



HUMAN RESOURCE DEVELOPMENT IN BHEL- A COMPARATIVE STUDY WITH SPECIAL REFERENCE TO LEVEL OF EMPLOYEES MOTIVATION

Dr. R.Senthilkumar, Assistant Professor, PG. and Research Department of Commerce and Management Studies, Sudharsan College of Arts and Science, (Affiliated to Bharathidasan University, Tiruchirappalli) Perumanadu Post, Pudukkottai District

Abstract: BHEL is one of the largest companies in India, committed to invest substantial resources in Research and Development towards up gradation of technologies to meet out the product range of a power generation like thermal, hydro, gas, renewable, power transmission, transportation, industry etc., BHEL is one of the mainly committed to keeping its portfolio investment 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 centers for the comparative study of employee's motivation levels in organizations.

Keywords: Special Reference to Employees Motivation Levels, BHEL (Two) Organization Comparisons.

INTRODUCTION

The previous name of BHEL was HEL. The full name of HEL was Heavy Electrical (India) Limited. Heavy Electrical (India) Limited was set-up in Bhopal in August 1956 with a view to reaching self-sufficiency in Industrial products and power equipment vital for the industrialization of the country. As there was the need for an integrated approach to the development of power equipment manufacturer in India and also with a view to optimizing the resources HE (I) Ltd., Bhopal was merged into Bharat Heavy Electrical Limited in 1974. To meet the total demand of heavy electrical equipment of the following units BHEL come into being in November 1964.

S. No.	Units of BHEL	Started in the Month and Year
1.	High-Pressure Boiler Plant, Tiruchirappalli, TN.	May 1965.
2.	Heavy Power Equipment Plant, Hyderabad, AP.	December 1965.
3.	Heavy Electrical Equipment Plant, Hardwar, UP.	January 1967.



The overall Consistent performance in a highly competitive environment enabled BHEL to attain the coveted '**Maharatna**' status in 2013.

ACHIEVEMENT OF BHEL

BHEL as a part of Pt. Jawaharlal Nehru's vision was bestowed with the bonus to make the country self-reliant in a 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.

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 (OHS18001:2007).

Our greatest strength is our highly skilled and committed workforce of 47525 employees. Every Employee career continuous training and retaining career planning a positive work



culture and motivated workforce setting new benchmarks in terms of productivity and quality.

REVIEW OF LITERATURE IN THEORIES OF MOTIVATION

Content Theories of Work Motivation

The work motivation is theories of content to attempt to determine and what it is that motivates the people at work. The theories are content based and identifying the needs and drives that the people have to how these needs and drives are prioritized.

Abdul Basit Al-Hamadi, Pawan S Budhwar Shipton (2007): The scenario of management of human resources and those factors influencing the Sultanate of Oman. The initial stage of the paper built the case for investigation Human Resource Development practices in the Omani Context. The followed analysis background of information for the several a social environment. The Sultanate of Oman is the key national initiatives that are useful likely to influence the take-up and endorsement Human Resource Development motivate in Oman.

Asad Mohsin (2007) the investigated issue in research related to human resource management development among the where of Hamilton in New Zealand. The use of study and in-depth knowledge interview techniques to accumulate to the high development of the human resource issues within the motel industry and find out the whether there are any gaps between the general or the professional skills of the employee.

Burke Ronald J (2006) this manuscript considered how changes in the external environment of organizations altered the world of work. While global trends were identified, particular attention was to the Canadian context. Canada was currently experiencing a period of economic growth. But some new challenges appeared. Canadian organizations were facing skill shortages and an aging workforce. The former was being addressed by increased use of technology and by higher levels of immigration, raising concerns about skill utilization, discrimination and the need to capitalize on this increasing workforce diversity. Organizations in Canada, Similar to those in other developed economies attitudes and values, incorporating and utilizing the rapid advances in technology, and addressing globalization-related challenges such as increased competitive pressures outsourcing and offshoring, and a global workforce that places a higher premium on cross-cultural sensitivities and skills.



Carmen Parez Canal (2006) this study was based on the recent literature concerning the management of human resources (HR) and, more specifically, how this may influence innovation in a company. We started with the hypothesis certain management practices in this area (global recognition and reward for achievement, teamwork organization, the creation of a common language and the sharing of experiences amongst R&D workers, inter alia will have a positive effect on innovation performance in the firm. The influences the industrial sector to which a firm belongs and the combined applications of these politics are also considered. These hypotheses are tested with a survey of 670 innovations developed by the Spanish firms.

David P Lepak and Jason D Shaw (2009) Strategic human resources management (HRM) remains one of the most popular and rapidly growing areas of HRM research. In this article, we undertook a selective review of the strategic HRM literature with a particular emphasis on research from the North American context. After outlining the research landscape and areas of consensus and disagreement, we discussed several emerging issues that effective HRM systems must contend with in the future, including technological fluidly, workforce demographic changes and be shifting worker values. With an eye toward future research opportunities, we also discuss the broadening of performance outcomes in strategic HRM research and highlight the importance of effectively managing HRM systems for multiple employee groups.

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 H. Maslow, a psychologist, developed a theory called the 'Need Hierarchy Theory'. It is one of the oldest theories on motivation. Maslow was of the view that human behavior is directed towards the satisfaction of certain needs. He classified human needs into five categories and arranged the same in a particular order as given below:

- Physiological Needs
- Safety Needs
- Social Needs
- Self-actualization Needs and



- Esteem Needs

Maslow did not intend that his need hierarchy is 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 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 then that is classed as motivation.

Motivation Factors

- Achievement
- Recognition
- Work Itself
- Responsibility
- Promotion
- Growth.

Hygiene Factors

- Pay and Benefits of the employees
- Company Policy and Administration of the employer.



- Relationships with Co-Workers of the company.
- Physical Environment of the company policy.
- Supervision of the subordinate.
- Status of the employee's.
- Job Security of the working in employees.
- Salary benefit to employees.

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 a 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.



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 initially 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 to Motivate Management Development”. Hence it is the need for the present study.

OBJECTIVES OF THE STUDY

The main objective studies 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.



COMPARATIVE STUDY OF EMPLOYEES MOTIVATION

BHEL has established in Excellence of 14 centers, the study has been selected randomly two organizations that are (ORGANISATION: 1) Electronics Division of Bangalore, another one is (ORGANISATION: 2) High-Pressure Boiler Plant, Tiruchy. 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 Gurgaon pursues Research and Development in Photo Voltaic applications.

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 workforce 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.

Grade	Designation	Role
"C"	Deputy Managers	Head of the Department
"B"	Senior Officers	Senior Supervisors
"A"	Officers	Supervisors

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

Grade	Designation	ORG:1	ORG:2
"C"	Deputy Managers	22	06
"B"	Senior Officers	23	14
"A"	Officers	30	35
	TOTAL	75	55

The sample consisted of 75+55 = 130 respondents.

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

MOTIVE	Approach with the Hope of	Avoidance with the Fear of
Achievement	Success	Failure
Affiliation	Inclusion	Exclusion
Extension	Relevance	Irrelevance
Influence	Impacting	Importance
Control	Order	Cohoes
Dependency	Growth	Loneliness'

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 the 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))

The test of reliability coefficient for the six dimensions of role behavior.

MAO (B) Co-efficient	Reliability Coefficient	Level of Significance
Achievement	0.61	0.001
Affiliation	0.61	0.001
Control	0.68	0.001
Dependency	0.45	0.001
Dependency	0.53	0.001
Influence	0.58	0.001

All coefficients 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 the dimension of the following six motives namely:



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

Each motive is measured for both, approach and avoidance behavior respectively.

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 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 the 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 the 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 contributes 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 on the need, motivation, importance, fulfillment, expectation and deficiency and the choice of factors of satisfaction and dissatisfaction.

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 programs. 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 organization's structure.



REFERENCES

1. Abdul Basit Al-Hamadi, Pawan S. Budhwar and Helen Shipton (2007) The thesis title of "The Human Resource Management Practices in Select Software Units in TamilNadu"-Submitted by A.Khaleelur Rahman, Under the Supervision of Dr. N.Shaik Mohamed, Jamal Mohamed College, April-2012, Chapter-III Review of Literature, P.36.
2. Asad Mohsin (2007) The thesis title of "The Human Resource Management Practices in Select Software Units in TamilNadu"-Submitted by A.Khaleelur Rahman, Under the Supervision of Dr. N.Shaik Mohamed, Jamal Mohamed College, April-2012, Chapter-III Review of Literature, Pp.36-37.
3. Aswathappa K (2005), Organizational Behaviour Text, Cases & Games – Himalaya Publishing House, Mumbai-400 004.
4. Arun Monappa Mirza. S. Saiyadain (1979) Personnel Management, Tata McGraw-Hill Publishing Company Ltd., New Delhi.
5. Burke Ronald J (2006) The thesis title of "The Human Resource Management Practices in Select Software Units in TamilNadu"-Submitted by A.Khaleelur Rahman, Under the Supervision of Dr. N.Shaik Mohamed, Jamal Mohamed College, April-2012, Chapter-III Review of Literature, P.39.
6. Bhushan Y.K (1965) Fundamentals of Business Organization and Management, Published by Sultan Chand & Sons, New Delhi.
7. Carmen Perez Canal (2006) The thesis title of "The Human Resource Management Practices in Select Software Units in TamilNadu"-Submitted by A.Khaleelur Rahman, Under the Supervision of Dr. N.Shaik Mohamed, Jamal Mohamed College, April-2012, Chapter-III Review of Literature, P.40.
8. David P Lepak and Jason D. Shaw (2009) The thesis title of "The Human Resource Management Practices in Select Software Units in TamilNadu"-Submitted by A.Khaleelur Rahman, Under the Supervision of Dr. N.Shaik Mohamed, Jamal Mohamed College, April-2012, Chapter-III Review of Literature, P.43.
9. Gupta S.C. and Kapoor V.K (2000) Fundamentals of Mathematical Statistics-Sultan Chand Sons Educational Publishers, New Delhi-110002.



10. John W. News Keith Davis (1997) *Organizational behavior-human behavior at work* – Tata McGraw Hill Publishing Ltd., New Delhi.
11. Radha Dr. V (2007) *Organizational Behaviour* Prasanna & Co., Triplicane, Chennai-600 005.



Dr. R. Senthikumar, M.Com., M.Phil., M.B.A., M.Phil., PGDCA., Ph.D., (in Commerce) is at present working as Assistant Professor in PG. and Research Department of Commerce and Management Studies, 197-SUDHARSAN COLLEGE OF ARTS AND SCIENCE, (Affiliated to Bharathidasan University, Tiruchirappalli-24) Perumanadu post, Pudukkottai District of TamilNadu in India for over ten years. He has specialized in Human Resource Management, Marketing, Financial Management, Banking, and Systems. He has participated in various faculty development programs/seminar/workshops. He has more than fourteen seminars attended in both at national and international seminars and conferences. Thirteen more have been published ISSN Peer Reviewed Journals.