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RESEARCH PAPER

Gender intelligence and its influence on work atmosphere: A quantitative study from the private sector IT industry of Kerala

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ABSTRACT

Equality does not imply the sameness. We ought to grasp the qualities of having contrasts. Generally we think about designing an organization by creating a gender balance, rather the focus ought to make a competitive workplace that increases efficiency in decision making, problem solving, individual performance and attainment of goals. The concept of gender intelligence is understanding and appreciating the differences that male employees and female employees can bring to the table which in turn can create a good work atmosphere. This paper examines the impact of gender intelligence on work atmosphere. The researcher also identifies the influence of gender and age on gender intelligence as well as the influence of gender on work atmosphere. Through linear regression it was observed that gender intelligence influences the work atmosphere. This research has found out that there is no significant relationship between gender and gender intelligence as well as work atmosphere. It was also found that there is difference in the gender intelligence of the employees with different age groups.

KEY WORDS : Work atmosphere, Gender intelligence, Diversity, Gender

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Organizations are confronting worldwide competition and economic imperatives which persuades them to identify and develop talents in unique ways, including the thought of new ways to deal with the gender disparities in the work environment. For a considerable length of time, the information has charted the gender gaps in the organizations. Moreover, studies have shifted their focus to the significance of diversity, as it identifies with multi perspective views and also team work. Organizations which are more gender diverse, in their official panels have better budgetary execution- 41 per cent better profit for value and 56 per cent better as far as general income before interest and expenses. Teams with an equivalent blend of men and ladies beat male-ruled groups in benefits and deals and execution crested when a group had around 55 per cent ladies.

Managers have conferred noteworthy assets during the time to make a more mixed and comprehensive

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workforce with women employees systems, enlistment procedures and mentorship projects to advance and support the accomplishment of ladies. However, still in 2015, the working environment demonstrates a moderate movement toward a more diverse workforce, especially in the higher positions of administration and authority. We see this to be especially valid in financial services, where we have really seen a decrease in women's ' investment and initiative.

Studies of 2,400 ladies who left Fortune 500 organizations yielded main 5 reasons in particular: not being valued by male employees as well as by management, feeling rejected, a male-dominated environment, lack of opportunity and work-life issues. Women keep up that men don't tune in, so they will keep conversing with the trust that men will inevitably get on. This, thus, makes men "block out," which then fortify the presumption that men don't listen; actually men and women listen in a different way. Men and women differs in their perception, communication, in their leadership skills.

Gender intelligence is gaining an understanding, valuing and incorporation of other gender. It is a transformational shift from reviewing male and female as equivalent in number to approach in quality. It perceives that there are novel attributes in male and female employees that underlie any social differences. In fact gender intelligence is the appreciation for difference thinking in men and ladies when imparting, critical thinking, basic leadership and leading. It is not about toleration; on the other hand gender intelligence is all about, adjusting one's conduct, or adapting new practices or learning (Annis and Merron, 2014).

Gender intelligence is a comprehension of and appreciation for the normal contrasts between men and women that go beyond the natural and cultural to incorporate varieties in mind structure Incorrect presumptions held by male and female employees cause "mischances" of miscommunication and misunderstanding. The principle points of interest of gender awareness are innovation, enhanced basic leadership, responsiveness to customers and markets, inclusive authority, minimized errors and costs, superior financial performance. It was found that male workers and female representatives distinctive in their styles. It was found that women employees are more on people development, inspiration, participative decision making.Infact it was additionally found that male and female employees similarly adds to intellectual stimulation and effective communication. Now with regards to individualistic decision making and taking restorative criticism, it was found that male workers are more viable (Adler, 2001).

Now when it comes to the performance of the group, it can be is broken down in light of different measures. One strategy to quantify the efficiency of the group is on the basis of the accomplishment of the objective quantitatively and qualitatively. The objective or standard is set by the team members and the team needs to live up to their desires. There are different measures that will cultivate the viability of the team. Another component is the satisfaction towards the team and team members. This will decide the degree to which they might want to proceed in the group. The following paradigm is the different social processes of a group which will cultivate the productivity of the colleagues and along these lines the performance of the team (Hackman, 1987). Indeed this is referred as the group atmosphere or work climate. Fundamentally here specialists have considered the interaction between the team members and the perspective of its colleagues (Lee and Podsakoff, 2003).

Studies by Jehn (2008) have identified trust, respect, liking, friendship and open discussion as the factors that determine the work atmosphere. According to the study, the dimension, trust among the team members includes to what extent the team members are truthful and honest with each other. It also includes the comfort level among the team members in delegating the task. The second dimension is respect which includes the respect towards fellow beings as well as the respecting the ideas. The next dimension is the degree of friendship that exists among the team members. The fourth dimension is the degree to which the team members are open in terms of discussing their ideas as well as differences. The final dimension is the cohesiveness the extents to which team members have team spirit and feeling of oneness wards each other.

METHODOLOGY

This descriptive study was conducted in the IT industry of Kerala. The researcher has set four research questions.

– Does gender intelligence predicts work atmosphere?

– Is there relationship between gender and gender intelligence?

– Is there a relationship between gender and work atmosphere?

– Is there a relationship between age groups and gender intelligence?

The researchers through multistage sampling has identified the private sector IT employees of Kerala as the first stage. The private sector IT employees are dispersed in three techno parks namely Thiruvanathapuram, Kochi and Calicut. Among the three Thiruvanthapuram is the largest with more than 300 organizations employing almost 60,000 employees. The researcher through random sampling selected 302 employees from the randomly selected 20 gender diverse organizations inside Techno Park, Trivandrum.

The first research question was explored through linear regression. The output consists of four important pieces of information: (a) the R^2 value represents the proportion of variance in the dependent variable work atmosphere that can be explained by the independent variable gender intelligence (technically it is the proportion of variation accounted for by the regression model above and beyond the mean model). However, R^2 is based on the sample and is a positively biased estimate of the proportion of the variance of the dependent variable accounted for by the regression model (*i.e.*, it is too large); (b) an adjusted R^2 value, which corrects positive bias to provide a value that would be expected in the population; (c) the F value, degrees of freedom and statistical significance of the regression model and (d) the co-efficients for the constant and independent variable, which is the information you need to predict the dependent work atmosphere by, using the independent variable gender intelligence. The beta co-efficients can be negative or positive, and have a t-value and significance of that t-value associated with it.

Think of the regression beta co-efficient as the slope of a line: the t-value and significance assesses the extent to which the magnitude of the slope is significantly different from the line laying on the X-axis. If the beta co-efficient is not statistically significant (*i.e.*, the t-value is not significant), no statistical significance can be interpreted from that predictor. If the beta co-efficient is sufficient, examine the sign of the beta. If the regression beta co-efficient is positive, the interpretation is that for every 1-unit increase in the predictor variable, the dependent variable will increase by the unstandardized beta co-efficient value.

The second and third research question was analyzed through the independent sample t-test compares two means of male employees and female employees. In this test the variables in the analysis (Gender, gender intelligence and work atmosphere) are split into independent and dependent variables. The model assumes that a difference in the mean score of the dependent variable (gender intelligence and work atmosphere) is found because of the influence of the independent variable (Gender). Thus, the independent sample t-test is an analysis of dependence. It is one of the most widely used statistical tests and is sometimes erroneously called the independent variable t-test.

The fourth research question was examined through the statistical tool one way ANOVA.The one-way ANOVA uses an F test statistic. An F-test is a statistical test used basically to find out if 2 variances are equal. In other words how much do individuals in different groups vary from one another over how much to individuals within groups vary from one another. In this study F={between age groups}.

RQ: Does gender intelligence predicts work atmosphere ?

H_0: Gender intelligence does not predict work atmosphere:

To examine the research question, a linear regression will be conducted to investigate whether or not independent variable predicts dependent variable. A linear regression is an appropriate analysis when the goal of research is to assess the extent of a relationship between a dichotomous or interval/ratio predictor variable on an interval/ratio criterion variable. In this case, the predictor variable is the independent variable and the criterion variable(s) is the dependent variable.The F-test will be used to assess whether the independent variable predicts the dependent variable. R-squared will be reported and used to determine how much variance in the dependent variable can be accounted for by the independent variable. The t-test will be used to determine the significance of the predictor and beta co-efficients will be used to determine the magnitude and direction of the relationship. For statistically significant models, for every one unit increase in the predictor, the dependent variable will increase or decrease by the number of

unstandardized beta co-efficients. The assumptions of a linear regression - linearity and homoscedasticity- will be assessed.Linearity assumes a straight line relationship between the predictor variables and the criterion variable and homoscedasticity assumes that scores are normally distributed about the regression line. Linearity and homoscedasticity will be assessed by examination of a scatter plots.

The following regression equation will be used:

y = bX + c, where Y is the outcome variable, X is the predictor variable, b is the beta co-efficient and c is a constant.

Work atmosphere = b (Gender intelligence) + constant

It was found that the mean value of dependent variable work atmosphere is 37.9804 and independent variable gender intelligence is 77.5098. The standard deviation of work atmosphere is 9.619 and gender intelligence is 15.246. Correlation and simple regression analyses were conducted to examine the relationship between work atmosphere and gender intelligence.

Table 1 summarizes the analysis results. As can be seen the gender intelligence of an individual employee is positively and significantly correlated (r=.913) with the criterion work atmosphere, indicating that higher the gender intelligence greater the work atmosphere.

The simple regression model (Table 1) with the independent variable gender intelligence and the dependable variable work atmosphere, the $R^2 = 0.833$, and the adjusted R^2=.831.This shows that the independable variable gender intelligence explains 83.3 per cent of the variability of the dependable variable work atmosphere. Adjusted R^2 is also an estimate of the effect size, which at 0.831(83.1%), is indicative of above large effect size, according to Cohen's (1988) classification. The interpretation of this value is that if the researcher used this model on a new data set, this would be the amount of variability accounted for in the new data set. Sample size differences between data sets would reason to interpret the adjusted R^2 value. The regression model is statistically significant (F= 497.9, p= .0001 levels (p<001). This indicates that over all the model can significantly predict the dependent variable work atmosphere.

The co-efficients Table 1 provides the necessary information to predict the work atmosphere from the gender intelligence of the employees, as well as determine whether gender intelligence contributes significantly to the model (by looking at the "Sig." column). The unstandardized co-efficients (B) are the regression co-efficients.

The regression equation is:

Work atmosphere =.576 (Gender intelligence) +-6.645

As can be seen in Table 1, the beta value of un standardized co-efficient .576 and standardized co-efficient is .913, shows a significant positive regression weights, (t value=22.314 which is significant at .000 levels p< .001), indicating that for each unit increase in gender intelligence there is 0 .91 unit increase in the work atmosphere. Hence, it can be concluded that respondents with higher gender intelligence could create a more positive work atmosphere. Thus, the Null hypothesis and accept the alternate hypothesis.

RQ 2: Is there relationship between gender and gender intelligence?

H_0: diff = 0 diff = mean (male) - mean (female)
Ha: diff < 0k Pr (T < t) = 0.0001
Ha: diff > 0k Pr (T > t) = 0.9999

This t-test is designed to compare means of gender intelligence between male employees and female employees from a population of 102. The test assumes that variances for the two populations are the same.

As shown in Table 2, diff = mean (male) - mean (female) - The t-test compares the means between the

Table 1: Regression co-efficients

Model		Unstandardized co-efficients		Standardized co-efficients	T	Sig.	95.0% confidence interval for B	
		B	Std. Error	Beta			Lower bound	Upper bound
1	(Constant)	-6.645	2.038		-3.261	0.002	-10.688	-2.602
	Gender intelligence	0.576	0.026	0.913	22.314	0	0.525	0.627

Model	R	R square	Adjusted R square	Std. error of the estimate	F	Sig.
1	.913[a]	0.833	0.831	3.95365	497.9	.000[b]

two groups, the Null hypothesis being that the difference between the means is zero. T-statistic is the ratio of the mean of the difference to the standard error of the difference= (0.8687/0.95615).The degrees of freedom for the paired observations are simply the number of observations minus 2. One degree of freedom is used for estimating the mean of each group and because there are two groups, two degrees of freedom are used (302-2=300).

Pr (|T| > |t|): This is the two-tailed p-value computed using the t distribution. It is the probability of observing a greater absolute value of t under the Null hypothesis. If p-value is less than the pre-specified alpha level (usually .05 or .01, here the former), it can be concluded that mean is statistically significantly different from zero. For example, the p-value for the difference between females and males is less than 0.05, so we conclude that the difference in means is statistically significantly different from zero.

The independent sample t test analysis indicates male respondents had mean of 23.1268 and female respondents have a mean of 22.2581. The Standard deviation of male and female is 5.96640 and 3.57741, respectively. The standard error of male respondents is 0.70808 and that of female respondents is 0.64252.It was observed that the t value is .909 which is significant at .366 levels (p>.05) For typical analysis, using the standard $\alpha = 0.05$ cutoff, it can be concluded that the difference in means is significantly greater than 0 and hence, the alternate hypothesis is accepted. The Null hypothesis is rejected when $p < .05$ and not rejected when $p > .05$. Hence, it can be concluded that there is no difference in the level of gender intelligence of male employees and female employees.

RQ 3: Is there a relationship between gender and work atmosphere ?

H_0: diff = 0 diff = mean (male) - mean (female)
Ha: diff < 0k Pr(T < t) = 0.0001
Ha: diff > 0k Pr(T > t) = 0.9999

The study found out that, the mean of male respondents is 19.4789 and female respondents are 18.4516. The standard deviation of male and female is 4.38458 and 3.89734, respectively. The standard error of male respondents is 0.52035 and that of female respondents is 0.69998. As shown in Table 3, the F value (.081) which measures the heteroscodacity, is significant at 0.776 levels (p>.05).This indicates that the two variances do not differ significantly. So the statistically strong equal variances estimate is used. It was found that the t value is 1.124 which is significant at .264 levels (p>05).It can be concluded that mean is statistically significantly greater than 0 .05 and hence, accept the Null hypothesis

RQ 4: Is there a relationship between age groups and gender intelligence?

This study also designs to test whether there is a difference in mean of respondents belonging to the age group 20-30 years, 31-40 years, 41-50 years and 51 years

Table 2: T-test gender and gender intelligence

		Levene's test for equality of variances		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
Gender intelligence	Equal variances assumed	16.087	0	0.752	300	0.454	0.8687	1.15443	-1.4217	3.15906
	Equal variances not assumed			0.909	290.13	0.366	0.8687	0.95615	-1.0308	2.76821

Table 3 : T-test gender and work atmosphere

		Levene's test for equality of variances		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
Work atmosphere	Equal variances assumed	0.081	0.776	1.124	300	0.264	1.02726	0.91368	-0.7855	2.83998
	Equal variances not assumed			1.178	63.949	0.243	1.02726	0.87221	-1.7152	2.76972

above on gender intelligence. In more statistical terms ANOVA tests the effect of respondents with different groups on gender intelligence. It assumes an effect of.

Y = f(x1, x2, x3, xn).

Gender intelligence = f (20-30yrs,31-40 yrs, 41-50 yrs and 51 years above)

For this the following hypothesis is formulated

H_0: «1 = «2 = «3 = «4

Ha: The means are not all equal.

The test statistic is the F statistic for ANOVA, F=MSB/MS.

It was found (Table 4) that the respondents belonging to the age group of 20-30 yrs. (Mean =79.8261, SD =16.03) scored higher gender intelligence compared to the respondents other age groups. This was followed by the group 31-40 with a mean of 77.04 and SD of 14.11 and 41-50 with a mean of 75.28 and SD of 10.62. The least level of gender intelligence was found for the age group 50 and above with a mean of 60.2 and a SD of 14.78.Levene's test for homogeneity of variance (1.679) with a significance of 0.177 (p>.05) indicates that variances for gender intelligence for each of the employee groups based on age do not differ significantly (Table 5). It was also observed that these values vary between a narrow variance for employees with 41-50 years (10.6) to a wide variance for 20-30 yrs of 16.03. Based on the F value = 2.68 with a significance of 0.051 (p<05), (Table 6) we have statistically significant evidence at α=0.05 to show that there is difference in the gender intelligence of the employees with different age groups.

Conclusion:

Today, as competition grows, organizations are constantly trying to reach the goal by continuous improvement. For this all the competing organizations have moved to diverse team structure. The diverse teams are a double sided sword with both positive and negative sides. Among the diversity, gender diversity is becoming more and more popular as women started entering the work force. Here comes the introduction of a concept: Gender intelligence. Gender intelligence is an understanding of and appreciation for the naturally occurring characteristics that distinguish men and women beyond the obvious biological and cultural, to include attitudinal and behavioral differences. Once the employees are aware of how and why male employees and female employees think and act as they do, it is easy to understand the gender-related tendencies, which helps the organization to engage more effectively in the workplace. Through this study the researchers attempted to find out the impact of gender

Table 4: Descriptive statistics

	N	Mean	Std. deviation	Std. error	95% confidence interval for mean	
					Lower bound	Upper bound
20-30 years	75	79.8261	16.0379	2.36466	75.0634	84.5887
31 - 40 years	84	77.4091	14.1196	2.12861	73.1163	81.7018
41 - 50 years	76	75.2857	10.6257	4.01612	65.4586	85.1128
50 years above	66	60.2	14.7885	6.61362	41.8376	78.5624
Total	302	77.5098	15.247	1.50968	74.515	80.5046

Table 5: Test of homogeneity of variances

Gender intelligence			
Levene's statistic	df1	df2	Sig.
1.679	4	298	0.177

Table 6: ANOVA

	Sum of squares	Df	Mean square	F	Sig.
Between groups	1780.02	4	593.339	2.68	0.051
Within groups	21699.5	298	221.423		
Total	23479.5	101			

intelligence on work atmosphere. Through linear regression it was observed that gender intelligence influences the work atmosphere. The independent variable gender intelligence explains 83.3 per cent of the variability of the dependable variable work atmosphere. The researcher also attempted to examine how gender and age influences gender intelligence as well as work atmosphere. This research has found out that there is no significant relationship between gender and gender intelligence as well as work atmosphere. It was also found that there is difference in the gender intelligence of the employees with different age groups.

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