

Chapter four

Human Resource Management (HRM) and Control

8 hours

- **Human Resource management**
- Functions of human resource management
- Job analysis, job specification, job description
- Recruitment and selection
- Human resource training (on the job and off the job training)
- Performance appraisal and methods
- Challenges in managing people in ICT workforce
- **Control**
- Importance
- Process and types
- Techniques
- ICT tools for effective control of engineering projects and organizations.

Meaning

- **Human Resource Management** can be defined as obtaining, using and maintaining a satisfied workforce. It is a significant part of management concerned with employees at work and with their relationship within the organization.
- Every organization is set up with a mission of its own. Such a mission is expressed through its objectives or goals. Our organizations employ people to work to achieve these objectives and goals. People working in organizations are human resources, also referred as the most valuable resource because of their talents and energies which can contribute to the creation and achievement of the organization's mission, vision, strategy and goals.

- The essence of the concept of human resource management previously known as personnel management is treat the people working in organizations are viewed as valuable resources. If properly managed and treated, people help to increase productivity through their full commitment and capability and enable the firm to compete in local and global markets. The management of human resources, therefore, is one of the key elements in the management and coordination of work and people in organization.

- The term human resource management is the improved version of the personnel management. Its emerging concept emphasizes the integration of both strategic and operational activities to achieve the desired results. . HRM practices recruitment and selection, training and development, performance evaluation and reward system are essential to achieve these results.

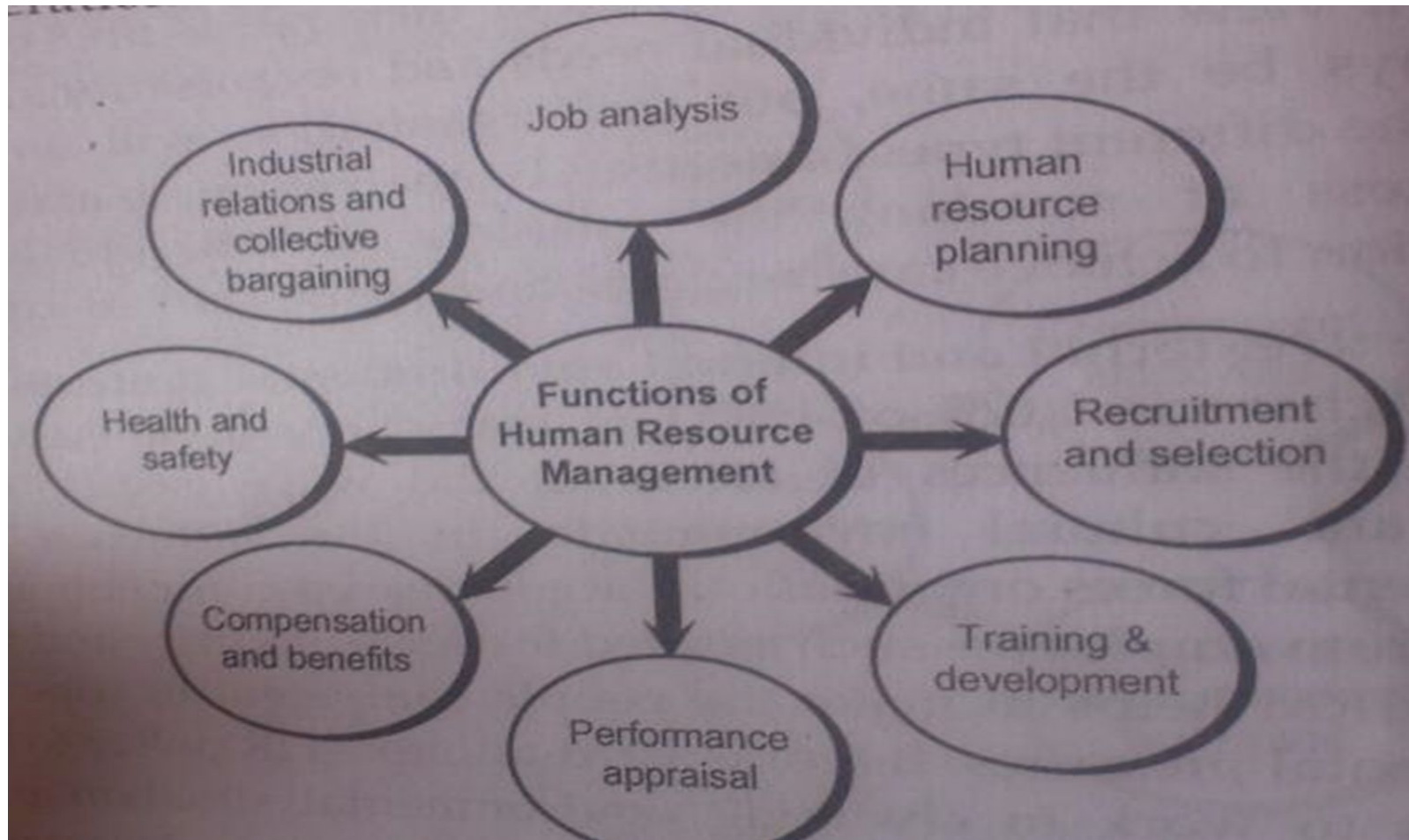
- As noted earlier, HRM constitutes a comparatively new approach to personnel management. Its emphasis is on how to use people strategically to achieve organizational objectives and consider them as the key resource that can be used for organizational development and change. Few definitions of HRM are presented below to understand its concept.
- Human resource management is the strategic and operational management of activities focusing on the human resources in an organization. —

- Human resource management is concerned with the people dimension in management. - DeCenzo and Robbins.

- To achieve the predetermined goal of the organization, number of staff is appointed in different level. The entire work of the organization is divided in the available employees of the organization. Employees of the organization are very important resource of the organization. Other resources are operated and run by employees. The personnel management is concerned with the people working in the organization which is also known as human resource.

- The selection of the right staff in the right time, giving them right tasks, motivating staff to achieve the better performance, recording the activities of staff, pay, salary, allowance, incentive, reward, punishment, evaluating the performance of the staff, promotion, training, leave, giving right and responsibility to the staff, solving any misunderstands and disputes regarding staff, transfer etc are the basic functions of human resource management. In the modern age, the personnel management is called human resource management (HRM). A separate department is established in big organizations called human resource department to conduct all above mentioned functions. The head of this department is called human resource manager.

Function of human resource management



- Job analysis: it is the most basic function of HRM. It involves the collection of job related information to prepare job description and job specification. Job description includes detail information about what a person has to do being in that specific job. Whereas job specification indicates the qualification, training, work experience and other personal requirements to perform a particular job described in job description. The use of job analysis information is pervasive in organization. The information collected from job analysis is used for formulating manpower planning, recruitment and selection and other HR decisions.

- Human resource planning: another important function of HRM is to prepare HR planning. It involves estimation of demand and supply of manpower to fulfill current and future HR requirements of the organization. While making planning, HR department has to review organizations goals and strategies and try to link HR planning with them. It is further essential to get information from the line managers about their future manpower requirements. Moreover, human resource information system provides facts on the number and type of manpower currently available, which also helps a lot to prepare HR planning.

- Recruitment and selection: one of the important functions of HRM is recruitment and selection. Recruitment is the process of making pool of qualified candidate. Selection of required number of employees is made by the organization in the near future from such pool. The recruitment functions start from the invitation of applications and ends with the development of least of qualified candidates for the selection. Selection involves the process of reviewing applications banks, organization of interview and tests and informing candidates. Information from job analysis and human resource planning is normally used for selecting right candidates and rejection wrong candidate.

- Training and development: training and development is an important function of the HR department. Training and development is required to develop the skill, ability and motivation of the employees to work. The HR department has to engage to assess training needs and decide the type of training and development that is required. Based on the assessment of training needs, training and development activities are organized. Depending on the training needs of employees, on-the-job or off-the-job training can be arranged and provided. On-the-job training is provided using organizational premises and facilities. Off-the-job training is provided outside organizational premises in some other training and education institutes. While assessing, the HR department has to decide the type of training provided to develop employees' skills.

- Performance appraisal: performance appraisal is the process of evaluating employees performance related strengths and weakness. It helps to assess how well employees are doing in their performance of employees against agreed targets and find out such strengths and weaknesses. HR managers have to design appropriate appraisal techniques to get real performance feedback of the employees involved in different jobs. Performance is measured against criteria set previously this is also known as standard. The result of evaluation could be used for determining training needs and making decisions on providing promotion and other forms of rewards for employees.

- Compensation and benefits: compensation rewards people through pay, incentives and benefits against the work done. Benefits reward people with additional compensation. They are the indirect forms of compensation such as health care, family related and other mandated benefits. Every organization must develop and refine their compensation and benefit packages. They have to provide compensation and other benefit package adequate, equitable and acceptable to the employees. Compensation and benefits are great sources of motivating employees at work.

- Health and safety: providing healthy work environment is another function of HRM. Every organization has to take care of employee's health and safety. The working places are getting more and more health hazard due to poor work arrangements and increasing use of chemicals and other harmful substances. Employees should be made aware about these hazardous situations by way of different awareness programs. Employee's assistant program is important to make them aware of hazardous work conditions and to minimize number of work related deceases and accidents

- Industrial relations and collective bargaining: another important function of HRM is maintaining harmonious relations between management and employees in the organization. In this process, HR department has to develop mechanism for creating understanding on different HR related issues between management and employees. These issues arise due to work related conflicts and poor working conditions. HR department helps to develop mechanism to solve such conflict and work related issues at the shop floor. Such mechanisms are, for example, handling grievances, labor dispute at the shop floor and involving employee representation in different HR related decisions. Collective bargaining is another technique to solve employee relations problems if other mechanism fails to reach an agreement. The process of collective bargaining includes involvement of union representatives in the bargaining and reaching an agreement for implementation. Usually collective bargaining technique is used to bargain to increase salary, wages and benefits.

Job analysis

- Job analysis is the systematic recording of activities involved in a job. It is formal study of jobs. It systematically studies the activities of a job. It defines:
- Tasks involved in a job and activities happening on the job.
- Qualifications needed to accomplish the job in terms of knowledge, skills and abilities.
- Job analysis is a process by which information about each activity involved in a job is systematically observed and recorded. Qualifications needed for doing the job are identified.

- The most building block of HR management, job analysis is a systematic way to gather and analyze information about the content and human requirements of jobs, and the context in which jobs are performed. Job analysis involves a formal study of jobs. This is done by a process of analysis to find out what is involved in each job. The final outcome of job analysis is the preparation of job descriptions and job specification. A number of authors have defined job analysis.
- The process of defining a job in terms of tasks or behaviors and specifying the education, training and responsibilities needed to perform the job successfully. – Bureau of intergovernmental personnel programs.

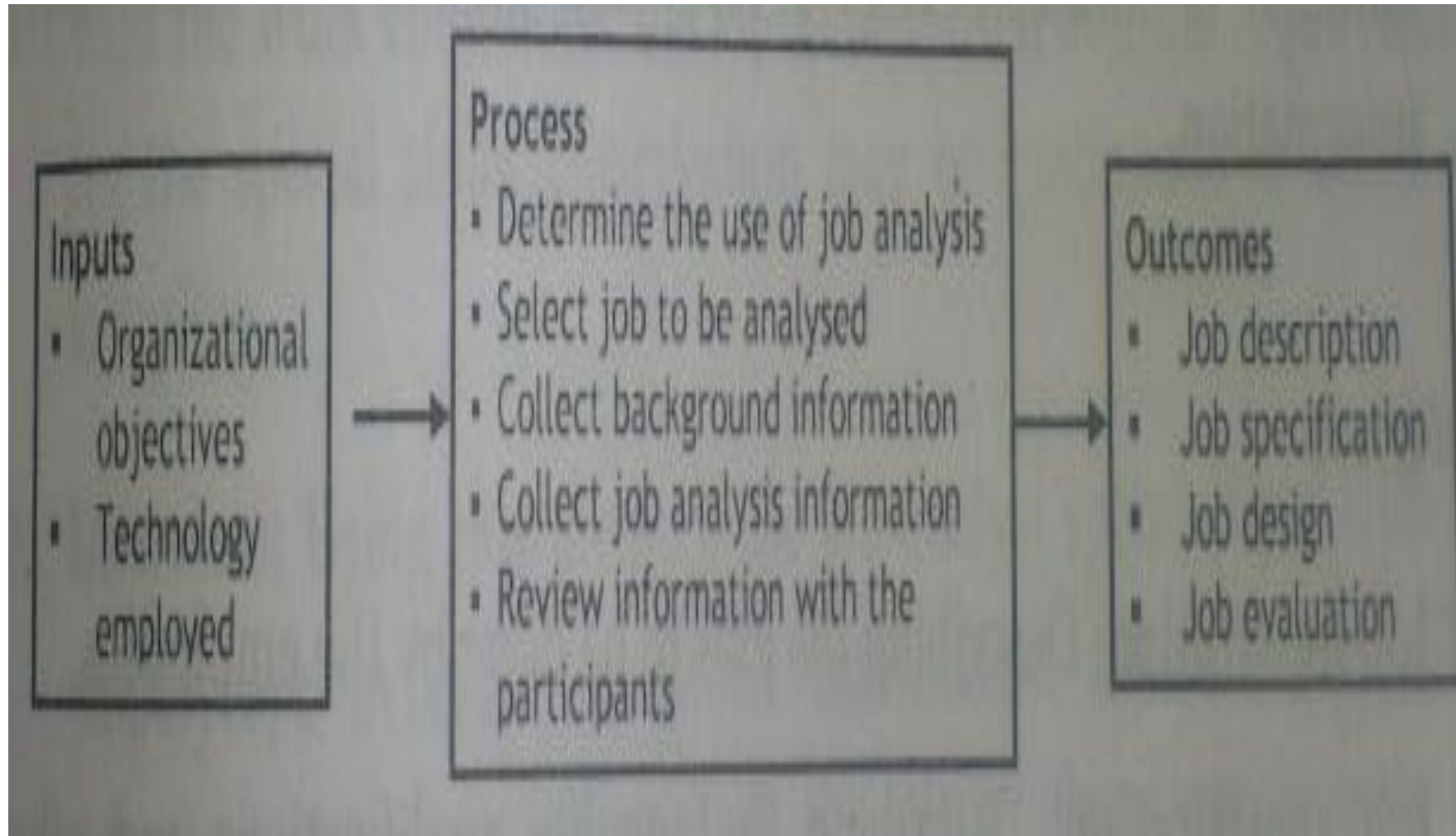
- Job analysis is the process of describing and recording information about job behaviors and activities. –Jackson and Schuler,
- Job analysis is as systematic exploration of the activities within a job, it is a basic technical procedure, one that is used to define the duties, responsibilities, and accountabilities of a job.-DeCenzo and Robbins
- From an analysis of the above definitions it seems that job analysis activity aims to match between business objectives and approaches to analysis of job has important uses in organization to manage human resource activities. For examples

- To prepare job description and specification
- To redesign work to achieve strategic objectives.
- To map career path of individual employees
- To identify unneeded jobs that can be merged to eliminated during organizational restructuring.
- To specify the competencies needed to perform a job.
- To redesign jobs for disable employees.
- To develop measures of job performance.
- To arrange training program and deciding on approaches to evaluating them
- To develop a compensation structure that is internally equitable.

Job analysis system

- Job analysis is the process of gathering information with a view to preparing job description and specification. The information collected from job analysis is useful for planning, recruitment and selection, training, performance evaluation and designing reward packages. In the course of analyzing jobs, inputs are received from the organizational objectives and technology employed. The process includes different steps in collecting job analysis information. The final outcome of the job analysis process is to prepare job description and job specification. The information is also useful for purposes of evaluation and design in the organization.

The job analysis system



- **Inputs**

- The job analysts should be familiar with the objective of the organization. The objective offers guidelines for using human and technological resources.
- Technology employed: without understanding the nature of technology involved in the job, it is difficult to know that a person supposed to do and what qualification he or she requires to work on that technology

- **Process**

- Determine the use of job analysis: The analyst should be clear about the use of job analysis. Otherwise, it will be too costly and time consuming to analyze all jobs. It is, therefore necessary to determine the particular use of analysis in the organization.
- Select job to be analyzed: only those jobs will be selected for job analysis for which information is essential to be collected. In the case of many similar jobs, the analyst may select only representative ones.
- Collect background information: before collecting job analysis information, it is necessary to review background information, such as organization charts, process chart and job description and specification.

- Collect job analysis information: information is collected regarding behavioral requirements, working conditions, technical and human requirements. The techniques of collecting the job analyzing information may be observation, interview, conference with job analyst or experts, diaries kept by the employees, questionnaires etc.
- Review the information with the participants: once information is collected, it is advisable to discuss the different aspects of such information with the job holders and the immediate supervisors. This process is essential to complete the job analysis process with the addition of further necessary facts and omission of unnecessary information

- **Out comes**

- Job description: describing the jobs to be done by the employees.
- Job specification: describing the specific qualifications and other qualities required to perform a job.
- Job evaluation: determining the relative worth of the job with a view to compensating it.
- Job design: fitting human and job requirements to motivate and satisfy the employees on the job.

- **Job description**

- A job description is a foundation stone of many human resource practices ranging from recruitment to training program. It indicates the tasks, duties and responsibilities of a job. Job description identifies what is done, why it is done, where it is done and briefly how it is done. This is the end process of job analysis in the form of written records of the job and its requirements. More specifically, it provides enough information to the job incumbent on the following job matters.
- The title, department, section, and other identifying data to distinguish one job from another job,
- Basic organization, the person to whom the employee is responsible and people responsible to him/her
- A summary statement of the work performed and the scope and overall purpose of the job, which also helps to add perspective to the individual duties,
- The individual duties, assignments, and tasks which make up the job]

Format of job description

Format of Job Description	
Job Title:	Occupational code no.:
Position:	
Department/section/office:	
Rank:	
Main function and responsibilities	
Job content:	
Authorities & Responsibilities	
Job Characteristics:	
Signature of Job holder:	Signature of Supervisor:
	Signature of dept. head:

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An example of job description

Job title: production supervisor

Position : assistant production officer

Department/section/office: production department

Rank: technical, seventh

Main function and responsibility

follow broadly based policy of the organization

select trains and develop subordinates

plans, directs, and controls the production activities

interacts and communicate the production plans and strategies

makes different study on the production management

Recommends, suggest and follow the top level management.

Job contents

Directs the operations of different production activities.

Production control

Production planning

Updating the production records.

Authorities

Can hire, place and dismiss the subordinates

Can direct transfer and warn the subordinates

Can suggest and recommend the production manager

Can make some meaningful operational strategies

Job characteristics

Hard technical and managerial job but combined with achievement oriented

Skillful and passionate subversion needed

Challenging and innovative supervision needed

Signature of job holder

signature of head of department

signature of chief executive officer

Job Description

Date: 2080/02/20

Ms Ranjeeta Gurung

Job title: Assistant Accountant

Department: Finance Department

Working hours: 8 hours, Sunday to Friday, 10 Am to 6 Pm

Job Purpose: Supporting the finance department, accountant, and management team by completing routine clerical and accounting tasks, Maintaining daily and monthly reports, and completing basic bookkeeping and accounting duties for the company

Responsible towards Head of Finance

Job Duties:

- Collecting daily cash sales amount from counters, verifying actual cash sales and cash received from customers of Sulav Trading Pvt Ltd.
- Preparing financial documents such as receipts and payments, and accounts payable and receivable
- Completing financial reports on a regular basis and providing information to the finance team
- Preparing bank reconciliations statements of Tally soft ware.
- Entering financial information into Tally software programs
- Coordinating internal and external audits
- Verifying balances in account books and rectifying discrepancies
- Managing day-to-day transactions
- Posting daily receipts
- Preparing other required reports as directed by finance head.
- Informing to the head of finance if any misunderstanding and confusion occur in accounting procedure.

Ranjeeta Gurung
Account Assistant

Laxman Baral
Managing Director

Job specification:

- It is an overall written summary of worker requirements. It is a profile of human characteristics needed for performing the job. It states what kind of people should be hired for the job.
- It is a statement of personal characteristics or qualifications needed to perform the job. It states the minimum acceptable qualifications that the job holder must possess to perform the job. It identifies the knowledge, skills and abilities needed to get the job done effectively. Job specification contains information about the following things

- Education and training: years of schooling, training
- Experience: previous job experience in terms of years and nature of organization
- Physical health: good health, emotional stability
- Skills: communication, computer, driving, report writing etc
- Abilities: they can be physical and mental
- . Physical: strength, sitting, standing, walking, lifting etc
- . Mental: judgment and initiative, getting along with others, decision making etc
- Maturity: capacity to assume increased responsibilities.

This information is required to match applicants and jobs at the time of recruitment and selection.

Example of job specification

Nepal Electricity Authority

Job specification

Position: training officer

- **Level: seven**
- **Department: human resource department**
- **Location: central office,**
- **Responsible to: director, human resource department**
- **Responsible for: training person assigned**
- **Job specifications**
- **Education: MBA with specialization in Human Resource Management**
- **Training: short term training in training methodologies and training of trainers**
- **Experience: three years experience, preferably in training institutes.**
- **Physical health: good health, emotional stability, able to travel in various parts of the country**
- **Skills: excellent oral and written communication skills, computer literate**
- **Abilities: judgment and initiative, getting along with people.**
- **Maturity: capable of assuming increased responsibility in two years.**

Recruitment and selection

- **Meaning of recruitment**
- Recruitment is an important function in all organization. It brings together employers and employees. It aims to attract a high performing workforce in the organization.
- Recruitment is part of the acquisition component of human resource management. It is the process of finding right people for right positions at the right time. It is concerned with identifying and attracting a pool of qualified candidates to fulfill human resource needs of an organization. The quality of human resource depends on the quality recruits.
- Recruitment is a process of searching for prospective employees and stimulating them to apply for jobs.
- Recruiting is the process of discovering potential job candidates.
- Recruiting is to build up a pool of qualified applicants.
- Recruitment should locate and attract a sufficiently large pool of qualified candidates for job vacancies. The more the applications revived, the better is the chances of recruiting the right persons. The process begins when new recruits are sought and ends when applications are received.

- **Recruitment is needed to fulfill job vacancies. Vacancies can occur due to**
- Mobility of human resource: this can result from transfer, promotion, retirement, resignation, dismissal, disability, and death of employees.
- Growth of business: this can result from expansion, merge, growth, job redesign and technological up gradation of business.
- This step encourages candidates to apply for the jobs. A pool of qualified

- **Sources of recruitment**

- Recruitment seeks to create a pool of suitable candidates for job vacancies. The sources of recruitment can be
- Internal sources and external sources
- Internal sources of recruitment
- They involve recruiting from within the organization.
Prospective candidates are found through internal search.
- The internal sources are

- Promotion from within: promotion is vertical movement upward. It is an upward advancement in the organizational hierarchy. It is generally related with giving more responsibility, authority and facilities. Human resource department is responsible for promoting employees after evaluating their performances in the organization.
- Transfer: transfer is horizontal movement in the organization. It involves moving an employee from one job to another job of the same level. It provides opportunities for current employees to broaden their knowledge about various jobs. It may involve relocation of the employee.

- Rehires: it involves rehiring employees who had left the organization or were laid off temporarily or permanently. Generally, downsizing and reengineering leads to employee layoffs. Rehires are old employees possessing skills and experience. They are familiar with the organizations culture, style and ways of doing jobs.
- Job rotation: it involves moving employees from job to job. Job rotation helps employees to acquire different skills and abilities. It is a source of internal recruitment through temporary assignment of current employers.

Advantage of internal recruiting

- Better selection: the employee is already known. Information on employee performance is readily available and predictable. The probability of a better selection is high.
- Morale building: it builds employee morale. Motivation is higher because promotion opportunities increased for current employees. Employee turnover becomes low.
- Adaptability: less time is needed for employees to adapt to new work environment. Those chosen internally already know the organization. Less training and orientation is required.
- Human resource development: promotion from within acts as a device for human resource development. It encourages on the job development of employees.
- Cost effective: internal recruitment is less costly compared to external recruitment. Training costs are low for internal recruitment.
- Commitment: the loyalty and commitment of employees is high. Employees feel secure and identify themselves with the organization.

Disadvantages of internal recruiting

- Limited choice: internal recruitment limits the choice to internal sources only. This excludes excellent candidates available from the external sources. Candidates with special skills within the organization may not be available.
- Favoritism: managers may overlook good candidates and recommend favored ones. This may create tensions and nepotism.
- Limited opportunities: the morale of employees can be adversely affected by limited opportunities for internal recruitment. In fighting can happen for happen for promotions. Relocation of employees may be needed.
- Seniority based: most internal recruitment are based on seniority, not on merit. People might get promoted to the point where they cannot successfully perform the job.

- **External sources of recruitment**
- They involve recruiting from outside the organization. Prospective candidates are found through external search. The external sources are
- Employment exchange: they maintain a databank of job seekers and job vacancies. They furnish a list of suitable candidates to prospective employers. Such employment exchanges are funded by the state. In India it is obligatory to fill certain types of vacancies through public employment exchanges. Nepal does not have employment exchanges.
- Private employment agencies: they carry out recruitment function on the behalf of their client organization. They not only advertise vacancies but also screen the applicants. Private sector banks use such agencies in Nepal for recruitment

- Educational institutions: educational institutions are usually the sources for young and bright educated individuals who generally lack work experience. They save time and money for the recruiting organizations. They provide a large pool of prospective candidates at one location for screening purposes. University internship programs serve as an important source of recruitment. They provide opportunities for assessing the ability of interns to the employers.
- Professional associations: they are an important source for recruiting professional employees, such as accountants, engineers, lawyers etc. professional associations maintain a roster of their members. They are the source of bio data of prospective professional candidates.
- Trade unions: trade unions serve as a source for recruitment of semi skilled workers. They maintain a databank of unemployed members. Labour contracts may also specify recruitment through trade unions. This is common in construction industry...

- Unsolicited application: they can be from
- Walk ins: they are the job seekers who arrive at human resource department in search of a job. They serve as a source for recruitment of unskilled or semi skilled workers.
- Write ins: they are job seekers who send written enquires in search of a job. They are unsolicited applicator. They serve as a source of recruitment for future job opening.
- Electronic: bio data by prospective candidates are made available through internet. Such database becomes a source for recruiting prospective candidate. It is cost effective for high-tech employees. Electronic recruiting through internet is becoming a popular source of recruitment.

Advantage of external recruiting

- Qualitative human resources: external sources provide a sufficiently large pool of qualified candidates. Management has greater choice for selection. The quality of human resources is ensured.
- Environmental adaption: the inflow of new knowledge, skills and experience helps organizations adapt to changing forces in the environment. The inflow of new skills and technology can be facilitated by recruiting suitably qualified persons.
- Balanced human resource mix: external sources facilitate recruitment of specific groups like women, disabled, ethnic minorities etc. this helps achieve legal compliance. It also results in balanced human resource mix.
- Fairness in recruitment: there are no preconceived notions, reservations, favoritism and nepotism in external recruitment. The recruitment is fair.

Disadvantages of external recruiting

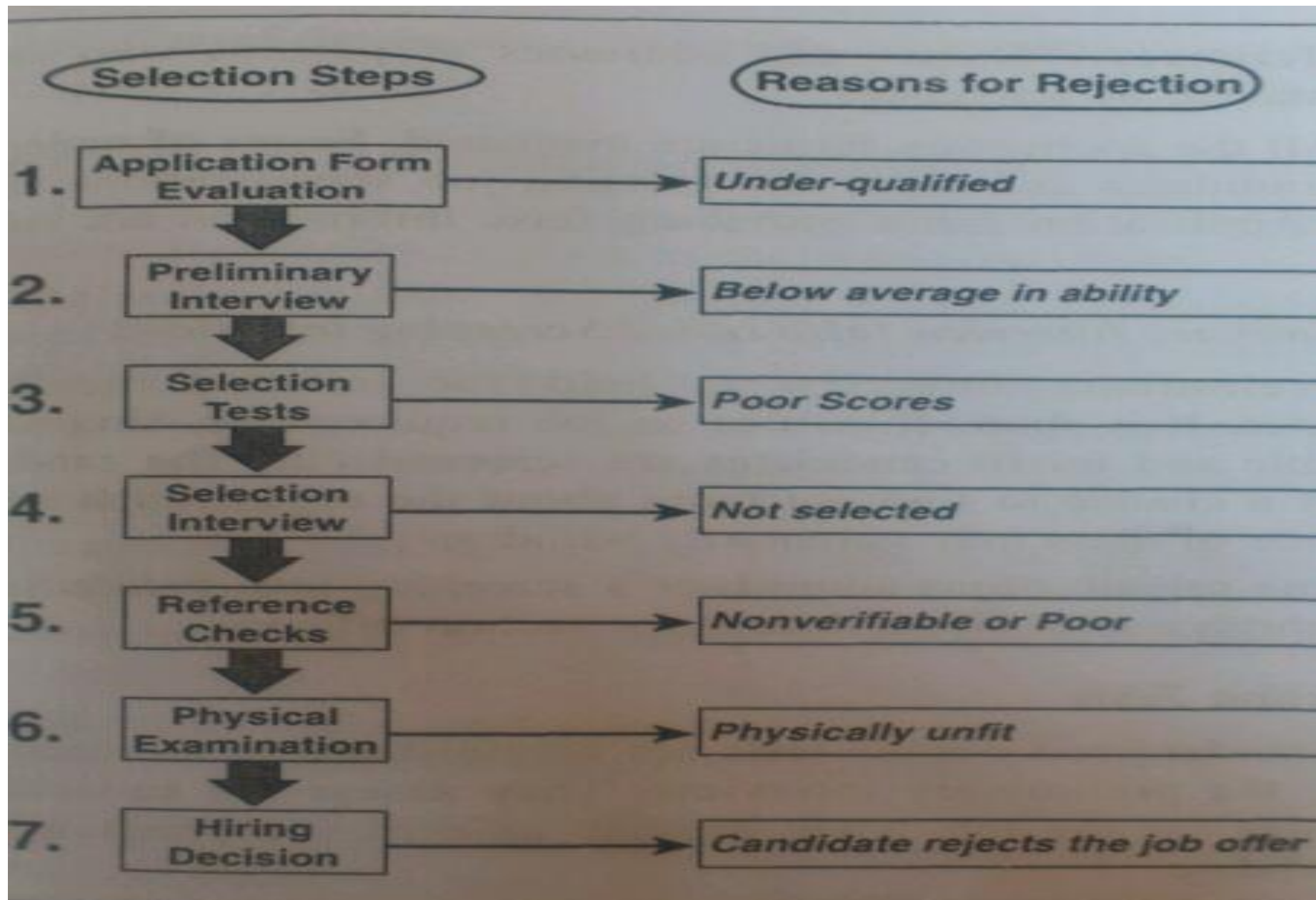
- High cost: external recruitment is costly compared to internal recruitment. The cost of training new entrants is also high. Attracting potential candidate involve costs.
- Poor employee morale: recruitment from outside can adversely affect the morale of existing employees. Their chances of advancement are reduced. Motivation decreases.
- Adaptability problems: more time is needed for new employees to adapt to the work environment of the organization. The orientation and training requirements are high.
- Wrong selection: external recruitment can result in wrong selection of employees. This can adversely affect the quality of human resources. Effectiveness of the organization may decrease.

Concept of selection

- An organization can function effectively without the right quality of people. Selection is the process of choosing the most suitable candidate for a particular position from among the prospective applicants. The goal is to select the right person for the right job. Selection follows recruitment. It is concerned with hiring as well as rejecting the applicants.

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- Selection is the process of choosing among people who apply for the work with an organization –Wendell French
- The selection process is a series of steps used to decide which recruits should be hired.- Weather and Davis
- Selection activities predict which job applicant will be successful if hired. –DeCenzo and Robbins
- Selection is a two way process. The employer chooses the employee. The employee chooses the employer. An optimal fit between the job and the person should be achieved by the selection process

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- Application form evaluating: the recruitment process generates sufficiently large number of filled in application forms from prospective candidates. Such forms consists of information about :
 - Personal background information: name, sex, age, marital status, nationality, address etc.
 - Qualifications: educational, professional and other qualifications, specialized skills and training.
 - Work experience: experience in previous jobs and the name of organizations served including duties, responsibilities etc
 - Salary: salary drawn in present employment and expected salary.
 - References: names and address of persons who can be contacted as references.

- All applications forms are evaluated. Forms of under qualified candidates and those not meeting job specifications are rejected. Application forms providing false information are also rejected.

- Preliminary interview (also called screening interview): preliminary interview is held for initial screening of candidates. It is short. It centers on job requirements. Unqualified, unsuitable and misfit candidates are screened out. The candidates also get a chance to find out more about the organization and the job.
- Selection test: standardized written tests are administered to the candidates passing the preliminary interview. They assess the suitability of candidates for the job. They provide objective information about the candidate. Ability test, personality test, situation test, honesty test are some examples of selection test.

- Selection interview (final interview): selection interview is face to face observation and appraisal of the candidate's suitability for the job. It probes the areas that cannot be addressed by the application form or selection tests. It is based on in depth conversation to evaluate the candidate's acceptability. Selection interview is related to the job description and job specifications. It assesses the candidate in the following areas

- Ability to do the job and career goals.
- Motivation and enthusiasm to do the job.
- Ability to work under pressure and stress.
- Ability to fit in with the organization.
- Personality and interpersonal skills.
- Standing of the interviewee in relation to other candidates.
- General knowledge

- Reference check (background investigation): information about background and character of the candidate is checked from referee's lists in the application form.
- The responses from the personal referee generally lack objectivity and tend to provide faceable impression of the candidate. Most people prefer not to give bad references.
- Information provided by previous employers of the candidate about job performance, remuneration and character tend to be reliable.
- Educational, professional and training accomplishments of the candidates are verified.
- Reference checks can be done by email, mails, telephone or personal visit
- Reference checks tend to be biased in favor of the candidate. Exclusive reliance on them is not advisable.

- Physical examination/medical test: physical examination reveals physical fitness. It can be done in one of the following ways:
- The candidate fills out a health questionnaire. Those with health problems are referred to physician.
- An approved physician conducts the physical examination. Drug testing and fitness testing can be parts of such examination. Medical tests permit organizations to screen out candidates with health problems or drug problems.]
- Hiring decision: the hiring decision marks the last step of the selection process. This is made by the competent authority in the organization. The candidates passing all the hurdles of the selection process are given a job offer. An appointment letter is issued.
- Organizations notify the candidates who have been selected. The list of successful candidates should be posted on the notice board or in newspapers. Placement is made for selected candidate's reporting for work.

- **Difference between selection and recruitment**
- Both recruitment and selection are important components in the acquisition function of human resources. They both complement and supplement each other. Recruitment without selection is fruitless. Selection without recruitment may not be effective. The differences between recruitment and selection are as follows.
- Recruitment takes place before selection. Selection takes place after recruitment.
- Recruitment seeks to attach a pool of qualified candidates. Selection chooses the right candidates from this pool.
- Recruitment locates potential candidates for job vacancies. Selection matches candidates with the job.
- Recruitment process ends when applications are received from prospective candidates. Selection process involves a series of steps to choose the right candidates.
- Recruitment does not bring employer and employee face to face. Selection brings employer and employee face to face through selection tests and interviews.

- **Concept of training**

- Training is the act of making the person capable to do the work. It helps to gain the practical knowledge which is required to perform the organizational works. If the employees are trained properly then there is a higher chance of higher production. The human resource manager organizes different training programs in the organization. Training can be provided from two ways to the employees in organization. They are on the job training and off the job training. If the training is provided in a class by giving a theoretical and practical education then that is called off the job training.

- Similarly, if the training is given along with the job in the work place then that is called on the job training. After studying the performance of entire available staff, the need of training can be realized by the human resource manager of the organization. There is no doubt that training program makes the employees capable, competent and more active in his or her job. The human resource manager should evaluate the training program after its completion. There are various methods to evaluate the training programs.

- **Training your employees is important because**
- Change in the style of management.
- Due to non-practical college education
- Lack of proper and scientific selection procedure
- For career development
- For higher motivation and productivity
- To make the job challenging and interesting
- To improve organizational environment
- To help an organization to fulfill its future manpower need
- For survival and growth of organization and nation

- **Training methods**
- Training consists of planned programs designed to improve performance at individuals, group and organizational levels.
- **On the job training**
- This is the most common method of training practice in any organization. This method provides trainees with the knowledge and skills needed to perform a job while using the actual equipment and materials required by the job. This training is well suited to train many employees in clerical positions, productions shop floor and worker in manual and repetitive jobs. On the job training comprises:
- **Internships;** an internship is a form of on the job training that usually combines job training with classroom instruction in trade schools, high school, colleges, or universities. With the help of internships a trainee will have opportunities to get real world exposure, a further addition of qualification in the bio data and a chance to examine a possible employer closely.

- **Apprenticeships**, an apprentice program provides an employee with on the job experience under the guidance of a skilled and certified worker. Apprentice programs seem to be experiencing a revival (new thing) for people who are not planning to go to college. This type of training is mandatory to get a job in the market. Examples of skills that can be acquired from apprentice training are: nursing, plumbing, electricians work and carpentry.

- **Off the job training**

- Using these methods, training programs are organized outside the real job situation. Such training programs are either organized in the firm's own training institute far from the work place or in any other college and technician school.
- Some methods under off the job training includes
 - Class room lecture or conference methods
 - Programmed instruction
 - Video tapes and films
 - Computer assisted instruction

On the job training

- This is the most commonly used method of employee training which is concerned with the philosophy learning by doing. This places the employees the actual work environment and trainees are provided with knowledge, skill and abilities of performing different tasks. They get such knowledge while using actual machines and equipments. It means, having a worker learn a job by actually performing in the actual work floor. Additionally, it is learning by working under the supervision and guidance of superiors or senior experienced employees.

It can strongly motivate the trainees because it is not related with any artificial situation. Moreover, OJT methods are less time consuming and cheaper. It is conducted on the employees by experienced workers. Following are the types of on the job training.

Internships

- Internship: internship is used specially for skilled and technical job for the development, knowledge and experience for the employees. In this method of on the job training, candidate is interned in actual work environment by doing the job as an employee; internship training is most important for students of participants of vocational, technical and professional courses. For example, students of BBA, MBA, MBBS, nursing are required to pass or participate internship courses and they have their own duration of internship and credit hours.

Apprenticeships

An apprenticeship program provides an employee with on the job experience under the guidance of a skilled and certified worker. Apprentice programs seem to be experiencing a revival for people who are not planning to go to college. This type of training is mandatory to get a job in the market. Examples of skills that can be acquired from apprentice training are nursing, plumbing, electricians work and carpentry.

- Job instruction training: this is a systematic training technique designed to guide for giving on the job skills to blue collar employees as well as technicians. This method can be adapted to train employees both on the job and off the job. job instructing technique includes four steps
- Select trainer and trainee carefully to exchange and follow their experience
- For the trainer, to explain fully to the trainee about different methods of the job.
- Undertake a trial performance by the trainee under the guidance of the trainer
- Feedback by the trainer on the performance of the trainee.

- Merits
- This is a very simple method of training employees in the real job situation.
- Employees can begin to contribute in the production process also while being in the training.
- Employees receive experience on the job that can be smoothly transferred to fit in to the organizations flow of activities.

- Demerits

It might affect the service quality of customers when a new employee in the training period provides service, for an example, in restaurant service and in banking service.

- Chances of damage to equipments during training period.

Off the job training

- Using these methods, training programs are organized outside the real job situation. Such training programs are either organized in the firm's own training institute far from the workplace or in any other college and technical school. Most frequently used training methods under off the job training include
- Classroom lecture or conference method: a lecture or talk given by the trainer before a group to cover information is an efficient method of reaching large numbers of trainees in a short time. The trainer discusses theoretical aspects of information related to job. The effectiveness of this program will be to maximize the chances for exchanging ideas and views between trainer and trainees.

- Programmed instruction (self learning) : this is a method of self instruction in which training material is presented in small bits of information. Such information is structured in such a way that the trainee proceeds in a step by step sequence from the basic elements of a skill or concept to the more difficult material. Trainees have to learn step by step following the instructions given. This training method is very useful to inform specific skills, such as photocopying skills, making financial statements at the end of the month, learning to fill in sales report form etc.

- Videotape and films: these tools are very useful to teach skills to the trainee. Videotapes and films can be used and reused during training program repeatedly. Films and tapes provide a live work situation, which is not possible through other training methods. Many firms with a similar nature can develop such tapes and films for mutual uses and benefits. However, the effectiveness of this method depends on how closely such films are related to the specific learning objectives.

Computer assisted instruction

A number of computer software programs are available for learning and teaching trainees different job skills. With the use of such programs the trainees are informed by the computer of the accuracy of their works, told when and how to proceed next and informed of how well they are doing on the job. All instructions are provided by the computer. What is necessary is that trainees have to understand how to handle the computer to follow the instruction.

- Vestibule training: this training takes place in the area away from the real workplace. In this training program trainee's future workstation, including the machine that will be used in the future is duplicated. This training method is useful for those trainees who have little or no knowledge the job situation. Thus, this training aims to provide basic skills and practices of the job to the trainees

- Merits
- The opportunity to use the ability of the best instructor and the best planned materials.
- Economies of scale by training a large number of trainees in a classroom
- Demerits
- Since it involves a larger number of trainees in a training group, it is difficult to meet specific job needs of the trainees.
- May not transfer and relate all knowledge and skills acquired from the training.
- Not useful to develop interpersonal skills at work.

Employee's performance

- Performance refers to accomplishment of assigned tasks by an employee. It is the result of abilities plus motivation. It is productivity measured in terms of effectiveness and efficiency.

Performing employees are productive employees. They accomplish tasks. All organizations evaluate the performance of their employees. It is essential for productivity improvement.

Performance evaluation/ appraisal

- Employees differ in backgrounds, experiences, knowledge, skills, abilities, etc. Such differences determine the need of training and development activities. Hence, the work performed by these employees naturally differ in many aspects, therefore it is necessary for management to identify such differences so that employees having better job performance ability, skills and can be rewarded in one hand, and the wrong placements of the employees may be checked through transfer or punishments on the other. In this regard, performance appraisal provided a measure in order to know the level of performance so that the employee may improve his or her performance.

- Performance appraisal can be referred as a process of identifying, measuring and managing employee's performance in order to enhance organizational efficiency and effectiveness. It is a merit rating that denotes the appraisal of the performance of the employees in an organization. It systematically evaluates the personality and performance of each employee so that the productivity can be measured in terms of efficiency and effectiveness. The primary purpose of performance appraisal is to calculate the orderly determination of an employee's worth in comparison to his or her fellow employees and expected level of performance. It provides information relating to various aspects of an individual upon which promotion, transfer and salary decision and reward can be made. It also provides an opportunity to review an employee's work related behavior.

- More precisely, performance appraisal can be defined as a systematic evaluation of an employee's current or past performance as well as future potentials by supervisor or those familiar with his or her performance. In other words, it is a formal structured and systematic method of evaluating and measuring relative worth or ability of an employee in performing his or her task in the actual work. It identifies an employee's job related behaviors and outcomes which help, reward motivate and empower employees at work it also helps to identify future potentialities of individuals.

- It can be concluded that it is an important dimension of HRM system because it is a helpful tool for deciding employee's motivation, promotion, reward and training requirement. It is necessary in developing performance analysis and review systems.
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Employees should perceive the performance appraisal system as fair, equitable and transparent.

The performance appraisal program can be quite beneficial to the organization and to the individuals involved if it is developed properly. It plays a greater role in the process of determining how well employees do their jobs compared with a set of standards and communications that information to those employees.

Uses of performance evaluation

- Performance improvement: job related strengths and weaknesses of employees are identified. Feedback is given to employees about their performance rating. Performance improvement plan can be worked out to remove performance deficiency for the employee.
- Reward management: the results of performance appraisal serve as an objective basis for decisions regarding reward and punishment. The linkage between efforts performance rewards increases the motivation of employees for increased efforts. Pay rise is generally based on the performance of employees. So are incentive.

- Training and development decisions: performance appraisal indicates performance deficiencies in employees. It serves as a guide for identifying training and development needs. Management development needs of managers can also be identified to realize their future potential.
- Promotion, transfer, termination decision: with the help of performance appraisal the decision of promotion, transfer and termination can be taken.

- Career planning and succession planning: performance appraisal facilitates career planning of employees. It helps an employee to assess the effectiveness of his career goals and paths for self development. Organizations can use it for succession planning to identify managers who are ready to move into higher positions.
- Policy formulation: performance appraisal results provide information for policy formulation. Such policies can be related to performance appraisal, promotion, transfer, training, management development and career development

Process of performance appraisal

- Establish performance standards: this is concerned with the establishment of predetermined performance standards that will help in comparing the actual performance of the employees. It can be done through the formulation of HR planning and job analysis. Moreover, job analysis mechanism provides various information relating to the contents and the contexts of tasks that will help in designing performance standards.

Communicate standards to employees.

- Under this step, the set performance standard is communicated to the concerned employees. The employees are assigned with required duties, responsibilities and authorities to do the tasks effectively and efficiently so that the expected standard will be met. Moreover, it provides information relating to what is to be done and how well the task is performed. The communication should be a two way process so that the implementation can be effective.

Measure actual performance

- The actual performance of an individual is measured in terms of its efficiency and effectiveness. The performance is measured on the basis of predefined standards. The information related to actual performance is collected through the application of different qualitative and quantitative techniques, and the relevant criteria for comparison will be determined on the basis of such information.

Compare actual performance with standards

- This step is concerned with the comparison of actual performance with per determined standards. It is determined in terms of whether the preset standard is maintained, the information provided by the reports on actual performance is compared with the standards in order to identify performance deviations.

Discuss appraisal with the employee

- This step finds out the deviation occurred in actual performance. It also identifies the extent of differences and the causes of such differences and the causes of such differences. Then, the results or findings of performance appraisal is to be discussed with the concerned employees to locate the measure

Imitate corrective action

- If performance differs with the predetermined standards, then a corrective action is initiated in order to improve employee's performance in future. Corrections are remedial measures which are taken to bridge the gap or deviation between predetermined and actual performance. The corrective action can be
 - Do nothing: if the deviations are within the parameters of standards, no further action is recommended. It maintains status quo.
 - Correct deviation: under it, action are taken to correct the deviations, if possible. They can be more training, better raw materials, improvements in design etc
 - Change standards: if the deviations are critical, they are revised to make them appropriate and realistic. They focus on areas where deviations would cause the greatest damage to organization.; hence, corrective measures can be most effectively applied to such critical control points.

- Performance appraisal methods are various tools and techniques used to evaluate an employee's job performance. These methods help organizations assess individual contributions, identify areas for improvement, and make informed decisions about rewards, promotions, and development. Here are some common performance appraisal methods:

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- * Ranking Method: This method involves ranking employees from best to worst based on their overall performance. It can be simple to implement but may not provide detailed feedback and can lead to unfair comparisons.
- * Grading Method: Employees are placed into specific performance categories or grades, such as "Exceeds Expectations," "Meets Expectations," or "Needs Improvement." This method can provide a broader view of performance but may not differentiate between employees within the same grade.
- * Forced Distribution Method: A predetermined percentage of employees are placed into specific performance categories, regardless of actual performance. This method can ensure a normal distribution of ratings but may not accurately reflect individual performance.

- * Essay Method: Managers write a narrative description of an employee's performance, highlighting strengths and weaknesses. This method can provide rich and detailed feedback but may be subjective and time-consuming.
- * Critical Incidents Method: Managers record specific examples of an employee's positive and negative behaviors that demonstrate exceptional or poor performance. This method can provide concrete evidence but may not capture the full range of an employee's performance.

- * Management by Objectives (MBO): Employees and managers jointly set specific, measurable, achievable, relevant, and time-bound (SMART) goals. Performance is then evaluated based on the achievement of these goals. This method can align individual performance with organizational objectives but may not capture all aspects of an employee's contribution.
- * 360-Degree Feedback: Feedback is collected from multiple sources, including supervisors, peers, subordinates, and self-assessment. This method provides a comprehensive view of performance but can be time-consuming and may lead to conflicting feedback.

- * Behaviorally Anchored Rating Scale (BARS): This method uses specific behavioral examples to anchor performance ratings on a scale. It can provide objective and consistent evaluations but may be time-consuming to develop and implement.
- * Assessment Centers: Employees participate in a series of exercises and simulations to assess their skills and potential. This method can provide in-depth insights into an employee's capabilities but can be expensive and time-consuming.
- *

- Psychological Appraisals: These assessments measure an employee's personality traits, cognitive abilities, and other psychological factors that may influence job performance. This method can provide valuable insights into an employee's potential but may not directly measure actual performance.
- The choice of performance appraisal method depends on various factors, including the organization's culture, goals, resources, and the specific requirements of the job. It's important to choose a method that is appropriate for the situation and to use it consistently and fairly.

Performance appraisal methods

A wide variety of performance appraisal methods exist. The well-known methods are

- **Job standard oriented methods**

Essay method

Checklist method

Forced distribution method

Critical incident method

Graphic rating scales method

Behaviorally anchored rating scale

- **Comparison oriented**

Alternate ranking method

Paired comparison

- **Objective oriented**

Management by objectives MBO

Essay method

The essay is based on qualitative impressions of the rater. The rater writes a narrative essay describing an employee's:

- Strengths and weaknesses
- Job performance during the appraisal period
- Technical effectiveness
- Leadership ability
- Promotional potential
- Training and developmental needs
- Suggestions for improvement.

It is simple. It does not require complex forms. It provides detailed information for decision making purposes.

Checklist method

Confidential performance appraisal report uses this method. It is widely used by government. The checklist can be simple or weighted

Simple checklist: the checklist is a list of descriptive statements of employee behavior and characteristics. The rater checks off yes or no for behaviors that apply to the employee. The checklist is scored by human resource department

Simple checklist for appraising sales clerks

SN	Employee Behavior	Yes	No
1	Following supervisors order		
2	Promptly approaches customers		
3	Helpful to customers		
4	Work overtime when asked		
5	Keeps temper in public		
6	Helps other employees		
7	Sincere in selling job		
8	Good at customer relations		
9	Punctual in attendance		
10	Takes responsibility		

- Weighted checklist: the statements in the simple checklist are weighted by assigning points according to importance. The weights are assigned by human resource management department. Feedback is given to the rater and the employee.

Force choice method:

- It is also known as forced distribution method. Under this method, the rater is given a series of statements about an employee and has the forced choice of selecting certain percentage of employees in various performance categories. It compares employees to one another under the assumption that a relatively small portion of employees is outstanding and a relatively small portion is poor, and everyone fall in between these two groups. More specifically, under this method, the employees are classified into five different groups ranging from outstanding to poor. The five categories are outstanding, above average, average, below average, and poor. Then, the rater is forced to fit the candidate into these categories. For instance, the following distribution may be assumed to exist outstanding 10% above average 20%, average 40%, below average 20%, and poor 10%.

Critical incident method

- By the term critical incident, we mean a significant act by an employee which may exceed or fail any of the requirements of the job. Hence, this method focuses on a critical job performance ability of the employee. This means to say that it focuses on a critical job attention on certain critical behaviors of an employee that make difference between doing a job effectively and inefficiently. It represents an exceptional behavior of an employee such as resisting the implementation of change, becoming upset, over work, refusing to help a fellow, suggestion an improvement in the work method, welcoming new ideas, and the like. Moreover, under this method, the supervisor or rater keeps a long of desirable or undesirable examples of such subordinates work related behaviors which are termed as critical situation or incidents. The assumption under this method is that the appraisal is made on workers who can perform their jobs effectively in critical situation.

- This method consists of written description of effective or ineffective worker behavior related to performance in critical situations. Such situations are termed as incidents. The supervisors record such incidents. The critical incidents are analyzed to evaluate employee performance.

The example of critical incident for a bank employee is given may be

Continuing duties	Targets	Critical Incident
1. Deposit mobilization	<ul style="list-style-type: none">• Rs. 10,00,000 for Jan-June 2004	<ul style="list-style-type: none">• Mobilized Rs. 11,00,000
2. Loan Realisation	<ul style="list-style-type: none">• Rs. 5,00,000 for Priority Sector loans for Jan-June 2004• Rs. 1,00,000 from Small Farmer Women's Group	<ul style="list-style-type: none">• Realised Rs. 4,00,000• Not Realised.
3. Customer Service	<ul style="list-style-type: none">• 5 minutes for deposit;• 10 minutes for withdrawal	<ul style="list-style-type: none">• 15 minutes for deposit• One hour for withdrawal

Graphic rating scale

This is most commonly used method of performance appraisal.

Using this method, a set of performance factors is identified, including such characteristics as quality of work, technical knowledge, co operative spirit, integrity, punctuality and initiative. The appraiser would go through the set of factors rating them, for example, on a scale 1 to 5 where the highest number five would denote the best rating whereas the lowest number one would denote the poor rating. It takes less time to develop and use this technique. But it does not provide in depth information as compared with other techniques. The following factors are evaluated

- Quality and quantity of work
- Job knowledge
- Attendance, appearance
- Loyalty and dependability
- Honesty,
- Attitude, imitative, cooperation

A printed form is generally used for the evaluation purposes. An example of rating scale is given in the figure.

Best Employment Company

Employee's Name :

Department :

Rater's Name :

Date :

	Excellent 5	Good 4	Acceptable 3	Fair 2	Poor 1
1. Quality of work					
2. Quantity of work					
3. Attendance					
4. Appearance					
5. Dependability					
6. Initiative					
7. Attitude					
8. Cooperation					
9. Honesty					
10. Job knowledge etc.					
Total Scores					

Paired comparison

The evaluator compares each employee with every other employee on a one on one basis in terms of overall performance. Pairs of employees are formed. Better performer in each pair is identified. The overall rank of the employee is determined by the number of times chosen as better performer in total pairs.

The formula used is $[n(n-1)] / 2$
where n =number of employees.

If there are 10 employees in a group, the pairs will be 45 pairs using above formula.

Management by objectives MBO:

- Management by objectives is an approach of goals setting which goes beyond setting annual objectives for organizational units to setting performance goals for individual employees. The approach was first introduced by Peter Drucker in his book called The Practice of Management in 1954. It is a powerful management and appraisal tool that begins with goal setting and continues through performance review. Under it, the manager set goals for each individual employee and then discusses his or her progress towards the attainment of performance excellence. Hence, under this process organizational objectives are converted into individual objectives.

- An MBO is a management philosophy which values and utilizes employee contributions on goal setting to establish objectives for the organization as a whole, and ultimately for each employee. The concept of an MBO can be explained as a process whereby the superior and subordinates jointly identify organizational objectives, define the specific roles and responsibilities of each employee, and finally measure the employee's performance to assess the contributions of each of its members towards organizational goals and objectives. It is a method by which managers and their subordinates plan, organize, communicate, control and appraise the employee's performance in terms of contribution given by them. The emphasis is not on the activities but on results obtained from job performance.
- An MBO program consist the following four steps

An MBO program consist the following four steps

- Goal setting: this is the very first step of a MBO program, under which managers and subordinates collectively set organizational as well as individual goals. The goal is a desired level of outcome than an individual expects to attain.
- Action plans: under this step, the action plans are developed in order to achieve organizational objectives. Hence, the standards are set so that the performance can be compared with the expected results. Under it, the activities are identified which are necessary to achieve desired level of output.

- Self control: under it, an employee's performance is systematically measured and reviewed. The superiors play supportive role while monitoring and evaluating compared with expected outcome.
- Performance reviews: finally, after comparing the actual performance against the predetermined standards, the performance deviation are found out and taken action is initialed when actual performance deviates from the predetermined standards. It is conducted in a constructive manner so that it provides a gateway for improving future performance.

Controlling

- Controlling is an important function of management. It is known as the key to management for the implementation of a plan. And it is a process to measure the actual performance achieved with that of planned performance and taking corrective action, if there is any deviation between actual and planned performance.
- Management first prepares plans and policies and later implements them to achieve predetermined objectives. According to time interval, the management evaluates the actual performance of each department and employee. Generally, the management evaluates the actual performance achieved with that of planned performance and if any variation is found in actual performance, it takes corrective steps in time to maintain the standard. Its motive is to facilitate the most effective and efficient attainment of organizational objectives.

- Control is the process of checking, testing, regulating, verification on or adjustment to ensure that the organization's mission and objective are accomplished as effectively and efficiently as possible.
- Controlling is a management tool which facilitates in measuring actual performance against planned performance and taking necessary steps if any deviation exists...

Features of control

- 1. Management function Controlling is important function of management. It is the controlling function that brings about a balance between planned and actual performance. Without controlling other functions, the management becomes worthless. It measures actual performance achieved with that of planned performance and necessary steps are taken if there is any deviation.

- 2. Pervasive function. Controlling is pervasive function in all levels of management from top level to the first line. However, the degree of control depends upon the nature of management and level of responsibility and authority. Generally, the chief executive controls departmental managers, departmental managers control supervisors and supervisors control the operating level employees.

- 3. Continuous process. Controlling is never ending process and lasts till the organization is in existence. It involves continuous analysis and study of an implementation of standards, policies and procedures of the organization Establishment of standards, measurement of actual performance, comparison of actual performance against the standards and taking corrective action if there is any deviation are the continuous process of controlling.

- 4. Dynamic process: The standards of operation of an organization will be reviewed on the basis of the changing environment of the business. The procedures and system of control must be changed to adapt with the changing standards of operation. The manager has to introduce new techniques and strategies so that he is able to control the performance in a systematic way. Therefore, the controlling system must be flexible according to time and requirements of the organizations.

- 5. Forward looking: Controlling is not concentrated on the Past and present performances only it also focuses on future performance. It is designed to measure actual performance achieved and provide early information if there is any deviation. The early detection of weaknesses and errors in work contributes in taking corrective action in time. This leads to effectiveness in future performance and will prevent such repetition of defaults in the future.

- 6. Measurement and comparison: Controlling is managerial tool which compares actual performance achieved with planned performance. Frequently, measures actual performance with planned performance, the authority concerned performance and it takes necessary steps of correction if there is any deviation. It contributes to achieve predetermined objectives within the given time and standard.

- 7. Corrective action. Controlling is management function through which a takes necessary steps if actual work done is not in accordance with a plan. It takes necessary action for the proper utilization of available resources. It is a must for efficient completion of predetermined work. Tactful action at the right time is the essence of controlling.

Process of control

- Managers need to study various factors before taking any action. It is necessary to consider some process for taking the right decision. The following are the major steps in the process of controlling.

- 1 Establishment of standard. The process of controlling starts with the establishment of a standard of performance. The standard of performance must be practically attainable and should be the basis of comparison with actual performance. The standard of performance may either be tangible or intangible. Tangible standard can be expressed in numerical terms. Again, tangible standard may be classified as. quantitative standard, monetary standard, time standard and financial standard. Monetary standards express in terms of money like cost, revenue, profits etc; quantitative standards express in terms of units like production units, sales units etc. Intangible standards are qualitative in nature and cannot be expressed in numerical terms. Intangible standards involve competency of managers, employees' morale, reputation of the enterprise, good public relation and so on. Therefore, managers need to set both quantitative and qualitative standard of performance of the organization.

- 2. Measurement of actual performance. The second step in the controlling process is the measurement of actual performance achieved with that of planned performance. The measurement of actual performance must be done in accordance with the standard laid down. It makes measurement easier and meaningful. Qualitative aspects of performance must be quantified as far as possible. There must be a provision of regular and systematic measurement of actual performance. The measurement should be on future basis and should also focus on the future performance. This is helpful to predict deviation in future performance. Therefore, there must be a provision of measurement from time to time even when the actual performance is still in operation.

- 3. Comparison of actual performance This step of controlling process focuses on the detailed study of actual performance and comparison against standard performance. Such comparison shows the range of deviation of actual performance achieved from that of the standard defined. The management needs to identify the standard deviation for various parts of activities. If the range of deviation between actual and standard performance is within the standard deviation, it can be ignored. However, if the range of negative deviation is more than the standard, it is essential to note such deviation for necessary steps. In a similar manner, some range of deviation might be positive and needs to be encouraged. Hence, comparison of actual performance is helpful to identify weaknesses and strengths in any part of performance

- 4. Analyze the causes of deviation. A detailed study of each and every part of performance guides in finding out the causes of deviation in actual performance. The causes of deviation of actual performance gained against the standard defined might be, external environment, internal environment, defects in planning, organizational defects, and others. External factors involve change in price, government rules, strategy of competitors, intense competition etc. Internal factors involve shortage of raw materials, inappropriate production facilities, outdated technology, lack of coordination etc. Organizational defects involve lack of job description, lack of span of control, imbalance between authority and responsibility etc. Therefore, it is essential to detect where the problem lies so that corrective action can be taken in the right time.

- 5. Taking remedial action. The final step of controlling process is to take corrective action so that actual performance should come to the level of standard performance. The management must have a strategy to remove limitation in internal environment through modification and to adjust itself with the external environment. External factors are beyond the control of the management. Therefore, it has to develop strategy to minimize losses due to change in an external environment. Generally remedial action might involve modification and improvement in planning, betterment of internal environment, organizational restructuring, placement of right person to the right job, and betterment in directing techniques. The above-mentioned steps are the major parts of the controlling process. The study of these steps is necessary to make controlling efficient, effective and productive.

Importance of controlling

- Controlling is an indispensable part of managerial functions. It brings effectiveness in an organizational performance. In other words, without a proper controlling system, other functions of management become worthless or ineffective. It helps in the efficient and effective achievement of objectives by locating and analyzing deviation and taking corrective action. Therefore, it brings confidence into the operational life of the organization. The following are some points of importance of controlling.

- 1. Execution of plan. Controlling is a means or system which guides the proper implementation of plans. It measures if actual work is in process according to the set standards or not, Besides, it guides managers in taking necessary steps if any deviation is there between actual performances achieved with that of predetermined works. Timely supervision of works, necessary guidance on the spot and regular adjustment of work in progress contribute to achieve predetermined objectives. Hence controlling is the essence of implementation of plans.

- 2. Improve efficiency. Proper utilization of resources is a must to improve working efficiency. Controlling mechanism of an enterprise provides guidance for effective supervision. It helps the managers in taking corrective action if any resources are not properly utilized in accordance with plans. It is also helpful to minimize wastage and loss of resources like materials, manpower, money and machines. Therefore, controlling is one of the tools to improve working efficiency of the organization.

- 3. Basis of future action. Controlling system suggests precautionary steps to the managers by locating deviation between actual work achieved and the standard defined. Besides, it also indicates if any limitation is there in the existing plan. This is helpful in making plans and developing strategy for future course of action. Preventing recurrence of similar deviation in future performance is a must. Therefore, controlling is a must for appropriate decision for future plans and for their implementation

- 4. Aid to decentralization. Delegation of authority on the basis of responsibility is the demand of the present-day managerial function. However, mere delegation of authority will not fulfill organizational objectives. And effective delegation of authority is possible only when the manager has the means of systematic control over performance. In a similar manner, no manager would like to take the risk of decentralization of authority among subordinates until they have confidence of getting effective feedback from them. Therefore, the top management first needs to develop an effective control system over the functions of subordinates and then decide on the delegation of their authority.

- 5. Morale checks on employees: It creates an environment of order and discipline among the employees. The system of measurement and evaluation of progress of actual performance develops a sense of responsibility among the employees, It encourages them to perform their duties in the best possible way. As such, they take utmost care of their responsibilities to attain predetermined standards and ultimately gain objectives

- 6. Means of coordination. Controlling facilitates the maintenance of better coordination among all the authorities of the organization. The expansion of business volume needs different departments and sections for various types of works. Controlling is the means which helps managers to maintain coordination among all the members and their performances helpful to achieve objectives.

- 7. Effective supervision. Controlling involves measurement of actual performance achieved with that of planned performance. Management, here, can take corrective steps if any deviation is there between actual and planned performance. In similar manner, managers Can provide timely guidance and instructions to the authority concerned where there is weakness in actual performance. It, thus, simplifies effective supervision and maintains discipline among all the members of the organization.

- 8. Maximize productivity. Controlling helps the use of efficient resources in an organization. This leads to an efficient use of resources by preventing wastages and losses. The efficient use of resources contributes to maximizing productivity at minimum cost. This facilitates the attainment of the goal of maximum profit in a regular manner. Ultimately, it contributes to the prosperity and development of organizational performance.

Techniques of control in organizations

- In organizations, control techniques are mechanisms or processes that leaders and managers use to ensure that activities align with organizational goals and objectives. These techniques help maintain efficiency, productivity, and compliance. Below are some of the primary control techniques used in organizations:

- **Behavioral Control**

Behavioral control in an organization refers to the mechanisms and strategies used by management to direct, regulate, and monitor the behaviors of employees to ensure they align with the organization's goals, policies, and standards. It focuses on influencing and guiding employees' actions rather than relying solely on outcomes or results.

Key aspects of behavioral control

1. Rules and Policies:

Organizations set clear rules, guidelines, and standard operating procedures (SOPs) to define expected behaviors.

Example: Dress codes, safety protocols, or attendance policies.

2. Supervision:

Direct monitoring of employees by supervisors or managers to ensure adherence to desired behaviors.

Example: Supervisors regularly checking if employees follow workplace safety procedures.

3. Performance Feedback:

Providing employees with constructive feedback based on observed behavior to encourage improvement.

Example: Managers offering feedback during performance reviews.

4.Training and Development:

Providing training programs to teach employees the skills and behaviors expected in their roles.

Example: Workshops on teamwork or customer service skills.

5.Reward and Punishment Systems:

Using incentives to encourage desired behaviors and penalties to discourage undesirable ones.

Example: Bonuses for meeting behavioral standards or warnings for misconduct.

Financial Control

- **Budgeting:** Allocating resources and monitoring expenditures to prevent overspending.
- **Cost Analysis:** Evaluating costs to identify areas of inefficiency or overspending.
- **Auditing:** Conducting internal or external audits to ensure financial compliance and accuracy.
- **Profitability Ratios:** Analyzing revenue and profit margins to measure organizational performance.

Structural Control

- **Hierarchical Authority:** Establishing a clear chain of command to guide decision-making.
- **Job Descriptions:** Defining roles and responsibilities to reduce ambiguity.
- **Division of Labor:** Segmenting work into specialized tasks to increase efficiency.
- **Cross-functional Teams:** Organizing teams from multiple departments to address complex projects or problems.

Technological Control

- **Enterprise Resource Planning (ERP) Systems:** Integrates and automates core processes.
- **Monitoring Tools:** Tracks employee performance or system activity (e.g., software usage, emails).
- **Access Restrictions:** Regulates data and resource accessibility.
- **Automation:** Streamlines repetitive tasks using robotics or AI.

Risk Control

- **Risk Assessments:** Identifies and evaluates potential threats to operations or assets.
- **Contingency Planning:** Develops backup plans for unexpected disruptions.
- **Incident Reporting Systems:** Captures data on issues for corrective action.
- **Compliance Audits:** Verifies adherence to industry regulations and internal policies.

Information Control

- **Management Information Systems (MIS):** Collects, processes, and provides actionable data.
- **Regular Reporting:** Updates on progress or issues through dashboards or meetings.
- **Data Governance:** Ensures accuracy, security, and appropriate use of organizational data.
- **Communication Policies:** Establishes guidelines for internal and external communications.

Output Control

Goal Setting: Aligns individual and team objectives with organizational priorities.

- **Key Performance Indicators (KPIs):** Tracks success in achieving specific targets.
- **Customer Feedback:** Measures satisfaction and areas for improvement.
- **Profit and Loss Statements:** Evaluates financial performance outcomes.

ICT tools for effective control of engineering projects and organizations.

- ICT (Information and Communication Technology) tools play a crucial role in the effective control of engineering projects and organizations. They facilitate communication, streamline workflows, enhance monitoring, and ensure data-driven decision-making. Here are some key ICT tools commonly used:

Project Management Tools

- **Microsoft Project:** Helps plan, schedule, and track project progress.
- **Primavera P6:** Widely used in engineering for project scheduling and resource management.
- **Asana/Trello:** Enables task management and collaboration through visual boards and timelines.
- **Monday.com:** Provides customizable dashboards to track project milestones and performance.

Collaboration and Communication Tools

- **Microsoft Teams:** Integrates chat, video conferencing, and file sharing for seamless team communication.
- **Slack:** Offers channels for organized team discussions and real-time collaboration.
- **Zoom:** Ensures effective virtual meetings with screen sharing and recording features.
- **Google Workspace:** Provides tools like Google Drive, Docs, Sheets, and Meet for collaborative work.

Design and Modeling Software

- **AutoCAD:** Used for 2D and 3D drafting and design in engineering projects.
- **SolidWorks:** A CAD tool for creating precise engineering designs and simulations.
- **MATLAB:** Supports data analysis, modeling, and simulation in engineering projects.

Monitoring and Control Systems

- **SCADA (Supervisory Control and Data Acquisition):** Monitors and controls industrial processes.
- **Sensors and Drones:** Collect data for site inspections, environmental monitoring, or asset tracking.

Document and Data Management Tools

- These tools manage project documentation and data:
- **SharePoint**: Facilitates centralized document storage and version control.
- **Dropbox/OneDrive**: For secure file sharing and collaboration.
- **BIM 360 Docs**: Manages construction documents and ensures access to the latest project data.

Risk and Compliance Management Tools

- These tools address project risks and ensure compliance with regulations:
- **Risk Watch:** Manages risk assessments and compliance processes.
- **Risky Project:** For risk management and analysis in project planning.
- **Compliance 360:** Helps organizations manage regulatory compliance effectively.