Abstract

BHEL is one of the largest companies in India, with a wide product range in power generation – thermal, hydro, gas and renewable, power transmission, transportation, Industry, etc., BHEL is committed to keeping its portfolio of products technologically competitive and so it has invested substantial resources in Research and Development of new products and technologies and continual up-gradation of existing products. This research paper mainly focuses on BHEL and its established 14 Centre’s of Excellence. I have selected two centres for the comparative study of employee’s motivation levels in organizations.

I. INTRODUCTION

Embarking upon the 50th Golden year of its journey of engineering excellence, BHEL is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing company of its kind in India engaged in the design, engineering, manufacture, construction, testing, commissioning and servicing of a wide range of products and services for the core sectors of the economy, viz., Power, Transmission, Industry Transportation (Railway), Renewable Energy, Oil and Gas and Defence with over 180 products offerings to meet the needs of these sectors. Establishment of BHEL in 1964 was a breakthrough for upsurge in India’s Heavy Electrical Equipment Industry. Consistent performance in a highly competitive environment enabled BHEL attain the coveted ‘Maharatna’ status in 2013.
1.1 Acheivement of BHEL:

BHEL as a part of Pt. Jawaharlal Nehru’s vision was bestowed with the honor to make the country self-reliant in manufacturing of heavy electrical equipment’s. This dream has been more than realized and the contribution in nation building endeavor is going to continue nonstop. Today, with 20000 MW per annum capacity for power plant equipment manufacturing, BHEL’s mammoth size of operation is evident from its widespread network of 17 manufacturing Units, two Repair Units, four Regional Offices, eight service centers’, eight overseas offices, six joint ventures, fifteen regional marketing centers and current project execution at more than 150 project sites across India and abroad. The total installed capacity base of BHEL supplied equipment-138 GW in India speaks volumes about the contribution made by BHEL to Indian power sector. BHEL’s 57% share in India’s total installed capacity and 65% share in the country’s total generation from thermal utility sets (coal based) as of March 31, 2014 stand testimony to this. The company has been earning profits continuously from 1971-1972 and paying dividends since 1976-1977 which is a reflection of the company’s commendable performance throughout.

1.2 BHEL Global Scenario:

BHEL also has a widespread overseas footprint in 76 countries with cumulative overseas installed capacity of BHEL manufactured power plants nearing 10000 MW including Malaysia, Oman, Libya, Iraq, the UAE, Bhutan, Egypt and New Zealand. The high level of quality & reliability of BHEL products and systems is an outcome of strict adherence to international standards through acquiring and adapting some of the best technologies from leading OEM companies in the world together with technologies developed in our own Research and Development centers’. Most of our manufacturing units and other entities have been accredited to Quality Management Systems (ISO 9001:2008), Environmental Management Systems (ISO 14001:2004) and Occupational Health and Safety Management Systems (OHSAS18001:2007). Our greatest strength is our highly skilled and committed workforce of 47525 employees. Every Employee having continuous training and retaining career planning with a positive work culture and motivated workforce setting new benchmarks in terms of productivity and quality.

II. REVIEW OF LITERATURE IN THEORIES OF MOTIVATION

蠃 Content Theories of Work Motivation: The Content theories of work motivation attempt to determine what it is that motivates the people at work. The Content theories are theories are concerned with identifying needs/drives that the people have and how these needs and drives are prioritized.

蠃 Maslow Need Hierarchy Theories of Motivation: ** Life’s catastrophes will be blunted or starved off if possible and employees will be protected against life catastrophes to the maximum possible extent**. Abraham Maslow felt and arranged motivational needs in a hierarchal manner. He believed that once a given level of need is satisfied, it no longer serves to motivate. The next higher need has to be activated to motivate the individual.
- Self-Actualization Needs
- Esteem Needs
- Love Needs
- Safety Needs
- Physiological Needs.

Maslow did not intend that his need hierarchy be directly applied to work motivation. Despite this lack of intent on Maslow’s part, others such as Douglas McGregor, in his widely read book, “The Human Side of Enterprise”, popularized Maslow’s theory in management literature. The need hierarchy has a tremendous impact on modern management to motivation.

**Herzberg’s Two Factor Theory of Motivation:** Two Factor Theory (also known as Herzberg’s Motivation-Hygiene Theory) was developed by Frederick Herzberg a psychologist who found that job satisfaction and job dissatisfaction acted independently of each other. Two Factor Theory states that there are certain factors in the workplace that cause job satisfaction, while a separate set of factors cause dissatisfaction. He termed factors causing dissatisfaction as “Hygiene Factors” said theory is closely related to the Maslow’s hierarchy needs. The hygiene factors are preventive and environmental in nature and they are more or less equal to “Maslow’s Lower Levels Needs”. Essentially, hygiene factors are needed to ensure an employee is not dissatisfied. Motivation factors are needed in order to motivate an employee to higher performance, Herzberg also further classified our actions and how and why we do them, for example, if you perform a work related to action because you have to then that is classed as a movement, but if you perform a work related action because you want to than that is classed as motivation.

**Motivation Factors:**
- Achievement
- Recognition
- Work Itself
- Responsibility
- Promotion
- Growth.

**Hygiene Factors:**
- Pay and Benefits
- Company Policy and Administration
- Relationships with Co-Workers
- Physical Environment
- Supervision
- Status
- Job Security
- Salary.

**Victor Vroom’s Expectancy Theory of Work Motivation:** The expectancy theory of work motivation has its root in the cognitive concepts of pioneering psychologists Kurt
Levin and Edward Tolman and the Choice behavior and utility concepts from classical economic theory. However the first to formulate an expectancy theory directly aimed at work motivation was Victor Vroom in 1964. Contrary to most critics, Vroom proposed his expectancy theory as an alternative to the content models, which he felt were inadequate explanations of the complex process of work motivation. In the academic circles his theory has become a popular explanation of work motivation and has generated a considerable research. The basic assumption is that the choices made by a person among alternative courses of actions are lawfully related to psychological events occurring contemporaneously with the behavior. This is commonly called VIE theory based on the concepts of:

- V – Valence
- I – Instrumentality
- E – Expectancy

By Valence Vroom means strength of an individual’s performance for particular outcome. Other terms that might be used include value, incentive, attitude and expected utility. In order for the Valence to be positive, the person must prefer attaining the outcome to not attaining. A Valence of Zero occurs when the individual is indifferent towards the outcome. The Valence is negative when the individual prefers not attaining the outcome to attaining the outcome. Another major input into Valence is the instrumentality of the first level outcome in obtaining desired second level outcome.

### III. NEED FOR THIS STUDY

Motivation is a basic psychological process which is of paramount importance to organizational behavior and HRD process. In this modern and high-tech era of advancements, the expectations of Individuals and the organizations have reached to a very high level. Organizations have shown their care, concern and interest not only towards improvements and growth of the organizations alone but also towards the improvement of each individual participant through various HRD programs.

Since the inception these organizations have expanded and grown at the rate of greater than 10% of the initial designed capacity per year and more. The capacity utilization is > 100% the organizations are happy and satisfied that their efforts made them achieve their goals. We should know the level of motivation what it is today and where we stand. Then by looking back wherefrom we originally started, we can get the ways and means to further improve the motivation levels of every individual in the interest of human values and the organization as a whole. In the past most of the studies on motivation have been carried out with a view to link productivity, satisfaction etc., But hardly any studies have been made on motivation with a view to promoting growth and development after ascertaining the motivation potential of higher level personnel in organizations, with a strong commitment to promoting growth and development through “Human Resource Development”. Hence it is the need for the present study.
IV. OBJECTIVES OF THE STUDY
The main objectives of this study are: “the investigator thus desires to assess the motivation level of the employees of two such organizations with high technology, having their own HRD Departments into operation. The aim is to compare study and suggest possible ways for the mitigation of any such problems that may be hindering the desired smooth functioning of the organizations”. The investigator is not only confident, rather he knows that organizations under study are convinced and committed to the concept and philosophy of HRD and hence they have their own exclusive well established HRD Departments into operation.

V. COMPARATIVE STUDY OF EMPLOYEES MOTIVATION
BHEL has established 14 centres of Excellence, the study has been selected randomly two organizations that is (ORGANISATION: 1) Electronics Division of Bangalore, another one is (ORGANISATION: 2) High Pressure Boiler Plant, Trichy. BHEL has also established four specialized institutes viz., Welding Research Institute (WRI) at Tiruchirappalli, Ceramic Technological Institute (CTI) at Bangalore, Centre for Electric Traction (CET) at Bhopal and Pollution Control Research Institute (PCRI) at Haridwar. Amorphous Silicon Solar Cell Plant at Guragon pursues Research and Development in Photo Voltaic applications.

VI. METHODOLOGY
The study is based on both types of data i.e., Primary and Secondary data. Primary data was collected through well-structured interview schedule and employees interviews. The Secondary data was mainly from related reports. The study is based on the sample selection of 130 respondents.

**Sampling Design:** The samples were drawn through a random sampling process among three grades of officers who are responsible getting the work done from down the line work force of Charge-Men, Foremen, Supervisors and Workmen. The motivation of these subjects has a direct bearing on to the motivation of the workforce and the behavior and productivity of the organization.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Designation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>“C”</td>
<td>Deputy Managers</td>
<td>Head of the Department</td>
</tr>
<tr>
<td>“B”</td>
<td>Senior Officers</td>
<td>Senior Supervisors</td>
</tr>
<tr>
<td>“A”</td>
<td>Officers</td>
<td>Supervisors</td>
</tr>
</tbody>
</table>

**Size:** Grade wise details of sampling in both organizations:-

<table>
<thead>
<tr>
<th>Grade</th>
<th>Designation</th>
<th>ORG:1</th>
<th>ORG:2</th>
</tr>
</thead>
<tbody>
<tr>
<td>“C”</td>
<td>Deputy Managers</td>
<td>22</td>
<td>06</td>
</tr>
<tr>
<td>“B”</td>
<td>Senior Officers</td>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>“A”</td>
<td>Officers</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>75</td>
<td>55</td>
</tr>
</tbody>
</table>

The sample consisted of 75+55 = 130 respondents.
VII. ANALYSIS OF STATISTICAL TOOLS

It is assumed that in the organizations said six motives have their legitimate place and those contribute to the effectiveness of employees.

**TABLE-1: Approach – Avoidance Dimensions of Six Motives**

<table>
<thead>
<tr>
<th>Motive</th>
<th>Approach with the Hope of</th>
<th>Avoidance with the Fear of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>Success</td>
<td>Failure</td>
</tr>
<tr>
<td>Affiliation</td>
<td>Inclusion</td>
<td>Exclusion</td>
</tr>
<tr>
<td>Extension</td>
<td>Relevance</td>
<td>Irrelevance</td>
</tr>
<tr>
<td>Influence</td>
<td>Impacting</td>
<td>Importance</td>
</tr>
<tr>
<td>Control</td>
<td>Order</td>
<td>Cohoes</td>
</tr>
<tr>
<td>Dependency</td>
<td>Growth</td>
<td>Lonliness</td>
</tr>
</tbody>
</table>

An employee’s effectiveness from the angle of motivation can be defined in two ways. Firstly we may see as to what extent he or she has this motivation. As already mentioned all the six motives are relevant for an employee. If one is deficient in any one, his or her effectiveness may proportionately reduce also. Secondly, an employee’s effectiveness shall also depend on the extent of avoidance behavior of a particular motivation. The motive regardless of its strength becomes weak and ineffective due to high amount of avoidance behavior. An employee’s high score on a particular motivation indicates one’s potential for effectiveness, but a larger share of avoidance items in the total score may reduce his or her actual effectiveness. The behavior aspect of motivation can be measured on this approach.

**Reliability of Instrument (MAO (B))**

**TABLE-2: The test of reliability co-efficient for the six dimensions of role behavior.**

<table>
<thead>
<tr>
<th>MAO (B) Co-efficient</th>
<th>Reliability Co-efficient</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>0.61</td>
<td>0.001</td>
</tr>
<tr>
<td>Affiliation</td>
<td>0.61</td>
<td>0.001</td>
</tr>
<tr>
<td>Control</td>
<td>0.68</td>
<td>0.001</td>
</tr>
<tr>
<td>Dependency</td>
<td>0.45</td>
<td>0.001</td>
</tr>
<tr>
<td>Dependency</td>
<td>0.53</td>
<td>0.001</td>
</tr>
<tr>
<td>Influence</td>
<td>0.58</td>
<td>0.001</td>
</tr>
</tbody>
</table>

All co-efficient are highly significant at 0.001 levels. The instrument MAO (B) is thus highly reliable one. Instrument for Motivational Analysis of Organizational Behavior that was employed for the study is named as “MAO (B)”. The same instrument has been used for the study employee behaviors in both of the organizations under study. MAO (B) contains 60 items. Ten items against each dimension of the following six motives namely:

- Achievement
- Affiliation
- Influence
- Control
- Extension
- Dependency.

Each motive is measured for both, approach and avoidance behavior respectively.
VIII. FINDINGS AND SUGGESTIONS

Roy and Raja (1977) reviewing various studies of the motivation of the supervisors and managers in India have suggested the following trends.

- Promotion is the most important incentive and also the most dissatisfying element among the supervisors and middle managers.
- Recognition is one of the most important job factors in terms of both, satisfaction and dissatisfaction.
- Among the factors contributing only to job satisfaction, achievement, responsibility, domestic life and accomplishment figure most prominently.
- Among the factors contributing only to dissatisfaction, the most frequently mentioned factors are lack of adequate organizational policies and administration, lack of technically competent and sympathetic supervision, unfriendliness or superior and lack of opportunities for growth.
- Job factor causing satisfaction and dissatisfaction among managers and supervisors differ from those in case of rank and life workers. For example, salary and job security emerge as the two most important factors for job satisfaction among the latter whereas for the former, those factors constantly lean towards the bottom of the importance hierarchy. Occupational level appears to influence the perception of need.
- No clear evidence is available for differentiating managers and supervisors in terms of the sources of satisfaction and dissatisfaction. They however differ in terms of perception of needs. First line supervisors give maximum importance and value of income, promotion, job security and working conditions. Whereas middle managers give maximum importance and value to advancement, type of work and earnings. Managers on the other hand give maximum value to the feelings of worthwhile accomplishments, recognition for good work done and decision making authority. This shows the shift from its context factor to job content factors or from the lower order to the higher order needs.
- Managers in private and public industry are not found to be different in level of job satisfaction. They are similarly influenced by motivators in both cases. Only the motivators and hygiene factors are the one that contribute to satisfaction and dissatisfaction differently. Although in public sector managers motivators contribute more toward satisfaction nonetheless for the private sector executives those contribute more toward dissatisfaction.
- No evidence is available showing the effects of job satisfaction on outcome variables such as job involvement, performance etc.,
- Neither personal variables like education level or income level nor the organizational variables like line/staff type of jobs or the tall/fat types of organizational structure have any significant influence over the need, motivation, importance, fulfillment, expectation and deficiency and the choice of factors of satisfaction and dissatisfaction.
IX. CONCLUSION

There are many other ways in which to encourage the Employees of an organization to change their attitudes and actions. The organization sends signals about what behavior is valued through the design of its Employee appraisal system, where individuals discuss their goals and their performance at least once a year with their manager. The effects of appraisal can be supported by planned career counseling and development systems designed to reinforce the same messages. Required changes in skills, knowledge, attitudes and behavior can be encouraged through specially tailored training and development programmes. Communications and working relationships can be improved through a range of mechanisms such as conferences, forums, workshops, discussion groups and project teams. These mechanisms can focus on particular groups or can bring together staff from different sections and levels of the organizations structure.

X. REFERENCES


AUTHOR BIOGRAPHY

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