

An overview: Implementation of Job Design in Organizations



Engineering

KEYWORDS : General Satisfaction, Internal Work Motivation, Growth Satisfaction, Job Characteristics, Skill Variety, Task Identity.

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ABSTRACT

The organizations were quite satisfied using old technology and working practices which were not very efficient. With the advent of globalization and liberalization, the whole world turning into free market, many multinational companies entered into Indian market. Higher level of productivity, demands the employees to be good in physical and mental health, the working environment to be conducive to be putting in hard and productive work. The subject of ergonomics thus has assumed a very important role in enhancing employee morale, his health, safety and productivity. There is thus a need to study and analyze condition existing from ergonomic point of view, and develop and design the job. The Small scale production industry taken for the detailed study.

The Proposed Study Is aimed at the Status of job design in small scale industry with regard to ergonomic perspective, finding out the effect of these on performance and productivity. Based on finding of the preliminary study, detailed analysis of the identified areas has been carried out using special techniques reported in the design has been evaluated by JDS(Job diagnostic survey) developed by hackman and Oldham.

introduction

Job design identifies what work must be performed, which includes the content of the job, how will it be performed, where is to be performed and the competencies required by the person who will perform it. Job design also facilitates the achievement of organizational goals and performance of the work, the job was established to accomplish. A well designed job can help to maximize productivity and job performance. The symptoms of poor job design include absenteeism, turnover, low productivity and poor morale and often these are symptoms and treated rather than a cause. Benefits of job design to organizations are highly skilled workplace, flexible and responsive workforce, increased productivity and efficiency, improved quality, elimination of unnecessary supervisions and control, organizational effectiveness, increased customer standards. Benefits of job design to employees are increased job satisfaction, increased skills and training, more opportunities to participate in decision making and planning, safer workplace, improved quality of work life. People are far more effective in their work and get more satisfaction if their job interests them and offer a challenge. Hence job design based on scientific principles, while helping employees in efficient performance of their tasks, and also results in higher productivity.

Need and Issues of Job Design

The Proposed Study Is aimed at the Status of job design in small scale industry with regard to ergonomic perspective, finding out the effect of these on performance and productivity ad develop guidelines for the achievement of desired level for enhanced performance. The following issues have been considered in study:-

- 1 Changed demand of work from the employees In the wake of changed working scenario.
- 2 Changed ergonomic requirements in the wake of more demanding work.
- 3 Status of ergonomics is specified in manufacturing industry.
- 4 Productivity and performance level.
- 5 Effect of ergonomic initiative on performance and productivity.
- 6 Determination of desired job design particularly with regard to job redesign.
- 7 Validation of improved work system and job design.
- 8 Modeling of a system to achieve a desired level in a phase of manner.

Table 1. Job-content factors

Dissatisfying Factors	Satisfying Factors
1. Administrative Policies	1. Achievement
2. Supervision	2. Recognition
3. Working Conditions	3. Work itself
4. Interpersonal Relations	4. Responsibility
5. Salary	5. Advancement
6. Status	6. Growth
7. Job Security	
8. Personal Life	

(A K Batish, Thesis on workspace and job design in ball bearing industry, pp 190-194)

Increasing employee motivation and productivity

Increase in productivity can manifest itself in various forms. For example, the focus can be that of improving quality and quantity of goods and services, reduce operation costs, and reduce turnover and training costs. Research has shown there are several key factors that need to be in a job to make it fully meaningful and satisfying. The factors include:

- Variety
- Responsibility for the job
- Autonomy
- Task identity
- Feedback
- Participation in decisions
- Recognition and support
- Work environment.

Ergonomic job design has two major components:

- Eliminate exposures to physical risk factors(Force, repetition, Awkward posture, static posture, vibration, contact stress and environment)

- Changes how work is organized (so that the structure or set up of the job or task promotes or protects against exposure to ergonomic risk factor).

Literature or Theoretical Background

Theoretical background of this research has its origin in job design. People working in the organizations have been performing daily lot of activities and if they are allowed to perform according to their skills, abilities, and knowledge then they are self motivated to perform at their best. Let's discuss briefly the concept of job design.

Job design refers to "the way tasks are combined to form complete jobs" (Robbins & Coulter, 2006). The importance of job design has been realized by managers, scholars, theorists, many, many year's back. Process of job design has evolved over a long period of time. For the first time the operational measures of the job characteristics were given by Turner & Lawrence (1965). They developed six task attributes assumed to be positively related to workers satisfaction and attendance. The results revealed close relationship among variables and on the basis of results they developed required task attribute index. On the basis of this summary index relationship between task attributes and job satisfaction and attendance was determined. The results were not fully supported.

Hackman, J. R., & Lawler, E. E (1971) empirically tested the relationships among the job characteristics, individual differences in need strength and employee's motivation, satisfaction, performance, and absenteeism on the job. The results indicated that positive relationship was found among job dimensions and dependent measures: motivation, satisfaction, performance and attendance. Organizational literature offers two theoretical viewpoints to guide the restructuring process, namely job design and system redesign (Dienemann & Gessner, 1992). Job design is concerned with the content of the job that an individual or group undertakes, i.e. the roles and tasks they fulfill, as well as the methods that they use to complete their work (Holman, Clegg, & Waterson, 2002; Birnbaum & Somers, 1995). System redesign is concerned with the design of the entire department or organization and even the entire health care system. Both job design and system redesign have advantages and disadvantages. In nursing, job design strategies are often easier to implement since they focus on the job of the nurse and rarely have substantial impact on the jobs of other professional groups within the organization (Dienemann & Somers, 1992). Job design is often a precursor to any attempt to engage in system redesign. In contrast, system redesign is more radical as it has implications not only for the role of the nurse but also the roles and relationships of other health care professionals (Dienemann & Somers, 1992). This level of change requires cooperation across the entire organization and is much more difficult to accomplish.

Hackman & Oldham (1974, 75) originally developed the job diagnosis survey (JDS). In this research he described that this theory may not provide the desired results for all the individuals. It is especially suitable for those who have the strong desire for feeling of accomplishment and growth. Individuals who are low on growth need strength may find such job difficult to perform and may feel uncomfortable with it. During the development of the JDS Hackman & Oldham (1974) also checked that the internal consistency reliability. The inter correlation among JDS scales were also calculated along with their significance level. Inter-correlation showed that job dimensions themselves are moderately inter-correlated. The correlation results were higher across jobs than the respondents. The mediating effect of CPS and moderating effect of GNS was only postulated in this research, but not empirically tested. The QWL movement did not take off (Child, 1984; Kelly and Clegg, 1982; Littler, 1985). In the late 1970's, unemployment was rising steeply and management attention was directed to the industrial democracy debate. Work simplification spread into the office (Braverman, 1974) and continued to dominate in manufacturing (e.g. Taylor, 1979), even with the introduction of new flexible technology (Clegg, 1984). In 1985, Littler observed that there were only a few isolated examples of new job designs and that the QWL

principles "were the gospel of a few avant garde consultants" (p. 21). Similarly, Child (1984, p. 43) observed that, whilst there were many programmes with superficial changes in jobs, "there are possibly no more than 100 or so European schemes that really enrich jobs significantly". Overall, it can be seen that job design theory did not substantially affect job design practice. job redesign can be seen as having no effect on the distribution of power at all, being seen as part of a capitalist plot to extract co-operation from workers whilst maintaining control over them. This view stems from Braverman's (1974) thesis that there can be no end to Taylorism without an end to capitalism, and that management will always seek to control workers. backdrop of a well-established approach to organising work that fits comfortably with managerial values, the potential gains of job redesign had to be seen to outweigh the possible risks and costs. This simply was not the case, and improving the quality of working life of employees was not - by itself - considered a sufficient reason to make changes. Consistent with this, the most dominant movement away from simplification was group technology, a form of layout change based on production engineers' concern with flexibility and performance.

From a theoretical perspective, an important contribution of Action Theory lies in its emphasis on non-motivational processes in explaining behaviour and performance. In addition to the increased intensity of effort caused by motivation, Frese and Zapf (1993, p. 43) describe a process of 'intellectual penetration', or a deep intellectual understanding of the task and its requirements that differentiates 'super workers' from average workers.

Research Methodology

Theoretical Framework

This research seeks to determine the relationship between job characteristics and personal outcomes. The dependent variables in this research are personal outcomes: e.g. general satisfaction, internal work motivation, growth satisfaction and independent variables are job characteristics: e.g. skill variety, task identity, task significance, autonomy, feedback.

The theoretical framework for this research is given as under:

Dependent Measures

General Satisfaction

This research has taken the two aspects of job satisfaction: general satisfaction and growth satisfaction as dependent variables. The reason to select these two aspects is because these are the most widely used aspects of job satisfaction in job characteristics model research. General satisfaction is an overall measure of the degree to which the employee is satisfied and happy with the job.

Growth Satisfaction

It is described as the opportunities for personal growth and development. This refers to the extent to which an employee likes to have challenge in his job).

Internal work motivation:

It is the degree to which the employee is self-motivated to perform effectively on the job. i.e., the employee experience positive internal feelings when working effectively on the job, and negative internal feelings when doing poorly.

Independent Measures

This research has used five independent variables collectively known as the job characteristics. These are described in detail as under:

Skill Variety:

Skill variety refers to the degree to which a job requires a variety of different activities in carrying out the work, which involve the use of a number of different skills and talents of the person.

Task Identity:

This refers to the degree to which the job requires completion of a whole and identifiable piece of work that is doing a job from beginning to end with a visible outcome.

Task Significance:

Task significance refers to the degree to which the job has a substantial impact on lives or work of other people, whether in the immediate organization or in the external environment.

Autonomy:

Task Autonomy refers to the degree to which the job provides substantial freedom, independence and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out.

Feedback:

Feedback refers to the degree to which carrying out the work activities required by the job results in individual obtaining clear information about the effectiveness of his or her performance.

Motivating Potential score (MPS)=

$$\text{Skill} + \text{Task} + \text{Task}$$

$$\text{MPS} = \frac{\text{variety identity significance}}{3}$$

Growth Need Strength (GNS) : The Scale Taps to Degree To which an employee has a strong versus weak desire to obtain growth satisfaction from his or her work. it is derived from Would like growth needs and job choice growth needs.

JOB ROTATION

Job rotation alone does not change the risk factors present in a facility. It only distributes the risk factors more evenly across a larger group of people. Thus, the risk for some individuals will be reduced, while the risk for others will be increased. However, there will be no net change in risk factors present. This can be thought of as described in the following example.

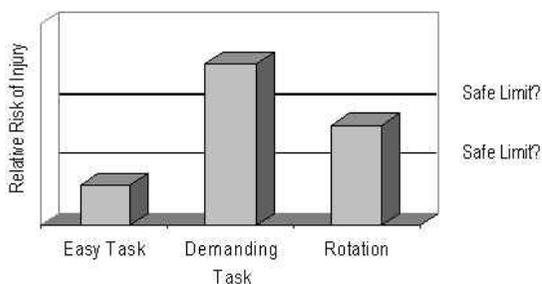


Fig 1: Averaging effect of job rotation

(Source: <http://edweb.sdsu.edu/people/arossett/pie/menu.html>)

This graph depicts the “averaging” effect of job rotation. Note that the resulting rotation job, which is the average of the light and demanding job, may be safe or it may be dangerous depending on where the actual safe limit is. At this point, science does not know this answer.

The Primary data was collected though the questionnaire adopted from job diagnostic survey questionnaire (Hackman & Oldham, 1975) for all the independent as well as dependent

measures. Job diagnostic survey questionnaire has been considered most reliable measurement scale for measuring the job characteristics model variables. All the items given in questionnaire are developed on seven point Likert scale ranging from score 01 for strongly disagreed to score 07 for strongly agreed. In order to collect the data personal visit were made to the industry located in mohali. The data was collected from geegal tools, mohali which has 2 units. Before filling the questionnaire it was discussed with employees to make them familiar with the questionnaire. The aims of this study has to determine the nature and extent of any motivational problems among the workers working in SMI, and their possible effects on productivity and performance. Analysis of five motivating potential as well as measurement of growth need strength (GNS), to find the number of employees in the Ideal Job-person match.

Prospects for future Research

Thus job characteristics model can be very helpful in designing the jobs of banking sector employees. The Human resource managers of the banks must design the jobs of banking sector employees with paying proper consideration to the job characteristics. More over if they feel that the job satisfaction and motivational level of the employees is reducing due to fatigue, boredom from the work, they should redesign their jobs with the inclusion of these job characteristics to rebuild the job satisfaction and motivational level of the employees. This research provides following prospects for future research. This is probably only study conducted on job characteristics model in context Punjab and especially in small scale industry. So it can be replicated to other areas of Punjab and in different sectors to generalize the applicability of job characteristics model in Punjab. As job characteristics leads towards the intrinsic satisfaction of the employees on work so more research should be conducted to identify the extrinsic factors which leads towards the job satisfaction of the employees of banking sector and than both extrinsic and intrinsic factors may be combined together to determine the overall satisfaction of the employees. This research has only considered the personal outcomes. The effect of job characteristics can also be tested on behavioral outcome as predicted and tested in original model and by many other researchers as well. The mediating role of psychological states and moderating role of growth need strength has also been ignored in most of the job characteristics model research studies but it would be very interesting to test them to check the implications of job characteristics model as a whole.

Conclusions

After going through the research reported by different researchers, it is concluded that the research related to Job design in industry, Most times the job satisfaction and motivational level of the employees is reducing due to fatigue, boredom from the work, they should redesign their jobs with the inclusion of these job characteristics to rebuild the job satisfaction and motivational level of the employees. Expectations concerning the time required to complete tasks form the basis for calculating capacity requirements and area key input to labor planning activities. As Einstein once quipped, “If we knew what we were doing, it wouldn’t be called research. So we are confident that research on job design will continue to flourish.

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