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EXPERIMENTAL ANALYSIS OF WAGE REQUIREMENT FOR HANDLING THE HOPPER WAGON IN THERMAL POWER PLANT USING JOB EVALUATION APPROACH

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Abstract: The idea is to create a situation of input – output equilibrium that equates with a fair wage being paid in revisit for the type of work or job in hand. This is in order to reach a win / win situation, determine any problem that may occur between employees and their employer related to wage uniformity or equity, and to create sound work weather. In order to create a sound and scientific internal pay system, this thesis makes an in-depth assessment on the application process of point-factor job evaluation approach. Questionnaire survey and statistical analysis methods are used to decide the factors of job evaluation system. Also, it focuses on the weight determination using better AHP method.

Right pay structure is necessary element of the personnel policy of a any department in a factory. If the pay structure is apparent as uninformed by the members of the staff, it becomes a cause of trouble of the labor relations. Mainly, a pay structure is unfair if it discriminates alongside women. Job evaluation is a traditional tool used by companies to help in the process of determining pay structures that can be also useful to sense and combat wage unfairness, as allow determining whether two jobs are of comparable worth or not.

Unions are responsible for a variety of wage things, such as higher wages and wage compression. In this thesis the study has done another possible union effect on wages are the actions of unions accountable for the observed relation between required education and wages? It is well known that wages are related to education, and there is also strong verification that working in a job requiring a level of education lower one's own level has a negative outcome on wages.

Keyword: Hopper wagon, Job Evaluation Methods.

INTRODUCTION:

Job Evaluation is a method to rank jobs in an business on the root of the duties and responsibilities assigned to the job. The job evaluation method results in a job being assigned to a pay grade. The pay grade is linked with a pay range that is defined by a least amount and a maximum pay rate. Job evaluation plans have been in use for approximately 75 years in the public and private sectors. There are frequent variations to the design a job evaluation plan. However, they all basically follow the same loom, which is to charge each job in a defined group of jobs based on a common set of common factors. Job Evaluation is a valuable technique in the hands of management by which a more rational and consistent wage and salary structure can be evolved. Internal consistency is concern with the maintenance of relative wages within the form and external consistency refers to a desired relativity of a firm's structure to that of the industry or region. Job Evaluation helps in bringing or maintaining harmonious relation between labor and management since it tends to eliminate wage inequalities within the organization and industry.

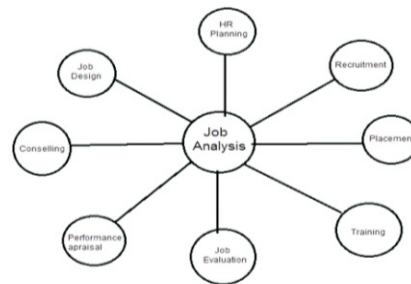


Fig 1 Uses of Job Analysis

POINT METHOD OF JOB EVALUATION

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

- (a) Select key jobs. Identify the factors universal to all the identified jobs such as skill, effort, responsibility, etc.
(b) Divide each major factor into a number of sub factors. Each sub factor is distinct and expressed clearly in the order of importance, rather than a scale.

DESCRIPTION OF THE JOB EVALUATION FACTORS

Complexity/Judgment

This factors are deals with the decision-making aspects of the position. Complexity refers to the variety and comparative difficulty of the material or information ahead which decisions are based. Judgment refers to the use of information and experience in making the decisions. Grade levels rise in relation to the variety of issues and activities, and to the difficulty of the troubles and decisions dealt with.

Education

Education refers to the training essential to prepare an individual's to satisfactorily fill a position.

It reflects the level of formalized awareness necessary to fulfill the requirements of the position.

It does not mean that a designated quantity of formal education is an absolute necessity. Such Information is most commonly achieved as a result of time spent in schools, colleges, universities or other formal training programmers. Application of this factor should not be confused with either the basic education of a particular incumbent or with employment standards established to ensure adequate background for advancement within the organization. Today's educational levels and values should be used. This factor is closely linked with the following one for "experience". Rating under the Experience factor should reflect the educational level assigned in this factor.

Experience

Work experience counts the length of time, (in months or years), required to learn, under instruction or guidance, the essential techniques and skills called for by the job. The experience will be gained on the job below consideration, as well as on prior jobs where the same or more elementary ethics and techniques are used, and also on related jobs where one can build up a body of information crucial to the proper performance of the job. The amount of work skill represents the fastest structured on-the-job learning time with all non-learning

periods removed. Thus, it is always an artificially compressed time period. It is not the same as " years of experience" frequently used for promotion or hiring purpose. Assume that the serving starts with the educational level specified in the Education factor.

Initiative

Initiative refers to the extent of independent action required. It also considers inventiveness, creative imagination, and original idea which may be needed on the job. It is limited by the quantity of direction and control received from either personal supervision or standard practices and precedents.

Contacts

Contacts refers to the relative value to the organization of essential working relationship of the position holder with other people. The contacts can be internal or external to the organization. Contacts are of a personal nature: talking face-to-face, on the telephone or public appearances.

Character Of Supervision

Character of Supervision considers the amount, kind and intricacies of line supervisor responsibility, OR; the nature of useful supervision, technical direction or advice involved in staff associations. Consider the extent to which responsibility for results goes with the position - in terms of operations, strategy, employees and finances. Apply zero points if no supervisory activities are required. (Note: The size of the group is measured under Scope of Supervision.)

Scope Of Supervision

Scope of Supervision appraises the mass of the direct-line responsibilities measured in total number of people within the organizational part supervised. Apply zero points if there are no Subordinates.

Physical Demands

Physical Demands considers the scale and severity of exertion associated with the position.

Consider the intensity and severity of the material effort or visual concentration required by the job as well as the continuity and occurrence of that effort.

Working Conditions

Working Conditions are evaluates the deviation of the job environment from the employee's standpoint. It also includes the point of health hazard and any aspects of crucial travel or unusual hours occasioned by the job.

PROBLEM DEFINITION:-

The basic reason today in industrial dispute is due to wages. In coal handling plant of Thermal Power plant the tendency of employees to compare their wages and salaries in relation to those of other in the same plant or working in the similar jobs in the other organization. Always the dissatisfaction is created amongst the employees with the difference in wages that other employees are getting for the same type of work performed.

Coal handling department is facing the problem of basic wage payments. Because of the difference in wage structure for the same type of jobs, the employee turnover is on the rise.

ABOUT HOPPER WAGON

Hopper Wagon is a railway wagon used to carrying coal from one place to another . It is also called as BOBR means Bottom Open and Bottom Release (closed). This type of wagon is furthermore know as " Hopper wagons" or "Bottom discharge" wagons basically in coal handling plant the unloading of coal is carried out by " Wagon Tippler" but it is time consuming and quiet complex in operation keeping the view in mind for time saving BOBR wagons are widely

used in thermal power plants.

In this wagon coal is discharged from bottom and collected in a big Hopper which is situated underground.

RESEARCH METHODOLOGY

In Coal handling Plant Department the job is Evaluated by using Point Method . This is widely used method of job evaluation. In involves more detailed quantitative and analytical approach to measure the job worth. Under this method a quantitative evaluation of different jobs in terms of various factors is made. Maximum point values are assigned to each of the job factors required to be considered. Then each job is awarded points for each of the factors .The wage level appropriate for each job is fixed on basis of total points scored by it.

Description of Job factors, Degree and Points.

| S.N. | Factors | Description | Degree | Points |
|------|-----------|--|--------|--------|
| 1 | Education | Upto 10 th Class | I | 20 |
| | | Upto 12 th Class | II | 40 |
| | | ITI (Specialization in Welder, Electrician & Fitter) | III | 60 |
| | | ITI with Basic Computer Knowledge. | IV | 80 |
| | | ITI with Special Vocational Training like CNC Machine, Tool & Die Making, Draftsman etc. | V | 100 |

| S.N. | Factors | Description | Degree | Points |
|------|------------|---------------------------------|--------|--------|
| 2 | Experience | Below 1 Year | I | 20 |
| | | 1 to 2 Year in similar Field | II | 40 |
| | | 2 to 5 Year in CHP Department | III | 60 |
| | | 5 to 10 Years in CHP Department | IV | 80 |
| | | Above 10 years in Thermal Plant | V | 100 |

Job Number: - 21D.
Component: - Door Mechanism
Problem :- If the doors will not operate:

| Remedies | Grade | Points |
|--|-----------------------------|------------|
| (1) Clean rust and moisture from the Shoe and the 3 rd rail. | Education | 40 |
| (2) Check the integrity of electrical connections between the wire and the shoe, and between the ground wire and the car body | Experience | 40 |
| (3) Operate the spool valve manually. (See operating instructions and safety precautions). If the doors operate manually, proceed to step C-1. | Work related Direction | 60 |
| | Mental Effort | 80 |
| | Physical Effort | 20 |
| | Working Condition | 40 |
| | Complexity | 40 |
| | Required Contact | 60 |
| | Accountability | 80 |
| | Skills & Expertise | 60 |
| Total Points | | 500 |
| Cost Range | 0-400 = Rs 500 | |
| | 401- 500 = Rs. 750 | |
| | 501-600 = Rs. 1000 | |
| | 601- 700 = Rs. 2000 | |
| | Above 700 = Rs. 3500 | |
| Final Cost of Job 21D is | Rs. 750 | |

Job Number: - 21E.
Component: - Door Mechanism
Problem :- . If the doors will not operate electrically or manually .

| Remedies | Grade | Points |
|--|-----------------------------|------------|
| (1) Check the hopper doors and mechanism for damage that could restrict operation. | Education | 60 |
| (3) Make sure angle cocks are open and adequate air pressure is being supplied to the system, min. 70 psi. Inspect for and repair any leakage found in the system. | Experience | 60 |
| (4) Inspect the secondary lock at the air cylinder for damage or a jammed condition. Be sure to stand away from the air cylinder and lock when attempting to operate the doors. | Work related Direction | 80 |
| (5) Disconnect external air supply to the car and release the air pressure in the system. Carefully remove the hose from the rear port of the cylinder. (Toward the end of the car). Connect shop air through a valve directly to the rear port of the cylinder. Pressure must be at least 70 psi and no greater than 130 psi. | Mental Effort | 80 |
| | Physical Effort | 40 |
| | Working Condition | 40 |
| | Complexity | 60 |
| | Required Contact | 60 |
| | Accountability | 80 |
| | Skills & Expertise | 60 |
| Total Points | | 620 |
| Cost Range | 0-400 = Rs 500 | |
| | 401- 500 = Rs. 750 | |
| | 501-600 = Rs. 1000 | |
| | 601- 700 = Rs. 2000 | |
| | Above 700 = Rs. 3500 | |
| Final Cost of Job 21E is | Rs. 2000 | |

RESULT :-

According to this thesis, there are a lot of settlement to conducting employee performance evaluations. The ten benefits listed
Employees be trained of their strengths and weaknesses
New goal and targets agreed upon
Employees can be active participant in the evaluation procedure
The association between the supervisor and the employee is enthused to an adult-adult level
Work team may possibly be restructured for highest efficiency
Workers renew their interest in being part of the Department.
Training needs are identified
Time is committed to discussing excellence of work without look upon to money issues
The supervisor becomes more relaxed with conducting evaluations
Employees sense that they are taken critically as individuals and that the supervisor is concerned about their requirements and goals

CONCLUSION:-

This research Paper explained the exercise of Point Method of Job Evaluation. To put into practice the this, test cases with special job factors were generated and outputs are observed. The experiments and outcome show that the table can get superior the performance of the on the whole of non-periodic jobs on soft real-time uniprocessor systems. Future work aims to make available somewhere to stay other variables representing job parameter as well as trying to get real data to test with other method.

The insufficiency is that this project only discusses the application of point method of job evaluation system in only one industry. It remains to be discussed the application in different industries and its credibility. Therefore, our

suggested redirection of costs research does not imply an abandonment of research focusing on internal compensation issues. While costs research needs to include an external center, steady with current compensation practices and organizational needs, future research should also carry on examining compensation concern that exist within organizations such as entity reactions to pay.

REFERENCES:-

- [1] Liu Zhiyi, Zhang Xianglin, "The challenge and countermeasure of human resources development in knowledge economy age", *Human Resource Development of China*, Vol. 223, 2009, pp. 95, (In Chinese).
- [2] Wiktor Adamus, "A new Method of Job Evaluation", *Proceedings of the Tenth International Symposium on the Analytical Hierarchy Process*, Retrieved August 11, 2009.
- [3] Milkovich G.T., Newman J.M. *Compensation* (9th ed.), Boston: McGraw-Hill, 2008, pp. 114.
- [4] Armstrong M., Cummins A., Hastings S. and Wood W. *The Job Evaluation Handbook: A Guide to Achieving Equal Pay*, London: Kogan Page, 2005. *Communications in Information Science and Management Engineering* Mar. 2013, Vol. 3 Iss. 3, PP.
- [5] Albert Corominas, Anna Maria Coves, Amaia Lusa and Carme Martinez, "ISOS: A job evaluation system to implement comparable worth", *Intangible Capital*, Vol. 1, No. 4, 2008, pp. 8-30. [6] James H. Dulebohn, Stephen E. Werling, "Compensation research past, present, and future", *Human Resource Management Review*, Vol. 17, 2007, pp. 191-207.
- [7] Ping Peng, Parbudyal Singh, "Pay equity in Ontario: The case of a non-profit seniors service organization", *Canadian Public Administration*, Vol. 52, No. 4, 2009, pp. 613-625.
- [8] Akyildiz Hüseyin, Güngör Ibrahim, "Analysis of the Practice of Job Evaluation in the Metal Industry in Turkey", *International Journal of Human Resource Management*, Vol. 18, No. 8, 2007, pp. 1539-1556.
- [9] Biman Das, Alberto Garcia-Diaz, "Factor selection guide-lines for job evaluation: a computerized statistical procedure", *Computer & Industrial Engineering*, Vol. 40, 2001, pp. 259-272.
- [10] A. Spyridakos, Y. Siskos, D. Yannacopoulos and A. Skouris, "Multicriteria job evaluation for large organizations", *European Journal of Operational Research*, Vol. 130, 2001, pp. 375-387.
- [11] Craig Skenes, Brian H. Kleiner, "The HAY System of compensation", *Management Research News*, Vol. 26, No. 2, 2003, pp. 109-115.
- [12] Daniel E. Martin, Donna Wiley and Peter J. Legree, "Ethnocentrism and Internal Compensation Structuring: An Experimental Examination of Point Factor Job Evaluation", *Western Journal of Human Resource Management*, 2007.
- [13] Yu Shunkun, "Study on the Effectiveness of Point Method Model in Job Evaluation", *Chinese Journal of Management Science*, Vol. 2, 2006, pp. 76-80, (In Chinese).

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