the 10 theories)

Motivation and Behaviour

Behaviour of an individual is generally motivated by a desire to achieve some goal. Behaviour is either an 'activity' or, 'a series of activities'. Each activity is supported by motivation. Individuals differ not only in their ability to do but also in their will to do, or motivation. Motives are sometimes defined as needs, wants, drives, or impulses within the individual. These are directed towards goals, which may be conscious or subconscious. Goals are outside an individual. Goals are sometimes referred to as 'hoped for' rewards towards which motives are directed.

Motivation to Work

Manager should also know specific ways and techniques to motivate employees in the work situation. Most of these techniques are practical in nature and can be adopted by him in the normal course. Some of the frequently used common incentives in organizations are :

Money, appreciation, job enlargement, job enrichment, job rotation, participative management, and quality of work.

Factors contribute to the quality of work life:

1. Adequate and fair compensation.
2. A safe and healthy environment.
3. Jobs aimed at developing and using employee's skills and abilities.
4. Growth and security; jobs aimed at expanding employees' capabilities rather than leading to their obsolescence.
5. An environment in which employees develop self-esteem and a sense of identity.
6. Protection and respect for employee's rights to privacy, dissent, equity. etc.
7. A sensible integration of job career and family life and leisure time.

Role Set Conflicts

The role set consists of important persons who have different expectations from the role that an individual occupies. The conflicts arise due to incompatibility among the expectations of significant others and the individual himself. These role set conflicts take the following forms:

1. Role ambiguity
 2. Role Expectation Conflict
 3. Role Overload
 4. Role Erosion
 5. Resource Inadequacy
 6. Personal Inadequacy
 7. Role Isolation
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Unit - 13 : Employees' Feedback and Reward System

Feedback Through Climate Surveys

Organizations used to measuring employees' perceptions of the prevailing climate in an organization are called climate surveys. The coverage of a typical survey can be as follows:

- 1. Structure:** The feeling that employees have about the constraints on the groups, rules, regulations, procedures, communications channels (layers in decision making), delegation and authority, etc.
- 2. Responsibility:** The feeling of being your own boss, clarity of role and responsibility vis-a-vis superior, subordinates and peers, etc.
- 3. Reward:** The feeling of being rewarded for a job done well, perception about reward and punishment system, perception about pay and promotion, etc.
- 4. Risk:** The sense of riskiness and challenge in the job and in the organization, and any emphasis on taking calculated risk (risk taking is encouraged and bona fide errors are protected) or playing safe is encouraged and accepted.
- 5. Warmth:** The general feeling of fellowship that prevails in the workgroup atmosphere, the prevalence of informal supporting culture and social groups.
- 6. Support:** The perception about helpfulness of managers and other employees in the group, emphasis on mutual support from above and below in the hierarchy.
- 7. Standards:** The perceived importance of implicit and explicit goals and performance standards, the emphasis on doing a good job, the challenge represented in personal and group goals.
- 8. Conflict:** The feeling that the managers and other workers want to hear different opinions, the process of conflict resolution, opportunity to express the views, etc.
- 9. Identity:** The feeling of belonging to the organization and perceived value in the organization and work group, etc.

REWARD AND COMPENSATION SYSTEM

The wages in the form of compensation is viewed as the main attraction to join or change a job. The compensation should not be so meager that employees do not feel motivated to put in their best. The compensation should be such that it continually attracts talent, it is a major source of retention of the existing manpower and has an edge which motivates them to give their best.

Types of Compensations

Compensation is expressed in terms of money. It would thus include: wages or salary, bonus, cash allowances and benefits such as accident, health insurance cover, employer's contribution to the retirement funds, provision of accommodation, etc. The jobs are broadly classified in four groups and the compensation for them is commonly referred to as shown below:

1. Managerial (top, middle, junior) ... remuneration
2. Supervisory ... salary
3. Clerical or Administrative ... salary
4. Unskilled, semi-skilled, skilled and highly skilled ... wages

Compensation Base

Compensation policy is an important element in personnel management. What is the basis or factors on which compensation gets decided? It could be:

1. Company objectives
2. Market situation or prevailing market rate
3. Internal and external pressures.

A good compensation package should cover factors like adequacy, societal considerations, supply and demand position, fairness, equal pay for equal work and job evaluation.

The administration is bound to protect the workforce from irrationally low wages. Taking this as the prime objective the Indian Government has enacted:

1. The Payment of Wages Act, 1936,
 2. The Minimum Wages Act, 1948
 3. The Payment of Bonus Act, 1965, and
 4. The Equal Remuneration Act, 1976.
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Unit - 14 : Performance Management

performance appraisal is an important tool by which the organizations review employee performance, take corrective steps through training, interventions or placement decisions, reward good performance and attempt to take the employee performance to a higher level.

Objectives of Performance Appraisal System

1. Judgemental - for salary increases, transfers and promotions;
2. Developmental - telling an employee how is he doing and suggesting changes in his skills, attitudes, behaviour;
3. Counseling by superior - for giving feedback and understanding problems for poor performance.

Uses of Performance Appraisal

1. It rates all the employees in a unified manner by using the same rating scales and thus making them comparable on a common footing.
2. It provides information which could be critical while deciding on promotion, pay increases, transfers, training, etc.
3. It provides information about the areas of weaknesses of the employee to enable initiation of corrective steps.
4. It improves the quality of supervision as the supervisor becomes a keen observer.
5. The system, if implemented with openness and trust, ensures better interpersonal relations between the employee and his supervisor.

Performance Appraisal Methods

Traditional Methods

1. Free Form Essay Method
2. Straight Ranking Method
3. Comparison Method
4. Grading Method
5. Graphic or Linear Rating Scales
6. Forced Choice Description Method
7. Forced Distribution Method
8. Group Appraisal Method

Modern Methods

1. Assessment Centre Workshops
2. Management by Objectives
3. Human Asset Accounting Method
4. Behaviourally Anchored Rating Scales
5. 360 Degree Appraisal Method

Performance Appraisal versus Confidential Report

In a large number of organizations the annual performance appraisal exercise is carried out as a confidential activity. In fact, the form in which the performance of the employee is evaluated and reported is called confidential report.

Merits and Demerits of performance appraisal system

The merits are:

1. It reveals a concern for performance and creates an atmosphere of openness and trust in the organization.
2. Gives feedback to the employee and ensures that corrective steps are taken in time.
3. It raises the general motivation level of the employees if implemented properly.

The demerits are:

1. The halo effect — a tendency to allow one trait or characteristic of an employee to influence the assessment. The halo is to rate an employee consistently high or low.
2. The leniency or strictness tendency of the superior interferes with the appraisal and accordingly the assessment gets influenced. The superior is unable to come out of these tendencies.
3. The central tendency problem refers to assigning average ratings to all the employees without properly evaluating each aspect of appraisal carefully and fearlessly.
4. Similar error is the tendency of comparing the employee with oneself on various traits and parameters. Those who show the similar characteristics are normally rated high.

DO's and DON'Ts of the appraisal interview and giving of feedback can be easily summarized:

Do's

1. allow the employee to do the maximum talking,
2. encourage him to describe his success and failure,
3. create an atmosphere where he will open up.
4. praise him for his achievements.

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5. tell him honestly what you think where he could have done well,
 6. ask him what kind of help he expects from you.
 7. extend to him all that you can do for him.

Don'ts

1. arrange a meeting when you are unable to devote time undisturbed.
2. allow any kind of disturbance once the meeting starts,
3. adopt judgmental role,
4. criticize him for his failures.

Counselling skills:

1. It is essential to follow the stages mentioned earlier in respect of appraisal interview and feedback session. It helps in creating conducive atmosphere. The appraiser should realize that it is a common human tendency to react negatively to the feedback process, and particularly to the counselling process.
 2. The process should start by communicating the purpose of the counselling.
 3. The appraiser should be specific and descriptive when he is evaluating the performance.
 4. Appraiser should avoid commenting on the person and centre his discussion on the issues related to performance.
 5. His intention should be to assist the employee to overcome his problems. With this prime objective, even when he is criticizing the behaviour (and not the person) he should do it carefully. Criticizing without crippling should be the motto.
 6. He should listen to the employee and try to help him.
 7. He should offer workable solutions and act where the appraiser can initiate improvement.
 8. Appraiser should not have any prejudice about the employee and try to evaluate the employee's version objectively.
 9. Successful counselling is effective listening.
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Unit - 15 : Conflict Management and Negotiation

Concept & Definition of Conflict

- ❖ Conflict occurs when individuals or groups are not obtaining what they need or want and are seeking their own self-interest.
- ❖ Conflict is nothing more than a sharp disagreement or opposition of interests or ideas.
- ❖ Whenever two individuals opinion in different ways, a conflict arises.

Characteristics of Conflict

Hocker and Wilmot have offered several principles on Conflict. They are:

- ❖ Conflict is universal
- ❖ Conflict is associated with incompatible goals
- ❖ Conflict is associated with scarce resources
- ❖ Conflict is associated with interference
- ❖ Conflict is not a sign of a poor relationship
- ❖ Conflict cannot be avoided
- ❖ Conflict cannot always be resolved
- ❖ Conflict is not always bad

Main characteristics of Conflict

1. Conflict involves opposition:
2. A conflict is more than just a disagreement
3. Response to Conflicts is based on perceptions
4. Conflict is inevitable
5. Conflict will always remain among humans
6. Conflict cannot be avoided
7. Conflicts are an opportunity for growth

Are Conflicts Bad and/or Undesirable?

There are three viewpoints:

1. Traditionalists believe that Conflict is bad and should be avoided
2. Human relations experts feel that Conflict is natural
3. Integrationists view Conflict as inevitable and helpful

Types of Conflict

(a) Task Conflict: Task conflict involves differences based on work details and goals.

(b) Relationship Conflict: Relationship conflict is a type of personal conflict that develops over disagreements and differences between individuals or groups. This type of conflict is over personal issues and not work-related.

(c) Value Conflict: Value conflict arises from fundamental differences in the life experiences, cultures, identities, values and beliefs. This can include even differences in politics, religion, ethics, norms, etc.

Intra-individual/Intra-personal Conflict

- ❖ Conflicts can also arise intra-personal, where an individual's objective and vision differ from his/her company's overall vision.
- ❖ Conflict can be Intra-individual conflict arises from frustration, numerous roles that demand equal attention

There can be 3 types of Intra-individual/Intra-personal Conflict which are:

1. Goal conflict : 3 major forms of goal conflict

- ❖ Approach-Approach conflict
- ❖ Approach-Avoidance conflict
- ❖ Avoidance-Avoidance conflict

2. Conflict from frustration

3. Role conflict: 3 major types of role conflict

- ❖ Conflict between the person and the role
- ❖ Intra-role conflict created by contradictory expectations about how a given role should be played
- ❖ Inter role conflict results from the differing requirements of two or more roles that must be played at the same time

Common reasons for Conflict in an organization

1. Resistance to change
2. Work habits
3. Poor communication
4. Personality clashes
5. Poor performance
6. Poor supervision
7. Other reasons

Different Phases of Conflict

1. Prelude Phase
2. Triggering Phase
3. Initiation Phase
4. Differentiation Phase
5. Resolution Phase

Conflict Resolution

What style or method should be followed to resolve a conflict?

The easiest three step formula is:

1. Listen
2. Talk
3. Resolve

According to the team of Helpguide.org:

The following process of resolving conflict can ensure positive results to deal with the issue:

- (a) Listen for what is felt as well as said
- (b) Make conflict resolution the priority rather than winning or being right
- (c) Focus on the present
- (d) Pick your battles
- (e) Be willing to forgive
- (f) Agree to disagree

The Thomas-Kilmann Model: This model identifies five different approaches to resolving conflict.

- (a) Avoiding
- (b) Accommodating
- (c) Compromising
- (d) Competing
- (e) Collaborating

The conflict resolution process can be framed in five steps

- Step 1: Find out the source of the conflict
- Step 2: Look beyond
- Step 3: Take suggestions for solution
- Step 4: Identify acceptable solutions
- Step 5: Final agreement

Conflict Management

Conflict management is a fundamental requirement for an organization as it not only helps in resolving the conflict but also enables them to take preventive measures to reduce conflict in the organization.

Many styles of conflict management behaviors have been developed.

Mary Parker Follett described them as domination, compromise and integration.

This style involves openness, exchanging information, looking for alternatives and examining differences to solve the problem in a manner that is acceptable to both parties.

Robert R. Blake and Jane S. Mouton have presented five styles:
Forcing, withdrawing, smoothing, compromising and problem solving.

A manager should take following actions to minimize conflicts

- ❖ Regular Review of Job Descriptions
- ❖ Establish Rapport or relationships and build Relationship with all your Subordinates
- ❖ Regular Reports
- ❖ Training
- ❖ Mutual Development of Procedures
- ❖ Holding Regular Meetings
- ❖ Suggestion Box

The following aspects need to be taken due care while framing such a Policy and finalizing a Conflict Management Process

- ❖ Acknowledge that a difficult situation may exist
- ❖ Allow individual express their feelings
- ❖ Understand and define the problem
- ❖ Determine underlying need
- ❖ Find common areas of agreement, no matter how small
 - Agree on the problem
 - Agree on the procedure to follow
 - Agree on worst fears
 - Agree on some small change to give an experience of success

Find solutions to satisfy needs

- ❖ Solve the problem by generating multiple alternatives
- ❖ Determine which actions will be taken
- ❖ Make sure involved parties agree to the proposed actions
- ❖ Total silence may be a sign of passive resistance
- ❖ Be sure you get real agreement from everyone

Negotiation skills for Resolution of Conflict

- ❖ Conflict resolution is an imperative tool in having productive negotiation periods that ensure that the objective will be met.
- ❖ Conflict resolution is the process of resolving a dispute or a conflict by meeting at least some of each side's needs and addressing their interests.

Common situations that involve handling conflicts using negotiation

- ❖ Conflicts between employees
- ❖ Compensation
- ❖ Disputes between a business and the public
- ❖ Disagreements during collaboration

Skills for managing the conflict

- ❖ Effective communication Skills
 - ❖ Listening Skills
 - ❖ Discussion
 - ❖ Patience
 - ❖ Impartial
 - ❖ Never Criticise
 - ❖ Positive Attitude
 - ❖ Address the conflict, not the person
 - ❖ Find shared interests
 - ❖ Set an objective
 - ❖ Determine the 'Best Alternative to a Negotiated Agreement' (BATNA)
-

Unit - 16 : HRM and Information Technology

Globalisation has removed all the physical, and national boundaries by linking organizations from all parts of the world, by use of IT. HRM as a function has dual responsibility to respond to the developments having taken place in the area of information technology (IT), for transformation of the mind set of all individuals across the organization and also use of IT in day to day decision process.

The banking sector has absorbed maximum technology for their operations. IT has offered a variety of delivery channels to support customers' needs in an efficient and effective manner.

Role of IT in HRM

There is lot of scope for use of IT in whole range of HRM functions i.e. recruitment, training, placement, appraisal and reward system, organizational development initiatives etc. The need for use of IT can be seen through the following: i. Basic information about employee used within the organization. New dimensions have been added to employee data such as training, competencies, skills, expectations etc. Updation of employees data HRD decisions are data-based now and IT provides that data. Adherence to statutory requirements. As per Nadler: i. Massive influx of technology into workplace presents great challenge in keeping the workforce's v.-crk and knowledge base current and avoid workforce obsolescence New tools disrupt traditional work patterns and can have demoralizing effect. HRD effort must align to the corporate planning. HRD efforts would be examined in terms of contributing to high performance work unit and demonstrating results.

HR Information and Database Management

Computer based data can enhance the quality of decision making. A typical HR information system includes the following types of data: The need for use of IT can be seen through the following: i. Bio-data, Educational qualification, Professional qualification Organisational history (entry level, promotion, placements, training, performance appraisal, competencies, Salary & allowances.

The above type of data, requires few changes over a time period. But the data base provides lot of information as input for decision making.

HR Research : Research in HRM can be undertaken to understand: trends of existing systems like recruitment, promotion, training, appraisal system etc. to understand the workforce in terms of motivation, commitment, expectation, frustration etc. to remain sensitive to internal environment, regular opinion surveys, benchmarking, climate studies etc. can be conducted.

KnowledgeManagement (KM) : KM refers to process of (a) creating, (b) storing (c) distributing and (d) pooling the knowledge (as per Wilcox-1997).The people in a system are the sources of creating

knowledge while storing and distributing the information is the responsibility of the information technology machinery of the organization. Hence management of 'knowledge worker' is very critical issue and cannot be done by traditional, bureaucratic process. Knowledge management has gained prominence in the light of the uncertainty that the employee who has created the knowledge, will continue with the organization or not, particularly where the attritions levels are higher.

Use of technology in training : The technology offers an opportunity in designing training interventions to suit the individual learners. Important features are :

- a. Mass learning user friendly material can be produced at low cost.
- b. Trainers and trainees can be physically separated.
- c. Trainee has the option to choose time and date and place and convenience form for learning.

Technology based training methods help in distance learning.

Advantages of E-Learning :

- a. Trainee can choose his own time and place to learn.
- b. Trainee can learn at his own pace.
- c. Trainee can check his understanding It is highly cost effective.

Disadvantages of E-Learning :

- a. Inflexible as program is pre-produced.
 - b. It needs greater self discipline.
 - c. It can produce a sense of isolation If turnover is low.
 - d. It can prove expensive due to high cost of hardware and software
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MODULE – C : CREDIT MANAGEMENT

Unit - 17 : Overview of Credit Management

Bank's loan policies, and other aspects of credit management, are influenced to a great extent by these unwritten principles, which are as under:

1. Safety of funds
2. Purpose
4. Liquidity
3. Profitability
5. Security
6. Risk spread

A borrower can be:

1. An individual
2. Sole proprietary firm
3. Partnership firm and joint ventures
4. Hindu undivided family
5. Companies
6. Statutory corporations
7. Trusts and co-operative Societies

The laws applicable to all these different kinds of borrowers are different.

Type of Borrower	Applicable Law
Individuals	Indian Contract Act
Partnership firms	Indian Partnership Act
Hindu undivided family	Customary laws pertaining to Hindus
Companies	Companies Act
Statutory corporations	Acts that created them
Trusts	Indian Trusts Act, Public Trusts Act, Religious and Charitable Endowments Act, Wakf Act
Co-operative Societies	Co-operative Societies Act or Societies Registration Act.

Types of Credit

Fund Based	Non-Fund Based
Actual transfer of money from the bank to the borrower	There is no transfer of money, but the commitment by the bank on behalf of the client, may result in future transfer of money to the beneficiary of such a commitment
Can be divided into short term credit or long term credit	Example - bank guarantee, letters of credit, co-acceptance of bills, forward contracts, and derivatives

Working Capital, Project Finance, Export Finance, Crop Loan

BUSINESS SEGMENTS

- ▶ Treasury
- ▶ Corporate/wholesale banking
- ▶ Retail banking
- ▶ Other banking business

Components of Credit Management

Loan Policy of the Bank

- ▶ Influenced by market conditions, policies of other banks, own SWOT analysis, RBI guidelines
- ▶ Exposure limits-single borrower/group
- ▶ Exposure limits for sectors
- ▶ Discretionary powers

Credit Appraisal

- ▶ Five Cs - Character, Capacity, Capital, Conditions and Collaterals
- ▶ Credit delivery-documentation, creation of charges
- ▶ Control and Monitoring
- ▶ Rehabilitation and Recovery
- ▶ Risk management-identification,
- ▶ Measurement & Evaluation

RBI Guidelines

- ▶ End use of funds
- ▶ Priority sector 40%(agr 18%),weaker sector 10% foreign banks 32%, small enterprises 10%, export credit 12% of ANBC/off balance sheet expo, whichever is higher. Agr, MSE, housing(20 lacs), Education(10 lacs/20 lacs abroad), Export credit, SHG, KVI, Retail

- ▶ Weaker sec. –small/marginal farmers, artisans, SGSY, SC/ST, DRI, SJSRY, SLRS, SHG
- ▶ Micro, small and medium enterprises
- ▶ Mfg sec: Micro upto 25 lacs, Small 25 lacs to 5 crs, Medium 5 crs to 10 crs
- ▶ Service : Rs 10 lacs, 10-2 crs, 2-5 crs

Credit Exposure Norms –

- ▶ For individuals/groups : 15/40 of capital funds- addl 5/10 for infra.
- ▶ NBFC/NBFC-AFC 10/15%- 15/20% on lent infra

Base Rate System

- ▶ Wef 1/7/2010 replaced BPLR
- ▶ Banks may determine actual roi
- ▶ Transparent, applicable to all except DRI, bank's own employees, against deposits, qtrly review of BR
- ▶ Existing loans with BPLR to continue, switch over option to be given

Credit Restrictions

- ▶ Adv against bank's own shares
- ▶ Relatives of directors/sr officers
- ▶ Industries consuming ozone depleting substances
- ▶ Sensitive commodities
- ▶ FDRs of other banks/CD
- ▶ Buy back of shares

Credit Assessment/Delivery

- ▶ MPBF method
- ▶ For SME upto 5 crs limits turnover method
- ▶ Working capital above 10 crs , loan component 80%
- ▶ For seasonal/cyclical industrial bank may exempt with approval of board.

Fair practices code

Pertains to

- ▶ Loan application, processing
- ▶ Appraisal, terms and conditions
- ▶ Disbursement
- ▶ Post sanction supervision
- ▶ Discrimination, harassment in recovery, takeover of accounts

Unit 18 – Analysis of Financial Statements

Financial statements

- ▶ Balance-sheet
- ▶ P&I a/c / income & expenditure a/c
- ▶ Auditors report
- ▶ Fund flow statement/cash flow - AS 3 std makes compulsory for listed/to above 50 cr cos. As-17 – segmentwise reporting. Banking co – formats of b/s and p&l prescribed by BR Act /Co Act for companies (no p&l prescribed)

Basic Concepts Used in Preparation of Financial Statements

1. Entity Concept
2. Money Measurement Concept
3. Stable Monetary Unit Concept
4. Going Concern Concept
5. Cost Concept
6. Conservatism Concept
7. Dual Aspect Concept
8. Accounting Period Concept
9. Accrual Concept
10. Realization Concept
11. Matching Concept

Horizontal form of B/S

Liabilities	Assets
Share capital	Fixed assets
Res/surplus	Investments
Secured loans	Current assets
Unsecured Loans	Loans & Advances
Current liabilities	Misc exp./losses
Provisions	

Vertical Form of B/S

Sources of Funds

1. Shareholder's funds
 - (a) Share capital
 - (b) Res. & surplus
2. Loan funds
 - (a) Secured loans
 - (b) Unsecured loans

Application of Funds

1. Fixed assets
2. Investments
3. Current assets/loans & advances
less: current liabilities/provisions
Net current assets
4. Misc exp/losses
As per IT act, B/S FY is Apr-Mar. But Co's act does not prescribe. But max 15 months duration, 18 months with permission of ROC.

Profit & Loss Account

1. Gross and Net sales
2. Cost of goods sold
3. Gross profit
4. Operating expenses
5. Operating profit
6. Non-operating surplus/deficit
7. Profit before interest and tax
8. Interest
9. Profit before tax
10. Tax
11. Profit after tax (Net Profit)

Analysis of financial statements

- ▶ Asstt of fin position/performance
- ▶ Projections of future performance

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- ▶ Warning signals
 - ▶ Credit requirement assessment
 - ▶ Exam fund flow
 - ▶ Cross checking
 - ▶ Fund flow analysis : diversion idle funds
 - ▶ Trend analysis : trends/op. efficiency
 - ▶ Ratio analysis : profitability, liquidity, capital structure(der), ability to service debt/int, inventory/debtor turnover

Bankers mostly use three methods for analysis of financial statements.

- (a) Funds Flow Analysis
- (b) Trend Analysis
- (c) Ratio Analysis

While different users of financial statements are interested in different ratios, the ratios which interest a banker most, are the following:

- (a) Profitability Ratios
 - (b) Liquidity Ratios
 - (c) Capital Structure Ratios
 - (d) Ratio Indicating Ability to Service Interest and Instalments
 - (e) Turnover Ratios
 - (1) Inventory Turnover Ratio
 - (2) Debtors' Turnover Ratio
-

Unit 19 – Working Capital Finance

Working Capital

The amount of raw materials, work in progress, finished goods, and receivables is called the working capital.

Working Capital Cycle

The normal operations of a business enterprise consist of purchase of raw materials, processing and conversion of raw materials into finished goods, selling these goods on cash/ credit basis, receive cash on sale or end of credit period and again purchase raw materials. This is called working capital cycle.

Method of Assessment of Bank Finance

1. Deciding on the level of Turnover of the Enterprise
2. Assessment of Gross or Total Working Capital : This is the sum total of the assessment of various components of the working capital.
 - (a) Inventory
 - (b) Receivables and Bills
 - (c) Other Current Assets

Sources for Meeting Working Capital Requirement:

- (a) Own Sources (N W C)
- (b) Suppliers' Credit
- (c) Other Current Liabilities like salaries payable, advances from customers, etc.
- (d) Bank Finance

Calculation of Bank Finance

Though banks are now free to formulate their own policies, the methods of lending, mentioned there, still find place in the calculations followed by the banks. The methods are;

- (a) First Method of Lending: Under this, the enterprise was required to bring in at least 25 per cent of the working capital gap (total current assets minus total current liabilities excluding bank finance)
- (b) Second Method of Lending: Under this, the enterprise was required to bring in at least 25 per cent of the total current assets.

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(b) Third Method of Lending: Under this, the enterprise was required to bring in 100 per cent of those current assets which are considered 'core assets' and at least 25 per cent of the remaining current assets.

Bills / Receivables Finance by the Banks

Receivables are part of the current assets of a business enterprise. These arise due to sales on credit basis to the customers. The bank provides finance against these in a fashion similar to that for inventory.

Another method of sales is through Bills of exchange drawn by the seller on the purchaser in the following manner;

(a) If no credit is to be provided to the customer, a demand bill is drawn.

(b) If the credit is to be provided on the sales, a bill of exchange, called usance bill, mentioning the period of payment, is drawn on the purchaser and is accepted by him. The outstanding amount is shown in the accounts as 'bills receivables'.

The terms used in bills finance are purchase, discount and negotiation. Normally, 'purchase' is used in case of demand bills, 'discount' in case of usance bills and 'negotiation' in case of bills which are drawn under letters of credit opened by the purchaser's bank.

Guidelines of RBI for Discounting / Rediscounting of Bills by Banks

(a) Banks may sanction working capital limits, as also bills limit, to borrowers after proper appraisal of their credit needs and in accordance with the loan policy as approved by their Board of Directors.

(b) Banks should open letters of credit (L Cs) and purchase / discount / negotiate bills under L Cs only in respect of genuine commercial and trade transactions of their borrower constituents who have been sanctioned regular credit facilities by the banks.

(c) If a beneficiary of the LC wants to discount the bills with the LC issuing bank itself, banks may discount bills drawn by beneficiary only if the bank has sanctioned regular fund-based credit facilities to the beneficiary.

(d) Bills purchased/discounted/negotiated under LC will be treated as an exposure on the LC issuing bank and not on the borrower.

(e) While purchasing / discounting / negotiating bills under LCs or otherwise, banks should establish genuineness of underlying transactions/documents.

(f) The practice of drawing bills of exchange claused 'without recourse' and issuing letters of credit bearing the legend 'without recourse' should be discouraged because such notations deprive the negotiating bank of the right of recourse it has against the drawer under the NI Act.

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- (g) Accommodation bills should not be purchased/discounted/negotiated by banks.
 - (h) Banks should be circumspect while discounting bills drawn by front finance companies set up by large industrial groups on other group companies.
 - (i) Bills rediscunts should be restricted to usance bills held by other banks.
 - (j) Banks may exercise their commercial judgment in discounting of bills of the services sector.

Non-Fund-Based Working Capital Limits

- Guarantees
- Co-acceptance of Bills
- Letters of Credit

Commercial Paper (CP)

- Unsecured money market instrument
- Issued in the form of a promissory note
- Introduced in India in
- Cost of borrowing through CP is normally lower compared to other sources of short term finances

Factoring

- Method of financing the receivables of a business enterprise.
- The financier is called 'Factor' and can be a financial institution.
- Banks are not permitted to do this business themselves but they can promote subsidiaries to do this. Under factoring, the factor not only purchases the book debts/receivables of the client, but may also control the credit given to the buyers and administer the sales ledger.
- The purchase of book debts/receivables can be with recourse or without recourse to the client.
- If without recourse, the client is not liable to pay to the factor in case of failure of the buyer to pay.

Forfaiting

- This is similar to factoring but is used only in case of exports and where the sale is supported by bills of exchange/promissory notes.
 - The financier discounts the bills and collects the amount of the bill from the buyer on due dates. Forfaiting is always without recourse to the client. Therefore, the exporter does not carry the risk of default by the buyer.
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Unit – 20 Term Loans

1. Banks provide term loans normally for acquiring the fixed assets like land, building, plant and machinery, infrastructure etc., (personal loans, consumption loans, educational loans etc. being exceptions)
2. In exceptional cases, banks provide term loans for current assets also. This is called Working Capital Term Loan (WCTL)
3. Working capital loans are normally sanctioned for one year but are payable on demand. Term loans are payable as per the agreed repayment schedule, which is stipulated in the terms of the sanction. Therefore, for the purpose of matching assets and liabilities of the bank, term loans are considered long term assets while working capital loans are considered as short term assets.
4. As a term loan is expected to be repaid out of the future cash flows of the borrower, the D S C R assumes great importance while considering term loans, while for working capital loans, the liquidity ratios assume greater importance.
5. There is no uniform repayment schedule for all term loans. Each term loan has its own peculiar repayment schedule depending upon the cash surplus of the borrower.

Deferred Payment Guarantees (DPGs)

When the purchaser of a fixed asset does not pay to the supplier immediately, but pays according to an agreed repayment schedule, and the bank guarantees this repayment, the guarantee is called DPG. This is a Non-fund based method for financing purchase of fixed assets.

Project appraisal

Project appraisal can be broadly taken in the following steps:

- (1) Appraisal of Managerial Aspects
- (2) Technical Appraisal
- (3) Economic Appraisal

Types of Financing of infrastructure projects by Banks

- (a) Take-out Financing
- (b) Inter-institutional
- (c) Financing Promoter's Equity

Appraisal

For fixed assets, WCTL, longer period, future cash flows

Deferred payment guarantees

Project appraisal : all fin requirements are considered, for term loan appraisal : TEV/IRR/DSCR is taken into a/c

Appraisal of managerial aspects : credentials, financial stake, business module, form of organisation

Prudential Requirements

- (1) Prudential Credit Exposure Limits
- (2) Assignment of Risk Weight for Capital Adequacy Purposes
- (3) Asset Liability Management
- (4) Administrative arrangements

Take-out Financing or Liquidity Support

- (1) Take-out Financing or Liquidity Support
 - (2) Liquidity support from I D F C
-

Unit 21 – Credit Delivery

- ▶ Documentation:
- ▶ Proper stamping, dated, authority, with free will, duly filled in, roc charge, sub registrar, CERSAI, third party guarantee
- ▶ Charges : Mortgage, hyp, pledge, lien, assignment
- ▶ Disbursement of w/c and term loan, promoter's contribution

Consortium/Syndication

- ▶ Two or more banks get into a formal arrangement
 - ▶ Exchange of information
 - ▶ Joint documentation/DP allocation
 - ▶ For syndication mandate to one bank is given for arranging entire loan
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Unit 22 – Credit Control and Monitoring

Credit control and monitoring, often referred as Loan Review Mechanism (L R M), plays an important role in the following aspects:

- (1) To ensure that the funds provided by the bank are put to the intended use and continue to be used properly.
- (2) To ascertain that the business continues to run on the projected lines.
- (3) If the deterioration of the business continues despite appropriate action, the bank should decide if any harsh action like, recalling the advance or seizing the security, etc. is necessary.

Credit Monitoring

Ensure end use, performance, warning signals and action to be taken

Available Tools for Credit Monitoring / L R M

- (1) Conduct of the Accounts with the Bank
 - (2) Periodic Information Submitted as per the Terms of the Advance
 - (3) Audit of Stocks and Receivables Conducted by the Bank
 - (4) Financial Statements of the Business, Auditors' Report
 - (5) Periodic Visits and Inspection
 - (6) Interaction
 - (7) Periodic Scrutiny
 - (8) Market Reports about the, Borrower and the Business Segment
 - (9) Appointing Bank's Nominee on Company's Board
 - (10) Credit Audit
-

Unit 23 – Risk Management and Credit Rating

Credit Risk Monitoring

- Operational risk : frauds/disruption of business due to natural calamities
- Market risk : adverse market movement of interest rates, exchange rates
- Credit risk : unwilling /inability to repay
- External factors : exchange/intt rate changes, govt policies, political risks
- Internal factors : overexposure to sector, low quality appraisal, monitoring,
- Lack of efficient recovery machinery

Risk mitigation

- Macro level : review/fixing internal limits for commitments, loan/compr/ rehab policies
- Micro level : appraisal standards, sanctioning powers, credit ratings, scores,
- Credit rating : risk measured : decision to lend, pricing, portfolio evaluation
- Credit rating : management, securities available, financial aspects, business/project risks
- Credit default : inability/unwillingness to meet commitments of repayment of interest /principal, BG/LC, trading settlements
- NPAs : Sub-standard, Doubtful, Loss

Wilful Default

- Default even though the borrower has capacity to repay
- Diversion of funds / siphoning of funds
- Disposal of securities
- Options available for stressed assets:
- Exit, rescheduling/restructuring, rehabilitation, compromise, legal action, write off

CDR Mechanism

- CDR Mechanism: for consortium/multiple banking, outstanding more than Rs.10 cr
 - CDR standing forum: formulates policy
 - CDR core group carved out of forum to assist standing forum in decisions relating to policy
 - CDR empowered group decides the cases
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Unit 24 – Rehabilitation and Recovery

Credit Default

Credit Default means the inability or the unwillingness of a customer or counterparty to meet commitments in relation to lending, trading or any financial transactions.

Stressed Assets

Stressed Assets are those assets in which the default has either already occurred or which are facing a reasonably certain prospect of default. Stressed Assets are defined as an account where principal and/or interest remains overdue for more than 30 days.

Non Performing Assets (NPAs)

A Non-performing asset (NPA) is defined as a credit facility in respect of which the interest and/or installment of Bond finance principal has remained 'past due' for a specified period of time. NPA is used by financial institutions that refer to loans that are in jeopardy of default. Once the borrower has failed to make interest or principle payments for 90 days the loan is considered to be a non-performing asset. NPAs are further classified into :

- a. Sub-standard
- b. Doubtful
- c. Loss Assets

Wilful Defaulters

A 'wilful default' would be deemed to have occurred if any of the following events is noted:

- a. The unit has defaulted in meeting its payment/repayment obligations to the lender even when it has the capacity to honour the said obligations.
- b. The unit has defaulted in meeting its payment/repayment obligations to the lender and has not utilised the finance from the lender for the specific purposes for which finance was availed of but has diverted the funds for other purposes.
- c. The unit has defaulted in meeting its payment/repayment obligations to the lender and has siphoned off the funds so that the funds have not been utilised for the specific purpose for which finance was availed of, nor are the funds available with the unit in the form of other assets.

- d. The unit has defaulted in meeting its payment/repayment obligations to the lender and has also disposed off or removed the movable fixed assets or immovable property given for the purpose of securing a term loan without the knowledge of the bank/lender.

Options available to Banks for stressed Assets

- a. Exit from the account
- b. Rescheduling/Restructuring
- c. Rehabilitation
- d. Compromise
- e. Legal action
- f. Write Off

Corporate Debt Restructuring (CDR) Mechanism

Objectives of the CDR mechanism

The objective of the Corporate Debt Restructuring (CDR) framework is to act as a timely and transparent mechanism for restructuring the corporate debts of viable entities facing problems, and is outside the purview of BIFR, DRT and other legal proceedings.

Reference to CDR Mechanism may be triggered by:

Any or more of the creditors having minimum 20% share in either working capital or term finance, or By the concerned corporate, if supported by a bank/FI having minimum 20% share as above.

Structure of CDR System

- a. CDR Standing Forum
- b. CDR Empowered Group
- c. CDR Cell

CDR Standing Forum

The CDR Standing Forum, the top tier of the CDR Mechanism in India, is a representative general body of all Financial Institutions and Banks participating in CDR system. The Forum comprises Chief Executives of All-India Financial institutions and Scheduled Banks and excludes Regional Rural Banks, co-operative banks, and Non-Banking Finance Companies.

It is a self-empowered body which lays down policies and guidelines to be followed by the CDR Empowered Group and CDR Cell for debt restructuring and ensures their smooth functioning and adherence to the prescribed time schedules for debt restructuring.

It provides an official platform for both creditors and borrowers (by consultation) to amicably and collectively evolve policies and guidelines for working out debt restructuring plans in the interest of all concerned.

The Standing Forum monitors the progress of the CDR Mechanism. It can also review individual decisions of the CDR Empowered Group and CDR Cell. The Forum can also formulate guidelines for dispensing special treatment to cases which are complicated and are likely to be delayed beyond the time frame prescribed for processing. The Forum meets at least once every six months.

CDR Empowered Group

The individual cases of corporate debt restructuring are decided by the CDR Empowered Group (EG), which is the second tier of the structure of CDR Mechanism in India. The EG in respect of individual cases comprises Executive Director (ED) level representatives of Industrial Development Bank of India Ltd., ICICI Bank Ltd., State Bank of India as standing members, in addition to ED level representatives of financial institutions (FIs) and banks which have an exposure to the concerned company.

While the Standing Members of EG facilitate the conduct of the Group's meetings, voting is in proportion to the exposure and number of the concerned lenders only.

The EG considers the preliminary Flash Report of all cases of requests of restructuring, submitted to it by the CDR Cell. After the EG decides that restructuring of a company's debts is prima facie feasible and the concerned enterprise is potentially viable in terms of the policies and guidelines evolved by Standing Forum, the detailed restructuring package is worked out by the referring institution in conjunction with the CDR Cell.

The EG is mandated to look into each case of debt restructuring, examine the viability and rehabilitation potential of the company and approve the restructuring package within a specified time frame of 90 days, or at best within 180 days of reference to the EG. The EG decides on the acceptable viability benchmark levels on the following illustrative parameters, which are applied on a case-to-case basis, depending on the merits of each case:

- a. Debt Service Coverage Ratio
- b. Break-even Point(Operating & Cash)
- c. Return on Capital Employed
- d. Internal Rate of Return

- e. Cost of Capital
- f. Loan Life Ratio
- g. Extent of Sacrifice

The EG meets on two occasions to discuss (Flash and Final Report) in respect of each borrower account. This provides an opportunity to the participating members to seek proper authorization from their CEO/ED, in case of need.

Sanction and Implementation of Approved Packages

Once the final restructuring plan is approved and confirmed by the Empowered Group, CDR Cell issues a Letter of Approval (LOA) for the Restructuring package to all the concerned lenders. The individual lenders are required to sanction the restructuring package within 45 days from the date of issue of LOA and thereafter fully implement it in the next 45 days.

CDR Cell

The CDR Cell, the third tier of the CDR Mechanism in India, is mandated to assist the CDR Standing Forum and the CDR Empowered Group (EG) in all their functions.

All references for corporate debt restructuring by lenders/borrowers are made to the CDR Cell. It is the responsibility of the lead institution/major stakeholder to the corporate to work out a preliminary restructuring plan in consultation with other stakeholders and submit to CDR Cell. The CDR Cell makes initial scrutiny of the proposals received from the lenders/borrowers, in terms of the general policies and guidelines approved by the CDR Standing Forum, by calling for details of the proposed restructuring plan and other information and place for consideration of the CDR EG within 30 days to decide whether restructuring is prima facie feasible. If found feasible, the referring institution/bank takes up the work of preparing the detailed restructuring plan with the help of other lenders, in conjunction with CDR Cell and, if necessary, experts engaged from outside. If not found prima facie feasible, the lenders may start action for recovery of their dues.

The EG can approve or suggest modifications to the restructuring plan, but ensure that a final decision is taken within a total period of 90 days. The period can be extended up to a maximum period of 180 days from the date of reference to the CDR Cell, if there are genuine reasons.

SME Debt Restructuring Mechanism

Units in Small and Medium Enterprises (SME) Sector will include all units in tiny and Small Scale industrial (SSI) sector and also those industrial units whose investment in plant and machinery is up to Rs. 10 Crore.

Eligibility

The following entities, which are viable or potentially viable, are eligible

- a. All non-corporate SMEs banking with us irrespective of the level of dues.
- b. All corporate SMEs, which are enjoying banking facilities only from our bank, irrespective of the level of the dues to the Bank.
- c. All corporate SMEs, which have funded and non-funded outstanding up to INR 100 million under multiple/consortium banking arrangement.
- d. In respect of BIFR cases, branches will ensure completion of all formalities in seeking approval from BIFR before implementing the package.

Exclusions

- a. Accounts involving willful default, fraud and malfeasance will not be eligible for restructuring under these guidelines. The identification of accounts involving willful default and fraud should be on the basis of guidelines issued by RBI.
- b. Accounts classified by our Bank as "Loss Assets" will not be eligible for restructuring.

Credit Information Bureau (India) Limited (CIBIL)

Credit Information Bureau (India) Limited or CIBIL is a Credit Information Company (CIC) founded in August 2000. Post Inception, it has come to play a critical role in India's financial system. Whether it is to help loan providers manage their business or help consumers secure credit faster and at better terms, the use of CIBIL's products have led to a massive change in the way the credit life cycle is managed by both loan providers and consumers.

CIBIL collects and maintains records of an individual's payments pertaining to loans and credit cards. These records are submitted to CIBIL by banks and other lenders, on a monthly basis. This information is then used to create Credit Information Reports (CIR) and credit scores which are provided to lenders in order to help evaluate and approve loan applications.

Share holders of CIBIL

- | | |
|-----------------------------------|--|
| a. Trans Union International Inc | f. Union Bank of India |
| b. India Infoline Finance Limited | g. Indian Overseas Bank |
| c. ICICI Bank Ltd | h. State Bank of India |
| d. Bank of Baroda | i. Aditya Birla Trustee Company Private. Ltd |
| e. Bank of India | j. India Alternatives Private Equity Fund |

Unit 25 – Resolution of Stressed Assets under Insolvency and Bankruptcy Code 2016

- ❖ Insolvency is a situation where liabilities of an individual or an entity exceed its assets and is unable to pay debt obligations.
- ❖ Bankruptcy is the legal recognition of the insolvency as beyond resolution
- ❖ The court appoints a trustee who is responsible for selling the property and discharge obligations to the creditors.
- ❖ Under IBC, such trustee is the resolution professional.

To whom the code is applicable

PART II of the Code is applicable to:

- ❖ Companies and LLPs (termed as Corporate Debtor).
- ❖ Personal Guarantors to Corporate Debtors.
- ❖ Any other body incorporated under any Law for the time being in force, as the Central Government may specify by notification.

PART III of the Code applies to:

- ❖ Partnership and Proprietorship Concerns.
- ❖ Individuals.

Legal Elements of the Code

- ❖ Insolvency & Bankruptcy Board of India (IBBI, the Regulator)
- ❖ Insolvency Professional Agencies
- ❖ Insolvency Professionals (Interim Resolution Professionals, Resolution Professionals)
- ❖ Information Utilities
- ❖ The Creditors
 - Financial Creditors (FC)
 - Operational Creditors (OC)
- ❖ Committee of Creditors
- ❖ The Corporate Debtor (CD)
- ❖ The Judiciary
 - National Company Law Tribunal (NCLT - Adjudicating Authority for Corporate)
 - National Company Law Appellate Tribunal (NCLAT - Appellate Authority for Corporate)
 - Debt Recovery Tribunals (Adjudicating Authority for individuals and partnerships)
 - Debt Recovery Appellate Tribunals (Appellate Authority for individuals and partnerships)
 - Supreme Court (Supreme Authority)

Regulatory Authority (IBBI)

The Insolvency and Bankruptcy Board of India is entrusted with the task of regulating both the profession and process of IBC.

Insolvency Professionals (IP)

Insolvency Professionals (IPs) are the frontline warriors implementing IBC.

They are professionals licensed/registered by IBBI to undertake the role of the Interim Resolution Professional (IRP), Resolution Professional (RP), liquidator and/or bankruptcy trustee under any resolution process initiated under the Code.

Insolvency Professional Agencies (IPA)

IPAs are bodies or entities registered with IBBI and are responsible for promoting the best professional standards among Insolvency Professionals (IP).

As of now there are three IPAs, namely,

- a) Institute of Company Secretaries of India,
- b) Institute of Chartered Accountants of India and
- c) Institute of Cost Accountants of India

Insolvency Professional Entities (IPEs)

IPEs are registered firm (Partnership or LLP or Company) of IPs.

Information Utilities (IUs)

IUs are reservoirs of financial information of all entities under the Code.

The information available with the IUs are accessible through a Central Application Programming Interface (CAPI).

The Committee of Creditors (CoC) is a committee of, normally, only financial creditors and is formed by the Interim Resolution Professional based on the claims received from the creditors

Adjudicating Authority

The National Company Law Tribunal (NCLT) is the adjudicating authority for insolvency resolution process of corporate entities, namely, Companies, LLPs or other corporate entities incorporated under any law in force.

The Debt Recovery Tribunal (DRT) is the adjudicating authority for non-corporate entities (Individuals, Proprietors, Partners of a Partnership).

Appellate authorities are National Company Law Appellate Tribunal (NCLAT) and Debt Recovery Appellate Tribunal (DRAT) for orders of NCLT and DRT respectively.

Corporate Insolvency Resolution Process (CIRP)

Insolvency and bankruptcy resolution process can be initiated when a Corporate Debtor commits a default of Rs. one crore or more

Interim Resolution Professional / Resolution Professional (IRP/RP):

The applicant (FC or CD as the case may be) shall propose name of an Insolvency Professional (IP) to act as Interim Resolution Professional.

Only CoC, when formed later, can decide who is regular Resolution Professional

Time Norms

The time available for entire process is hundred and eighty days (180).

Public Announcement

Within three days of appointment, the IRP, has to make a Public Announcement of commencement of CIRP

Constitution of Committee of Creditors (CoC)

- ❖ Based on the claims received from Financial Creditors, the IRP shall constitute a Committee of Creditors (CoC) consisting of all those financial creditors
- ❖ The CoC has to meet within seven days of its constitution
- ❖ In case there are no financial creditors (other than related parties) at all, the CoC shall consist of only operational creditors with
 1. 18 largest such creditors by value.
 2. One representative elected by all workmen other than workmen included in top 18 operational creditors and
 3. One representative elected by all employees other than employees included in the top 18 operational creditors

The Adjudicating Authority can allow the withdrawal of CIRP on an application made by the applicant with the approval of 90% voting share of the CoC, but before publication of expression of interest (EoI) for submitting the resolution plan

Information Memorandum (IM)

Information memorandum is a compilation of the entire information on CD.

It is prepared by the Resolution Professional (RP) incorporating following information:

- a. Assets and liabilities as on insolvency commencement date.
- b. Latest annual financial statements.
- c. Audited financial statements for last two financial years.
- d. A list of creditors, amount claimed, claims admitted, and details of security interest held by them in respect of such claims.

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- e. Particulars of debt due from or to Corporate Debtor with respect to related parties.
 - f. Details of Guarantees that has been given in relation to debt of CD by other persons, specifying which of the Guarantors is a related party.
 - g. Name and addresses of members or partners holding at least 1% stake in CD with total holding.
 - h. The number of workers and employees and liabilities of CD towards them
 - i. Any Other information, which RP deems relevant to CoC/Potential investors.

Evaluation Matrix

Evaluation Matrix is the criteria for evaluating Resolution Plan and is prepared by the RP in consultation with CoC.

Expression of interest (Eoi)

Not later than seventy-fifth day (75) from the insolvency commencement date

Resolution Applicant is a person, who individually or jointly with any other person, submits a resolution plan to the Resolution Professional, subject to the eligibility

However, under Sec 29 A, the following persons cannot be resolution applicant:

- ❖ An undischarged insolvent.
- ❖ A wilful defaulter.
- ❖ A person or a corporate in which the person is a promoter or has control over management, who has an account which is classified as NPA for at least one year at the time of submission of Resolution Plan.
- ❖ A person, who has been convicted for any offence punishable with imprisonment for at least two years under any Act specified under twelfth schedule or for at least seven years under any law for the time being in force.
- ❖ A person, who is disqualified to act as a director under company's Act 2013.
- ❖ A person, who is prohibited by SEBI from trading in securities or accessing the securities markets.
- ❖ A person, who has been a promoter or in the management or control of a Corporate Debtor in which preferential, undervalued, extortionate or fraudulent transactions has taken place.
- ❖ A person, who has executed a guarantee which has been invoked by the creditor of a CD under the Code and such guarantee remain unpaid in full or part.
- ❖ A person, who has any ineligibility been mentioned in any other country.

On receipt of EOI, and within five days of issue of provisional list to all prospective resolution applicants, the RP shall issue copies of Information Memorandum, evaluation matrix and a request for resolution plans

The time limit allowable to RA for submission of resolution plan is minimum 30 days

Initiation of Liquidation Process

A liquidation process is automatically initiated under the Code where,

- a. The CIRP fails as no resolution plan is received or is not approved by the CoC.
- b. Any of the stakeholder defaults or deviates from terms of approved Resolution Plan.
- c. Creditors representing 66% of the outstanding financial debt resolve to liquidate the corporate debtor at any time before the preparation of the information memorandum (IM).
- d. The corporate debtor contravenes the CIRP and anyone prejudicially affected applies for liquidation.

If otherwise not ineligible, the RP himself can be appointed as liquidator.

- ❖ The list of stakeholders is to be filed with the Adjudicating Authority within forty-five days (45) from the last date for receipt of the claims
- ❖ The liquidator has to constitute a consultation committee within sixty days (60) from the liquidation commencement date, based on the list of stakeholders prepared
- ❖ The consultation committee shall advise the liquidator, by a vote of not less than 66% of the representatives of the consultation committee, present and voting.
- ❖ The liquidator shall submit a Preliminary Report to the Adjudicating Authority within 75 days from the liquidation commencement date
- ❖ The liquidator shall prepare an asset memorandum in accordance with this Regulation within 75 days from the liquidation commencement date

The Powers and Duties of the Liquidator

- ❖ To collect and verify the claims of all the creditors.
- ❖ To acquire custody and control over the assets, properties of the CD.
- ❖ To evaluate of the assets and properties of the CD and preparation of a report.
- ❖ To conduct the business of the CD for its beneficial liquidation.
- ❖ To sell the immovable and movable properties of the CD.
- ❖ To draw, accept, make and endorse any negotiable instrument.
- ❖ To obtain professional assistance from any person or appointment of professional in discharge of her duties, obligations and responsibilities.
- ❖ To invite and settle claims of creditors and distribute proceeds as per the provisions of the Code.
- ❖ To execute documents and deeds on behalf of the CD as may be necessary for liquidation, distribution of assets.
- ❖ To provide information about the CD when required by creditors within 7 days of such request.

Reports by Liquidator: The liquidator shall prepare and submit to the NCLT

- a. A preliminary report
- b. An asset memorandum
- c. Progress reports
- d. Sale reports
- e. Minutes of consultation with stakeholders
- f. The final report prior to dissolution

Progress Reports:

The liquidator shall submit Progress Reports to the Adjudicating Authority as follows:

- i. The first Progress Report within 15 days after the end of the quarter in which she is appointed.
- ii. Subsequent Progress Report(s) within 15 days after the end of every quarter and
- iii. If an insolvency professional ceases to act as a liquidator during the liquidation process, she shall file a Progress Report for the quarter up to the date of her so ceasing to act, within 15 days of such cessation

Avoidance of Historical Transaction

- ❖ Preferential transaction
- ❖ Undervalued transactions
- ❖ Fraudulent transactions
- ❖ Extortionate transactions

Priority of distribution of liquidation value realized

- a. The insolvency resolution process costs and the liquidation costs in full.
- b. Debts owed to a secured creditor in the event such secured creditor has relinquished security and workmen's dues for the period of 24 months preceding the liquidation commencement date (on pari-passu basis).
- c. Wages and any unpaid dues owed to employees other than workmen for the period of 12 months preceding the liquidation commencement date.
- d. Financial debts owed to unsecured creditors.
- e. Dues to the Governments in respect of the whole or any part of the period of two years preceding the liquidation commencement date and debts owed to secured creditors for unpaid amounts following the enforcement of security interest, ranking equally (on pari-passu)
- f. Any remaining debts and dues
- g. Preference shareholders, if any
- h. Equity shareholders or partners

Rights of a secured creditor during liquidation

A secured creditor in the liquidation proceedings may

- ❖ Either opt to stand outside the liquidation process by opting to enforce her security interests on her own.
- ❖ Or she may opt to relinquish her security interest in favour joining the liquidation process

Timeline prescribed for completion of liquidation process:

- ❖ The liquidator shall liquidate the corporate debtor within a period of one year from the liquidation commencement date.
 - ❖ Where the sale is attempted under sub-regulation (1) of regulation 32A, the liquidation process may take an additional period up to ninety days(90).
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MODULE - D : COMPLIANCE IN BANKS & CORPORATE GOVERNANCE

Unit 26 – Compliance Function in Banks Structure

- ❖ Compliance means that a bank adheres to the applicable rules and laws.
- ❖ Compliance is an independent function that identifies, assesses, monitors and reports on compliance risk to the Bank's board.
- ❖ Compliance Risk involves the risk of legal or regulatory sanctions, material financial loss, or loss of reputation
- ❖ As per Sections 46(4)(i) and 51(1) of the Banking Regulation Act, 1949 - RBI can impose penalty based on the deficiencies in regulatory compliance
- ❖ Compliance risk in banks arises due to non-adherence to a set of laws, rules, regulations, practices, self-regulatory organization standards, code of conduct, etc. These can be grouped into
 1. Internal compliance (applicable to all employees).
 2. Regulatory and legal compliance (applicable to bank as a whole).

Significance of compliance function

- ❖ Promotes orderly behavior and uniformity in conduct of the stakeholders especially the employees
- ❖ Reduces systemic vulnerability and resultant chaos in the system
- ❖ Minimizes deviations and aberrations
- ❖ Identification of violations for prompt corrective action through systemic process
- ❖ Improves the corporate governance in banks

Compliance risk arises due to

- ❖ Legal or regulatory sanctions
- ❖ Material financial loss
- ❖ Loss of reputation as a result of failure to comply

The risk of RBI penalties arises due to non-compliance of

- ❖ Prudential and Regulatory Compliance
- ❖ Integrity and Market Conduct
- ❖ Legal compliance
- ❖ Internal compliance

Regulatory Risk: Regulatory risk refers to the potential consequences to the general public and the bank on account of non-compliance with the regulations

Operational Risk: The risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events.

Legal Risk: Legal Risk is "the possibility that lawsuits, adverse judgements or contracts that turn out to be unenforceable can disrupt or adversely affect the operations or conditions of a bank

Reputational Risk: Reputational Risk is a risk that gives negative publicity regarding Bank's business practices, health, and soundness of operations which may lead to lack of confidence with the Bank resulting in loss of business, revenue or may involve the Bank in litigation.

Annihilation Risk: Arising from possibility of regulatory action of closing down business.

Non-Financial Risks

Business Risk: A business risk is a factor that may have a negative impact on the operation or profitability of a given organisation

Strategic Risk: It is the current and prospective impact on earnings or capital arising from adverse business decision, improper implementation of decision, or lack of responsiveness to industry changes.

Compliance Risk relating to Cybersecurity

Cyber resilience frameworks aim to address three broad issues

- ❖ Confidentiality breach (confidential data being stolen)
- ❖ Availability breach (systems are intact, but services are made unavailable)
- ❖ Integrity breach (corruption of data or systems affecting the integrity of information and processing methods).

Compliance policy

- ❖ A bank must have a board approved Compliance Policy
- ❖ The Policy should clearly spell out - its Compliance Philosophy, Expectations on Compliance Culture, Structure and Role of the Compliance Function, Role of CCO, and Processes for identifying, assessing, monitoring, managing and reporting on Compliance Risk throughout the bank
- ❖ The Policy shall adequately reflect the size, complexity and compliance risk profile of the bank
- ❖ The bank shall also develop and maintain a quality assurance and improvement program which shall be subject to independent external review periodically (at least once in three years).
- ❖ The policy should be reviewed at least once a year.

The Compliance policy is required to include the following key elements

- ❖ Compliance Objective
- ❖ Scope of Compliance Function
- ❖ Compliance Function at Office/Zonal Office/Branches/ Subsidiaries/Foreign Centres
- ❖ Role & Responsibilities of Chief Compliance Officer (CCO)

Role & Responsibilities of chief compliance officer (CCO)

- ❖ The CCO shall be appointed for a minimum fixed tenure of not less than 3 years
- ❖ The CCO may be transferred/removed before completion of the tenure only in exceptional circumstances with the explicit prior approval of the Board
- ❖ The CCO shall be a senior executive of the bank, preferably in the rank of a General Manager or an equivalent position (not below two levels from the CEO). The CCO could also be recruited from market.
- ❖ Not more than 55 years
- ❖ The CCO shall have an overall experience of at least 15 years in the banking or financial services, out of which minimum 5 years shall be in the Audit/Finance/Compliance/Legal/ Risk Management functions.
- ❖ The CCO shall have good understanding of industry and risk management, knowledge of regulations, legal framework and sensitivity to supervisors' expectations.
- ❖ The CCO shall have the ability to independently exercise judgement.
- ❖ No vigilance case or adverse observation from RBI, shall be pending against him/her
- ❖ A prior intimation to the Department of Supervision, RBI, Central Office, Mumbai, shall be provided before appointment, premature transfer/removal of the CCO.
- ❖ The CCO shall have direct reporting lines to the MD & CEO and/or Board/Board Committee (ACB) of the bank.
- ❖ In case the CCO reports to the MD & CEO, the Audit Committee of the Board shall meet the CCO quarterly on one-to-one basis, without the presence of the senior management including MD & CEO.
- ❖ The performance appraisal of the CCO shall be reviewed by the Board/ACB.

The Duties and Responsibilities of the CCO as Head of Compliance Function:

- ❖ To apprise the Board and Senior Management on regulations, rules and standards and any further developments.
- ❖ To provide clarification on any compliance related issues.
- ❖ To conduct assessment of the compliance risk (at least once a year) and to develop a risk-oriented activity plan for compliance assessment. The activity plan should be submitted to the ACB for approval and be made available to the internal audit.
- ❖ To report promptly to the Board/ACB/MD & CEO about any major changes/observations relating to the compliance risk.

- ❖ To periodically report on compliance failures/breaches to the Board/ACB and circulating to the concerned functional heads.
- ❖ To monitor and periodically test compliance by performing sufficient and representative compliance testing. The results of the compliance testing should be placed to Board/ACB/MD & CEO.
- ❖ To ensure compliance of supervisory observations made by RBI and any other directions in both letter and spirit in a time bound manner.

Internal Audit (Assurance Function)

Dual Hatting

- ❖ There shall not be any dual hatting, i.e., the CCO shall not be given any responsibility which brings elements of conflict of interest, especially the role relating to business
- ❖ The CCO shall not be member of any committee which brings his/her role in conflict with responsibility
- ❖ The bank's Board of Directors shall be overall responsible for overseeing the effective management of the bank's compliance function and compliance risk

Responsibilities of CCO for Inspection for Supervisory Evaluation (ISE):

Under SPARC (Supervisory Program for assessment of Risk and Capital) it is responsibility of CCO to get on-site Inspection for Supervisory Evaluation (ISE) done.

It is done by the Senior Supervisory Manager Team-RBI (SSM-RBI).

- ❖ Co-ordination with Head Office Departments for getting information as required during the ISE (Inspection for Supervisory Evaluation).
- ❖ Co-ordination with HO departments for arranging Exit meeting with Bank's top executives with SSM team for finalizing the RAR (Risk Assessment Report).
- ❖ Co-ordination for Supervisory meeting of bank's top executive with RBI top management at RBI.
- ❖ Presentation of Risk Assessment Report (RAR) along with other annexures, Risk Mitigation Plan (RMPs) and Bank's supervisory rating to the Board/committees, immediately after receipt of the final RAR, RMP & Supervisory rating, as per RBI directions.
- ❖ Report compliance status/emerging compliance issues at domestic branches to the Top Management & ACB/Board.

Other Important Responsibilities/Functions:

- ❖ KYC-AML-CFT guidelines
- ❖ Deposits and Services
- ❖ Advances
- ❖ FEMA Guidelines

Unit 27 – Compliance Audit

The current disclosure requirements for banks are spelt out mainly in the following statutes/regulations/standards:

- (a) The Banking Regulation Act
- (b) The Companies Act, 2013
- (c) The Companies Rules, 2014
- (d) Indian Accounting Standards
- (e) RBI Guidelines for Disclosures in Financial Statements
- (f) RBI Guidelines for Basel III Requirements

Role of Risk Based Internal Audit and Inspection

- ❖ The Institute of Internal Auditors defines risk based internal auditing (RBIA) as a methodology that links internal auditing to an organization's overall risk management framework.
- ❖ RBIA is not about auditing risks but about auditing the management of risk.
- ❖ Its focus is on the processes applied by the management team
- ❖ The responses to individual risks, and
- ❖ The processes used to assess risks, to decide on the responses to them, to monitor the responses and to report to the board.

Objectives of risk-based internal audit

- ❖ Review potential inherent risks processes and controls instituted by the first and second line of defence to mitigate them.
- ❖ Review the systems to ensure compliance with legal and regulatory requirements.
- ❖ Identify deficiencies in control environment and monitor closure of action items.
- ❖ Provide assurance to the Board and top management about the adequacy and effectiveness of the risk management and control framework in the Bank's operations.
- ❖ To strengthen controls and checks to enhance efficiency in the Bank's operations.
- ❖ To ensure that the instructions and various internal policy guidelines from time to time are adhered to.
- ❖ To verify whether there is any dereliction of duty on the part of any of the employees.
- ❖ To verify whether there is any transgression of power at various operational levels.
- ❖ To examine the working of the branch/access points from the point of view of vulnerability and susceptibility to frauds and suggest measures to prevent the same.
- ❖ To help in adhering to prescribed systems and procedures, prevention or timely detection and rectification of lapses/irregularities.
- ❖ To verify adherence to the guidelines and directives issued by the RBI/other statutory authorities.
- ❖ To examine that Bank's goals and objectives are met.
- ❖ Also, to ensure that corporate governance processes are effective and efficient.

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- ❖ To evaluate and improve the effectiveness of risk management, control and governance processes.
 - ❖ Internal auditors during their inspection should continue to capture breaches/non-compliances and report the same to the Chief Compliance Officer, Central office, under copy to Risk management department at RO/ZO & respective Regional/Zonal Head

Principles Relevant to the Internal Audit Function

Principle 1

An effective internal audit function provides independent assurance to the board of directors/ its committee and senior management on the quality and effectiveness of a bank's internal control, risk management and governance systems and processes, thereby helping the board and senior management to protect their organisation and its reputation.

Principle 2

The bank's internal audit function must be independent of the audited activities, which requires the internal audit function to have sufficient standing and authority within the bank, thereby enabling internal auditors to carry out their assignments with objectivity.

Principle 3

Professional competence, including the knowledge and experience of each internal auditor and of internal auditors collectively, is essential to the effectiveness of the bank's internal audit function.

Principle 4

Internal auditors must act with integrity.

Principle 5

Banks should have an internal audit policy that articulates the purpose, standing and authority of the internal audit function within the bank in a manner that promotes effectiveness of internal audit function.

Principle 6

Every activity (including outsourced activities) and every entity of the banking group should fall within the overall scope of the internal audit function.

Principle 7

The scope of the internal audit function's activities should ensure adequate coverage of matters of regulatory interest within the audit plan.

Principle 8

Banks should have a permanent internal audit function. While some audit assignments may be performed using external experts, responsibility still lies with the internal audit function.

Principle 9

The Audit Committee of the Board should oversee the bank's internal audit function.

Principle 10

The Board and/or Audit Committee should oversee the internal audit function on all matters related to the performance of its mandate as described in the internal audit policy.

Principle 11

The Head of Internal Audit is responsible for ensuring that the internal audit function complies with sound internal auditing standards and with a relevant code of ethics (integrity, objectivity, confidentiality and competency).

Principle 12

The internal audit function should independently assess the effectiveness and efficiency of the internal control, risk management and governance systems and processes created by the business units and support functions and provide assurance on these systems and processes.

Principle 13

The bank's board of directors has the ultimate responsibility for ensuring that senior management establishes and maintains an adequate, effective and efficient internal control system and, accordingly, the board should support the internal audit function in discharging its duties effectively.

Principle 14

Regardless of whether experts are hired on contractual basis for internal audit purpose, the board of directors remains ultimately responsible for the internal audit function.

Principle 15

To facilitate a consistent approach to internal audit across all the banks within a banking organisation, the board of directors of each bank within a banking group should ensure that either:

- ❖ Every bank has its own internal audit function, which should be accountable to the bank's board and should report to the banking group or holding company's head of internal audit; or
- ❖ The banking group or holding company's internal audit function performs internal audit activities of sufficient scope at the bank to enable the board to satisfy its fiduciary and legal responsibilities.

Principle 16

The bank should develop and maintain a quality assurance and improvement program that covers all aspects of the internal audit activity.

The Head of Internal Audit(HIA) should consider how the risk of fraud is managed across the organisation and assess the fraud risk exposure periodically.

Operationally, internal audit should have sufficient knowledge of fraud to:

- ❖ Identify red flags indicating fraud may have been committed.
- ❖ Understand the characteristics of fraud and the techniques used to commit fraud, and the various fraud schemes and scenarios.
- ❖ Evaluate the indicators of fraud and decide whether further action is necessary or whether an investigation should be recommended
- ❖ Evaluate the effectiveness of controls to prevent or detect fraud.
- ❖ Internal auditors should not investigate fraud Unless they have the specific experience and expertise required to do so.
- ❖ Formulate and document appropriate plans for each assignment, including the assignment's objectives, scope, timing, and resource allocation.
- ❖ The overall approach of the audit should be risk based (Risk Based Internal Audit - RBIA).
- ❖ The conduct of the internal audit should be supervised by the HIA to ensure that objectives are achieved, quality is assured, and staff is developed.
- ❖ Compliance should be monitored, and sustenance of compliance should be an integral part of reporting to the Board/ACB.
- ❖ If the internal audit reveals that bank management has accepted a level of risk that may be unacceptable to the bank, the HIA should discuss the matter with senior management. If the issue is not resolved, it may be escalated to Board/Committee.

Audit Committee of the Board

The Audit Committee of the Board shall

- ❖ Be chaired by a person who is independent and is not the chair of the board
- ❖ Include members with experience in audit practices, financial reporting and accounting. Be responsible for framing policy on internal audit and financial reporting, among other things.
- ❖ Oversee the financial reporting process and interact with the bank's internal and external auditors.
- ❖ Formulate and recommend to the board for their approval, the appointment, remuneration and dismissal of external auditors.
- ❖ Review and approve the audit scope and frequency.
- ❖ Receive key audit reports and ensure that senior management at Corporate Office and the Officials working in Branches & other related Offices are taking necessary corrective actions in a timely manner to address control weaknesses, non-compliance with policies, laws and regulations, and other problems identified by auditors.

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- ❖ Review the design and effectiveness of the overall risk governance framework and internal control system.
 - ❖ Review the annual financial statement of the Bank along with management Letter which is the letter to the shareholders before it is approved by the Board of Directors.
 - ❖ Review the internal audit reports and reports on frauds and cash shortages placed before the Audit Committee by the Head of IAD.
 - ❖ Review such investments and transactions that could adversely affect the financial condition of the Bank when the Auditor, Managing Director, General Manager, Chief Financial Officer or any Manager brings to the attention of the Audit Committee.
 - ❖ Meet with the Head of IAD and with Management to discuss the effectiveness of the internal control procedures as practiced in the Bank.
 - ❖ The Audit Committee shall meet at least once in a quarter and at such other times as the Board of Directors may by passing resolution require, or as any member of the Audit Committee may request.
 - ❖ The proceedings of the Audit Committee meetings shall be reported to the Board by the Chairperson/Chairman of the Audit Committee of the Board to allow the other Directors to be informed and seek clarification from the Audit Committee members, if so desired.
 - ❖ A resolution of the Audit Committee shall require the affirmative votes of two third members in order to pass.

Role of the audit committee

- ❖ It should provide direction and oversee the operations of the total audit function in the bank and maintain quality of internal audit and inspection.
 - ❖ Follow up on the statutory audit of the bank and inspection of the Reserve Bank
 - ❖ Strengthening housekeeping
 - ❖ Fixing accountability of inspecting/auditing officials for failure to detect serious irregularities.
 - ❖ Periodical review of the accounting policies/internal control systems in the bank.
 - ❖ Sensitizing the Board about risk prone areas.
 - ❖ Review of Risk management measures to mitigate the risk.
 - ❖ Ensure various statutory compliances applicable to the bank.
 - ❖ Should have discussions with the auditors periodically about internal control systems, the scope of audit and review the half-yearly and annual financial statements before submission to the Board and also ensure compliance of internal control systems.
 - ❖ The audit Committee shall have authority to investigate into any matter in relation to the items specified in this section or referred to it by the Board and for this purpose, shall have full access to information contained in the records of the company.
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Unit 28 – Compliance Governance Structure

Organisational Structure of Compliance Function

- ❖ Board of directors
 - ❖ Audit Committee of Board (ACB).
 - ❖ Managing director /executive director.
 - ❖ Independent Compliance department headed by Chief Compliance officer (CCO).
 - ❖ Compliance Function at verticals in Corporate Office.
 - ❖ Compliance Function at Field offices - Field General Managers offices (wherever exist) - Regional Offices, Zonal Offices - Branches.
-
- ❖ The CCO is needed to have direct reporting lines to the MD & CEO and/or Board/Board Committee (ACB) of the bank
 - ❖ The business verticals/functional departments should directly report to CCO.
 - ❖ Similarly, Compliance Officers posted at Regional/Zonal Offices are needed to report the CCO directly.
 - ❖ The CCO shall review performance of all Compliance Officers in the Bank as they report to CCO and the performance appraisal of the CCO is reviewed by the Board/ACB

RESPONSIBILITY OF THE BOARD AND SENIOR MANAGEMENT:

- ❖ Compliance starts at the top.
- ❖ It will be most effective in a corporate culture that emphasises standards of honesty and integrity and one in which the board of directors and senior management lead by example.
- ❖ Board/Audit Committee of Board/Managing Director & CEO shall overview the compliance function in terms of business needs and volume applicable to the Bank.
- ❖ The reporting lines of CCO to the Top management in this review process shall be properly documented in the Compliance Policy of the Bank.
- ❖ The Compliance policy shall be approved by the Board.
- ❖ Accordingly, the CCO shall report to the Board Audit Committee of Board/MD & CEO.
- ❖ If as per policy CCO reports to MD & CEO, CCO shall also report to ACB/Board independently as per frequency vide Compliance Policy. Responsibility of the Board of Directors: The Board of directors shall:
 - Ensure an appropriate compliance policy is in place in the bank to manage compliance function and also overseeing its implementation.
 - Ensure compliance issues are resolved effectively and expeditiously by senior management with the assistance of CCO & compliance staff.
 - Ensure there is no potential for any conflict of interest & ensure that the activities of the compliance function are subject to independent review at least once in three years and the compliance function & the audit function of the bank are necessarily being kept separately.

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- Review compliance functions on a quarterly basis and an annual review of status in implementation of compliance functions to be carried out.
 - If necessary, the Board may delegate these tasks to the audit Committee of the Board (ACB).
 - ❖ Besides, periodical review on status of audit Functions & performance thereon, Board issues directions for improvement in adherence to Systems & procedures & its auditing System, as such this job may also be assigned to Audit Committee of the Board.
 - ❖ The Companies act, 2013 casts the responsibility on the directors to devise proper systems to ensure compliance with the provisions of all applicable laws, and also to ensure that these are adequate and operate effectively.

Responsibility of Senior Management:

- ❖ To apprise the Board and senior management on regulations, rules and standards and any further developments.
- ❖ To provide clarification on any compliance related issues.
- ❖ To conduct assessment of the compliance risk (at least once a year) and to develop a risk-oriented activity plan for compliance assessment. The activity plan should be submitted to the ACB for approval and be made available to the internal audit.
- ❖ To report promptly to the Board/ACB/MD & CEO about any major changes/observations relating to the compliance risk.
- ❖ To periodically report on compliance failures/breaches to the Board/ACB and circulating to the concerned functional heads.
- ❖ To monitor and periodically test compliance by performing sufficient and representative compliance testing. The results of the compliance testing should be placed to Board/ACB/MD & CEO.
- ❖ To ensure compliance of Supervisory observations made by RBI and/or any other directions in both letter and spirit in a time bound and sustainable manner.
- ❖ At least once a year, to identify and assess the main compliance risk facing by the bank and formulate the plans to manage them.

Basis for identification of Compliance requirements

- ❖ Master Circulars/master directions of RBI consolidated and updated
- ❖ RBI guidelines issued from time to time
- ❖ Various laws/statutes applicable to banks
- ❖ Bank's internal guidelines and policies

Basis for assessment of Compliance Risk

- ❖ Regulatory Focus
- ❖ Nature of activity - whether inherently high risk in nature
- ❖ Bank's exposure to it - materiality

- ❖ Any breaches reported in the past - history

Compliance vs Audit

Compliance department should be kept independent and under no circumstances, the Compliance staff should be assigned audit/inspection duty as it gives rise to conflict of interest.

Functions of Compliance Department established at Head Office

- ❖ Identify the business functions of the bank that fall under each of the statutory and regulatory guidelines.
- ❖ Assess the level of compliance risk in each business line, product and processes, accordingly, formulate proposals for mitigation of the risk.
- ❖ Ensure prompt dissemination of statutory & regulatory guidelines and instructions to Head office functional departments which are received from regulators, MOF or any such agency for compliance, for onward circulation to all controlling offices/ZOs/Chief Executive Offices/Branches and to ensure submission of conclusive compliance of the same to ACB on quarterly basis.
- ❖ Evolve strategies and develop systems for communication and transfer of information on compliance matters between branches to Zonal Compliance Departments and from Zonal Compliance Departments/Overseas Compliance Departments /Head Office functional departments to itself and vice versa.
- ❖ Periodically circulate the instances of compliance breaches/failures to ACB/H.O. departments, Zonal Offices and Branches/Offices along with preventive instructions.
- ❖ In domestic set up the CCO will be member of Product Group Committee which will vet all new products and services from compliance angle and appropriate compliance risk mitigates by way of necessary checks and balances will be put in place before launching. The compliance committees in overseas center's will also vet new products & services, in line with local regulatory requirements.
- ❖ Monitor all new products and process intensively for 6 months from introduction thereof, to ensure that the indicative parameters of compliance risk are adequately met. BPR (Business Process Reengineering) or Head Products being convener of the Product Group Committee, shall monitor and advise gaps on operational & compliance front, if any, in coordination with I&A Department and place the same before Committee of Operational Risk Management.
- ❖ Ensure that there exist a close co-ordination and partnership between Compliance and Business Operations functions at Head Office/Zonal Office/Branches/Offices. The compliance department should guide bank's staff on their seeking clarifications/interpretations of various regulatory and statutory guidelines.
- ❖ Provide a checklist on the compliance aspects to the inspectors/concurrent auditors to verify the level of compliance in domestic branches. The Inspection/Audit findings related to compliance should be scrutinized and appropriate corrective measures are to be taken in case of any compliance breaches/failures.

- ❖ Co-ordinate with the Senior Supervisory Manager (SSM) Team of RBI in conducting Risk Based Supervision (RBS).
- ❖ Co-ordinate with Head Office departments for prompt submission of all returns to the RBI and replies to any queries from the RBI.
- ❖ Provide guidance in respect of cross-border business undertaken by the bank, to the operational departments so that they ensure compliance of such business activity. The department shall also ensure submission of Compliance Rules (CRs) by the Branches/Zones on monthly/quarterly basis for onward Consolidated reporting to ACB by H.O Compliance

Compliance Department shall place the following MIS:

- ❖ Monthly report through EDs/CMD to the Board on status of Important RBI/MOF communications with the steps taken by functional departments on this communication.
- ❖ Quarterly report to ACB on status of Compliance Function.
- ❖ Summarised quarterly report to ACB on status of compliance of RBI/MOF communications.
- ❖ To enable the Compliance department to submit the said reports, functional departments shall ensure that all RBI/MOF communications and communications received from self-regulatory bodies like IBA/ FEDAI/FIMMDA are attended to and feedback on its compliance is given to Compliance department, Central office within a period of 7 days.
- ❖ Yearly report to the Board on assessment of Compliance Function/Risk.
- ❖ Report to the Board, whenever exceptions are noticed, i.e., all material compliance failures which may attract significant risk of legal or regulatory sanctions, financial loss or loss of reputation (Compliance reporting is to be made on an exception basis.)
- ❖ Report to ED/CMD on the results/findings of the test checking of certain key compliance issues on random sample basis.

The Chief Compliance Officer may be a member of the following committees

- ❖ Audit Committee of Board (ACB)/Audit Committee of Executives (ACE)
- ❖ Credit Risk Management Committee (CRMC)
- ❖ Committee for Operational Risk Management (CORM)
- ❖ Product Group Committee

Compliance Officer

All the Functional Heads at Central office shall designate a senior officer in the department minimum in scale IV or V to act as Compliance officer

Key functions of the designated compliance officer

- ❖ To identify compliance issues pertaining to their Functional department based on regulatory/statutory guidelines issued and send consolidated list of compliance functions/issues so prepared to compliance department.
- ❖ To act on compliance issues identified by compliance department and respond to them.

- ❖ To monitor compliance of all regulatory and statutory guidelines as well as internal policy guidelines and report to Chief Compliance officer, compliance department at central office as per stipulated frequency and any breaches/non-compliances observed.
- ❖ To ensure timely submission of regulatory returns as per the calendar of returns.
- ❖ To ensure that stipulated agendas/review notes are placed before the Board, audit Committee of the Board (ACB), Supervisory Committee on Risk management as per the calendar of reviews.
- ❖ To interact with Compliance department, Central office in case of any clarification.
- ❖ To extend necessary cooperation in the process of compliance testing.
- ❖ To share their views/suggestions arising out of their experience and knowledge of Compliance Function in their functional area.
- ❖ To associate in all the training programs/workshops arranged by Compliance department, Central office.
- ❖ To ensure that all RBI/MOF communications and communications received from self-regulatory bodies like IBA, FEDAI/FIMMDA are usually attended to on urgent basis and feedback on its compliance is given to Compliance department, Central office at the earliest

The compliance called for can be broadly divided into:

- ❖ Information which is to be marked as noted.
- ❖ Called for definite action like:
 - Formulation of policy.
 - Issuance of necessary guidelines to the field through circulars.
 - Submitting replies/information to the government, regulatory authority as the case may be.
 - Submitting replies as regards complaints referred by RBI/MOF.

The Compliance Function at RO/ZO/FGMO

- ❖ To report to compliance department at central office.
- ❖ Status of compliance pertaining to their command area including all branches and functional departments shall be submitted on quarterly basis to Compliance department HO in the format devised for the purpose.
- ❖ Breaches observed (immediately after breaches are noticed through audit reports or through visit reports of the Branches) to be reported/escalated and necessary corrective action measures to be taken.
- ❖ The structure and role of the FGM/Zonal Offices/Regional Offices was unveiled recently to mirror the organisation, Structure of corporate office which among other things states that Compliance to laid down systems and procedures, rules and guidelines are integral to an efficient Zonal/Regional Management System.
- ❖ Internal Control and Inspection department shall cover compliance related issue in their routine inspections through the matrix prepared for the purpose by including laid down

systems, procedures, rules and guidelines for Zonal Office/Regional office as well as for all the branches reporting to regional office.

- ❖ Role of Zonal Office/Regional office as regards Compliance Function in Branches is that of handholding, trouble shooting and monitoring.

Compliance Functions at Overseas Centers:

- ❖ Each Centre covering a cluster of foreign branches/ representative offices will have an independent Compliance Department headed by local compliance officer, preferably an India Based Officer in the level of Scale III/IV supported by local staff.
- ❖ The Compliance Officer (CO) of the centre may also be a local staff if mandated by the Host Regulator.
- ❖ A local staff may also be the Compliance Officer where the local language necessitates such an arrangement.
- ❖ He/She will be known as "Compliance Officer" of the centre.

Material Compliance Failure

The term Compliance describes the ability to act according to an order, set of rules or guidelines. In the context of Banking, compliance operates at two levels.

- ❖ **Level 1 Compliance** - is adherence to the external rules and regulations prescribed by different regulators such as RBI/SEBI /IRDA and independent bodies, i.e., IBA, FIMMDA, FEDAI, etc., from time to time.
- ❖ **Level 2 Compliance** - is to adherence with the internal policies/process /manual/direction, etc.

The sources of non-compliance/compliance failure/breaches may be:

- ❖ Business Verticals.
- ❖ Inspection and Audit Department from their audit findings.
- ❖ Regulatory inspections/independent assessments by the regulators/independent bodies/Govt. of India.

When considering the severity of a failure/breach may be material, the compliance department must assess and escalate to the senior management, as under:

- ❖ The loss or risk of loss to Bank.
- ❖ The scale of the issue.
- ❖ The overall impact on the Bank, its clients.
- ❖ The extent of any risk of loss of confidence in the Bank or provision of legal services generally.

Accountability for Non-Compliance

- ❖ An effective compliance programme requires accountability.

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- ❖ It is seen that introduction of punitive Programmes in cases of non-compliance has always resulted into healthy output.
 - ❖ It is needed to establish clear policies and processes to address cases of non-compliance or compliance failures.
 - ❖ In the categories of non-compliance may include (indicative):
 - Non-compliance with applicable laws, regulations, guidelines, policies, approved protocols.
 - The wrongful/inaccurate release/submission of data, whether as a result of accident, negligence or malice.
 - Data hoarding (unreasonable or unjustified withholding of data).
 - Inadequate supervision.
 - ❖ CCO to establish fair and transparent processes for investigating complaints of non-compliance.
 - ❖ In case of any non-compliance/breach, a preliminary inquiry needs to be done by forming a committee by CCO for fact finding, to ascertain the truth or otherwise of the allegations contained in the information or non-compliance

Members of this Committee can be any two of the following:

- ❖ Assistant General Manager -Risk Department.
 - ❖ Assistant General Manager -Human Resources Department.
 - ❖ Assistant General Manager -Compliance Department.
 - ❖ In case of non-availability of AGM in any department, the senior most Chief Manager of that Department will be the member.
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- ❖ Upon receipt of the report of the preliminary inquiry and all other supporting documents, the Inquiry Committee is required to initiate the investigation.
 - ❖ CCO shall have the authority to get the investigation conducted by any officer of the Bank.
 - ❖ The said investigation should be completed within a reasonable time such as 15 working days from the date of receipt of report of the preliminary inquiry.
 - ❖ The CCO to submit the findings of the investigations to ACB and MD & CEO.

The Chief Compliance officer shall be the nodal point of contact between the bank and the Regulator (RBI).

Unit 29 – Frameworks for Identification of Compliance issues and Compliance Risks

Divergence in Regulation and the Need to "merge"

The main areas of divergence are:

- ❖ Cybersecurity, data privacy regulation, servicing of loans, Customer and industry-related banking services.
- ❖ Special regulatory and supervisory expectations to risk and complexity, deviating from global standards.
- ❖ Innovative technological applications where new regulations may emerge.
- ❖ Alignment with non-financial services and statutory regulators.

Risks Related to Credit Cycles

Financial institutions should learn from previous credit cycles and apply the learning's into their operations to prevent the potential risks which are related to:

- ❖ Risk layering and leveraged lending
- ❖ Expanded delivery channels and payment options
- ❖ New products and services and technology applications
- ❖ Disclosures via securities or trading activities, lending to non-depository institutions, or partnership arrangements.
- ❖ It is time to take on board the increasing risks arising out of Climate Change, increasing air and water pollution, and health of employees in big organisations funded by banks & FIs.

Easing of Regulatory Capital and Liquidity Requirements

- ❖ In some countries there is a trend in easing the buffers in the capital and liquidity requirements
- ❖ However, this does not necessarily mean weakening risk management because it seems that the regulatory focus on managing these activities together with risk management will resume.

In this scenario, financial institutions should expect:

- ❖ Upcoming final rulemakings for banks and nonbank entities.
- ❖ Emphasis on governance over capital planning.
- ❖ Creating a regulatory focus on capital and liquidity frameworks.

Compliance Risk

The Basel Committee on Compliance Function defines Compliance risk as

The risk of legal or regulatory sanctions, material financial loss, or loss to reputation a bank may suffer as a result of its failure to comply with laws, regulations, rules, related self-regulatory organisation standards, and codes of conduct applicable to its banking activities" (together, "compliance laws, rules and standards").

Identification of compliance risk

Some common compliance risks include:

- ❖ Corruption
- ❖ Employee Behaviour
- ❖ Workplace Health and Safety
- ❖ Environmental Impact
- ❖ Data Management
- ❖ Quality
- ❖ Process
- ❖ Social Responsibility

The level of Compliance Risk in each business line, products and processes shall be identified based on:

- ❖ Regulatory Focus
- ❖ Customer Service aspect
- ❖ Control aspects
- ❖ Nature of activity - Whether inherently high risk in nature
- ❖ Bank's exposure to it – materiality
- ❖ Any major breaches reported in the past-history
- ❖ Penalty implications
- ❖ The Bank should put in place 'New product approval process'

Compliance Risk Management Function

- ❖ Most often compliance was reactive, putting out fires instead of actively interpreting and predicting compliance and ethics risk issues, and developing treatment plans to mitigate or avoid damage to the organisation.
- ❖ The present-day approach is a risk based and due diligence is also essential.
- ❖ Due diligence is when an organisation is able to demonstrate that it had been duly diligent in meeting its obligations through developing, implementing and maintaining a management system.

The following points are critical to proving this due diligence

- ❖ Systems must be "effective" and not "paper", "legalistic" systems.
- ❖ Systems that emphasize results not process.
- ❖ Systems are procedures that are in place and working procedures that outline what staff should do.

Essential ingredients of due diligence

- ❖ Real commitment to compliance.
- ❖ Culture in the Business (a pro-active culture that is not just about lip service)

- ❖ Consistent & effective enforcement - discipline, investigative, corrective/preventative action.
- ❖ Full and effective reporting and action on reports.
- ❖ Making sufficient resources available.
- ❖ Be satisfied system actually working - audits, monitor, inspect.
- ❖ Identify and assess requirements as they impact your business.
- ❖ Outsourcing/contractual obligations - establish required standard and monitor.
- ❖ Identify/analysis of risk exposure and manage/control.
- ❖ Measure/assess level of compliance.

Inherent Risk and Control Risk

- ❖ The inherent risk of a system is the risk that the system poses "out of the box," before any processes, technologies, or people are put in place.
- ❖ Inherent risk is somewhat akin to operation risk. It is a function of threats and vulnerability.
- ❖ Inherent Risk = Threats × vulnerability.
- ❖ Residual risk is a function of inherent and control risk and be defined as "The probability of loss that remains to systems that store, process, or transmit information after security measures or controls have been implemented"

Compliance risk score can be assessed on a scale of 1-10 as per table below:

Compliance Risk Score	Compliance Risk Level
7.1-10	Needs significant improvement
5.1-7	Needs improvement
3.1-5	Meets requirement
1-3	Well controlled

An effective audit programme is the key to a successful compliance policy.

Its key components are:

- ❖ Have appropriate policy for the institutions risk profile
- ❖ Cover all applicable regulations and guidance
- ❖ Have effective scoping and planning
- ❖ Ensure adequate transaction testing
- ❖ Have no gaps in the program-program covers all appropriate areas
- ❖ Be well-organised with work papers
- ❖ Establish clear paper trails
- ❖ Communicate exceptions effectively
- ❖ Identify violations and explain risks
- ❖ Recommend appropriate corrective action
- ❖ Track corrective action
- ❖ Communicate results to Board of directors/audit Committee and senior management
- ❖ Document resolution of audit observations not carried to audit report.

On the other hand, **to have an efficient and effective compliance policy, it needs to:**

- ❖ Document your understanding of the AML risk profile
- ❖ Identify high risk services, products and clients
- ❖ Identify new regulations and regulatory guidance issued since prior audit
- ❖ Consider results of the most recent audit and regulatory examinations
- ❖ Consider results of other independent or self-compliance reviews
- ❖ Identify resolution of past recommendations
- ❖ Consider factors that have changed since prior audit, such as:
 - Changes to organisation's risk profile since last audit
 - Changes in the compliance function since prior audit
 - New regulations introduced since the prior audit
 - New regulatory guidelines issued since the prior audit
 - IT enhancements introduced
 - Changes in monitoring parameters
 - Changes in key compliance and operation staff
 - New products or services

The success of a compliance policy needs a system of independent testing of the existing policies/procedures/activities. The areas/activities to be tested are:

- ❖ Adequacy of policies and procedures
- ❖ Ensure comprehensive test procedures
- ❖ Adequacy of High-Risk Customer identification
- ❖ Adequacy of Customer due diligence (CDD)
- ❖ Adequacy of Enhanced Due Diligence (EDD) and compliance with documented policies and procedures
- ❖ Adequacy of Customer Identification Program (CIP)
- ❖ Adequacy of Internal Controls and Reporting
- ❖ Investigation and suspicious activity monitoring process
- ❖ Reporting & Record keep in
- ❖ Bank Risk assessment
- ❖ Cash activities and Cash Transaction Reports (CTRs)
- ❖ Cash aggregation, ATM transactions Track & monitor Corrective actions
- ❖ Track all actionable issues
- ❖ Document responsibility for resolution of issues
- ❖ Ensure completeness of corrective action
- ❖ Validate closure of audit issues
- ❖ Maintain adequate support on all closed issues

Framework for Test Checking on Random Basis

- ❖ Based on compliance certification received from the branches, Compliance dept. Should identify on random basis the branches/departments for independent compliance testing and see the correctness of the certification.
- ❖ While selecting the sample size, the level of compliance risk as assessed through the following parameters shall be kept in mind.
- ❖ Based on regulatory focus.
- ❖ Whether the activity inherently have high risk?
- ❖ Bank's exposure to it.
- ❖ Whether any major Breaches are reported in the past?
- ❖ Care should be taken to ensure that branches in the sample are not repeated each time.
- ❖ KYC AML norms/compliance at branch level

Role of Inspection and Audit

- ❖ An inspection is typically something that involves a visit to the site and is required to be done as part of compliance obligation.
- ❖ An audit is the process of checking that compliance obligations have been met, including that the required inspections have been done.

Types of Audits

- ❖ Risk Based Internal Audit
- ❖ Concurrent Audit
- ❖ Statutory Audit & Tax Audit
- ❖ Credit Audit
- ❖ Forensic Audit
- ❖ RBI Inspections
- ❖ System Audit
- ❖ Stock Audit
- ❖ Foreign Exchange Audit
- ❖ Snap Audit

Role of the Audit Committee

- ❖ It should provide direction and oversee the operations of the total audit function in the bank and maintain quality of internal audit and inspection.
- ❖ Follow up on the observations of statutory audit of the bank and inspection (ISE) of the Reserve Bank of India.
- ❖ Strengthening housekeeping.
- ❖ Fixing accountability of inspecting/auditing officials for failure to detect serious irregularities.
- ❖ Periodical review of the accounting policies/internal control systems in the bank with a view to ensuring greater transparency in the bank's accounts.

- ❖ Sensitizing the Board about risk prone areas.
- ❖ Review of Risk management measures to mitigate the risk
- ❖ Ensure implementation of various statutory compliances applicable to the bank.

Loan Review Mechanism/Credit Audit

- ❖ Loan review mechanism is an important tool which can help banks identify this risk.
- ❖ A loan review provides an assessment of the overall quality of a loan portfolio, specifically it includes
 - Assessment of individual loans, including repayment risks
 - Determining compliance with lending procedures and policies
 - Identifying lapses in documentation.
 - Providing credit risk management priority findings
 - Recommending practices and procedures to address findings.

What a Loan Review is Not?

- ❖ A loan review is not a portfolio review.
- ❖ Unlike a portfolio review, a loan review does not assess geographic, borrower, or other concentrations that can increase portfolio risk
- ❖ A loan review is not a portfolio trend analysis.
- ❖ The loan review assesses loan quality at a specific point in time.
- ❖ This point is called the focal date.
- ❖ That said, depending on the sample reviewed, a review team may detect trends for a type of loan such as a specific industry or loan size.
- ❖ A loan review is not an assessment of the loan loss reserve. Even though the risk rating for each individual loan reviewed will be evaluated, a loan review does not provide an overall opinion of the adequacy of the loan loss reserve.

A Model Loan Review Mechanism Checklist can be Planned as under:

- ❖ Credit Initiation
- ❖ Loan Structuring
- ❖ Loan Approval Procedures
- ❖ Credit/Collateral File Documentation
- ❖ Normal Loan Monitoring
- ❖ Problem Loan Management
- ❖ Loan Workout Management

Credit Risk Management/Credit Audit

Credit audit examines compliance with extant sanction and post-sanction processes/procedures laid down by the bank from time to time.

Objectives of Credit Audit

- ❖ Improvement in the quality of credit portfolio
- ❖ Review sanction process and compliance status of large loans
- ❖ Feedback on regulatory compliance
- ❖ Independent review of Credit Risk assessment
- ❖ Pick-up early warning signals and suggest remedial measures
- ❖ Recommend corrective action to improve credit quality, credit administration and credit skills of staff, etc.

Structure of Credit Audit Department

The credit audit/loan review mechanism may be assigned to a specific department or the Inspection and audit department.

Functions of Credit Audit Department

- ❖ To process Credit Audit Reports
- ❖ To analyse Credit audit findings and advise the departments/functionaries concerned
- ❖ To follow up with controlling authorities
- ❖ To apprise the Top management
- ❖ To process the responses received and arrange for closure of the relative Credit Audit Reports
- ❖ To maintain database of advances subjected to Credit audit.

Scope and Coverage

The focus of credit audit needs to be broadened from the account level to look at the overall portfolio and the credit process being followed. The important areas are:

Portfolio Review

Examine the quality of Credit & Investment (Quasi Credit) portfolio and suggest measures for improvement

Loan Review

Review of the sanction process and status of post sanction processes/procedures (not just restricted to large accounts)

- ❖ All fresh proposals and proposals for renewal of limits (within 3-6 months from date of sanction)
- ❖ All existing accounts with sanction limits equal to or above a cut off depending upon the size of activity
- ❖ Randomly selected (say 5-10%) proposals from the rest of the portfolio
- ❖ Accounts of sister concerns/group/associate concerns of above accounts, even if limit is less than the cut off Action points for Review
- ❖ Verify compliance of bank's laid down policies and regulatory compliance with regard to sanction

-
- ❖ Examine adequacy of documentation
 - ❖ Conduct the credit risk assessment
 - ❖ Examine the conduct of account and follow up with frontline functionaries
 - ❖ Oversee action taken by front line functionaries in respect of serious irregularities
 - ❖ Detect early warning signals and suggest remedial measures thereof.

Frequency of Review

- ❖ The frequency of review should vary depending on the magnitude of risk (say, for the high-risk accounts - 3 months, for the average risk accounts - 6 months, for the low-risk accounts - 1 year).
- ❖ Feedback on general regulatory compliance
- ❖ examine adequacy of policies, procedures and practices.
- ❖ Review the Credit Risk assessment methodology.
- ❖ examine reporting system and exceptions thereof.
- ❖ Recommend corrective action for credit administration and credit skills of staff.
- ❖ Forecast likely happenings in the near future.

Procedure to be followed for Credit Audit

- ❖ Credit audit is conducted on site, i.e., at the branch which has appraised the advance and where the main operative credit limits are made available.
- ❖ Report on conduct of accounts of all allocated limits by calling from the corresponding branches.
- ❖ Credit auditors are not required to visit/physically inspect borrowers' premises/establishments

Some of the key benefits may include:

- ❖ Higher quality information
 - ❖ Process optimisation
 - ❖ Better capital allocation
 - ❖ Improved effectiveness
 - ❖ Protected reputation
 - ❖ Reduced costs
-

Unit 30 – Compliance Culture and GRC Framework

Compliance Culture & Its Significance:

- ❖ "Compliance culture" today represents the next generation of corporate compliance and ethics programs.
- ❖ Regulators, legal scholars, and businesses are urging organisations to develop a culture of compliance that aligns with external laws, internal policies, and increasingly with the ethical values.

Compliance Culture: can be defined as:

"Workplace behavior that naturally meets ethical and legal norms".

Benefits of Good Compliance Culture

- ❖ Low organizational and individual risk
- ❖ Low reputational risk
- ❖ Increased confidence among employees while performing their jobs
- ❖ Helps attract and retain talent and ensure employees engagement
- ❖ Improved transparency which enables better decisions
- ❖ Enhanced relationship with regulators and other stakeholders
- ❖ (vii) Enhanced valuation among investors

Sign of Poor Culture

- ❖ Focusing on short-term profitability, including personal interests, with little or no consideration for the long-term interest of the entity.
- ❖ Dominance of individuals in decision making forums and lack of challenge.
- ❖ Sub-Cultures, which are not aligned with the organisational culture (especially during acquisitions/mergers).
- ❖ Adherence to the letter of law/regulation, but not spirit (tick-box attitude). Tick-box attitude: and you do all that, so the boxes can be ticked. How many of us truly understand why we had to tick the boxes?
- ❖ Treating internal control/risk management framework as an irritant and breaching them at will for short-term benefits.
- ❖ Ineffective incentive structures vis-a-vis poor management of risks.
- ❖ Tendency to cover up the problems, rather law/regulation than resolving the underlying causes of the problems.
- ❖ Follow the market attitude.
- ❖ Employees are not encouraged or reluctant to speak out when they have concerns about the way in which the entity operates and
- ❖ Failing to challenge the status quo and consider alternative viewpoints resulting

For better compliance culture a list of do's and don'ts must be created for all employees

Banks should also:

- ❖ Convert misconducts and violations into case studies to be disseminated among the staff for education and development of desired attitudes.
- ❖ Avoid the tendency to treat compliance merely as cost and should recognise that proper conduct saves the bank from possible reputational loss and penalties - thus, generates hidden earnings which most banks do not quantify, and hence do not realise.

Penalties due to non-compliance

RBI issues show cause notices (SCNs) to banks during the course of Supervisory Evaluation and impose penalty. The risk of RBI Penalties arises due to noncompliance of

- ❖ Prudential and regulatory norms
- ❖ Integrity and Market Conduct
- ❖ Legal directions, related Acts
- ❖ Internal Policies & Procedures as approved by Bank's Board

In order to build a compliance program in any organisation following 7 elements can be followed:

- ❖ Implementing written policies, procedures, and standards of conduct.
- ❖ Designating a compliance officer and compliance committee.
- ❖ Conducting effective training and education.
- ❖ Developing effective lines of communication.
- ❖ Conducting internal monitoring and auditing.
- ❖ Enforcing standards through well-publicized disciplinary guidelines.
- ❖ Responding promptly to detected offenses and undertaking corrective action

To take some of the guess work, out of developing a culture of compliance, here are 10 typical attributes that regulators look for:

- ❖ Tone at the top
- ❖ Integration across the enterprise is key
- ❖ Silos: (भूमिगत कक्ष)
- ❖ Power
- ❖ Cowboys
- ❖ Resources
- ❖ Employee Buy-In
- ❖ Living Compliance Program
- ❖ Technology
- ❖ Documentation

Minimum Supervisory Expectation on Compliance Culture

- ❖ Compliance starts at the top.
- ❖ Compliance should be an integral part of the culture of the organisation.
- ❖ It should be a shared responsibility of each staff member of the bank, and business unit of a bank should be equally responsible for any non-compliance.

The essential elements for a robust compliance culture can be explained as under

- ❖ Tone from the top
- ❖ Accountability
- ❖ Communication
- ❖ Incentive Structure
- ❖ Ex Ante and Forward Looking

Compliance Organisation, Authority and Resources

Compliance department should draw the Compliance programme, to begin with, covering the following:

- ❖ Identify major compliance issues to be addressed on priority basis.
- ❖ Coordinate with Central audit and Inspection department for simultaneous identification of key compliance issues based on their findings during audit.
- ❖ Develop testing and monitoring procedure for assessing extent of compliance through Risk officers posted at regional offices/Zonal Offices/Field General Manager Offices.
- ❖ Review policies by the functional departments based on the experience gained during implementation of the policy.
- ❖ Create awareness and educate staff on Compliance function by introducing at least one session on Compliance during each training programme.

Governance, Risk, and Compliance -GRC Framework

Governance, Risk, and Compliance (GRC) process through control, definition, enforcement, and monitoring has the ability to coordinate and integrate these initiatives.

- ❖ Governance is the oversight role and the process by which companies manage and mitigate business risks.
- ❖ Risk management enables an organisation to evaluate all relevant business and regulatory risks and controls and monitor mitigation actions in a structured manner.
- ❖ Compliance ensures that an organisation has the processes and internal controls to meet the internal policies, requirements imposed by governmental bodies, regulators, industry mandates.

GRC Solution's Overview of Working:

GRC solution provides an integrated platform for standardizing and managing strategic and operational risk, as well as consolidating information from all financial risk management systems

(e.g., credit risk, market risk, etc.) to develop an enterprise view of your risk exposure throughout all common risk management stages - including risk identification, assessment, response and monitoring.

The following modules may be generally implemented in GRC application:

- ❖ Incident Management Module.
- ❖ Risk Control Self-Assessment (RCSA) Module.
- ❖ Key Risk Indicators (KRI) Module.
- ❖ Issues and Action Plan Module.
- ❖ Compliance/Policy Management Module.
- ❖ Governance/Audit Management Module.
- ❖ Regulatory Reports - Basic Indicator Approach (BIA) & The Standardised Approach (TSA) & Other MIS Reports.

Reasons for Compliance Failures

- ❖ Failure to understand law
 - ❖ Collapse in belief in law
 - ❖ Overly legalistic regulation
 - ❖ Regulation is at odds with market incentives or cultural practices
 - ❖ Failure to monitor
 - ❖ Procedural injustice
 - ❖ Failures of administrative capacity
 - ❖ Failure to understand the problem
 - ❖ Failure of casual relation between regulation and objective
-

Unit 31 – Compliance Function and Role of Chief Compliance Officer in NBFCs

Regulatory Structure for NBFCs:

Regulatory structure for NBFCs comprises of four layers based on their size, activity, and perceived riskiness.

- ❖ NBFC - Base Layer (NBFC-BL)
- ❖ NBFC - Middle Layer (NBFC-ML)
- ❖ NBFC - Upper Layer (NBFC-UL)
- ❖ NBFC - Top Layer (NBFC-TL)

1. Base Layer: Base Layer comprises of :

- ❖ Non-deposit taking NBFCs below the asset size of 1000 crore and
- ❖ NBFCs undertaking the following activities:
 - NBFC-Peer to Peer Lending Platform (NBFC-P2P).
 - NBFC-Account Aggregator (NBFC-AA).
 - Non-Operative Financial Holding Company (NOFHC).
 - NBFCs not availing public funds and not having any customer interface.

2. Middle Layer: The Middle Layer consist of:

- ❖ All deposit taking NBFCs (NBFC-Ds), irrespective of asset size.
- ❖ Non-deposit taking NBFCs with asset size of ₹1000 crore and above.
- ❖ NBFCs undertaking the following activities:
 - Standalone Primary Dealers (SPDs).
 - Infrastructure Debt Fund - Non-Banking Financial Companies (IDF-NBFCs).
 - Core Investment Companies (CICs).
 - Housing Finance Companies (HFCs) and
 - Infrastructure Finance Companies (NBFC-IFCs).

3. Upper Layer: The Upper Layer comprises of those NBFCs which are specifically identified by the Reserve Bank as warranting enhanced regulatory requirement based on a set of parameters and scoring.

- ❖ The top 10 eligible NBFCs in terms of their asset size shall always reside in the upper layer, irrespective of any other factor.
- ❖ Upper Layer shall be populated with NBFCs, identified by way of a parametric scoring methodology, comprising of quantitative and qualitative parameters/ supervisory judgment.
- ❖ The quantitative and qualitative parameters shall have weightage of 70% and 30% respectively.
- ❖ Scoring methodology for identification of an NBFC as NBFC-UL shall be based on the set of NBFCs fulfilling the following criteria:

- Top 50 NBFCs (excluding top 10 NBFCs based on asset size, which automatically fall in the Upper Layer) based on their total exposure including credit equivalent of off-balance sheet exposure.
- NBFCs designated as NBFC-UL in the previous year.
- NBFCs added to the set by supervisors using supervisory judgment.

4. Top Layer:

- ❖ The Top Layer will ideally remain empty.
- ❖ This layer can get populated if the Reserve Bank is of the opinion that there is a substantial increase in the potential systemic risk from specific NBFCs in the Upper Layer.
- ❖ Such NBFCs shall move to the Top Layer from the Upper Layer.
- ❖ Categorization of NBFCs Carrying out Specific Activity:
- ❖ As the regulatory structure envisages scale based as well as activity-based regulation, the following prescriptions shall apply in respect of the NBFCs:
 - NBFC-Peer to Peer Lending Platform (NBFC-P2P), NBFC-Account Aggregator (NBFC-AA), Non-Operative Financial Holding Company (NOFHC) and NBFCs without public funds and customer interface will always remain in the Base Layer of the regulatory structure.
 - NBFC-D (deposit taking), Core Investment Companies (CICs), Infrastructure Finance Companies (NBFC-IFCs) and Housing Finance Companies (HFCs) will be included in Middle Layer or the Upper Layer (and not in the Base layer), as the case may be.
 - The remaining NBFCs, viz., Investment and Credit Companies (NBFC-ICC), Micro Finance Institution (NBFC-MFI), NBFC-Factors and Mortgage Guarantee Companies (NBFC-MGC) could lie in any of the layers of the regulatory structure depending on the parameters of the scale based regulatory framework.
 - Government owned NBFCs shall be placed in the Base Layer or Middle Layer, as the case may be. These will not be placed in the Upper Layer till further notice.

Regulatory Changes under Scale Based Regulation (SBR)

Net Owned Fund

- ❖ Regulatory minimum Net Owned Fund (NOF) for NBFC-ICC, NBFC-MFI and NBFC-Factors shall be increased to 10 crores.
- ❖ NBFC-P2P, NBFC-AA, and NBFCs with no public funds and no customer interface, the NOF shall continue to be ₹ 2 crores.

NPA Classification

The extant NPA classification norm stands changed to the overdue period of more than 90 days for all categories of NBFCs unlike the present practice of starting 90 days from the end of the month in which the account becomes overdue (180 days).

Experience of the Board

Considering the need for professional experience in managing the affairs of NBFCs, at least one of the directors shall have relevant experience of having worked in a bank/ NBFC.

Ceiling on IPO Funding

- ❖ There shall be a ceiling of ₹1 crore per borrower for financing subscription to Initial Public Offer (IPO) i.e., non-banking finance companies (NBFC) cannot lend more than Rs 1 crore to investors seeking to buy stocks in IPO.
- ❖ NBFCs can fix more conservative limits.

Internal Capital Adequacy Assessment Process (ICAAP):

NBFCs are required to make a thorough internal assessment of the need for capital and the risks in their business.

Additional Regulatory Changes under SBR (Applicable to NBFC-UL)

- ❖ Common Equity Tier 1 (CET- Tier I): (9%)
- ❖ Leverage
- ❖ Differential standard asset provisioning
- ❖ Prudential Guidelines
- ❖ Concentration of credit/investment
- ❖ Sensitive Sector Exposure (SSE)
- ❖ Regulatory restrictions on loans
- ❖ Large Exposure Framework
- ❖ Internal Exposure Limits

Governance Guidelines

Regulatory changes under SBR applicable to NBFC-BL:

- ❖ Risk Management Committee
- ❖ Disclosures
- ❖ Loans to directors, senior officers and relatives of directors

Regulatory changes under SBR applicable to NBFC-ML and NBFC-UL

- ❖ Key Managerial Personnel
- ❖ Independent Director
- ❖ Disclosures
- ❖ Chief Compliance Officer
- ❖ Compensation guidelines
- ❖ Other Governance matters

NBFCs shall comply with the following

- ❖ The Board shall delineate the role of various committees (Audit Committee, Nomination and Remuneration Committee, Risk Management Committee or any other Committee) and lay down a calendar of reviews.
- ❖ NBFCs shall formulate a whistle blower mechanism for directors and employees to report genuine concerns.
- ❖ The Board shall ensure good corporate governance practices in the subsidiaries of the NBFC.

Core Banking Solution (CBS)

- ❖ NBFCs with 10 and more branches are mandated to adopt Core Banking Solution (CBS).
- ❖ A glide path of 3 years with effect from October 01, 2022 is being provided.

Additional regulatory changes under SBR (applicable to NBFC-UL)

- ❖ Qualification of Board Members
- ❖ Listing & Disclosures
- ❖ Removal of Independent Directors

Transition Path or Transition Plan

Transition of NBFCs to the Upper Layer:

- ❖ Once an NBFC is categorised as NBFC-UL, it shall be subject to enhanced regulatory requirement, at least for a period of 5 years from its classification in the layer, even in case it does not meet the parametric criteria in the subsequent years.
- ❖ In other words, it will be eligible to move out of the enhanced regulatory framework only if it does not meet the criteria for classification for five consecutive years.
- ❖ NBFC-UL may however move out of the enhanced regulatory framework before the period of five years if the movement is on account of voluntary strategic move to readjust operations as per a Board approved policy.
- ❖ This stipulation shall not apply if the scaling down of operations is on account of adverse situations specific to the NBFC and its deteriorating financial conditions.
- ❖ NBFCs which are close to meeting the parameters and benchmarks that would render them eligible for classification as NBFC-UL shall be intimated about the same to enable them to readjust their operations, in case they intend to continue to function as NBFC-ML on a long-term basis and do not want to graduate to NBFC-UL.

Review of Assessment Methodology

The methodology for assessing the NBFC-UL shall be reviewed periodically.

Classification of Government owned NBFCs:

- ❖ As per the Reserve Bank's extant guidelines, the Government owned NBFCs are still in the transition period to attain the minimum CRAR.
- ❖ It has, therefore, been decided not to subject these NBFCs to the Upper Layer regulatory framework at this juncture.

Regulation of NBFCs not availing public funds and not having customer interface:

- ❖ NBFCs not availing public funds and not having customer interface bear a different risk profile and hence deserve a differential regulatory treatment.
- ❖ It has been decided that Reserve Bank will come out with separate regulations for such NBFCs in due course.

Appointment and Tenure of CCO

Tenure

- ❖ The CCO shall be appointed for a minimum fixed tenure of not less than 3 years.
- ❖ However, in exceptional cases, the Board / Board Committee may relax the minimum tenure by one year, provided appropriate succession planning is put in place.

Removal

The CCO shall be transferred / removed before completion of the tenure only in exceptional circumstances, with the explicit prior approval of the Board / Board Committee, after following a well-defined and transparent internal administrative procedure.

Rank

The CCO shall be a senior executive of the NBFC with a position not below two levels from the CEO. However, in the case of NBFCs-ML, this requirement can be relaxed by one level further.

Skills

The CCO shall have a good understanding of the industry and risk management practices, knowledge of regulations, legal requirements, and have sensitivity to Supervisory expectations

Stature

- ❖ The CCO shall have the ability to exercise judgment independently.
- ❖ She / He shall have the freedom and authority to interact with regulators / supervisors directly and ensure compliance.

Conduct

CCO shall have a clean track record and unquestionable integrity.

Selection Process

Selection of the candidate for the post of the CCO shall be made based on a well-defined selection process and recommendations made by a committee constituted by the Board / Board Committee for the purpose.

Reporting Requirements

A prior intimation to the Senior Supervisory Manager, Department of Supervision, RBI, shall be provided before appointment, premature transfer, resignation, early retirement or removal of the CCO.

Reporting Line

- ❖ The CCO shall have direct reporting to the MD & CEO or Board /Board Committee.
 - ❖ In case the CCO reports to the MD & CEO, the Board/ Board Committee shall meet the CCO at quarterly intervals on a one-to-one basis, without the presence of the senior management, including MD & CEO
-

Unit 32 – Fraud and Vigilance in Banks

Fraud is basically an intentional, unfair or unlawful gain of money either directly or indirectly.

Fraud as per Indian Contract Act, 1881 (section 17):

Fraud has been defined in section 17 of the Indian Contract Act, 1881 whereby "Fraud" means any of the following acts committed by a party to a contract, or with his connivance, or by his agent, with intent to deceive another party or his agent, or to induce him to enter into the contract:

- ❖ The suggestion, which is not true.
- ❖ The active concealment of a fact by one having knowledge or belief of the fact.
- ❖ A promise made without any intention of performing it.
- ❖ Any other act fitted to deceive.
- ❖ Any such act or omission as the law specially declares to be fraudulent.

Fraud as per Companies Act 1872 (section 447)

Section 447 of the Companies Act 1872 while prescribing punishment for fraud appends explanatory note, stating that for the purposes of this section:

Fraud in relation to affairs of a company or anybody corporate, includes any act, omission, concealment of any fact or abuse of position committed by any person or any other person with the connivance in any manner, with intent to deceive, to gain undue advantage from, or to injure the interests of, the company or its shareholders or its creditors or any other person, whether or not there is any wrongful gain or wrongful loss.

Fraud as per Indian Penal Code (IPC) 1860 (section 25)

- ❖ Indian Penal Code (IPC) 1860 defines fraud somewhat indirectly by defining the term fraudulently u/s 25.
- ❖ "A person is said to have done something fraudulently if he did it with intent to defraud but not otherwise".
- ❖ "Hence, Intent to defraud is of paramount importance and it's a criminal offence".
- ❖ Defraud essentially means Deceit and Injury.

Fraud as per RBI:

- ❖ Reserve Bank of India (RBI) has per se, not defined the term 'fraud' in its guidelines on Frauds.
- ❖ RBI has, however made classification of frauds based on provisions of IPC 1860.
- ❖ As per RBI fraud encompasses, all instances wherein Banks have been put to loss through misappropriation and criminal breach of trust.
- ❖ Fraudulent encashment through forged instruments like Cheque, drafts and bills of exchange,
- ❖ Unauthorized handling of securities charged to banks.
- ❖ Manipulation of books of account or through fictitious accounts.
- ❖ Unauthorized credit facilities extended for reward or for illegal gratification.

- ❖ Negligence and cash shortages.
- ❖ Cheating and forgery.
- ❖ Irregularities in foreign exchange transactions.
- ❖ Any other type of fraud not coming under the specific heads as above.

- ❖ Cases of 'negligence and cash shortages' and 'irregularities in foreign exchange transactions' referred as above are to be reported as fraud if the intention to cheat/defraud is suspected/proved.
- ❖ However, the following cases where fraudulent intention is not suspected/proved at the time of detection will be treated as fraud and reported accordingly:
 - Cases of cash shortages of more than ₹ 10,000 and
 - Cases of cash shortages of more than ₹ 5,000 if detected by management/auditor/inspecting officer and not reported on the day of occurrence by the persons handling cash.

Forgery

- ❖ Forgery generally means forging a document i.e., creation of a false written document or alteration of a genuine document with the intent to defraud.
- ❖ Forgery has been defined u/s 463 of IPC 1860:
- ❖ Further, making a false document has been defined u/s 464.

Forgery may be described/elaborated as follows:

- ❖ The offence of making a false document is complete as soon as a document is made with intent to commit a fraud.
- ❖ It is not necessary that the document should be made in the name of a really existing person. It may be in the name of a fictitious person or a deceased person.
- ❖ If several persons combine to forge an instrument and each takes a distinct part in it, they are nevertheless all guilty.
- ❖ Counterfeiting a document to support a legal claim will amount to forgery.
- ❖ Antedating a document may become forgery if the date is a material part of the forgery.
- ❖ A document made to conceal a previous fraudulent or dishonest act amounts to forgery. But such falsification is not forgery if it is only for the purpose of concealing a previous negligent act.
- ❖ A man's signature of his own name may amount to forgery.
- ❖ Offence of forgery can be abetted.

Some instances of frauds in various banking segments have been discussed here in below:

(A) Deposits

- ❖ By Public: Fraudulent documentation
- ❖ By Staff

(B) Advances

- ❖ Fraudulent discount of instruments or kite flying in clearing effects. Kite flying: the practice of drawing cheques on deposits which are already committed, assuming that the delay in clearing the cheque will allow time to replenish the account.
- ❖ Fraudulent removal of pledged stocks/disposing of hypothecated stocks without the bank's knowledge/inflating the value of stocks in the stock statements and drawing excess bank finance.
- ❖ Diversion of funds outside the borrowing units, transferring funds to group companies, lack of interest or criminal neglect on the part of borrowers, their partners, Directors, etc., and also due to managerial failure leading to the unit becoming sick and due to laxity in effective supervision over the operations in borrowal accounts on the part of the bank functionaries rendering the advance difficult to recover.
- ❖ Falsification of documents: He/she provides false information about his/her financial status, such as salary and other assets, and takes a loan for an amount that exceeds his eligible limits. A person may forge export documents such as airway bills, bills of lading, and Export Credit Guarantee Cover and customs purged numbers/orders issued by the customs authority.
- ❖ Identity theft: An individual illegally obtains personal information/ documents of another person and takes a loan in the name of that person.

(C) Transactional areas

- ❖ Mobile banking application being mapped to an incorrect mobile number
- ❖ Creating fake and non-existent users on the mobile financial services platform
- ❖ SIM Cloning: Fraudsters get access to SIM details of the victim and clone it to get access to the account through UPI in their mobile.
- ❖ SIM Swaps: Fraudsters pose as executives of the service provider and provide an offer of upgrading SIM to 4G.
- ❖ Unauthorised deductions from the wallet of a customer (especially a dormant or infrequent customer account)
- ❖ Failure to conduct proper due diligence of merchants
- ❖ Debit card skimming: A machine or camera is installed at an ATM to pick up card information and PIN numbers when customers use their cards.
- ❖ ATM fraud: A fraudster acquires a customer's card and PIN and withdraws money from the machine.
- ❖ Triangulation/site cloning: Customers enter their card details on fraudulent shopping sites. These details are then misused.
- ❖ UPI Fraud through request money in lieu of money sent.
- ❖ Impersonation - Identity theft related fraud
- ❖ Fraud through installation of remote access malware software like Anydesk, TeamViewer, Chrome TeamViewer, Chrome remote desktop, Ammyydesktop, Ammyy Admin, Dreamware. Remote Everywhere & Mikogo, etc.

Main types of cyber threats

- ❖ Distributed denial of service (DDoS)
- ❖ Social engineering
- ❖ Man in the Middle (MitM)
- ❖ Malware and spyware
 - Trojan virus or Trojan Horse virus
 - Ransomware
 - Malvertising
- ❖ Password attacks
- ❖ Advanced persistent threats (APT)

Various types of present-day cybercrimes

- ❖ Hacking
- ❖ Malware
- ❖ Ransomware
- ❖ Crypto ransomware

3 ways computers are commonly infected

- ❖ **Email:** The individual clicks on a malicious link or attachment in a phishing email
- ❖ **Malvertising:** The individual visits a site that displays infected advertisements
- ❖ **Drive-by-Downloading:** The individual visits a legitimate or illegitimate website with an exploit that has not been patched. This means that simply opening the website will run the ransomware without the user knowing

Identity theft

- ❖ It is one of the fastest growing problems which is affecting millions in India as well as in the world which requires immediate attention.
- ❖ Identity Theft through Survey forms/Phone Calls/Mails, etc.: Survey forms given in restaurants and lucky draw coupons at shopping malls/movie theatres requesting personal information.

Various types of other present-day cybercrimes

- ❖ RAM scrappers
- ❖ Sniffing
- ❖ Spoofing
- ❖ Phishing
- ❖ Spear phishing
- ❖ Whaling
- ❖ Smishing (SMS Phishing)
- ❖ Vishing (Voice Phishing)

- ❖ Pharming
- ❖ Zero-day vulnerability
- ❖ Juice Jacking
- ❖ Any desk Hackers

Some ways of mobile phone security measures

- ❖ Physical security
- ❖ Net Security

Central Payment Fraud Information Registry (CPFIR)

Reporting frequency

All entities must ensure that all frauds are reported to RBI, through the Electronic Data Submission Portal (EDSP), within a maximum period of 7 calendar days from the date of reporting by the customer/detection of the fraud by the entity.

Reporting of Frauds to Reserve Bank of India

Central Fraud Registry (CFR):

- ❖ CFR is a web-based and searchable database.
- ❖ The practice of issuing paper-based Caution Advice (CA) has since been discontinued.
- ❖ Banks need to furnish Fraud Monitoring Return (FMR) in individual fraud cases, irrespective of the amount involved, to RBI electronically using
- ❖ FMR Application in XBRL System within three weeks (21 calendar days) from the date of detection.
- ❖ XBRL: eXtensible Business Reporting Language.
- ❖ In addition to the FMR, banks are required to furnish a Flash Report (FR) for frauds involving amounts of ₹5 Crore and above within a week of such frauds coming to the notice of the bank's head office.
- ❖ In terms of RBI circular Bank need not report cases of attempted frauds of ₹1 crore (INR 10 million) and above to Reserve Bank of India.
- ❖ However, the banks should continue to place the report on individual cases of attempted fraud involving an amount of ₹ 1 crore (INR 10 million) and above before the Audit Committee of the Board (ACB). The report should cover the following:
 - The modus operandi of the attempted fraud and
 - How the attempt did not materialize into fraud or how the attempt failed/was foiled.
 - The measures taken by the bank to strengthen the existing systems and controls.
 - New systems and controls put in place in the area where fraud was attempted.

Monitoring System

- ❖ Reports to the Board Banks should ensure that all frauds of ₹ 1 Lac and above are reported to their Boards promptly on their detection.
- ❖ Quarterly Review of Frauds, Information relating to frauds for the quarters ending June, September and December should be placed before the Audit Committee of the Board of Directors during the month following the quarter to which it pertains.
- ❖ A separate review for the quarter ending March is not required in view of the Annual Review for the year-ending March.
- ❖ Annual Review of Frauds, Banks should conduct an annual review of the frauds and place a note before the Board of Directors / Local Advisory Board for information.

Special Committee of the Board:

- ❖ RBI has advised banks to constitute a Special Committee of the Board for monitoring and follow up of cases of frauds (SCBF) involving amounts of ₹1 crore and above exclusively.
- ❖ The Special Committee is constituted with 5 members of the Board of Directors, consisting of MD & CEO in case of public sector banks and MD in case of SBI and private sector banks, 2 members from ACB and 2 other members from the Board excluding RBI nominee.

The major functions of the Special Committee are to monitor and review all the frauds of ₹1 Crore and above so as to:

- ❖ Identify the systemic lacuna if any that facilitated perpetration of the fraud and put in place measures to plug the same.
- ❖ Identify the reasons for delay in detection, reporting to top management of the bank and RBI.
- ❖ Monitor progress of CBI/Police investigation and recovery position.
- ❖ Ensure that staff accountability is examined at all levels in all the cases of frauds and staff side action, if required, is completed quickly without loss of time.
- ❖ Review the efficacy of the remedial action taken to prevent recurrence of frauds, such as strengthening of internal controls.

Cheque Related Frauds

An illustrative list of some of the preventive measures they may follow in this regard:

- ❖ Ensuring the use of 100% CTS - 2010 compliant cheques.
- ❖ Strengthening the infrastructure at the cheque handling Service Branches and bestowing special attention on the quality of equipment and personnel posted for CTS based clearing, so that it is not merely a mechanical process.
- ❖ Ensuring that the beneficiary is KYC compliant so that the bank has recourse to him/her as long as he/she remains a customer of the bank.
- ❖ Examination under UV lamp for all cheques beyond a threshold of say, ₹2 Lac.
- ❖ Checking at multiple levels, of cheques above a threshold of say, ₹5 Lac.
- ❖ Close monitoring of credits and debits in newly opened transaction accounts based on risk cat.

- ❖ Sending an SMS alert to payer/drawer when cheques are received in clearing.

Fraud reporting

Fraud of ₹3 crore and above and up to ₹25 crore

- ❖ To be lodged with Anti-Corruption Branch of CBI (where staff involvement is prima facie evident).
- ❖ To be lodged with Economic Offences Wing of CBI (where staff involvement is prima facie not evident)

More than ₹25 crore and up to ₹50 crore

- ❖ To be lodged with Banking Security and Fraud Cell (BSFC) of CBI (irrespective of the involvement of a public servant)

More than ₹50 crore

- ❖ CBI To be lodged with the Joint Director (Policy) CBI, HQ New Delhi.

RBI has directed all Banks to introduce **POSITIVE PAY CONFIRMATION** for all cheques amounting ₹50,000 and above which are issued by the accountholders.

Loan Frauds - New Framework: Early Warning Signals (EWS)

Indicative list of some Early Warning Signals (EWS) which should alert the bank officials about some wrongdoings in the loan accounts and which may turn out to be fraudulent

- ❖ Default in payment to the statutory bodies as declared in the Annual report.
- ❖ Bouncing of high value cheques.
- ❖ Foreign bills remaining outstanding with the bank for a long time.
- ❖ Delay observed in payment of outstanding dues.
- ❖ Frequent invocation of BGs and devolvement of LCs.
- ❖ Under insured or over insured inventory.

Red Flagged Accounts (RFA)

- ❖ A Red Flagged Account (RFA) is one where a suspicion of fraudulent activity is thrown up by the presence of one or more Early Warning Signals (EWS).
- ❖ These signals in a loan account should immediately put the bank on alert regarding a weakness or wrong doing which may ultimately turn out to be fraudulent.

Legal Audit of Title Documents

Banks should subject the title deeds and other documents in respect of all credit exposures of Rs. 5 crores and above to periodic legal audit

Lodgment of Complaints as per Amount of Fraud

While reporting/filing of fraud incidence to RBI within stipulated time line, the Banks/FIs are required to file FIR/ complaint to the investigating agencies (Local Police/CID/CBI) for further criminal action.

Private Sector/ Foreign Banks

Amount involved in the fraud	Agency to whom complaint should be lodged	Remarks
₹ 10000 and above	State Police	If committed by staff.
₹ 1 Lac and above	State Police	If committed by outsiders on their own and/or with the help of bank staff.
1 Crore and above	In addition to State Police, Serious Fraud Investigation Office (SFIO), Ministry of Corporate Affairs.	Details of the fraud are to be reported to SFIO in FMR Format.

Public Sector Banks

Amount involved in the fraud	Agency to whom complaint should be lodged	Remarks
Above ₹ 10000 but below ₹ 1 Lac	State Police (To the local police station)	If committed by staff
₹ 1 Lac and above but below 3 crore	To the State CID/Economic Offences Wing of the State concerned.	If committed by outsider. To be lodged by the Regional Head of the bank concerned
3 Crore and above and upto 25 crore	CBI	To be lodged with Anti-Corruption Branch of CBI (where staff involvement is prima facie evident). To be lodged with Economic Offences Wing of CBI (where staff involvement is prima facie not evident).
More than ₹25 crore and up to ₹50 crore	CBI	To be lodged with Banking Security and Fraud Cell (BSFC) of CBI (irrespective of the involvement of a public servant).
More than ₹50 crore	CBI	To be lodged with the Joint Director (Policy) CBI, HQ New Delhi.

Important Formula

Some of these Formulas may not be applicable for ABM, but I request all of you to go through all of them to understand the concepts clear for ABM, BFM and ABFM.

1. Raw material Turnover Ratio = Cost of RM used / Average stock of R M
2. SIP Turnover = Cost of Goods manufactured / Average stock of SIP
3. Debt Collection period = No. days or months or Weeks in a year/Debt Turnover Ratio.
4. Average Payment Period = No. days or months or Weeks in a year/Creditors Turnover Ratio.
5. Inventory Turnover Ratio = Cost of Goods Sold / Average Inventory.
6. Debtors Turnover Ratio = Net Credit Sales / Average Debtors.
7. Creditors Turnover Ratio = Net Credit Purchases / Average Credits.
8. Defensive Interval Ratio = Liquid Assets / Projected Daily Cash Requirement
9. Projected daily cash requirement = Projected operating cash expenses / 365.
10. Debt Equity Ratio = Long Term Debt / Equity.
11. Debt Equity Ratio = Total outside Liability / Tangible Net Worth.
12. Debt to Total Capital Ratio = Total Debts or Total Assets/(Permanent Capital + Current Liabilities)
13. Interest Coverage Ratio = EBIT / Interest.
14. Dividend Coverage Ratio = N. P. after Interest & Tax / Preferential dividend
15. Gross Profit Margin = Gross Profit / Net Sales * 100
16. Net Profit Margin = Net Profit / Net Sales * 100
17. Cost of Goods Sold Ratio = Cost of Goods Sold / Net Sales * 100.

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18. Operating Profit Ratio = $\text{Earnings Before Interest Tax} / \text{Net Sales} * 100$
 19. Expenses Ratio or Operating Ratio = $\text{Expenses} / \text{Net Sales} * 100$
 20. Net Profit Ratio = $\text{Net Profit After interest and Tax} / \text{Net Sales} * 100$
 21. Operating Expenses Ratio = $(\text{Administrative} + \text{Selling expenses}) / \text{Net Sales} * 100$
 22. Administrative Expenses Ratio = $(\text{Administrative Expenses} / \text{Net Sales}) * 100$
 23. Selling Expenses Ratio = $(\text{Selling Expenses} / \text{Net Sales}) * 100$
 24. Financial Expenses Ratio = $(\text{Financial Expenses} / \text{Net Sales}) * 100$
 25. Return on Assets = $\text{Net Profit After Tax} / \text{Total Assets}$.
 26. Total Assets = $\text{Net Fixed Assets} + \text{Net Working Capital}$.
 27. Net Fixed Assets = $\text{Total Fixed Assets} - \text{Accumulated Depreciation}$.
 28. Net Working Capital = $(\text{CA} - \text{CL}) - (\text{Intangible Assets} + \text{Fictitious Assets} + \text{Idle Stock} + \text{Bad Debts})$
 29. Return on Capital Employed = $\text{Net Profit Before Interest and Tax} / \text{Average Capital Employed}$.
 30. Average Capital employed = $\text{Equity Capital} + \text{Long Term Funds provided by Owners \& Creditors at the beginning \& at the end of the accounting period divided by two}$.
 31. Return on Ordinary Share Holders Equity = $(\text{NPAT} - \text{Preferential Dividends}) / \text{Average Ordinary Share Holders Equity or Net Worth}$.
 32. Earnings Per Share = $\text{Net Profit After Taxes and Preferential dividends} / \text{Number of Equity Share}$.
 33. Dividend per Share = $\text{Net Profit After Taxes and distributable dividend} / \text{Number of Equity Shares}$.
 34. Dividend Pay Out Ratio = $\text{Dividend per Equity Share} / \text{Earnings per Equity Share}$.
 35. Dividend Pay Out Ratio = $\text{Dividend paid to Equity Share holders} / \text{Net Profit available for Equity Share Holders}$.
 36. Price Earnings Ratio = $\text{Market Price per equity Share} / \text{Earning per Share}$.
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37. Total Asset Turnover = Cost of Goods Sold / Average Total Assets.
38. Fixed Asset Turnover = Cost of Goods Sold / Average Fixed Assets.
39. Capital Turnover = Cost of Goods Sold / Average Capital employed.
40. Current Asset Turnover = Cost of Goods Sold / Average Current Assets.
41. Working Capital Turnover = Cost of Goods Sold / Net Working Capital.
42. Return on Net Worth = (Net Profit / Net Worth) * 100
43. DSCR = Profit after Tax & Depreciation + Int. on T L & Differed Credit + Lease Rentals if any divided by Repayment of Interest & Installments on T L & Differed Credits + Lease Rentals if any.
44. Factory Cost = Prime cost + Production Overheads.
45. Cost of Goods Sold = Factory Cost + Selling, distribution & administrative overheads
46. Contribution = Sales – Marginal Costs.
47. Percentage of contribution to sales = (Contribution / Sales) * 100
48. Break Even Analysis = $F / (1 - VC / S)$
F = Fixed costs, VC = Total variable operating costs & S = Total sales revenue
49. Break Even Margin or Margin of Safety = Sales – Break Even Point / Sales.
50. Cash Break Even = $F - N / P - R$ or $F - N / 1 - (VC / S)$
51. BEP = Fixed Costs / Contribution per unit.
52. Sales volume requires = Fixed cost + Required profit / Contribution per unit.
53. BEP in Sales = (Fixed Costs / Contribution per unit) * Price per unit.
54. Contribution Sales Ratio = (Contribution per unit / Sale price per unit) * 100
55. Level of sales to result in target profit after Tax = (Target Profit) / (1 – Tax rate / Contribution per unit)
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56. Level of sales to result in target profit = (Fixed Cost + Target profit) * sales price per unit
Contribution per unit.

57. Net Present Value = $-C_0 + C_1 / (1 + r)$

58. Future expected value of a present cash flow = Cash Flow $(1 + r)^t$

59. Present value of a simple future cash flow = Cash Flow $/ (1 + r)^t$

60. The Discount Factor = $1 / (1 + r)^t$

61. CR = CA : CL

62. Net Worth = CA - CL

63. DER = TL/TNW or debt/equity or TL/equity

64. Price Elasticity of Supply = (% change in quantity supplied)/(% change in price)

ABFM Important Formula

Earnings Per Share	EAT/No of Equity Shares
Degree of Operating Leverage (DOL)	% change in EBIT / %change in Sales
Impact of Fixed Cost: DOL	Contribution / EBIT
Degree of Financial Leverage (DFL)	% change in EPS / %change in EBIT
Impact of Interest Cost: DFL	EBIT / EBT
Degree of Combined Leverage (DCL) OR Degree of Total Leverage (DTL)	% change in EPS / %change in Sales
Impact of Interest Cost and Fixed Cost: DCL	Contribution / EBT
Break-Even Formula: Break- Even Point	Fixed Cost / Contribution per Unit
Pay Back Period	Initial Investment / Annual Cash Inflow
Net Present Value (NPV)	Present value of net cash inflow - Total net initial investment if NPV ≥ 0 :- Accept the Proposal if NPV ≤ 0 :- Reject the Proposal
Accounting Rate of Return (ARR)	(Average Annual Net Earning after Taxes / Average Investment) $\times 100\%$

ARR	(Average Profit / Average Investment) × 100%
Average profit made yearly	Total Profit / No.of Years
Average Investment	{(Initial Investment–Scrap) / 2} + Scrap Value
Average Investment	(Initial Investment + Scrap Value)/2
Average Investment	{(Initial Investment–Salvage Value) /2} + Salvage Value
Deprecation per year	(Price of Machine–Salvage Value) / Life of Machine (Year)
Break-even Point (per month in units)	(Fixed Cost p.m.+number of setups × cost per setup) / Contribution p.u.
Profit per month	{Monthly demand (units) × Contribution per unit} – Fixed Cost per month + setup cost per month
Activity cost driver rate	Total cost of activity / Activity driver
Non-DCF Valuation Models: EBITDA Basis Book Value Basis Seles Basis	EV / EBITDA EV / Book Value EV / Sales Value
P/E multiple	Market price per share / Earnings per share
Price-earnings multiple	P0 / E1
The book value per share (B)	(Shareholders funds–Preference capital) / Number of outstanding equity shars
EV to EBITDA Multiple	Enterprise value (EV) / Earnings before Interest, Taxes, Depreciation, and Amortization
EV/EBIT Multiple	Enterprise value (EV) / Earnings before Interest, Taxes, (EBIT)
EV/FCFF Multiple	Enterprise value (EV) / Free cash flow to firm(FCFF)
EV/BV Multiple	Enterprise value (EV) / Book value of assets (BV)
EV/Sales Multiple	Enterprise value (EV) / Sales(S)

ALL THE VERY BEST FOR YOUR EXAMS

SHORT NOTES FOR CAIIB ADVANCED BANK MANAGEMENT

Though we had taken enough care to go through the notes provided here, we shall not be responsible for any loss or damage, resulting from any action taken on the basis of the contents. Creation of these short notes is the efforts of so many persons. First of all we thank all of them for their valuable contribution. We request everyone to go through the Macmillan book and update yourself with the latest information through RBI website and other authenticated sources. In case you find any incorrect/doubtful information, kindly update us also (along with the source link/reference for the correct information).

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