

Decision Tress Analysis on Employee Job Satisfaction and HRD Climate: the Role of Demographics

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ABSTRACT

Owing to the advancement in science and technology, business firms are facing lot of challenges in all dimensions, including human resource management. Hence, the concept of human resource development has got lot of prominence and to be regarded as human resource oriented rather technology oriented. Investment towards enriching the skills of human resources will give maximum benefits to the individuals as well as to the organisations. Due to rapid changes, it a dire need on the part of organisations for enriching the skills of their manpower from unskilled to semi skilled and semi skilled to skilled. Through this, it is a convention in the human resource department to create a culture of updating the people on continuous basis to grow them vertically as well as horizontally, so that the organization will also grow in the same direction. HRD plays a major role towards collective change and bringing effectiveness among the employees of the organisations of these days. The present study is an attempt towards identifying significant component of HRD Climate, viz., General Climate, HRD Mechanism and OCTAPACE Culture shows a significant impact on Employee Job Satisfaction. It is a survey based empirical study has conducted methodologically and findings of the study have shown a significant association between demographics and job satisfaction related to human resource development climate. And opportunity to junior level employees with the cooperation of senior managers and the transparency in organization, future plan are greatly associated with job satisfaction of the employees driven by good HRD climate.

Keywords: Decision tree analysis, HRD Climate, Job Satisfaction, OCTAPACE Culture.

INTRODUCTION:

An organization's success is determined by the competencies and motivation of the employees. Sincere and capable employees are the assets of any organization. Individuals can be helped to give their full contribution according to their potentials if the organizations provide the right type of Human Resources Climate. HRD Climate is characterized by the tendencies such as treating employees as the most important resources, pursuing that developing employees is the job of every manager, believing in the capability of employees, communicating openly, encouraging risk taking and experimentation, making efforts to help employees to recognize their strengths and weaknesses, creating a general climate of trust, collaboration and autonomy,

supportive personnel policies, and supportive HRD practices.

An optimal level of HRD Climate is essential for the organisations to facilitate HRD activities (Rao, T.V. and E. Abraham, 1986). Hence, top management support towards building HRD climate should be the starting point for the success of any organisation. When large proportion of employees of an organisation intends to practice it, no doubt, a conducive HRD climate will emerge. This proactive HRD Climate leads to strengthen the existing systems and makes the organizations to introduce many new and relevant system for better HRD Culture and inturn Job Satisfaction of the employees (Athreya, M. B, 1988). A healthy HRD Climate certainly bolsters the overall internal environment of the organization, fosters employee commitment, enriches the employee involvement and their job satisfaction.

REVIEW OF LITERATURE:

Srimannarayana, M. (2009) has conducted a study on the Indian manufacturing sector and found that OCTAPACE Culture has been prevalent in the organization which is better than General Climate and HRD Mechanism. Prakash R. Pillai (2008), said that poor learning initiatives by individuals in the banks have reflected on their negative attitude and poor service to the customers. To avoid this kind of situation, employees should ready with open mind to learn new things, which inturn supports for favorable HRD Climate in the banking sector. Srinivas Lakkoju (2014) has made an attempt to find out the current HRD Climate in managerial and non-managerial employees in public and private sector banks, viz,m State Bank of India and Karur Vysya Bank and concluded that non-managerial employees in SBI are not happy about several parameters of HRD Climate. However, it is noticed that a good HRD Climate is practicing by KVB. It clearly says that the existing circumstances in the public sector banks are unfavorable to the development of human resources. Shweta Mittal and B. L. Verma (2013), have measured the HRD climate in SBI and the top management support for HRD subsystems and HRD Climate. The results of the study says that OCTAPACE Culture has significant association with qualification of the respondents. Mufeed Ahmad Ajaz Akbar Mir, S. (2012), has conducted a study on the role of the universities to develop human resources and to also disseminate the knowledge to the students. The study says that the perception of the employees regarding HRD Mechanism at the Universities is higher. Kunal K. Majee (2006), says that HRD Climate is unavoidable for organizations to meet the challenges and to cope with competitors.and found that HRD Climate is moderately good and, hence, there is a need for improvement in some areas like, appreciation from officers for their good work, open mind attitude and personnel policies.Akinyemi Benjamin (2012), has confirmed that HR practices are strongly associated with OCB; the key finding of the study says that there is a positive relation between turnover intention and HRD Climate. Manjula. M.R. and Latha, K. (2018) have said that employee performance depends on their satisfaction and will in turn influences the HRD Climate. Sayeed Uzzafar Qazi and Tejbir Kaur (2017) have highlighted through their Empirical study that private university faculty members have greater job satisfaction when compared to the faculty members of government universities. Shruti and Others (2018) have said that strong HR practices will lead to more satisfaction in the textile industry. Hendri Sembiring and Kiki Farida Ferine (2018) have mentioned in their study that there is a positive influence of job satisfaction of employee's on their day-to-day performance. Renjith, P.R. and Devaraj Badugu (2017) have said that there is a positive correlation between job satisfaction and employee engagement. Reddy, MRSS. and Others. (2019) have examined the impact of General Climate, HRD Mechanism and OCTAPACE Culture on employee Job Satisfaction. The results of the study show that when compared to General Climate and HRD Mechanism, OCTAPACE (Openness, Confrontation, Trust, Authenticity, Proactive, Collaborative and Experimentation) Culture has more impact on employee job satisfaction. Reddy, MRS. and Others. (2019) have also examined the mediating role of HRD Mechanism between OCTAPACE Culture and Job Satisfaction. The empirical analysis show that there is significant size of effect of OCTAPACE Culture on Job Satisfaction due to the intervention of HRD Mechanism between them. In the absence of HRD Mechanism intervention, effect of OCTAPACE Culture on Job Satisfaction is insignificant.

STATEMENT OF THE PROBLEM:

Owing to fast changes, there is a dire need on the part of manufacturing organisations to enrich the skills of their manpower to meet the global standards. It is a convention on the part of human resources department to create a culture of updating the people on continuous basis to grow them vertically as well as horizontally, so that the organization will also grow in the same direction. HRD plays a major role towards collective change and bringing effectiveness among the employees of the organisations of these days. Several earlier studies are saying that there is an influence of HRD Climate on Job Satisfaction in education sector, banking sector. But, no

study has been conducted so far on manufacturing sector, particularly, in cement industry. The present study is a modest attempt towards identifying significant component of HRD Climate, viz., General Climate, HRD Mechanism and OCTAPACE Culture shows a significant impact on Employee Job Satisfaction.

OBJECTIVES:

1. To examine the role demographics towards the relationship between HRD Climate and Job Satisfaction.
2. To build and analysis of decision tree based on the CHAID method between Job Satisfaction and HRD Climate factors

HYPOTHESES:

H₀₁: There is no significant association between demographics and Job Satisfaction with respect to HRD Climate.
H₀₂: There is no significant association between Job Satisfaction and OCTAPACE Culture.

RESEARCH METHODOLOGY:

Research Design:

Keeping in view of the objectives of the study, an exploratory research design has been adopted, because, it lays particular emphasis on the problems that have not been studied clearly. Causal analysis has also been carried out to investigate the cause-and-effect relationship among the variables chosen for the study.

Sources of Data:

The data required for the present study have been collected from the sample respondent employees working in Cement Manufacturing firms located in the Rayalaseema Region of Andhra Pradesh.

Sample Frame:

The sample size of the present study has been identified by following the standard sample size table propounded by Krejcie & Morgan (1970). For the given population size above 2,000 (around 2,500), at 95% confidence limit, and at a 5 % margin of error the sample size is 333. To make the sample more representative of the population, a quota has been fixed for each cadre (stratum) of employees. Further, the sample respondents from each cadre have been selected by using convenient sampling.

Instrument used for Data Collection:

After an extensive literature review, identifying the dimensions and underlying items, a questionnaire with Likert 5 point scale has prepared and administered among the sample respondents. For the sake of convenience, the questionnaire is divided into three sub-parts, viz., HRD mechanism, Job Satisfaction, and OCTAPACE culture. For collecting the primary data from the sample respondents, the personal interview method was followed and the secondary data required for the study has compiled from the research studies published in journals and unpublished thesis.

Tools for Data Analysis:

For logical and meaningful analysis of the data collected for the study, based on the hypothesis formulated, Chi-Squared Automatic Interaction Detection (CHAID) based decision analysis has been carried out using the SPSS 21.0 version software.

DATA ANALYSIS AND INTERPRETATION:

Demographics of the Respondents:

The respondents' perception regarding HRD Climate, HRD mechanisms, OCTAPACE culture and their influence on Job Satisfaction may vary according to demographic factors, viz., gender, age, educational qualifications, their monthly income, etc. Therefore, preceding to the analysis of data, it is essential to figure out the profile of the respondents.

Table No 1: Demographics of Respondents

Sl.No	Demographic Variable	Category	No of Respondents (Per centage)
1	Gender	Male	320 (96.09%)
		Female	13 (3.91%)
2	Age	21-30 years	84(25.2 %)
		31-40 years	132(39.6 %)
		41-50 years	91 (27.3%)
		51-60 years	26 (7.8 %)

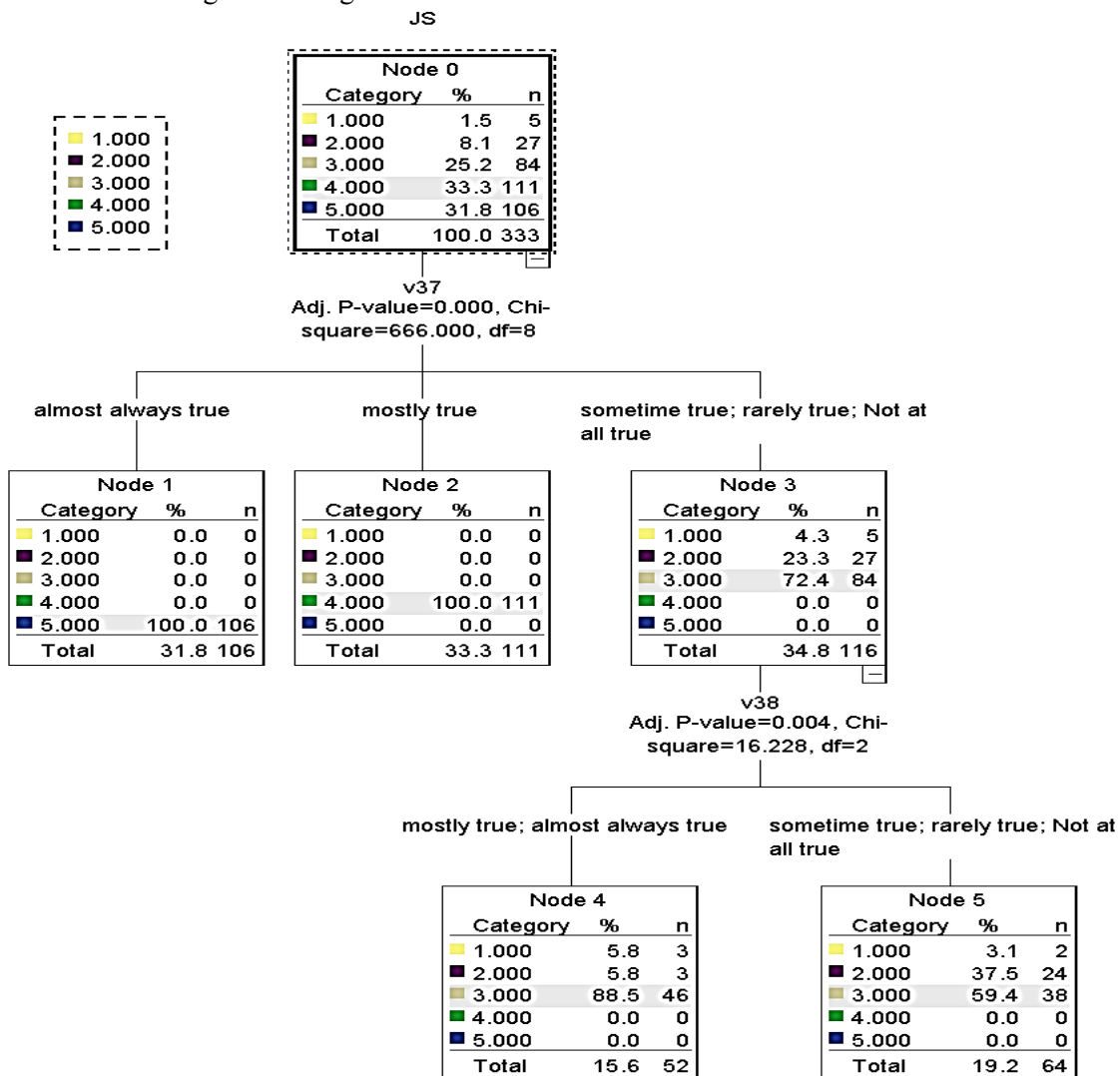
Sl.No	Demographic Variable	Category	No of Respondents (Per centage)
3	Education	Inter	30 (9.0%)
		Graduation	183(55.0%)
		Post Graduation	107(32.1%)
		PG above	13(3.9%)
4	Experience	00-05 years	94(28.3%)
		05-10 years	102(30.6%)
		10-15 years	88(26.4%)
		Above 15 years	49(14.7%)

Source: Primary Data

Out of 333 respondents chosen conveniently for the study, 96.09 per cent were male and the remaining 3.91 per cent were females. 84 per cent of the total 333 respondents belonged to the age group of 21-30 years, 132 per cent belonged to 31-40 years and 91 per cent belonged to 41-50 years of age. 26 per cent of the respondents are under the age of 51-60 years. Undergraduates are 9.0 % and 55.0 % are the graduates and 32.1 % respondents are post graduation and rest of 3.9 % of the respondents are PG above. Coming to the experience of the respondents are 28.3 % belongs to 0-5 experience and 5-10 years experience respondents are 30.6 % and 26.4 % belongs to 10-15 years ABD 14.07 % are above 15 years of experience and all other respondents are participated actively in survey and shown keen interest by giving responses to the questionnaire.

Decision Tree on Job Satisfaction and OCTAPACE Culture:

The decision tree analysis has conducted through Chi-Squared Automatic Interaction Detection (CHAID) method in order to find the most associated factors of HRD Climate with Job Satisfaction. The results obtained are shown in the following below diagram as well as in table.



It is observed from the above decision tree diagram that variable 37 (V₃₇) is significantly associated as this variable projects the test results of Chi-Squared Automatic Interaction Detection that the observed value of Chi-Square is 666.00 for the given degrees of freedom 8 and the probability value (significance) 0.000, which is less than 0.05(p≤0.05). Further, this opportunity variable again significantly associated with transparency in organizational future plan (V₃₈) as its observed value of Chi Square is 16.228 for 2 degrees of freedom and the probability value is 0.004 which is less than 0.05 (p≤0.05).

Table No 2: Node Classification

Observed	Predicted					Per cent Correct
	1.00	2.00	3.00	4.00	5.00	
1.00	0	0	5	0	0	0.0%
2.00	0	0	27	0	0	0.0%
3.00	0	0	84	0	0	100.0%
4.00	0	0	0	111	0	100.0%
5.00	0	0	0	0	106	100.0%
Overall Per centage	0.0%	0.0%	34.8%	33.3%	31.8%	90.4%

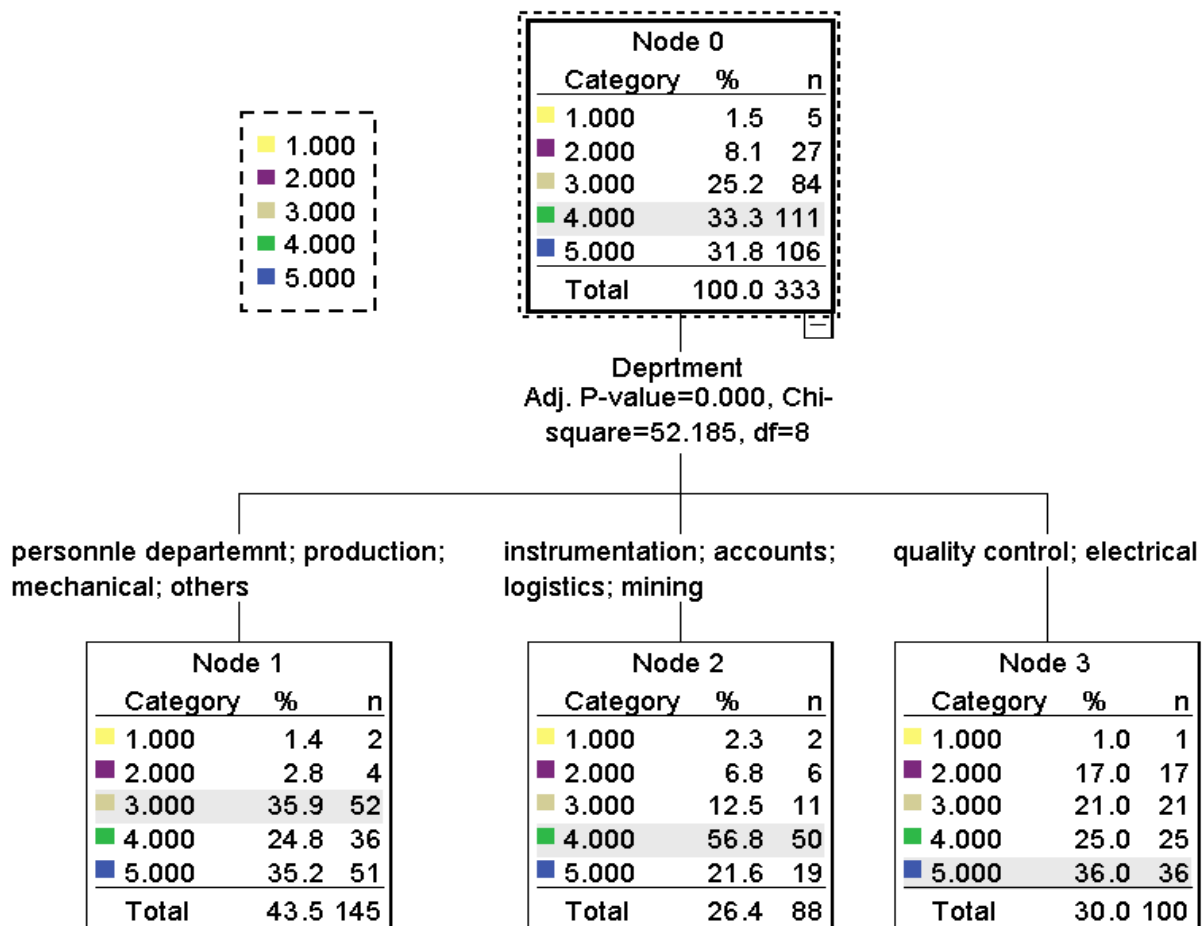
Source: Researchers calculation using SPSS 21.

The above table says that the perfectness in node classification in the decision tree. 90.4 per cent of fitment of accuracy is achieved in node representation and thus nodes are consisting each category of level of agreement such as 106 respondents whose predicted per cent is 31.8, which is less than 84 respondents whose predicted per cent is 34.8.

Decision Tree on Job Satisfaction and Demographics:

The decision tree analysis was conducted through Chi-Squared Automatic Interaction Detection (CHAID) method in order to find out the most associated demographic variable with Job Satisfaction. The results obtained are shown in the following below diagram as well as in table.

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It is observed from the above decision tree diagram that the respondent department of working is significantly associated as this variable projects the test results of Chi-Squared Automatic Interaction Detection that the observed value of Chi-Square is 52.185 for the given degrees of freedom 8 and the probability value (significance) 0.000, which is less than 0.05($p \leq 0.05$).

Table No 3: Node Classification

Observed	Predicted					Per cent Correct
	1.00	2.00	3.00	4.00	5.00	
1.00	0	0	2	2	1	0.0%
2.00	0	0	4	6	17	0.0%
3.00	0	0	52	11	21	61.9%
4.00	0	0	36	50	25	45.0%
5.00	0	0	51	19	36	34.0%
Overall Per centage	0.0%	0.0%	43.5%	26.4%	30.0%	41.4%

Source: Researchers calculation using SPSS 21.

The above table says that the perfectness in node classification in the decision tree. 41.4 per cent of fitment of accuracy is achieved in node representation and thus nodes are consisting each category of level of agreement such as 36 respondents whose predicted per cent is 43.5, which is higher than 11 respondents whose predicted per cent is 34.8.

DISCUSSIONS AND SUGGESTIONS:

The analysis shown in the above section says that there is significant association between demographics and job satisfaction related to HRD Climate. At the same time, opportunity to junior level employees with the cooperation of senior managers and the transparency in organizational planning for future are greatly associated with job satisfaction of the employees driven by good HRD Climate. As two hypotheses are accepted at 5 per cent level of significance, the decision regarding the departments in which an employee should work has a significant association with job satisfaction concerning to HRD climate. Similarly, career opportunities given to the junior employees has a significant effect on their job satisfaction and it further unifies the organizational future plans with the managerial staff and help them to develop juniors and prepare them for the future. As there is significant effect of department where employees work on their job satisfaction, it is suggested that the firms should implement the effective human resource development strategies according to the department level needs. It is also suggested to the cement firms that they should practice OCTAPACE Culture in effectively, which in turn leads to better HRD Climate and Job satisfaction of the employees.

LIMITATIONS AND SCOPE FOR FURTHER RESEARCH:

Though the present study is empirical in nature, but no parametric analytical tools are applied, which is a limitation because normality issue and measurement of data validity has not been taken care. Although, the decision tree was used to find the most influenced variable of HRD Climate, it has a limit of rationality of significant association due to the method of Chi-squared Automatic Interaction Detection. The findings of the study are generalized only for manufacturing companies. The underlying key human resource development climate factors taken in the present study are General Climate, HRD Mechanism and OCTAPACE Culture and their impact on Job Satisfaction has been studied. The scope of the present study is limited to the cement manufacturing firms located in Ralayalaseema region of Andhra Pradesh. Future research may be undertaken on different aspects of general climate or organization human resource general climate issues and their impact on employee job satisfaction, because, general climate itself is a broad area where one can come up with new insights as new research problem.

CONCLUSION:

With the support of existing literature on HRD Climate and employee Job Satisfaction, the present study tried to explore the underlying relationship between these operational variables. Since the HRD Climate in terms of General Climate, HRD Mechanism and OCTAPACE Culture is a potential strategy for employee Job Satisfaction, it may be doubtful of which variable could show a greater impact on employee job satisfaction. The

conclusion of the present study is confirming that to the extent possible of career opportunities given to the junior employees has a significant effect on the level of job satisfaction and further it unites the organization's future plans are made known to the managerial staff to help them develop juniors and prepare them for the future.

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