A QUANTITATIVE STUDY ON THE JOB ENGAGEMENT OF FACULTY MEMBERS OF PRIVATE SELF FINANCING ENGINEERING COLLEGES OF KERALA

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ABSTRACT

This research mainly attempts to analyse the employees' satisfaction towards the various benefits provided by the educational institutions and its impact on job engagement. Through a five point likert scale questionnaire the data collected from 226 faculty members from private self-financing engineering colleges in South Kerala, is analysed through Multiple Regression, T test and ANOVA. It was observed that employees with a tenure of above 15 years of experience is the most satisfied group with benefits provided by their organization (Mean 147.85) followed by employees with 10-15 years of experience (Mean 140.85). The least satisfied group is employees with 5-10 years of experience(Mean =129.It was found that there is no difference in the employee satisfaction scores on benefits of male employees and female employees The employees of age group between 46 and 50 have highest level of satisfaction towards benefits with mean of 153.1538 followed by age group above 50 years with a mean of 152.000.The result indicates that 38% of the variance of the dependent variable engagement has been significantly explained by the independent variables benefits.

Keywords: Employee engagement, Benefits, Training and development, Incentives.

INTRODUCTION:

Employee Engagement is the level of commitment and involvement an employee has toward the organization. It is the positive attitude held by the employees towards the organizations and its values. In other words engagement is the psychological commitment towards the job, which is mirrored as the dedication towards the work (Siddhanta and Roy, 2010). The two major components of employee engagement are motivation and satisfaction. Employee motivation is an inner urge of an employee to pursue work tasks or goals. It causes employees to act in a certain way. Employee satisfaction is the extent to which employees are happy or content with their jobs and work environment (Yang and Feng, 2015).

Employee Engagement is the process of coupling of organization members' selves to their work roles. An engaged employee while performing their roles are physically, cognitively, and emotionally involved (Kahn,1990).Employee engagement is an "engine" which drives the entire talent management process, draws its flexibility from the effectiveness of various environmental factors, from within and outside an organization. Today organizations emphasize on strategic employee engagement initiatives which supports organizational branding and reputation among employees (Kaliannan and Adjovu, 2015).

Employee engagement is an important process that touches all parts of human resource management aspects. In order to make the employees fully engage themselves in their job, every aspect of human resources should be addressed in proper manner. It covers various areas namely psychological climate, rewards, leader member relationship, motivation and employer brand (Veerabrahamam and kolla, 2014). Employee engagement is an effective measure of positive organization performance showing the two-way relationship between employer and employee, compared to the variables job satisfaction, employee commitment and organizational citizenship behaviour. Employees who are engaged are sincerely connected to their organization and very much involved in their occupation with an extraordinary energy for the achievement of their goals, going additional mile past the business contract (Kompaso and Sridevi, 2010).

Employee engagement is an on-going issue for many organizations where there seems to be an inconsistency with the factors leading to employee engagement. There continues to be variance in the factors that leads to employee engagement. This issue is very important to organizations because it makes it very difficult to plan for benefits without knowing the needs of the employees (Thakur, 2014).

When reviewed the literature, it was observed that there is not much study conducted in this area in the education industry in Kerala especially in self-financing sector. An organization requires knowing the specific factors that make the employee engaged. The researcher in this research is going to establish a good analysis for the education industry in Kerala, to look at and establish what is needed in order to improve the factors contributing to employee engagement of the faculty members of self-financing colleges in Kerala. This will give them an overall picture of identifying an exact area where there is a correlation between the factors. Thus the objective of this descriptive study was to examine the impact of satisfaction of benefits on employee engagement. Thus the two main areas covered under the study are employee engagement and benefits. This provides a scope of improvement for the organization where by the authorities can use this for evaluating their employee's engagement in future

METHODOLOGY:

Data Researched:

Directorate of Technical Education is dealing with all the technical education activities in the state. There are 9 Government Engineering Colleges, 3 Aided Engineering Colleges, 25 Government Controlled Self-Financing Colleges (9 Colleges under the Institute of Human Resource Development (IHRD), 7 Colleges under Cooperative Academy for Private Education (CAPE), 2 Colleges under Lal Bahadur Sasthry Centre for Science and Technology (LBS), 1 College each under KSRTC and Continuing Education Centre and 1 Engineering College each under the universities of Kerala, Calicut and MG. There are also around 150 Private Self-Financing Engineering Colleges in the State.(Source:http://dtekerala.gov.in).The data was collected through five point Likert scale questionnaire from 226 randomly selected faculty members working in various private self-financing colleges in south Kerala. The objectives of this study are:

- To explore the impact of satisfaction of benefits on employee engagement.
- To find out the satisfaction level of male and female on benefits.
- To examine the satisfaction among employees of various age groups on benefits.
- To study the satisfaction of benefits among employees belonging having different tenure in the organization

Results and discussion:

Objective 1: To explore the impact of satisfaction of benefits on employee engagement

In this paper the researcher has used multiple regression analysis to predict the value of the dependent variable employee engagement on the values of the independent variables. Multiple regression analysis also allows to determine the overall fit (variance explained) of the model and the relative contribution of each of the predictors to the total variance explained. The independent variable, benefits can be classified as Festival Allowance, Medical benefits, Incentive, Insurance, Social and Security benefits and Training and development

The descriptive statistics shows the mean and SD of engagement is 83.4667 and 9.81763 respectively. Among the independent variables it was found that that training and development has highest mean of 44.7333 and SD of 6.52844, which is followed by incentive with a mean of 34.6762 and SD of 7.86117.The Mean and SD of other variables are as follows; festival allowance M=15.9714, SD=2.58865, medical benefit M=14.2571, SD=2.91557, insurance M=11.5005, SD=2.24, social security=27.00, SD=5.1.

The correlation coefficient r measures the strength and direction of a linear relationship between two variables on a scatterplot. The value of r is always between +1 and –1. In this study , the correlation coefficient for festival allowance is 0.517, medical benefit 0.388, incentive 0.537, insurance 0.523, social security 0.521, Training and development 0.572.This shows that there is a moderate positive relationship between employee engagement and Training and development, incentives, social security and insurance benefits .In the multiple regression analysis using SPSS all the others independent (except Training and development and incentives) are excluded.

The regression model is engagement= a+B*Education*incentive

Where Engagement is the dependent variable, and training and development and incentives are the predictor or independent variables, a is the intercept and c is regression coefficient

Engagement=4.852+.0.116*Training and development +.0352 *incentives +e

Since The R square value (Table 2) is 0.386, 38.6% of the variance in the dependent variable engagement can be explained by the independent variables namely training and development and incentives. The adjusted R square value is 0.374.Compared to r square the adjusted r square provides a less biased estimate 37.4% of the extent of relationship between the variables in the population. Table 1 shows, the beta value of coefficient of correlation of engagement with the variable Training and Development programmes is 0.413 and Incentives is 0.291 with a statistical significance of .000 and 0.002 respectively ($p<0.05$).This means that after controlling incentives, a one unit increase in training and development will bring a predicted 0.413 unit increase in the engagement of the employees .The b weight of incentives is 0.291 which means after controlling the variable training and development a one unit increase in incentive will bring a predicted 0.291 increase in the engagement of the employees. Since the $P <.05$ the null hypothesis can be rejected and can be concluded that training and development programmes and incentives have an impact on employee engagement. The ANOVA results (Table 3) shows that F=32.07 which is significant at .000 level, which means that the two predictor variables; Training and development and incentives collectively account for a statistically significant proportion of variance in the criterion table.

Table 1: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	58.702	3.589		16.358	0
	Training and Development	0.714	0.101	0.572	7.074	0
2	(Constant)	47.993	4.852		9.892	0
	Training and Development	0.515	0.116	0.413	4.451	0
	Incentives	1.102	0.352	0.291	3.134	0.002

Table 2: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	sig
1	.572[a]	0.327	0.32	8.09306	50.046	0
2	.621[b]	0.386	0.374	7.76728	32.077	0

The normal probability plot is a graphical tool for comparing a data set with the normal distribution. Since the plotted points in the figure (1) follow the straight line, we can say that this distribution is normal. The scatter diagram (Figure 2) shows a Moderate positive relation of variables since the dots are placed closed to each other.

Figure 1

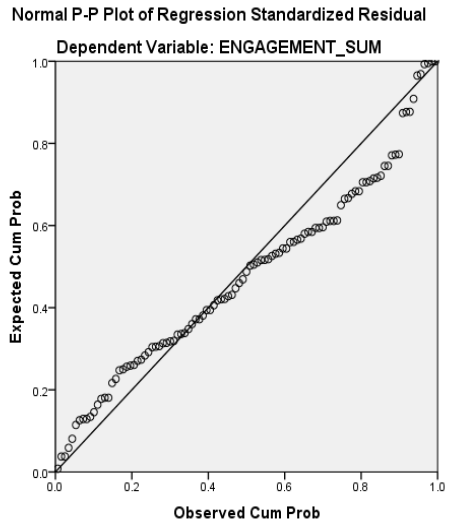
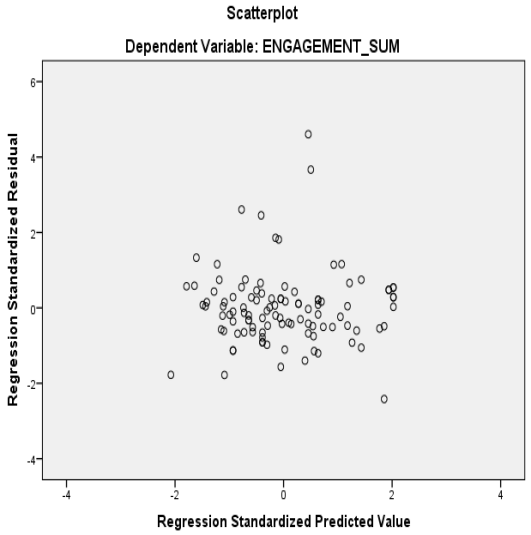


Figure 2



Objective 2: The second objective was to find out the satisfaction of male faculty members and female faculty members towards benefits

T test is used to determine whether there is significant linear relationship between independent variable and dependent variable. In other words, the researcher conducts a regression T test to determine whether the slope of regression line differs significantly from 0. The P value of T test is calculated to find out the significance. Unrelated groups, also called unpaired groups or independent groups, are groups in which the cases (e.g., participants) in each group are different. Often the researchers are investigating differences in individuals, which means that when comparing two groups, an individual in one group cannot also be a member of the other group and vice versa. An example would be gender - an individual would have to be classified as either male or female – not both.

As per the group statistics the mean of male faculty members is 145.0247 and female faculty members is 142.1667. The Standard deviation of male and female is 24.00 and 13.713 respectively. The standard error of male is 2.66 and that of female is 2.79.An Independent t-test can be run with one independent,

categorical variable that has two levels/groups and one continuous dependent variable. The null hypothesis for the independent t-test is that the population means from the two unrelated groups are equal. In most cases, we are looking to see if we can show that we can reject the null hypothesis and accept the alternative hypothesis, which means that the population means are not equal.

H0: u1 = u2

There is no difference in the satisfaction score of male employees and female employees

HA: u1 ≠ u2

There is difference in the satisfaction score of male employees and female employees

The independent t-test assumes that the variances of the two groups measuring are equal in the population. If the variances are unequal, this can affect the Type I error rate. The assumption of homogeneity of variance can be tested using Levene's Test of Equality of Variances (Table 3).This test for homogeneity of variance provides an F-statistic and a significance value (p-value).The researcher is primarily concerned with the significance value – if it is greater than 0.05 (i.e., p > .05), the group variances can be treated as equal. However, if p < 0.05, then there is unequal variances and has violated the assumption of homogeneity of variances. Here the F value =7.927 which is significant at .006 level (p<05), hence violated the assumption of homogeneity of variance. In other words there is unequal variance.

If the Levene's Test for Equality of Variances is statistically significant, which indicates that the group variances are unequal in the population, this violation can be corrected by not using the pooled estimate for the error term for the t-statistic, but instead using an adjustment to the degrees of freedom using the Welch-Satterthwaite method. The SPSS Statistics hides this information and simply labels the two options as "Equal variances assumed" and "Equal variances not assumed" without explicitly stating the underlying tests used. However, you can see the evidence of these tests as n:t (67.68)= .739, p=.462(p > .05), Therefore, the researcher accept the null hypothesis that there is no difference in the satisfaction scores of male employees and female employees on benefits.

Table: 3 Independent sample t tests

		Levene's Test for Equality of		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
BENEFITS	Equal variances assumed	7.927	0.006	0.56	223	0.58	2.85802	5.14224	-7.3404	13.0564
	Equal variances not assumed			0.74	67.7	0.462	2.85802	3.86652	-4.8581	10.5742

Objective 3 and 4:

The researcher examined the satisfaction of benefits among employees of various age groups (26-30, 31-35,36-40,41-45,46-50 and 50 above)as well as tenure (0-5 years ,5-10 years,10-15 years, and above 15 years) using the statistical tool ANOVA. The basic principle of ANOVA is to test for differences among the means of the population by examining the amount of variation within each of these samples, relative to the amount of variation between the samples.

Based on tenure of employees:

Tenure is the no of years of experience the employee has in the present organization.It was observed that employees with a tenure of above 15 years of experience is the most satisfied group with benefits provided by their organization (Mean 147.85,S.E=2.92) followed by employees belonging to 0-5 years of tenure (Mean 144.167, S.E 4.85) and 10-15 years (Mean of 140.85 S.E 4.31). The least satisfied group is employees with 5-10 years of experience (Mean =129, SE= 4.31172).Since here the standard error of samples under all tenure groups is smaller, more representative the sample will be of the overall population.

Levene's test (Levene 1960) is used to test if 226samples have equal variances. Equal variances across samples is called homogeneity of variance
The Levene test is defined as:
H0: $\sigma 2i=\sigma 2j=\ldots=\sigma 2k$
Ha: $\sigma 2i\neq\sigma 2j$ for at least one pair (i,j)
The test of homogeneity of variance is 2.895 which is significant at .039 levels ($p<.05$), hence has met the assumptions of homogeneity of variance. Thus it can be concluded that there is insufficient evidence to claim that the variances are not equal. The F Value is 2.750 with a significance of 0.047(Table 4).In these results, the null hypothesis states that the mean values of four different employee groups based on tenure are equal. Because the p-value is 0.047, which is less than the significance level of 0.05, the null hypothesis can be rejected and conclude that some of the groups have different means. The results Table (5) gives the statistics that compare between each tenure conditions, their mean differences, standard error and significance. Here the Sig. value shows whether the two conditions that are being compared are significantly different. If the conditions are significantly different, the Mean Difference value in the corresponding row will also contain a star (*). As per the results from the Table 5, it can be concluded that there is a significant difference in the satisfaction of benefits between the group of employees with 5-10 years of Tenure in the organization and above 15 years of tenure

Table 4: F value

	Sum of Squares	**Mean Square**	**F**	**Sig.**
Between Groups	3819.38	1273.13	2.75	0.047
Within Groups	46757.1	462.942		
Total	**50576.5**			

Table: 5 Post Hoc Tests

Tenure		**Mean Difference (I-J)**	**Std. Error**	**Sig.**	**95% Confidence Interval**	
					Lower Bound	**Upper Bound**
0-5yrs	5-10yrs	15.41667	8.78391	0.082	-2.0082	32.8416
	10-15yrs	3.55952	8.46438	0.675	-13.2315	20.3506
	Above15yrs	-3.43408	6.74449	0.612	-16.8133	9.9452
5-10yrs	0-5yrs	-15.4167	8.78391	0.082	-32.8416	2.0082
	10-15yrs	-11.8571	8.46438	0.164	-28.6482	4.9339
	Above15yrs	-18.85075*	6.74449	0.006	-32.23	-5.4715
10-15yrs	0-5yrs	-3.55952	8.46438	0.675	-20.3506	13.2315
	5-10yrs	11.85714	8.46438	0.164	-4.9339	28.6482
	Above15yrs	-6.9936	6.32273	0.271	-19.5362	5.549
Above 15yrs	0-5yrs	3.43408	6.74449	0.612	-9.9452	16.8133
	5-10yrs	18.85075*	6.74449	0.006	5.4715	32.23
	10-15yrs	6.9936	6.32273	0.271	-5.549	19.5362

Based on age of employees:
The results of descriptive statistics show the mean, and standard error of employees under each age group. The employees of age group between 46 and 50 have highest level of satisfaction towards benefits with Mean =153.15 and SE =6.48, followed by age group above 50 years with Mean of 152.00, SE= 3.94, 41-45 Mean =135.85, SE=4.09.The results of other age groups are 31-35 M=138.55, SE=5.46, 26-30 M=136.78, SE =4.88.The smallest Mean is for age group of 36-40. M=133.71, SE=3.20 .The smallest SE is for age group of 36-40 and 50 above .The hypothesis derived is as follows
H0: $\sigma 2i=\sigma 2j=\ldots=\sigma 2k$
Ha: $\sigma 2i\neq\sigma 2j$ for at least one pair (i,j)

The test of homogeneity of variance is .3.164 which is significant at .011 levels (p<.05), hence has met the assumptions of homogeneity of variance. Thus it can be concluded that there is insufficient evidence to claim that the variances are not equal.

Table 6 ANOVA

	Sum of Squares	Mean Square	F	Sig.
Between Groups	7103.671	1420.734	3.235	0.01
Within Groups	43472.84	439.12		
Total	**50576.51**			

The ANOVA results shows the F value 3.23 which is significant at .01 levels (p<.05).The null hypothesis states that the mean values of six different employee groups based on age are equal. Thus the null hypothesis can be rejected and can be concluded that some of the groups have different means.
The results of post hoc comparison (No: 6) gives the statistics that compare between each age conditions, their mean differences, standard error and significance. Here the Sig. value shows whether the two conditions that are being compared are significantly different. Those conditions which are being compared, carrying p value below .05, show that they are significant. Under this study the following age group comparisons are having significance value below .05 -between 26-30 and 50 above, between 36-40 and 46-50, between 36-40 and 50 above, between 41-45 and 46-50, between 41-45 and 50 above, between 46-50 and 26-30.

Table 6: Post hoc comparison

(I) Age		Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower	Upper
26-30	31-35	-1.76984	0.84	-19.53	15.995
	36-40	3.07143	0.7	-12.64	18.787
	41-45	0.92857	0.91	-14.79	16.644
	46-50	-16.36813*	0.05	-32.38	-0.353
	50 Above	-15.21429*	0.02	-28.09	-2.344
31-35	26-30	1.76984	0.84	-15.99	19.535
	36-40	4.84127	0.59	-12.92	22.606
	41-45	2.69841	0.76	-15.07	20.463
	46-50	-14.59829	0.11	-32.63	3.4318
	50 Above	-13.44444	0.08	-28.75	1.8612
36-40	26-30	-3.07143	0.7	-18.79	12.644
	31-35	-4.84127	0.59	-22.61	12.924
	41-45	-2.14286	0.79	-17.86	13.573
	46-50	-19.43956*	0.02	-35.45	-3.425
	50 Above	-18.28571*	0.01	-31.16	-5.415
41-45	26-30	-0.92857	0.91	-16.64	14.787
	31-35	-2.69841	0.76	-20.46	15.066
	36-40	2.14286	0.79	-13.57	17.859
	46-50	-17.29670*	0.04	-33.31	-1.282
	50 Above	-16.14286*	0.01	-29.01	-3.272
46-50	26-30	16.36813*	0.05	0.3531	32.383
	31-35	14.59829	0.11	-3.432	32.628
	36-40	19.43956*	0.02	3.4246	35.455
	41-45	17.29670*	0.04	1.2817	33.312
	50 Above	1.15385	0.86	-12.08	14.389

(I) Age		Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower	Upper
50 Above	26-30	15.21429*	0.02	2.3435	28.085
	31-35	13.44444	0.08	-1.861	28.75
	36-40	18.28571*	0.01	5.4149	31.157
	41-45	16.14286*	0.01	3.272	29.014
	46-50	-1.15385	0.86	-14.39	12.081

*. The mean difference is significant at the 0.05 level.

CONCLUSION:

An "engaged employee" is one who is fully absorbed by and enthusiastic about their work and so takes positive action to further the organization's reputation and interests. There are various factors that improves employee engagement such image, empowerment, performance appraisal etc., and benefits is an eminent factor among these. It is important for every organization to offer good employee benefits in order to motivate and satisfy their employees which can increase their engagement. The result indicates that 38% of the variance of the dependent variable engagement has been significantly explained by the independent variables incentives and training and development benefits. The research study helps the educational institutes to understand the importance of training and development and performance incentives in improving the employee engagement. Educational institutions can restructure their benefits scheme and can take measures to give importance to the above factors .There is a great scope to explore this study in other areas as well as to examine deeply how incentives and training and development opportunities can influence other aspects like performance and job satisfaction.

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