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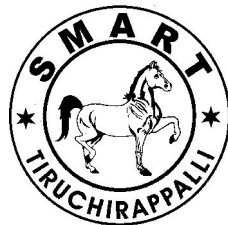
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# ATTITUDE OF EMPLOYEES TOWARDS HUMAN RESOURCE DEVELOPMENT SYSTEM IN BHEL

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## **Abstract**

*Human Resource Development has become a fashionable term for even the routine personnel management functions like dealing with people in the organization right from recruitment to retirement, training, development, salary/wages administration, performance appraisal, career development, succession plans and covers all aspects relating to knowledge, skill and attitude. Keeping in view the various aspects of human resources development such as work place relations, organizational climate based on job satisfaction, motivation and communication, working conditions, performance appraisal, training and development, an attempt has been made in the study to assess the opinion of employees of Bharat Heavy Electricals Limited about HRD programmes practised by their management.*

## **Introduction**

Human Resource Development has become a fashionable term for even the routine personnel management functions like dealing with people in the organization right from recruitment to retirement, training, development, salary/wages administration, performance appraisal, career development, succession plans and covers all aspects relating to knowledge, skill and attitude. But HRD is part of the function of Human Resources Management. Unless human resources are adequately trained and developed upto the required levels of proficiency, they cannot be deemed to be effectively managed. Thus HRD makes possible the effective management of human resources. Success of an organization mainly depends on the quality of its manpower and its performance. It is claimed that one of the common attributes of success of an organization is human resource development. Human Resources Development contributes to improving employee's conceptual, technical and human skills. Practising employee- oriented policies such as participative management, grievance handling machinery and open communication have resulted in harmonious relations and steady increase in productivity.

Keeping in view the various aspects of human resource development such as work place relations, organizational climate based on job satisfaction, motivation and communication, working conditions, performance appraisal, training and development, an attempt has been made in the study to assess the opinion of employees of Bharat Heavy Electricals Limited about HRD programmes practised by their management.

Hence an attempt has been made in this paper to measure the HRD climate and in particular, to analyze and highlight the features of HRD in Bharat Heavy Electricals Limited, Tiruchirapalli. BHEL is often cited as an example of a successful company in the public sector. The sophisticated complex at Kailasapuram near Tiruchirapalli in Tamil Nadu, is the site in which BHEL manufactures boilers for power plants.

## **Quantification and Measurement of Human Resource Development Climate in Bharat Heavy Electricals Limited**

To measure the human resource development climate in BHEL, Rensis Likert's summated scaling technique was adopted. Forty-one statements were prepared from a search of literature and discussions with HRD

managers and academic experts. These statements were framed to test training and development, superior-subordinate relationship, job-satisfaction, motivation, communication and performance appraisal and to facilitate the purpose of preparing questionnaire to be administered.

A pre-test was conducted for which sixty respondents (BHEL employees) were asked to indicate their response to each statement, checking one of the following direction-intensifying descriptions using 5 point scale. The various responses are assigned scale values. In this study, 5, 4, 3, 2 and 1 scale values were used to measure HRD climate in BHEL. A rating of 5 indicates that the statement is **ALMOST ALWAYS TRUE**, a rating of 4 indicates that the statement is **MOSTLY TRUE**, a rating of 3 indicates that the statement is **SOMETIMES TRUE**, a rating of 2 indicates that the statement is **RARELY TRUE**, and a rating of 1 indicates that the statement is **NOT AT ALL TRUE**, about the HRD climate in BHEL.

A total score for each respondent from all the forty-one statements was calculated using the above scoring procedure. The scores of sixty respondents were arranged in a descending order. Item analysis technique was adopted to reduce the total set of forty-one statements to twenty-five statements. To perform an item analysis, the above sixty respondents were divided into two groups. The first group consisted of those respondents with the top 25% of the total scores (the first 15 respondents with the highest total score) and the second group consisted of respondents with the lowest 25% of the total scores (i.e.) the last 15 respondents with the lowest total scores. The above mentioned extreme groups were deemed to represent the most favourable and the least favourable attitude group towards HRD climate and were used as criterion groups by which individual statements were evaluated.

The mean score for each statement for favourable attitude group and unfavourable attitude group were computed. Those statements with mean differences at zero or nearest to zero are to be considered as poor statement and are to be eliminated. For the purpose of study, statements having a difference of less than 0.4 were deleted arbitrarily. Those statements that have difference of greater than 0.4 are the best and only those statements (25) are included for final study. The maximum score a respondent would get from all the 25 statements would be 125 and the minimum score 25, and average score is 75. To measure the level of HRD climate in BHEL, 325 Officers (executives and supervisors), were selected on non-random basis. To collect the required information, questionnaires were administered.

#### **Distribution of Officers by their level of HRD Climate**

The **Table-1** gives the distribution of the sample respondents (officers) by their level of HRD climate. The Table clearly indicates that out of 325 (officers) sample respondents, 76% of the respondents' attitude about HRD climate in BHEL was good/ excellent and 24% of the respondents' attitude was fair. The score of three-fourth of the total respondents exceeds the score of 75. The average score of 325 sample officers was 95.05.

#### **Relationship between independent variables and HRD climate in BHEL**

The identified variables which might influence the level of HRD climate are as follows: Age, Educational Qualification, Gross Salary per month (Rs.), Family Income per year (Rs.), Length of Service, Number of dependents, Cadre of employees and Department. Significance of the relationship of all the above eight variables with the opinion of officers about HRD climate has been analyzed by applying statistical techniques such as 'Chi-Square' test, 'Analysis of Variance' (F-test), "Z" test and

Factor Analysis. To examine the relationship against the opinion of officers about HRD climate, only the first six independent variables were considered.

### **Relationship between independent variables and HRD climate of officers**

The 325 sample respondents are officers. The relationship between independent variables (8) and HRD climate of officers is critically assessed in this study.

### **Age and level of HRD climate**

Age of an employee of BHEL as a correlate of period of his service is likely to influence the HRD climate. For analyzing the extent of the relationship between age and HRD climate, the age of the officers in BHEL was classified as follows: A: upto 40 years; B: 41-50 years; C: Above 50 years.

**Table-2** gives clear information regarding the independent variables and the level of HRD climate of BHEL officers. It is proposed to test the hypothesis that the officers' opinion/attitude about HRD climate in BHEL under different age groups does not differ significantly. Chi-square test was applied. The Table clearly indicates that in a sample of 325 officers, 55% of those belonging to old age group and 36% of those belonging to middle age group felt that the HRD climate in BHEL was excellent. The calculated value of chi-square (28.99) exceeds the table value of chi-square (5.991) for 4 degrees of freedom at 5% level of significance. Hence the hypothesis is not accepted.

### **Average HRD score of officers**

The average HRD score of the sample officers on the basis of their independent variables with "F" and "Z" is given in **Table-3**. The Table clearly indicates that the average score of the sample officers belonging to group C (102.33) is higher than the average score of group B (92.40) and group A (90.03). It is proposed to test the hypothesis that the average

score of the three groups of sample officers on the basis of their age is the same. "F" test was applied. The calculated value of "F" (12.79) exceeds the table value of "F" (4.60) for 2 & 322 degrees of freedom at 1% level of significance. Therefore the hypothesis is not accepted. There is a significant difference in the average score of the three age groups of officers.

### **Educational qualification and level of HRD climate**

Through education, a person develops his abilities and attitudes for his social life and they make him fit for employment opportunities. Hence it is decided to analyse the relationship between the qualification of the sample officers and their level of HRD perception in BHEL. Educational qualification of the sample officers is classified into three groups.

**Group A** : Engineering and professional courses like B.E., M.E., I.C.W.A., C.A., A.M.I.E., M.B.A., B.Tech., & M.Tech.

**Group B** : Diploma in Engineering.

**Group C** : Degree holders in Arts and Science, I.T.I. holders & Higher Secondary course, & S. S. L. C.

The calculated value of chi-square (35.83) exceeds the table value (9.488) for 4 degrees of freedom at 5% level of significance. Hence the hypothesis is not accepted. Thus it is concluded that there is an association between the educational qualification and the level of HRD climate. The calculated value of "F" (13.79) exceeds the table value of "F" (4.60) for 2 & 322 degrees of freedom at 1 % level of significance. Therefore the hypothesis is not accepted.

### **Gross Salary and Level of HRD Climate**

Salary is the compensation given by an organization to a person in return for a work done or a contribution made towards the accomplishment of organizational goals. Hence

it is decided to analyze the extent of gross salary of the sample officers in relation to their level of HRD perception in BHEL. The sample officers were classified under three categories: A: upto Rs.10,000 (per month); B:Rs.10,001-Rs.15,000 (per month); C: Above Rs.15,000 (per month). **Table-3** gives clear information regarding the gross salary per month of the sample officers and their attitude towards HRD climate. It is proposed to test the hypothesis that the officers' opinion/attitude about HRD climate under different gross salary groups does not differ significantly.

Chi-square test was applied. The calculated value of Chi-square (7.84) does not exceed the table value (9.488) for 4 degrees of freedom at 5% level of significance. Hence the hypothesis is accepted. Thus it is concluded that there is no association between the gross salary of officers and their perception of HRD climate. The calculated value of "F" (2.64) does not exceed the table value of "F" (4.60) for 2 & 322 degrees of freedom at 1% level of significance. Therefore the hypothesis is accepted. Thus there is no significant difference among the three categories of the sample officers with regard to average HRD score.

#### **Family Income and Level of HRD Climate**

Family income plays a very important role in the growth of the family. Hence it is decided to analyse the extent of the family income of the sample officers in relation to their level of HRD in BHEL. The sample officers were classified under three categories: A: upto Rs.1,50,000 (per year); B:Rs.1,50,001 Rs. 2,50,000 (per year); C: Above Rs.2,50,000 (per year). It is proposed to test the hypothesis that the officers' attitude towards the HRD climate under different family income groups does not differ significantly.

The calculated value of Chi-square (10.32) exceeds the table value (9.488) for 4 degrees of freedom at 5% level of significance. Therefore,

it is proved that there is an association between the family income and the HRD level. The calculated value of "F" (3.98) does not exceed the table value of "F" (4.60) for 2 & 322 degrees of freedom at 1% level of significance.

#### **Length of Service and Level of HRD Climate**

Experience makes a man learn more, develop and grow in his life. Hence it is decided to analyse the extent of the length of service of the sample officers in relation to their level of HRD. The sample officers were classified into three categories: A: upto 15 years; B:15-25 years; C: Above 25 years. **Table-3** gives clear information regarding the length of service of the sample officers and their level of HRD climate. It is proposed to test the hypothesis that the opinion/attitude about HRD climate of the three groups of the sample officers on the basis of their length of service is the same. The calculated value of Chi-square (39.65) exceeds the table value of Chi-square (9.488) for 4 degrees of freedom at 5% level of significance. Thus the hypothesis is not accepted. Therefore it is concluded that there is an association between the length of service of officers and their level of HRD climate in BHEL. The calculated value of "F" (12.82) exceeds the table value (4.60) for 2 & 322 degrees of freedom at 1% level of significance. Therefore the hypothesis is not accepted. Hence it is concluded that there is a significant difference among the three categories of sample officers with regard to HRD score.

#### **Number of Dependents and Level of HRD Climate**

According to Oxford English Dictionary, a dependent is a person who depends on another for support. He is financially and legally bound to another person through relationship or employment. Hence it is decided to analyse the extent of number of dependents of the sample officers in relation to their level of HRD climate.

The sample officers were classified under two categories: A: Number of dependents - below 3; B: Number of dependents - 3 and above. It is proposed to test the hypothesis that the officers' opinion about HRD climate under different dependent groups does not differ significantly. Chi-square test was applied. The Chi-square test reveals that there is no association between the number of dependents and the level of HRD climate in BHEL. It clearly indicates that the calculated value of "Z" (0.538) does not exceed the critical value of "Z" (1.96) at 5 % level of significance. Hence the average HRD score of two groups of officers is the same.

### Findings and Conclusion

It is found that 24% of officers felt that the HRD system presently practised in BHEL is fair, 35% of the sample respondents felt it to be good and 41% of the respondents felt it to be excellent. Hence it is suggested that the management is expected to develop HRD programmes and administer them to officers in the age group of below 40 years. BHEL Tiruchirapalli is the proud winner of successive productivity awards and the "Sword of Honour" from the British Safety Council. BHEL Tiruchy has won goodwill and sustained support for its employees' welfare schemes. BHEL- HRD department has also been awarded the President's Trophy four times as the best training established in the country. The HRD centre is well equipped and the facilities are being continuously updated to dovetail with the latest technology. The HRD policies of BHEL are formulated centrally by the corporate office at New Delhi and incorporated in the Company's Personnel Manual, which is updated from time to time. The group activity and participative style of management have earned BHEL, Tiruchirapalli, State National Awards for good industrial relations. It is concluded from the various objectives of the study that the Human Resources Development in BHEL is excellent.

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**Table- 1**  
**Distribution of officers by their level of HRD climate**

HRD climate	Number of Sample respondents	Percentage
Fair	78	24
Good	114	35
Excellent	133	41
Total	325	100

**Table-2**  
**Distribution of officers on the level of HRD Climate : Chi-square Test**

Age group	HRD climate			Total
	Fair	Good	Excellent	
A (Young)	30 (44%)	18 (26%)	20 (30%)	68(100%)
B (Middle)	36 (23%)	62 (40%)	56 (36%)	154(100%)
C (Old)	12 (12%)	34 (33%)	57 (55%)	103(100%)
Total	78 (24%)	114 (35%)	133(41%)	325(100%)

Chi-square Value: 28.99.

Educational Qualification	HRD climate			Total
	Fair	Good	Excellent	
A	24 (49%)	14 (29%)	11 (22%)	49 (100%)
B	42 (26%)	65 (39%)	58 (35%)	165 (100%)
C	12 (11%)	35 (31%)	64 (58%)	111 (100%)
Total	78 (24%)	114 (35%)	133 (41%)	325 (100%)

Chi-square value: 35.83.

Gross Salary	HRD climate			Total
	Fair	Good	Excellent	
A	36 (21%)	62 (36%)	75 (43%)	173 (100%)
B	19 (21%)	34 (37%)	38 (42%)	91 (100%)
C	23 (38%)	18 (29%)	20 (33%)	61 (100%)
Total	78 (24%)	114 (35%)	133 (41%)	325 (100%)

Chi-square value: 7.84.

Family Income	HRD climate			Total
	Fair	Good	Excellent	
A	26 (29%)	30 (33%)	34 (38%)	90 (100%)
B	42 (26%)	61 (38%)	58 (36%)	161 (100%)
C	10 (13%)	23 (31%)	41 (55%)	74 (100%)
Total	78 (24%)	114 (35%)	133 (41%)	325 (100%)

Chi-square: 10.32.

Length of Service	HRD climate			Total
	Fair	Good	Excellent	
A	28 (52%)	16 (30%)	10 (18%)	54 (100%)
B	40 (24%)	60 (37%)	64 (39%)	164 (100%)
C	10 (9%)	38 (36%)	59 (55%)	107 (100%)
Total	78 (24%)	114 (35%)	133 (41%)	325 (100%)

Chi-square: 39.65.

Number of dependents	HRD climate			Total
	Fair	Good	Excellent	
A	35 (25%)	50 (36%)	54 (39%)	139 (100%)
B	43 (23%)	64 (34%)	79 (43%)	186 (100%)
Total	78 (24%)	114 (35%)	133 (41%)	325 (100%)

Chi-square value: 0.45.

**Table- 3**  
Average HRD score of officers and tests: “F”/ “Z”

Age group	Average score	Sample size	F Test
A	90.03	68	12.79
B	92.40	154	
C	102.33	103	
Total	95.05	325	
Edu. Qualifn	Average score	Sample size	13.79
A	86.39	49	
B	93.27	165	
C	101.52	111	
Total	95.05	325	
Gross Salary	Average Score	Sample size	2.64
A	97.02	173	
B	94.10	91	
C	90.89	61	
Total	95.05	325	
Family Income	Average Score	Sample size	3.98
A	94.70		
B	92.89	161	
C	100.18	74	
Total	95.05	325	
Length of service	Average score	Sample size	12.82
A	84.89	54	
B	95.12	164	
C	100.07	107	
Total	95.05	325	
Number of Dependents	Average score	Sample size	“ Z “ Test
A	95.69	139	0.538
B	94.57	186	
Total	95.05	325	