

**AN ANALYTICAL STUDY ON THE ROLE OF DIVERSITY AND INCLUSION TOWARDS
EMPLOYEE ENGAGEMENT IN ENGINEERING SECTOR, CHENNAI CITY CORPORATION**

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Abstract

“Employee engagement” expresses the emotional and professional association of employees towards their organization or workplace. The more employee engagement is at limelight the more the facets of HRM gets expanded. In the recent era an added value to employee engagement is DEI- Diversity, equality and inclusion. The centre of interest of this research work is to demonstrate that diversity and inclusion in the field of HR have a greater impact towards employee engagement. A quantitative descriptive, non-probability sampling research design was incorporated for the purpose of obtaining information. This was undertaken using primary and secondary data. 150 individual employees from engineering industry belonging to private sector were surveyed for the purpose of data analysis and interpretation. Demographic aspect such as age, experience, education, designation and the like were considered which were notable dimensions of “Diversity”. A questionnaire with Likert five point scale was designed and distributed to proceed with the survey. SPSS (Statistical Package for Social Science) version 20.0 was used to probe into conclusion. The statistical tools in particular mean, standard deviation were used. Inter Correlation Analysis, Hypothesis Test Summary, Chi Square Test, Multivariate Analysis, Linear Modeling Radial Basis Function were also employed to grasp the findings of the study. The study revealed that there exist a chief union between the diversity and inclusion towards employee engagement. The study concluded that when the employees realize that they are valued and heard their productivity amplifies augmenting their engagement level.

Keywords: [Employee engagement and retention, morale, motivation, job satisfaction, job enrichment, performance management, diversity, equality and inclusion]

INTRODUCTION

The notion of employee engagement dates back to 1990s. The emphasis those days were towards making all possible ways to engage employee in such a way that their individual productivity leads to organizational growth. The efforts taken by the human resource department was to engage employees emotionally and physically by associating individual goals with organizational goals. Eventually, it drifted to employee satisfaction. It was apprehended that employee engagement is of a paramount importance for organization's success. It is now exercised to measure the growth of the organization. It aids the organization to understand its employees and their efforts qualitatively and quantitatively. It is now synonymous to the terms “employee experience” and “employee satisfaction”. Core concepts such as employee morale, ethics, productivity that were in limelight had become one of the facets of employee engagement. The magnitude of employee engagement has gone through a greater depth, wherein, most recent impressions like diversity and inclusion have been incorporated in the contemporary era of human resource.

Diversity and inclusion have become inseparable part of employee engagement. Organization culture is supported by the above mentioned parameters. Diversity and inclusion chiefly keeps employees at the

first place, which has increased its presence in the organization. This paves way for the organization to achieve its sustainable goals and aim for long-term triumph. Diversity and inclusion leads to innovation and creativity as equitable workplace is ensured. It creates a sort of belonging in the mindset of the employees towards their organization leading to generation and discussion of new ideas nurturing learning and development.

MATERIALS AND METHODS

Questionnaire was used to collect the information from the respondents for undertaking the exploratory research. The questionnaire so designed embodies demographic fields which falls a part of diversity. To authenticate the validity of the questionnaire pilot survey was undertaken with ten respondents. Convenience sampling was used to collect the data from the rest 140 employees from engineering sector in Chennai city. SPSS 20.0 and Microsoft Excel 2013 were used to interpret the data collected and to obtain the conclusions.

STATISTICAL TOOLS AND CALCULATIONS

To analyze the dependability of dimensions, SPSS 20.0 was exercised and descriptive statistics like frequency test, cross tabs, network neighborhood analysis, cluster model test, chi-square test, paired sample test and correlation were applied.

Table 1: Demographic classifications of the respondents

Dimension	Frequency	Percent	Mean	Std. Deviation	
Gender	Male	90	60.0	1.40	.492
	Female	60	40.0		
Age	Less than 25 yrs	26	17.3	2.56	1.065
	26-35yrs	46	30.7		
	36-45 yrs	54	36.0		
	45-50yrs	16	10.7		
	above 50 yrs	8	5.3		
Education	Certification	9	6.0	3.16	.883
	Diploma	21	14.0		
	UG	57	38.0		
	PG	63	42.0		
Income	Up to Rs 20000	40	26.7	2.11	.883
	Rs.20000- Rs. 40000	65	43.3		
	Rs. 40000- Rs. 60000	34	22.7		
	Above Rs. 60000	11	7.3		
Designation	Executive	31	20.7	2.17	.839
	Supervisor	74	49.3		
	Administrator	34	22.7		
	Manager	11	7.3		
Experience	0-5 years	30	20.0	1.96	.664
	6-10 years	102	68.0		
	11-15 years	12	8.0		
	More than 16 years	6	4.0		

Primary source

The demographic classification above clearly indicates that male employees dominate in case of response than the female. When it comes to age bracket respondents falling under the category of 36 years-45 years form a major share followed by respondents falling under 26 years-35 years. Most of the respondents are educated up

to post graduation accounting to 63 number of respondents. The respondents falling in the income slab of Rs.20000- Rs. 40000 amounting to 65 forms a major part than the others. Respondents designated as Supervisor equals to 74 where experience level is 102 with 6-10 years.

Table 2: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	DIVERSITY - Fair Treatment	-.400	.920	.075	-.548	-.252	-5.327	149	.000
Pair 2	DIVERSITY - Integrating	-.480	1.128	.092	-.662	-.298	-5.214	149	.000
Pair 3	DIVERSITY - Psychological	-.820	.890	.073	-.964	-.676	-11.279	149	.000
Pair 4	DIVERSITY - Belonging	-.767	1.582	.129	-1.022	-.511	-5.936	149	.000
Pair 5	DIVERSITY - Belief and Values	-.793	1.573	.128	-1.047	-.540	-6.178	149	.000

Table 2.1: T-Test

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Diversity & Fair Treatment	150	.567	.000
Pair 2	Diversity & Integrating Differences	150	.271	.001
Pair 3	Diversity & Psychological Safety	150	.604	.000
Pair 4	Diversity & Belonging	150	-.456	.000
Pair 5	Diversity & Belief and Values	150	-.517	.000

The test above between the variables diversity and the factors of inclusion proves that the null hypothesis being “there exist a relationship between diversity and inclusion” is accepted. The P value is equal to .05 while

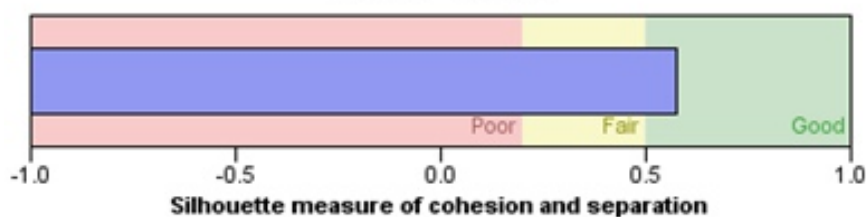
the table value is less than that which leads to the conclusion that the null hypothesis is accepted. This was testified further with the T test which proves the same.

Model 1: Two Step Cluster

Model Summary

Algorithm	TwoStep
Inputs	7
Clusters	3

Cluster Quality



The model above comprises of the components diversity, inclusion and employee engagement. It could be understood from the two step cluster model that the impact of both diversity and inclusion can be experienced on employee engagement. The cluster

quality has crossed over the area of fair and has reached to some extent of good, which indicates that the employees accept and enjoys the influence of diversity and inclusion over employee engagement. The positive affirmation by the respondents is visible here.

Table 3: Frequency Table

Component	Valid	Frequenc	Percent	Valid Percent	Mean	Std. Deviation
Strategies are adopted	N	38	25.3	25.3	3.91	.644
	A	87	58.0	58.0		
	SA	25	16.7	16.7		
Job has a positive impact	N	38	25.3	25.3	3.79	.509
	A	105	70.0	70.0		
	SA	7	4.7	4.7		
Need for time away from work	N	38	25.3	25.3	3.79	.509
	A	105	70.0	70.0		
	SA	7	4.7	4.7		
Participating in company -wide events	N	38	25.3	25.3	3.79	.509
	A	105	70.0	70.0		
	SA	7	4.7	4.7		
Mental health affected your performance at work	N	24	16.0	16.0	4.05	.611
	A	94	62.7	62.7		
	SA	32	21.3	21.3		

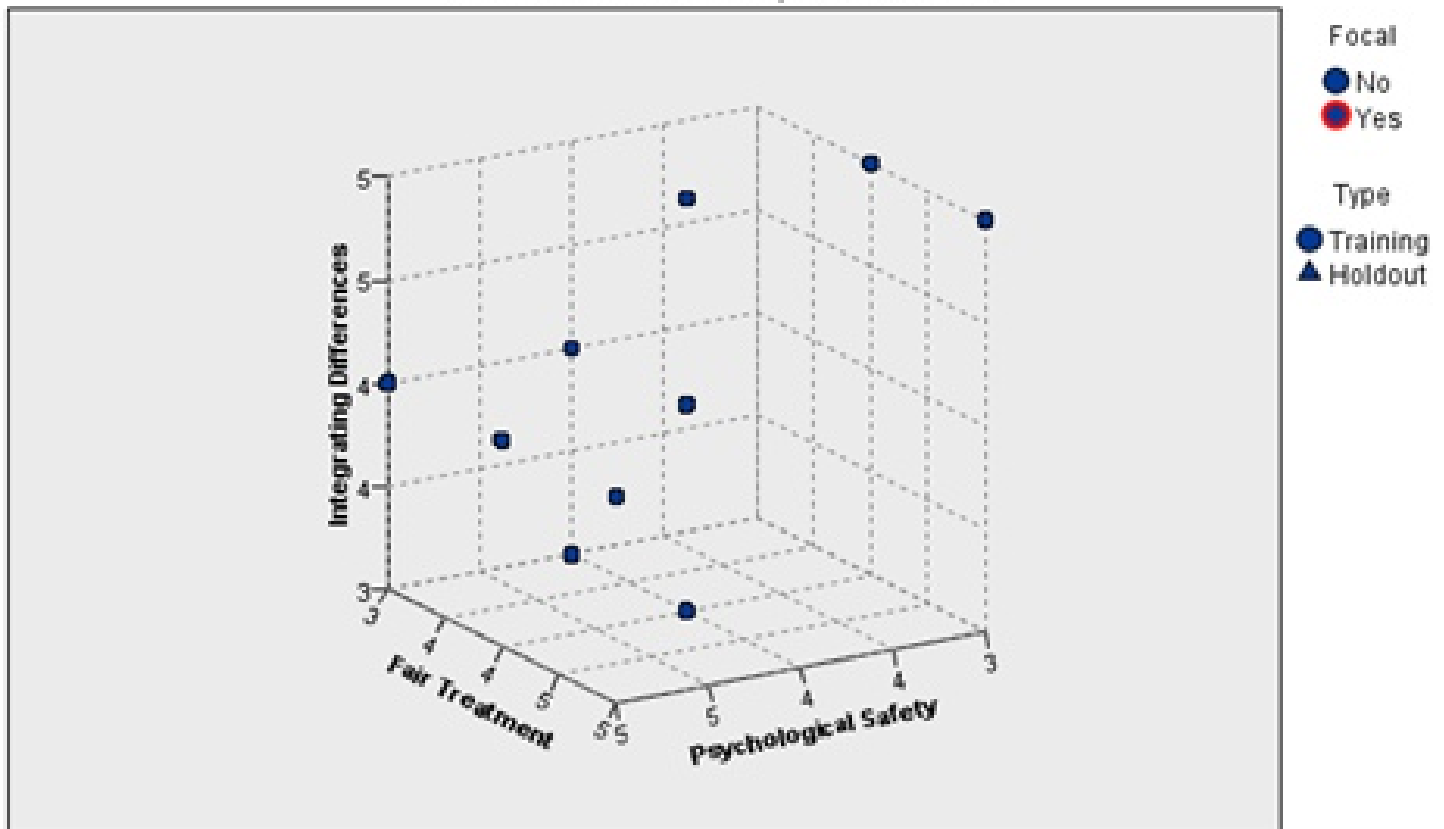
The frequency test quantifies the statement related to employee engagement with respect to respondents' reply. Maximum number of respondents (105) agrees that the strategies adopted by the organization are to be appreciated and it makes a positive impact on the job

they are bestowed with leading to work life balance. They also agree that most of them are allowed to participate in their company's event that increases their engagement level.

Model 2: Nearest Neighbor Analysis

Predictor Space

Built Model: 3 selected predictors, K = 3



Select points to use as focal records

This chart is a lower-dimensional projection of the predictor space, which contains a total of 5 predictors.

The model above is built upon the three parameters, that is: diversity, inclusion and employee engagement. It is evident from the model above that the focus is on the

aforesaid parameters where all the points lie close with each other and it is apparent that the diversity along with inclusion dominates employee engagement.

Test 1: Nonparametric Tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Fair Treatment is the same across categories of Employee Engagement.	Independent-Samples Kruskal-Wallis Test	.131	Retain the null hypothesis.
2	The distribution of Integrating Differences is the same across categories of Employee Engagement.	Independent-Samples Kruskal-Wallis Test	.218	Retain the null hypothesis.
3	The distribution of Psychological Safety is the same across categories of Employee Engagement.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
4	The distribution of Belonging is the same across categories of Employee Engagement.	Independent-Samples Kruskal-Wallis Test	.827	Retain the null hypothesis.
5	The distribution of Belief and Values is the same across categories of Employee Engagement.	Independent-Samples Kruskal-Wallis Test	.732	Retain the null hypothesis.

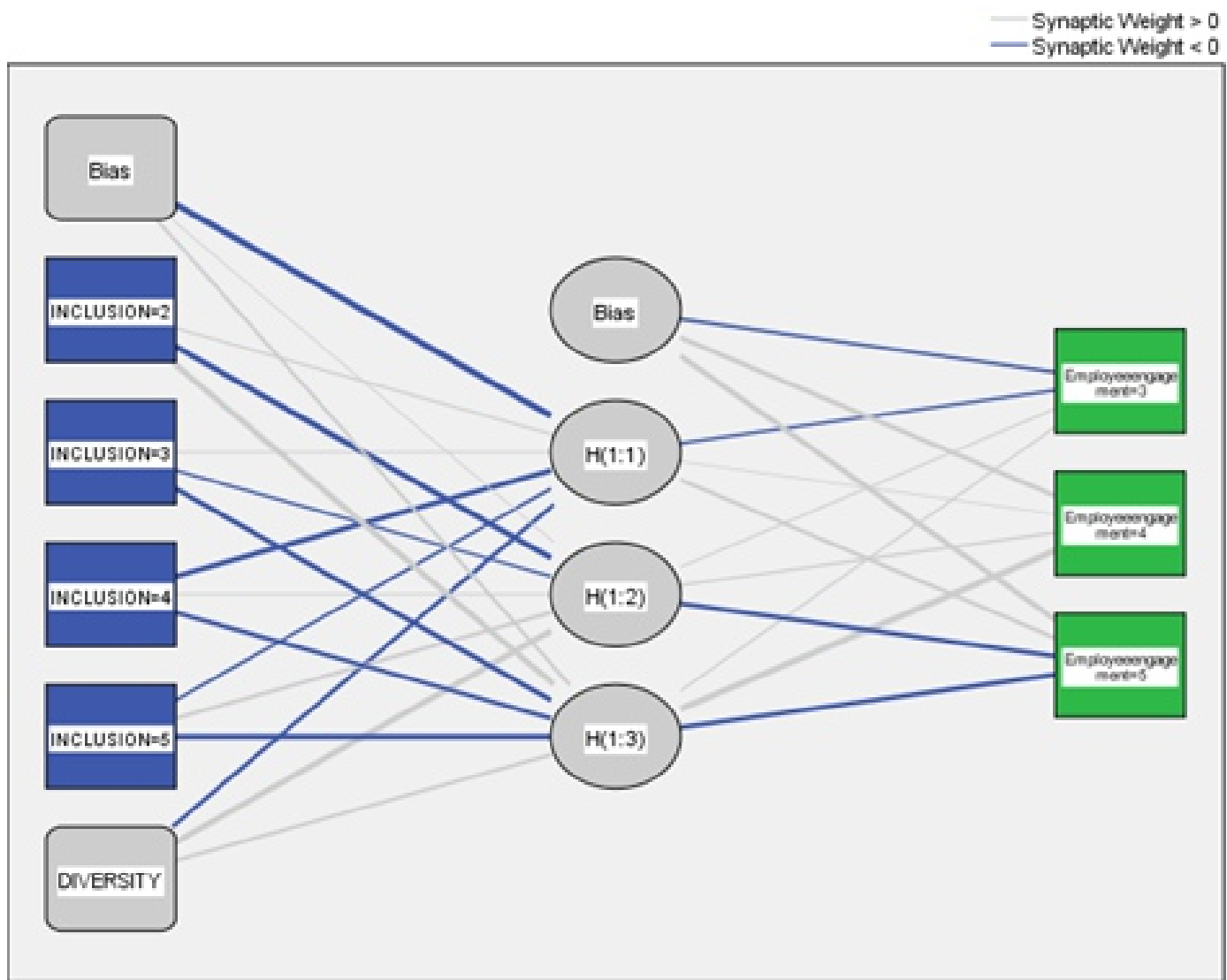
Asymptotic significances are displayed. The significance level is .05.

To enhance the rationality of the interpretations from previous tables nonparametric test was undertaken. It is transparent from the test that fair treatment towards employees pay way for employee engagement and thus hypothesis 1 which states that “there exists a relationship between fair treatment by the management and employee engagement” is accepted. The hypothesis 2 which describes that “there exists a relationship between integration and employee engagement” is also retained along with hypothesis 4 that explains the relationship

between belonging and employee engagement. It is also clear that the hypothesis 5 is also accepted that speaks about the relationship between belief and employee engagement.

The third hypothesis that states that psychological safety across the organization remains same and there exists a relationship between the aforementioned and employee engagement is rejected as the correlation is not intact. The reason is the workplace or environment which is different when it comes to engineering sector where machineries are involved at work.

Model 3: Multilayer Perceptron



Hidden layer activation function: Hyperbolic tangent

Output layer activation function: Softmax

The multi layer model is incorporated to observe if there is any occurrence of influence of diversity and inclusion on employee engagement. It is discernible from the model that the factors mentioned directly have an impact on employee engagement and it is also coherent that diversity and inclusion are interrelated with each other. This declares the fact that each aspect of diversity is interlinked with every features of inclusion and in turn both are correlated with employee engagement.

CONCLUSIONS

Diversity and inclusion have become the strategic approach towards Employee Value Proposition (EVP). EVP a series of benefits and rewards that an organization

offers to its employees considering their contribution made towards growth of the organization. This elevates employee engagement. If organization embraces different values and belief, background, skills and talents of its employees, it would boost the engagement level leading to higher productivity creating a sense of belonging. Employees tend to focus to accomplish the organization's vision and goals. A strong bond between employer and employee and the low level of attrition marks the success of any organization in the competitive market. From the research paper it is writ large that the employees who have served their organization for years

with a higher qualification and designation tend to support the fact that their organization encourages diversity and inclusion. It is also crystal clear that their engagement level increases along with their experience. The dimensions of diversity and inclusion are closely related to each other which again strengthen the certainty that employees agree with that they are considered by their organization. Those employees who have a less number of experiences are yet to reap the benefit of diversity and inclusion due to a meager gap in learning and development. They are up to reach a level of exposure to be included into the affairs of their organization.

FUTURE RECOMMENDATIONS

Stratified random sampling method can be recommended to make this study more effective. Apart from demographic classifications certain other parameters may also be encompassed in the area of diversity. The future research may include the top level officials and retired professionals, to intensify the research.

REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*, Thousand Oaks, CA: Sage.
- Bentler, P. M. (1990). Comparative fit indexes in structural models, *Psychological Bulletin*, 107, 238–246.
- Brewer, M. B. (2007). The importance of being we: Human nature and intergroup relations, *The American Psychologist*, 62, 728–738.
- Chan, D. (2001). Method effects of positive affectivity, negative affectivity, and impression management in self-reports of work attitudes, *Human Performance*, 14, 77–96.
- Cocchiara, F. K., Connerley, M. L., & Bell, M. P. (2010). “A GEM” for increasing the effectiveness of diversity training, *Human Resource Management*, 49, 1089–1106.
- Denison, D. R. (1990). *Corporate culture and organizational effectiveness*, New York: Wiley.
- Dhanya, R. (2024) Employee Engagement: A Smart Way to Employee Retention with reference to Corporate Sector, Chennai City Corporation, *International Journal of Business Management & Research*, 12(2).
- Gould-Williams, J., & Davies, F. (2005). Using social exchange theory to predict the effects of HRM practice on employee outcomes, *Public Management Review*, 7, 1–24.
- Shuck, B., Reio, T. G. Jr., & Rocco, T. S. (2011). Employee engagement: An examination of antecedent and outcome variables, *Human Resource Development International*, 14(4) 427-445.
- Tepper, B. J. (2000). Consequences of abusive supervision, *Academy of Management Journal*, 43(2), 178-90.
- Thomas, L. T., & Ganster, D. C. (1995). Impact of family-supportive work variables on work-family conflict and strain: A control perspective, *Journal of Applied Psychology*, 80(1), 6-13.
- Thompson, C., Beauvais, L. L., & Lyness, K. S. (1999). When work-family benefits are not enough: The influence of work-family culture on benefit utilization, organizational attachment, and work-family conflict, *Journal of Vocational Behavior*, 54(3), 392-415
- Wilson, K. (2009). A survey of employee engagement. (Doctoral dissertation, University of Missouri).
- Wong, C. A., Spence-Laschinger, H. K., & Cummings, G. G. (2010). Authentic leadership and nurse's voice behaviour and perceptions of care quality, *Journal of Nursing Management*, 18(8), 889-900.
- Woods, S. (2002). Creating inclusive organization: Aligning systems with diversity, *Profiles in Diversity Journal*, 4(1), 38-39.