

# PERSONNEL MANAGEMENT AND JOB EVALUATION: AN IMPORTANT ORGANIZATION MANAGEMENT STRUCTURE FOR CIVIL ENGINEERS IN NIGERIA

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**ABSTRACT:** Civil engineering is a professional engineering discipline that deals with the design, construction and maintenance of the physical and naturally built environment, including works like roads, bridges, canals, dams and buildings. Civil engineering is the second oldest engineering discipline after military engineering, and it is defined to distinguish non-military engineering from military engineering. It is traditionally broken into several sub disciplines including architectural engineering, environmental engineering, geotechnical engineering, geophysics, structural engineering, earthquake engineering, material engineering, offshore engineering, quantity surveying, transportation engineering, construction engineering etc. civil engineering takes place in the public sector from municipal through to national governments and in the private sector from individual homeowners through to international companies.

## 1.1 INTRODUCTION

The civil engineers typically possess an academic degree in civil engineering. The length of study is three to five years, and the completed degree is designated as a bachelor of engineering or a bachelor of science. The curriculum generally includes classes in physics, mathematics, project management, design and specific topics in civil engineering. After taking basic courses in most sub disciplines in civil engineering, they move onto specialize in one or more sub disciplines at advanced levels. While an undergraduate degree normally provides successful students with industry accredited qualification, some academic institution offer post graduate degrees which allow students to further specialize in their particular area of study.

## 1.2 MANAGEMENT

Management is defined as the most important process in job performing and it undertakes managing in company, which means estimate, organization, commanding, coordinating and control. Managing means leading the company to its goal getting maximal advances from

available resources. Management is mostly defined as a process of directing people on performing some jobs and tasks to reach some predefined goals. This complex process is consisted of a number of single procedures: planning, organization, control etc. considering this definition as well as other definitions of management has triple function:

1. Management is directing process on some jobs and systems, in the aim of reaching predefined goals.
2. Management could be considered as a group of people directing other group on performing some tasks to reach defined common goals.
3. Management is a complex science area searching on management problems. It is also a process with plenty of sub system search on managing jobs and systems for efficient tasks and jobs performing.

By the organization, consideration of management is a system of authority given to the experts group. If we mention complexity of managing task it could be said that management is a process of planning, organization, directing and control of all available resources (human, material, financial and information) in the aim of reaching goals.

### **1.2.1 MANAGEMENT FUNCTIONS IN CIVIL ENGINEERING**

Management activities can be separated on different functions. The basic task is to define functions and assign activities so that management can realize goals on successful and efficient way.

In civil engineering management can be realize the best results through four functions: planning, organization, directing, and control. Each of these functions undertakes the rest of three others:

- i. Function of planning contains functions of organization, directing and control.
- ii. Function of organization contains functions of planning, directing and control
- iii. Directing functions contains functions of planning, organization and control
- iv. Control function contain functions of planning , organization and direction

Planning function means making projects for reaching some defined goal. The result of planning is making appropriate decision about the goals of object developing and about the policy and strategy for realization.

Function of organization alludes relating people who direct organizational activities on tasks performing using appropriate methods and procedures.

Directing function means upkeep and enlargement efficiency of organizational function. This management function performs:

- i. Introduction of goals, policy and plans to engage people
- ii. Employed personnel directing I performing tasks
- iii. Coordination of procedures and activities
- iv. Problems detection and the way of eliminating them
- v. Activities directing
- vi. Watching, evidence and activity analysis
- vii. Motivation and employment stimulation

Control function means comparing of planned and realized parameters: organization, quality, quantity duration time period and expenses in the aim of reaching of determined goals.

## **1.2.2 TOTAL QUALITY MANAGEMENT IN CIVIL ENGINEERING**

Successful managing in civil engineering cannot be realized without total quality management.

Total quality management means three areas of evaluation in companies:

1. Quality enhancement is a global company goal
2. High quality of products or services is the goal of all employed by the company
3. The one success evaluation is a satisfied customer
4. The most efficient marketing message is high quality of products and services

Total quality management is management In companies with orientation on products and services quality, based on participation of all member oriented on long term success with customer satisfaction with overall advancing of all people In company and community. The basic and fundamental principles of total quality management are:

1. Team working
2. Total support with no alternatives to managers on all levels in total quality management
3. Permanent production systems advancing
4. Results evaluation
5. All customer requirement satisfaction considering him as the most competent arbiter in the quality evaluation.

Total quality management is the revolution in opinion and evolution in working systems and managing. It could be considered as a managing philosophy which starts with a customer and not with a production line.

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## **CHAPTER TWO**

### **PERSONNEL MANEGEMENT, RECRUITMENT, TRAINING AND JOB EVALUATION FOR CIVIL ENGINEERS**

#### **2.1 PERSONNEL MANAGEMENT**

Personnel 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.

According to Flippo, “Personnel management is the planning, organizing, compensation, integration and maintenance of people for the purpose of contributing to organizational, individual and societal goals.”

According to Brech, “Personnel Management is that part which is primarily concerned with human resource of organization.”

##### **2.1.1 NATURE OF PERSONNEL MANAGEMENT**

Personnel management includes the function of employment, development and compensation- These functions are performed primarily by the personnel management in consultation with other departments. Personnel management is an extension to general management. It is concerned with promoting and stimulating competent work force to make their fullest contribution to the concern. Personnel management exists to advise and assist the line managers in personnel matters. Therefore, personnel department is a staff department of an organization. Personnel management lays emphasize on action rather than making lengthy schedules, plans, and work methods. The problems and grievances of people at work can be solved more effectively through rationale personnel policies. It is based on human orientation. It tries to help the workers to develop their potential fully to the concern. It also motivates the employees through its effective incentive plans so that the employees provide fullest co-operation. Personnel management deals with human resources of a concern. In context to human resources, it manages both individual as well as blue- collar workers.

Following are the elements of Personnel Management:

1. **Organization-** Organization is said to be the framework of many activities taking place in view of goals available in a concern. An organization can be called as a physical framework of various interrelated activities. Right from manpower planning to employees' maintenance, all activities take place within this framework. The nature of the organization is dependent upon its goal. The business concern goal being profit-making. Clubs, hospitals, schools, etc. their goal being service. The objective of consultancy being providing sound advice. Therefore, it is organizational structure on which the achievement of goals of an enterprise depends upon. In personnel management, a manager has therefore to understand the importance of organizational structure.
2. **Job-** The second element, i.e., jobs tell us the activities to be performed in the organization. It is said that the goals of an enterprise can be achieved only through the functional department in it. Therefore, seeing the size of organization today, the nature of activities are changing. In addition to the three primary departments, personnel and research department are new additions. Various types of jobs available are: Physical jobs, Creative jobs, Proficiency jobs, Intellectual jobs, Consultancy jobs and Technical jobs.
3. **People-** The last and foremost element in personnel management is people. In a organizational structure, where the main aim is to achieve the goals, the presence of manpower becomes vital. Therefore, in order to achieve departmental goals, different kinds of people with different skills are appointed. People form the most important element because:
  1. The organizational structure is meaningless without it.
  2. It helps to achieve the goals of the enterprise.
  3. It helps in manning the functional areas.
  4. It helps in achieving the functional departmental goals.
  5. They make a concern operational.
  6. They give life to a physical organization.

The different types of people which are generally required in a concern are:

- Physically fit people
- Creative people
- Intellectuals
- Technical people
- Proficient and skilled people

In personnel management, a personnel manager has to understand the relationship of the three elements and their importance in organization. He has to understand basically three relationships:-

- i. Relationship between organization and job
- ii. Relationship between job and people
- iii. Relationship between people and organization.

Relationship between organization and job helps making a job effective and significant. Relationship between job and people makes the job itself important. Relationship between people and organization gives due importance to organizational structure and the role of people in it.

### 2.1.2 ROLE OF PERSONNEL MANAGER

Personnel manager is the head of personnel department. He performs both managerial and operative functions of management. His role can be summarized as:

1. **Personnel manager provides assistance to top management-** The top management are the people who decide and frame the primary policies of the concern. All kinds of policies related to personnel or workforce can be framed out effectively by the personnel manager.
2. **He advices the line manager as a staff specialist-** Personnel manager acts like a staff advisor and assists the line managers in dealing with various personnel matters. As a counsellor, personnel manager attends problems and grievances of employees and guides them. He tries to solve them in best of his capacity.

3. **Personnel manager acts as a mediator-** He is a linking pin between management and workers.
4. **He acts as a spokesman-** Since he is in direct contact with the employees, he is required to act as representative of organization in committees appointed by government. He represents company in training programs.

### 2.1.3 FUNCTIONS OF PERSONNEL MANAGEMENT

Following are the four functions of Personnel Management:

1. Manpower Planning
2. Recruitment
3. Selection
4. Training and Development

#### 1. Manpower Planning

Manpower Planning which is also called as Human Resource Planning consists of putting right number of people, right kind of people at the right place, right time, doing the right things for which they are suited for the achievement of goals of the organization. Human Resource Planning has got an important place in the arena of industrialization. Human Resource Planning has to be a systems approach and is carried out in a set procedure. The procedure is as follows:

1. Analyzing the current manpower inventory
2. Making future manpower forecasts
3. Developing employment programs
4. Design training programs



#### 2.1.4 IMPORTANCE OF MANPOWER PLANNING

1. **Key to managerial functions-** The four managerial functions, i.e., planning, organizing, directing and controlling are based upon the manpower. Human resources help in the implementation of all these managerial activities. Therefore, staffing becomes a key to all managerial functions.
2. **Efficient utilization-** Efficient management of personnel's becomes an important function in the industrialization world of today. Setting of large scale enterprises require management of large scale manpower. It can be effectively done through staffing function.
3. **Motivation-** Staffing function not only includes putting right men on right job, but it also comprises of motivational programs, i.e., incentive plans to be framed for further participation and employment of employees in a concern. Therefore, all types of incentive plans becomes an integral part of staffing function.
4. **Better human relations-** A concern can stabilize itself if human relations develop and are strong. Human relations become strong through effective control, clear communication, effective supervision and leadership in a concern. Staffing function also looks after training and development of the work force which leads to co-operation and better human relations.
5. **Higher productivity-** Productivity level increases when resources are utilized in best possible manner. Higher productivity is a result of minimum wastage of time, money, efforts and energies. This is possible through the staffing and its related activities (Performance appraisal, training and development, remuneration)

## 2.2 RECRUITMENT

### 2.2.1 TYPES OF RECRUITMENT

There are two types of recruitment which are:

1. **Internal Recruitment** - is a recruitment which takes place within the concern or organization. Internal sources of recruitment are readily available to an organization. Internal sources are primarily three - Transfers, promotions and Re-employment of ex-employees. Re-employment of ex-employees is one of the internal sources of recruitment in which employees can be invited and appointed to fill vacancies in the concern. There are situations when ex-employees provide unsolicited applications also. Internal recruitment may lead to increase in employee's productivity as their motivation level increases. It also saves time, money and efforts. But a drawback of internal recruitment is that it refrains the organization from new blood. Also, not all the manpower requirements can be met through internal recruitment. Hiring from outside has to be done.

Internal sources are primarily 3

- a. Transfers
  - b. Promotions (through Internal Job Postings) and
  - c. Re-employment of ex-employees - Re-employment of ex-employees is one of the internal sources of recruitment in which employees can be invited and appointed to fill vacancies in the concern. There are situations when ex-employees provide unsolicited applications also.
2. **External Recruitment** - External sources of recruitment have to be solicited from outside the organization. External sources are external to a concern. But it involves lot of time and money. The external sources of recruitment include - Employment at factory gate, advertisements, employment exchanges, employment agencies, educational institutes, labour contractors, recommendations etc.

- a. **Employment at Factory Level** - This a source of external recruitment in which the applications for vacancies are presented on bulletin boards outside the Factory or at the Gate. This kind of recruitment is applicable generally where factory workers are to be appointed. There are people who keep on soliciting jobs from one place to another. These applicants are called as unsolicited applicants. These types of workers apply on their own for their job. For this kind of recruitment workers have a tendency to shift from one factory to another and therefore they are called as “badli” workers.
- b. **Advertisement** - It is an external source which has got an important place in recruitment procedure. The biggest advantage of advertisement is that it covers a wide area of market and scattered applicants can get information from advertisements. Medium used is Newspapers and Television.
- c. **Employment Exchanges** - There are certain Employment exchanges which are run by government. Most of the government undertakings and concerns employ people through such exchanges. Now-a-days recruitment in government agencies has become compulsory through employment exchange.
- d. **Employment Agencies** - There are certain professional organizations which look towards recruitment and employment of people, i.e. these private agencies run by private individuals supply required manpower to needy concerns.
- e. **Educational Institutions** - There are certain professional Institutions which serve as an external source for recruiting fresh graduates from these institutes. This kind of recruitment done through such educational institutions, is called as Campus Recruitment. They have special recruitment cells which helps in providing jobs to fresh candidates.
- f. **Recommendations** - There are certain people who have experience in a particular area. They enjoy goodwill and a stand in the company. There are certain vacancies which are filled by recommendations of such people. The biggest drawback of this source is that the company has to rely totally on such people which can later on prove to be inefficient.

- g. **labor Contractors** - These are the specialist people who supply manpower to the Factory or Manufacturing plants. Through these contractors, workers are appointed on contract basis, i.e. for a particular time period. Under conditions when these contractors leave the organization, such people who are appointed have to also leave the concern.

## 2.2.2 EMPLOYEE SELECTION

Employee Selection is the process of putting right men on right job. It is a procedure of matching organizational requirements with the skills and qualifications of people. Effective selection can be done only when there is effective matching. By selecting best candidate for the required job, the organization will get quality performance of employees. Moreover, organization will face less of absenteeism and employee turnover problems. By selecting right candidate for the required job, organization will also save time and money. Proper screening of candidates takes place during selection procedure. All the potential candidates who apply for the given job are tested.

But selection must be differentiated from recruitment, though these are two phases of employment process. Recruitment is considered to be a positive process as it motivates more of candidates to apply for the job. It creates a pool of applicants. It is just sourcing of data. While selection is a negative process as the inappropriate candidates are rejected here. Recruitment precedes selection in staffing process. Selection involves choosing the best candidate with best abilities, skills and knowledge for the required job.

The Employee selection Process takes place in following order:

1. **Preliminary Interviews**- It is used to eliminate those candidates who do not meet the minimum eligibility criteria laid down by the organization. The skills, academic and family background, competencies and interests of the candidate are examined during preliminary interview. Preliminary interviews are less formalized and planned than the final interviews. The candidates are given a brief up about the company and the job

profile; and it is also examined how much the candidate knows about the company. Preliminary interviews are also called screening interviews.

2. **Application blanks-** The candidates who clear the preliminary interview are required to fill application blank. It contains data record of the candidates such as details about age, qualifications, reason for leaving previous job, experience, etc.
3. **Written Tests-** Various written tests conducted during selection procedure are aptitude test, intelligence test, reasoning test, personality test, etc. These tests are used to objectively assess the potential candidate. They should not be biased.
4. **Employment Interviews-** It is a one to one interaction between the interviewer and the potential candidate. It is used to find whether the candidate is best suited for the required job or not. But such interviews consume time and money both. Moreover the competencies of the candidate cannot be judged. Such interviews may be biased at times. Such interviews should be conducted properly. No distractions should be there in room. There should be an honest communication between candidate and interviewer.
5. **Medical examination-** Medical tests are conducted to ensure physical fitness of the potential employee. It will decrease chances of employee absenteeism.
6. **Appointment Letter-** A reference check is made about the candidate selected and then finally he is appointed by giving a formal appointment letter.

Training of employees takes place after orientation takes place. Training is the process of enhancing the skills, capabilities and knowledge of employees for doing a particular job. Training process molds the thinking of employees and leads to quality performance of employees. It is continuous and never ending in nature.

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### **2.3.1 IMPORTANCE OF TRAINING**

Training is crucial for organizational development and success. It is fruitful to both employers and employees of an organization. An employee will become more efficient and productive if he is trained well.

#### **Training is given on four basic grounds:**

1. New candidates who join an organization are given training. This training familiarize them with the organizational mission, vision, rules and regulations and the working conditions.
2. The existing employees are trained to refresh and enhance their knowledge.
3. If any updating and amendments take place in technology, training is given to cope up with those changes. For instance, purchasing new equipment's, changes in technique of production, computer impartment. The employees are trained about use of new equipment's and work methods.
4. When promotion and career growth becomes important. Training is given so that employees are prepared to share the responsibilities of the higher level job.

### **2.3.2 The benefits of training can be summed up as:**

1. **Improves morale of employees-** Training helps the employee to get job security and job satisfaction. The more satisfied the employee is and the greater is his morale, the more he will contribute to organizational success and the lesser will be employee absenteeism and turnover.

2. **Less supervision-** A well trained employee will be well acquainted with the job and will need less of supervision. Thus, there will be less wastage of time and efforts.

3. **Fewer accidents-** Errors are likely to occur if the employees lack knowledge and skills required for doing a particular job. The more trained an employee is, the less are the chances of committing accidents in job and the more proficient the employee becomes.

4. **Chances of promotion-** Employees acquire skills and efficiency during training. They become more eligible for promotion. They become an asset for the organization.

5. **Increased productivity-** Training improves efficiency and productivity of employees. Well trained employees show both quantity and quality performance. There is less wastage of time, money and resources if employees are properly trained.

### 2.3.3 WAYS/METHODS OF TRAINING

Training is generally imparted in two ways:

1. **On the job training-** On the job training methods are those which are given to the employees within the everyday working of a concern. It is a simple and cost-effective training method. The in proficient as well as semi- proficient employees can be well trained by using such training method. The employees are trained in actual working scenario. The motto of such training is “learning by doing.” Instances of such on-job training methods are job-rotation, coaching, temporary promotions, etc.
2. **Off the job training-** Off the job training methods are those in which training is provided away from the actual working condition. It is generally used in case of new employees. Instances of off the job training methods are workshops, seminars, conferences, etc. Such method is costly and is effective if and only if large number of employees have to be trained within a short time period. Off the job training is also called as vestibule training, i.e., the employees are trained in a separate area (may be a hall, entrance, reception area, etc. known as a vestibule) where the actual working conditions are duplicated.

## 2.4 JOB EVALUATION

Job evaluation developed out of civil service classification practices and some early employer job and pay classification systems. Whether formal job evaluation began with the United States Civil Service Commission in 1871 or with Frederick W. Taylor in 1881, it is now over 120 years old and still of great value. The first point system was developed in the 1920s. Employer associations have contributed greatly to the adoption of certain plans. The spread of unionism has influenced the installation of job evaluation in that employers gave more attention to rationalized wage structures as unionism advanced. During World War II, the National War Labor Board encouraged the expansion of job evaluation as a method of reducing wage inequities. A job evaluation is a systematic way of determining the value/worth of a job in relation to other jobs in an organization. It tries to make a systematic comparison between jobs to assess their relative worth for the purpose of establishing a rational pay structure.

As organizations became larger and larger and more bureaucratized the need for a rational system of paying employees became evident. Wage structures became more complex and needed some way to bring order to the chaos perpetuated by supervisors setting pay rates for their employees on their own. Job evaluation became a major part of the answer. The techniques and processes of job evaluation were developed and perfected during this time period of the late 1950s.

In the words of Edwin B. Flippo, "Job evaluation is a systematic and orderly process of determining the worth of a job in relation to other jobs."

According to Kimball and Kimball Jr., "Job evaluation represents an effort to determine the relative value of every job in a plant and to determine what the fair basic wage for such a job should be."

According to Bethel, Atwater and Smith et al, "Job evaluation as a personal term has both a specific and genetic meaning specifically, it means job rating or the grading of occupations in terms of duties ; generally it means the entire field of wages and salary administration along modern lines"

According to International labour Organization, "Job evaluation may be defined as an attempt to determine and compare the demands which the normal performance of particular job



makes on normal workers without taking account of the individual abilities or performance of the workers concerned."

In the words of Dale Yoder, "Job evaluation is a practice which seeks to provide a degree of objectivity in measuring the comparative value of jobs within an organization and among similar organizations."

According to Bureau of Labour Statistics, "Job evaluation is the evaluation or rating of job to determine their position in job hierarchy. The evaluation may be achievement through assignment of points or the use of some other systematic rating method for essential job requirements such as skill, experience and responsibility."

#### **2.4.1 JOB ANALYSIS**

The first step is a study of the jobs in the organization. Through job analysis, information on job content is obtained, together with an appreciation of worker requirements for successful performance of the job. This information is recorded in the precise, consistent language of a job description. Job evaluation needs to be differentiated from job analysis. Job analysis is a systematic way of gathering information about a job. Every job evaluation method requires at least some basic job analysis in order to provide factual information about the jobs concerned. Thus, job evaluation begins with job analysis and ends at that point where the worth of a job is ascertained for achieving pay equity between jobs.

#### **2.4.2 COMPENSABLE FACTORS.**

The next step is deciding what the organization "is paying for" -- that is, what factor or factors place one job at a higher level in the job hierarchy than another. These compensable factors are the yardsticks used to determine the relative position of jobs. In a sense, choosing compensable factors is the heart of job evaluation. Not only do these factors place jobs in the organization's job hierarchy, but they also serve to inform job incumbents which contributions are rewarded.

### **2.4.3 DEVELOPING THE METHOD.**

The third step in job evaluation is to select a method of appraising the organization's jobs according to the factor(s) chosen. The method should permit consistent placement of the organization's jobs containing more of the factors higher in the job hierarchy, than those jobs lower in the hierarchy.

### **2.4.4 JOB STRUCTURE.**

The fourth step is comparing jobs to develop a job structure. This involves choosing and assigning decision makers, reaching and recording decisions, and setting up the job hierarchy.

### **2.4.5 WAGE STRUCTURE.**

The final step is pricing the job structure to arrive at a wage structure.

- To supply bases for wage negotiation founded on facts rather than on vague intermediate ideas.
- It attempts to assess jobs, not people.
- Job evaluation is the output provided by job analysis.
- Job evaluation does not design wage structure, it helps in rationalizing the system by reducing number of separate and different rates.
- Job evaluation is not made by individuals rather it is done by group of experts.
- Job evaluation determines the value of job. Further the value of each of the aspects such as skill and responsibility levels are also related and studied in connection with the job.
- Job evaluation helps the management to maintain high levels of employee productivity and employee satisfaction.
- To establish an orderly, rational, systematic structure of jobs based on their worth to the organization.
- To justify an existing pay rate structure or to develop one that provides for internal equity.

- To assist in setting pay rates that are comparable to those of in similar jobs in other organizations to compete in market place for best talent.
- To provide a rational basis for negotiating pay rates when bargaining collectively with a recognized union.
- To ensure the fair and equitable compensation of employees in relation to their duties.
- To ensure equity in pay for jobs of similar skill, effort, responsibility and working conditions by using a system that consistently and accurately assesses differences in relative value among jobs and
- To establish a framework of procedures to determine the grade levels and the consequent salary range for new jobs or jobs which have evolved and changed.
- To identify a ladder of progression for future movement to all employees interested in improving their compensation.
- To comply with equal pay legislation and regulations determining pay differences according to job content.
- To develop a base for merit or pay-for-performance.

#### 2.4.6            **ADVANTAGES OF JOB EVALUATION**

1. **Reduction in inequalities in salary structure** - It is found that people and their motivation is dependent upon how well they are being paid. Therefore the main objective of job evaluation is to have external and internal consistency in salary structure so that inequalities in salaries are reduced.

2. **Specialization** - Because of division of labor and thereby specialization, a large number of enterprises have got hundred jobs and many employees to perform them. Therefore, an attempt should be made to define a job and thereby fix salaries for it. This is possible only through job evaluation.

**3. Helps in selection of employees** - The job evaluation information can be helpful at the time of selection of candidates. The factors that are determined for job evaluation can be taken into account while selecting the employees.

**4. Harmonious relationship between employees and manager** - Through job evaluation, harmonious and congenial relations can be maintained between employees and management, so that all kinds of salaries controversies can be minimized.

**5. Standardization** - The process of determining the salary differentials for different jobs become standardized through job evaluation. This helps in bringing uniformity into salary structure.

**6. Relevance of new jobs** - Through job evaluation, one can understand the relative value of new jobs in a concern.

#### **2.4.7 DISADVANTAGES OF JOB EVALUATION**

1. Though there are many ways of applying job evaluation in a flexible manner, rapid changes in technology and in the supply of and demand for particular skills, create problems of adjustment that may need further study.

2. When job evaluation results in substantial changes in the existing wage structure, the possibility of implementing these changes in a relatively short period may be restricted by the financial limits within which the firm has to operate.

3. When there are a large proportion of incentive workers, it may be difficult to maintain a reasonable and acceptable structure of relative earnings.

4. The process of job rating is, to some extent, inexact because some of the factors and degrees can be measured with accuracy.

5. Job evaluation takes a long time to complete, requires specialized technical personnel and is quite expensive.

## **2.4.8 BENEFITS OF JOB EVALUATION**

The pay offs from job evaluation may be stated thus:

- It tries to link pay with the requirements of the job.
- It offers a systematic procedure for determining the relative worth of jobs. Jobs are ranked on the basis of rational criteria such as skill, education, experience, responsibilities, hazards, etc., and are priced accordingly.
- An equitable wage structure is a natural outcome of job evaluation. An unbiased job evaluation tends to eliminate salary inequities by placing jobs having similar requirements in the same salary range.
- Employees as well as unions participate as members of job evaluation committees, while determining rate grades for different jobs. This helps in solving wage related grievances quickly.
- Job evaluation, when conducted properly and with care, helps in the evaluation of new jobs.
- It points out possibilities of more appropriate use of the plant's labor force by indicating jobs that need more or less skilled workers than those who are manning these jobs currently.

## **2.4.9 METHODS OF JOB EVALUATION**

There are three basic methods of job evaluation: (1) ranking, (2) classification, (3) factor comparison. While many variations of these methods exist in practice, the three basic approaches are described here.

### **1. Ranking method**

Perhaps the simplest method of job evaluation is the ranking method. According to this method, jobs are arranged from highest to lowest, in order of their value or merit to the organization. Jobs can also be arranged according to the relative difficulty in performing them. The jobs are examined as a whole rather than on the basis of important factors in the job; the job at the top of

the list has the highest value and obviously the job at the bottom of the list will have the lowest value. Jobs are usually ranked in each department and then the department rankings are combined to develop an organizational ranking. The variation in payment of salaries depends on the variation of the nature of the job performed by the employees. The ranking method is simple to understand and practice and it is best suited for a small organization. Its simplicity however works to its disadvantage in big organizations because rankings are difficult to develop in a large, complex organization. Moreover, this kind of ranking is highly subjective in nature and may offend many employees. Therefore, a more scientific and fruitful way of job evaluation is called for.

## 2. Classification method (Grading method)

According to this method, a predetermined number of job groups or job classes are established and jobs are assigned to these classifications. This method places groups of jobs into job classes or job grades. Separate classes may include office, clerical, managerial, personnel, etc. Following is a brief description of such a classification in an office.

- **Class I** - Executives: Further classification under this category may be Office Manager, Deputy Office manager, Office superintendent, Departmental supervisor, etc.
- **Class II** - Skilled workers: Under this category may come the Purchasing assistant, Cashier, Receipts clerk, etc.
- **Class III** - Semiskilled workers: Under this category may come Steno typists, Machine-operators, Switchboard operator etc.
- **Class IV** - Unskilled workers: This category comprises Daftaris[clarification needed], File clerks, Office boys, etc.

The job grading method is less subjective when compared to the earlier ranking method. The system is very easy to understand and acceptable to almost all employees without hesitation. One strong point in favor of the method is that it takes into account all the factors that a job

comprises. This system can be effectively used for a variety of jobs. The weaknesses of the Grading method are:

- Even when the requirements of different jobs differ, they may be combined into a single category, depending on the status a job carries.
- It is difficult to write all-inclusive descriptions of a grade.
- The method oversimplifies sharp differences between different jobs and different grades.
- When individual job descriptions and grade descriptions do not match well, the evaluators have the tendency to classify the job using their subjective judgments.

### **3. Factor comparison method**

A more systematic and scientific method of job evaluation is the factor comparison method. Though it is the most complex method of all, it is consistent and appreciable. Under this method, instead of ranking complete jobs, each job is ranked according to a series of factors. These factors include mental effort, physical effort, skill needed, responsibility, supervisory responsibility, working conditions and other such factors (for instance, know-how, problem solving abilities, accountability, etc.). Pay will be assigned in this method by comparing the weights of the factors required for each job, i.e., the present wages paid for key jobs may be divided among the factors weighted by importance (the most important factor, for instance, mental effort, receives the highest weight). In other words, wages are assigned to the job in comparison to its ranking on each job factor.

The steps involved in factor comparison method may be briefly stated thus:

- Select key jobs (say 15 to 20), representing wage/salary levels across the organization. The selected jobs must represent as many departments as possible.
- Find the factors in terms of which the jobs are evaluated (such as skill, mental effort, responsibility, physical effort, working conditions, etc.).

- Rank the selected jobs under each factor (by each and every member of the job evaluation committee) independently.
- Assign money value to each level of each factor (example: consider problem solving is one of the factor, what level of problem solving is required {basic, intermediate or advance}) and determine the wage rates for each key job.
- The wage rate for a job is apportioned along the identified factors.
- All other jobs are compared with the list of key jobs and wage rates are determined. An example of how the factor comparison method works is given below:

After the wage rate for a job is distributed along the identified and ranked factors, all other jobs in the department are compared in terms of each factor. Suppose the job of a 'painter' is found to be similar electrician in skill (15), fitter in mental effort (10), welder in physical effort (12) cleaner in responsibility (6) and laborer in working conditions (4). The wage rate for this job would be  $(15+10+12+6+4)$  is 47.

#### **4. Point method**

This method is widely used currently. Here, jobs are expressed in terms of key factors. Points are assigned to each factor after prioritizing each factor in order of importance. The points are summed up to determine the wage rate for the job. Jobs with similar point totals are placed in similar pay grades. The procedure involved may be explained thus:

1. Select key jobs. Identify the factors common to all the identified jobs such as skill, effort, responsibility, etc.
2. Divide each major factor into a number of sub factors. Each sub factor is defined and expressed clearly in the order of importance, preferably along a scale.

The most frequent factors employed in point systems are



- (i) Skill (key factor); Education and training required, Breadth/depth of experience required, Social skills required, Problem-solving skills, Degree of discretion/use of judgment, Creative thinking
- (ii) Responsibility/Accountability: Breadth of responsibility, Specialized responsibility, Complexity of the work, Degree of freedom to act, Number and nature of subordinate staff, Extent of accountability for equipment/plant, Extent of accountability for product/materials;
- (iii) Effort: Mental demands of a job, Physical demands of a job, Degree of potential stress

The educational requirements (sub factor) under the skill (key factor) may be expressed thus in the order of importance.

3. Find the maximum number of points assigned to each job (after adding up the point values of all sub-factors of such a job).

This would help in finding the relative worth of a job. For instance, the maximum points assigned to an officer's job in a bank come to 540. The manager's job, after adding up key factors + sub factors points, may be getting a point value of say 650 from the job evaluation committee. This job is now priced at a higher level.

4. Once the worth of a job in terms of total points is expressed, the points are converted into money values keeping in view the hourly/daily wage rates. A wage survey is usually undertaken to collect wage rates of certain key jobs in the organization. Let's explain this

## **2.5 MARKET PRICING**

Market pricing is the process for determining the external value of jobs, allowing you to establish wage and salary structures and pay rates that are market sensitive. Job matching session is conducted.

### **2.5.1 MERITS AND DEMERITS**

The point method is a superior and widely used method of evaluating jobs. It forces raters to look into all key factors and sub-factors of a job. Point values are assigned to all factors in a systematic way, eliminating bias at every stage. It is reliable because raters using similar criteria would get more or less similar answers. The methodology underlying the approach contributes to a minimum of rating error (Robbins p. 361). It accounts for differences in wage rates for various jobs on the strength of job factors. Jobs may change over time, but the rating scales established under the point method remain unaffected. On the negative side, the point method is complex. Preparing a manual for various jobs, fixing values for key and sub-factors, establishing wage rates for different grades, etc., is a time consuming process, According to Decenzo and Robbins, "the key criteria must be carefully and clearly identified, degrees of factors have to be agreed upon in terms that mean the same to all rates, the weight of each criterion has to be established and point values must be assigned to degrees". This may be too taxing, especially while evaluating managerial jobs where the nature of work (varied, complex, novel) is such that it cannot be expressed in quantifiable numbers.

## **2.5.2           LIMITATIONS**

1. Job evaluation is not exactly scientific.
2. The most of the techniques are difficult to understand, even for the supervisors.
3. The factors taken by the programme are not exhaustive.
4. There may be wide fluctuations in compensable factors in view of changes in technology, values and aspirations of employers, etc.
5. Employees, trade union leaders, management and the programme operators may assign different weight to different factors, thus creating grounds for dispute.

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## **CHAPTER THREE**

### **3.0 CONCLUSION AND RECOMMENDATION**

#### **3.1 CONCLUSION**

In the face of increasing value for an excellent civil engineering organization as a tool of integrated and excellent job execution and the growing of the organization, this term paper focuses on the investigation of civil engineers organization possibilities for successful organizing of there firm which the need to consider personnel management, recruitment, training and job evaluation. A civil engineer deals with designing, construction and maintenance of physical and naturally built environment and for this to be possible, this term paper has emphasized on the need for a civil engineer to focus on personnel management which is planning, organizing, compensation, integration and maintenance of people for the civil works showing its nature, role, function and importance, Recruitment and Training deals with retaining staff with high caliber and training them to have a motive and high spirit to achieving the goal of the civil work with it importance, benefits, methods and employee selection then job evaluation deals with determining the worth of the civil work in relation to other works. On the other hand, the identification of this method of work organization if considered by civil engineer can be of great impact to civil works to achieve its goal and objective.

#### **3.2 RECOMMENDATION**

The goal of this term paper is to provide recommendation for civil engineers that want to organize or reorganize their event management activities in order to make them more efficient and adapt them to emerging condition. The method needed for the organization of a company for civil engineers such as personnel management, recruitment, training and job evaluation need to be considered so that improvement and adaptation will serve as a basic for the purpose of achieving the goal and objective of the civil engineer. In conclusion, civil engineers face challenges in planning, organizing and implementation of events due to both human and technical factors and even more so in emerging works where they are confronted with lack of soft infrastructure, this term paper has provided a vital solution that civil engineers can use to beat this challenges and have good results

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