Perception of Executive Employees and Non-Executive Employees towards HRD Practices in Salem Steel Plant: A Comparative Analysis

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Abstract

This Article entitled, "**Perception of executive employees and non executive employees towards HRD practices at Salem Steel Plant (SSP): A Comparative Analysis**" depicts with general introduction on HRD and the importance of HRD towards industries. The present study is a micro level study confined to Salem Steel Plant only. The study of HRD practices in Salem Steel Plant can be attempted from various dimensions. The present study makes an attempt to examine the HRD aspects in terms of selected dimensions. Further, an in-depth analysis is confined to all categorical employees except top level authorities. This study aims at finding out the executive and non-executive employees' perception towards human resources development activities / practices of study the unit. The scope of the study elicits the views of the employees on HRD subsystems and measures in the study unit. The awareness of HRD practice among employees is in absence. The employee's satisfaction on HRD practices is differed from employee to employee. The employee's expectations also differ from industry to industry. The researcher would like to study the perception of HRD practices steel industry with special reference to the select (Salem Steel Plant) steel plant of SAIL. The study has identified that, the employees have close association with the HRD measures provided by the management of the plant. The HRD practice in large organization is quite difficult in the competitive world. Hence, the management may provide suitable HRD measures to their workforce development as well as organization development.

Key words: HRD, Employees, Training and development

Introduction

There are two prominent resources of production viz. material and human. The material resources are inert, where as the human resources are art. Human resource development (HRD) is a strategic approach of investing in human capital. It draws on other human resource. Processes including renouncing and performance assessment to identify actual and potential talent. HRD is the process of increasing the capacity of human resources through development. It includes development of people, organization development, training programmes and progression to meet the organizations future skill requirement. After LPG policy implementation, the industries are forced to upgrade their production technology and modernize their industry. This emphasizes the necessity of HRD, identifying the nature of human relations and problems of human behaviour in the paper industry and find suitable measures to develop the human resource in an effective manner. Hence, an in-depth study on various aspects of HRD like HR policy, recruitment, training and development, motivation, performance appraisal, promotion, industrial relations, safety measures and welfare facilities can throw light on HRD mechanism which may help in improving the overall performance of public sectors. Keeping this in view, a sincere attempt is made to study the various dimensions of HRD practiced in a public sector namely, Steel Authority of India (SAIL) with special reference to Salem Steel Plant.

Objective of the Study

1. To compare the perceptions of executives and non-executives employees with regard to HRD practices of SAIL Salem Steel Plant.

Sample

Out of total 1352 employees of the study unit, the sample size was limited to 300 employees (About 30 per cent of the study unit) due to cost and time constraint restriction of data collection

Comparative analysis

The opinion of Executive and non Executive regarding the HR practices in SAIL and its significant difference is analyzed in terms of HR Planning, Recruitment and selection, Training &Career development, Communication, Workers participation, Performance Appraisal system and also Overall HRD.

Area wise distribution of mean, Standard Deviation and mean percentage of Executive group shows that among six areas, the highest mean score (3.45 ± 0.96) which is 69 % is obtained for the area "Workers participation" whereas, the lowest mean score (3.21 ± 1.03) which is 64.20 % was obtained for 'Performance Appraisal system'. The mean score on 'HR Planning' was (3.25 ± 1.05) which is 65%, 'Recruitment and selection' was (3.38 ± 0.78) which is 67.6 %, 'Training &Career development' (3.37 ± 1.01) which is 67.4 %. The mean score on 'Communication' was (3.37 ± 0.98) which is 67.4 %. Further over all mean score was (3.11 ± 0.59), which is 62.2 % of total score.

Table 5.8.1 Comparative Mean scores regarding HR practice

	Group	N	Mean	SD	Mean %	t	p
HR Planning	Non Executive	227	3.27	0.80	65.4	0.19	0.850
	Executive	73	3.25	1.05	65.0		
Recruitment and selection	Non Executive	227	3.48	0.77	69.6	0.89	0.376
	Executive	73	3.38	0.78	67.6		
Training &Career development	Non Executive	227	2.99	0.99	59.8	2.87	0.004**
	Executive	73	3.37	1.01	67.4		
Communication	Non Executive	227	3.05	1.17	61.0	2.13	0.034*
	Executive	73	3.37	0.98	67.4		
Workers participation	Non Executive	227	3.19	1.09	63.8	1.81	0.071
	Executive	73	3.45	0.96	69.0		
Performance Appraisal system	Non Executive	227	3.23	1.01	64.6	0.15	0.878
	Executive	73	3.21	1.03	64.2		
Overall HRD	Non Executive	227	3.11	0.59	62.2	2.57	0.011*
	Executive	73	3.33	0.73	66.6		

Similarly the Area wise distribution of mean, Standard Deviation and mean percentage of Non Executive group shows that among six areas, the highest mean score (3.48 ± 0.77) which is 69.6 % is obtained for the area "Recruitment and selection" whereas, the lowest mean score (2.99 ± 0.99) which is 59.8 % was obtained for 'Training &Career development'. The mean score on 'HR Planning' was (3.27 ± 0.8) which is 65.4%. The mean score on 'Communication' was (3.05 ± 1.17) which is 61 % and mean score on 'Workers participation' was (3.19 ± 1.09) which is 63.8 %. The mean score on 'Performance Appraisal system' was (3.23 ± 1.01) which is 64.6 % Further over all mean score was (3.11 ± 0.59), which is 62.2 % of total score.

Further the independent t test is used to find whether the difference between the executive and non executive score is significant or not. From the table the analysis shows that the p value for the dimensions Training &Career development, Communication and overall score is less than 0.05. Since the p value is less than 0.05 the difference is significant. Hence significant difference regarding the opinion about Training &Career development, Communication and overall HR practice is found among executive and non executives.

Discriminant Function Analysis

How does Executive differ from Non Executive regarding the factors influencing HR Practices? Do opinion about factors of HR Planning, Recruitment and selection, Training & Career development, Communication, Workers participation and "Performance Appraisal system" differ among these two groups? In general, what are all the variables which significantly discriminate the respondents of one group (Executive) from other group (Non Executive). Discriminant Function Analysis answers these questions in 3 stages namely: 1. Construction of Discriminant Function, 2.Classification and 3.Interpretation.

I. Construction of Discriminant Function:

Discriminant Function Analysis attempts to construct a function with these and other variables so that the respondents belonging to either of these two groups are differentiated at the maximum. The linear combination of the variables is known as Discriminant Function and its parameters are called Discriminant Function coefficients.

A typical Discriminant Function will be of the form,

$$Z = a_0 + a_1X_1 + a_2X_2 + ... + a_nX_n$$

Where, a_0 - constant and $a_1, a_2, ...a_n$ - Discriminant Function coefficients of the independent variables $X_1, X_2, ...X_n$ respectively.

Variable Selection Method:

In constructing the function all variables which contribute to differentiate these two groups maximally are examined. Among the several methods available for selection of variables, 'Mahalanobis Minimum D Squared' method was employed for this study. The Mahalanobis procedure is based on the generalized squared Euclidean distance that adjusts for unequal variances in the variables. The major advantage of this procedure is that it is computed in the original space of the predictor (independent) variables rather than as a collapsed version which is used in other methods. In general 'Mahalanobis Minimum D Squared' is the preferred procedure since the researcher is interested in the maximum use of available information.

Table 1 Group Statistics

	Non Executive		Executive		Total	
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**
HR Planning	3.27	0.80	3.25	1.05	3.26	0.87
Recruitment and selection	3.48	0.77	3.38	0.78	3.45	0.77
Training &Career development	2.99	0.99	3.37	1.01	3.08	1.01
Communication	3.05	1.17	3.37	0.98	3.12	1.14
Workers participation	3.19	1.09	3.45	0.96	3.26	1.06
Performance Appraisal system	3.23	1.01	3.21	1.03	3.22	1.02

Now let us begin the first stage of Discriminant Function Analysis by examining Table 1. This table shows the group means and standard deviations for each of the independent variables identified for analysis based on the sample size of 300.

A glance at the mean scores reveals that Executive scores high on all factors except Training &Career development than Non Executive scores.

Table 2 Tests of Equality of Group Means

	Wilks' Lambda	**F**	**df1**	**df2**	**Sig.**
HR Planning	1.00	0.04	1	298	0.850
Recruitment and selection	1.00	0.78	1	298	0.376
Training &Career development	0.97	8.21	1	298	0.004**
Communication	0.98	4.56	1	298	0.034*
Workers participation	0.99	3.29	1	298	0.071
Performance Appraisal system	1.00	0.02	1	298	0.878

Table 2 shows the One-way ANOVA used to assess the significance between the means of the two groups, for each of the independent variables. It is seen from the table that 2 variables (factors) contribute significantly in differentiating between Executive and Non Executive.

Canonical Discriminant Function:

Table 3 provides the multivariate aspect of the model given under the heading 'Canonical Discriminant Function'. Note that Discriminant Function is significant at 5% level and displays a correlation of 0.231 and the Wilk's Lambda and its chi-square value explains that the model is significant in discriminating between two organization types at 1% level.

Table 3 Canonical Discriminant Function

Canonical Correlation	Wilks' Lambda	Chi-square	df	Sig.
0.231	0.94	16.47	6	0.014*

Discriminant Function Coefficients:

Table 4 gives the coefficients of the discriminating variables finally derived for the Discriminant Function.

Table 4 Canonical Discriminant Function Coefficients

	Function
HR Planning	-0.098
Recruitment and selection	-0.331
Training &Career development	0.717
Communication	0.372
Workers participation	0.447
Performance Appraisal system	-0.241
(Constant)	-2.584

The Discriminant Function (Z) for the problem under study can be written as,

$$Z = -2.58 - 0.098X_1 - 0.33X_2 + 0.717X_3 + 0.372X_4 + 0.447X_5 - 0.24X_6$$

Where,

X_1 - HR Planning

X_2 - Recruitment and selection

X_3 - Training &Career development

X_4 - Communication

X_5 - Workers participation

X_6 - Performance Appraisal system

II. Classification:

Once the Discriminant Function is arrived at, then the efficiency of the function as to, how accurately it predicts the respondents in to the respective groups must be assessed. For this a classification matrix is to be developed using 'original' and 'predicted' group membership of the respondents.

Before a Classification Matrix can be considered, several things must be decided beforehand. First, the group Centroids (means), second cutting score and third a prior probabilities of each group.

Group Centroids:

Using the Discriminant Function given in (A) the Discriminant score for each respondent is calculated by substituting the values for discriminating variables from the study data. Then mean scores for Executive (Z_0) and Non Executive (Z_1) are calculated, which are called Group Centroids. The results of these Group Centroids are given in Table 5.

Cutting Score:

Using the sample sizes and Centroids for these two groups Cutting Score is calculated as follows:

$$Z_c = \frac{N_0 \times Z_0 + N_1 \times Z_1}{N_0 + N_1}$$

Where,

Z_c = Cutting Score

Z_0 = Centroids for Executive

Z_1= Centroids for Non Executive

N_0 = Sample size of Executive

N_1 = Sample size of Non Executive

Table 5 canonical Discriminant functions evaluated at group means

Functions at Group Centroids	
Non Executive	-0.134
Executive	0.415

Hence substituting the respective values the cutting score is

$$Z = [227*(-0.134) + 73*(0.42)]/(227 + 73)$$

Against this Cutting Score each respondent's discriminant score is examined. If his score is less than Z_c value, then he is classified in Executive group, otherwise in Non Executive group.

Prior Probabilities:

A prior probabilities are calculated for each group based on the proportionate size of the sample in the respective groups and the results are given in table 6.

Table 6 Prior Probabilities for Groups

Organization type	Prior	Cases Used in Analysis
Executive	0.757	227
Non Executive	0.243	73
Total	1.000	300

Using these prior probabilities, Centroids and cutting score the Classification Matrix is formed. Table 7 is the Classification Matrix giving how many of the respondents were correctly classified into the respective groups and the overall correct classification percentage.

Thus it is seen that the Discriminant Function has predicted 68.49 % of the cases correctly in the Executive group and 99 % of the cases in the Non Executive group and on the whole classified 92 % of the cases correctly.

Table 7 Classification Results

		Organisation Type	Predicted Group Membership		Total
			Executive	Non Executive	
Original	Count	Non Executive	226	1	227
		Executive	23	50	73
	%	Non Executive	99.56	0.44	100.0
		Executive	31.51	68.49	100.0

92 % of original grouped cases correctly classified.

III. Interpretation:

Once the Discriminant Function and its classification efficiency are assessed, then the next question remains to be answered is: how efficient are the discriminating variables in the Discriminant Function? This cannot be answered directly. However, the discriminating power or the contribution of each variable to the function can sufficiently answer the question.

Table 8 Structure Matrix

	R	R^2
Training &Career development	0.702	0.493
Communication	0.523	0.274
Workers participation	0.444	0.197
Recruitment and selection	-0.217	0.047
HR Planning	-0.047	0.002
Performance Appraisal system	-0.038	0.001

Table 8 gives the structural correlations which measure the simple linear correlations between each independent variable and the Discriminant Function. The R^2 % gives the percent contribution of each variable to Discriminant Function.

Conclusion

It is concluded through the above analysis that nearly 49.3 % of the variation in the Discriminant Function is due to Training &Career development, which contributes maximally, in discriminating between Executive and Non Executive. Next comes, Communication which contributes about 27.4 % in discriminating between the two group followed by Workers participation HR Planning, Recruitment and selection & Performance Appraisal system.

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