



Role of Work Environment in Enhancing Quality of Work Life [A Study with Reference to ONGC, Cauvery Basin]

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ABSTRACT

Oil and Natural Gas Corporation (ONGC) is one of the pioneers in oil and gas production in India and contributes over 84% of India's oil and gas production. It has 26 sedimentary basins in India and has projects in 15 countries. The organization has more than 40,000 employees working in both on-shore and off-shore projects. The work environment of ONGC is completely different and plays a crucial role in enhancing the quality of work life of their employees. This study is an attempt to identify the pre-dominant factors that affect the work environment of ONGC employees and exhibit how they affect the employee's quality of work life.

The result shows that there is a strong association between the work environment and quality of work life.

Keywords : employees, organization, quality of work life, work environment, ONGC

Introduction

Oil and Natural Gas Corporation Limited (ONGC) is an Indian multinational Oil and Gas Company headquartered in Dehradun, India was founded on 14 August 1956 and hold 74.14% of equity stake. It is the pioneer in oil and gas production in India and robust growth was noticed in the past few years and contributes over 84% of India's oil and gas production. ONGC has been ranked 357th in the Fortune Global 500 list of world's biggest corporation for the year 2012 and also has been awarded as the Asia's Best Oil and Gas Company. It has 26 sedimentary basins in India and its international subsidiary ONGC Videsh has projects in 15 countries currently. There are more than 40,000 employees working in ONGC. ONGC has both off shore and on shore projects. The work environment of ONGC is completely different from other sectors. Work in oil rigs is not that much easy, the employees work in hazardous environment which involves very high risk.

Employees in oil exploration units work in different work schedule which differs from other sectors, 14 days on and off in case of on-shore projects and 28 days on and off in case of off-shore projects. Most of the oil exploration units are far away from towns, hence the employees are in position to stay near by their work place in case of on-shore and on rigs or ships nearby in case of off-shore. In case of companies like ONGC the work atmosphere cannot be attractive, pleasant and mind fondle, the employees have to adapt to their peculiar work atmosphere and concentrate more to give their 100% efficiency. Optimum productivity is must for the companies like ONGC who have more demand for their product, to survive and succeed in this hi-tech world.

Though the work place is entirely unusual from other sectors, the organization try to give a conducive work environment to their employees in order to enhance their productivity. The conducive work environment electrifies the employees to give their best to increase their organizational productivity. The employees of oil exploration units will under go increased job stress since they are separated from their family for a long period and have to live in rigs and nearby places with their colleagues mean while. Their must be good relationship and co-operation among the employees and team spirit which leads them to acclimatize this strange work environment.

Factors influencing the work environment of ONGC employees

The following are various factors influencing the work environment of the ONGC (Cauvery Basin) employees:

1. Satisfied physical appearance of work place
2. Clean environment
3. Adequate basic requirement
 - Infrastructure
 - Sanitary facilities
 - Drinking water
 - Ventilation & lighting
 - Rest room
4. Adequate safety requirements
5. Pollution/Contaminants control
 - Noise
 - Dust/Odor
 - Water
 - Heat
6. Novel and promising work environment
7. Comfortable work environment

The above said factors play a vital role in enhancing the perception of the employees of ONGC towards their work environment which ultimately improves their quality of work life.

Statement of the problem

Each and every organization today concentrate more in acquiring and retaining the most powerful and dynamic work force in order to thrive in this busy competitive world. ONGC is not constrained to this phenomenon, with its peculiar work environment and high demand for its product, it is highly necessary for the organization to provide better quality of work life to its employees to enhance its productivity. Among various dimensions of quality of work life work environment plays a dominating role in ONGC. Since, the employees stay away from their family for long period and have to work in difficult circumstances, provision of good and comfortable environment becomes inevitable. Though ONGC provides better work environment to its employees, it some times fails to compensate their needs, demands and requirements. Hence, there is a requirement to study the work environment aspects of ONGC employees. This study focus on how the quality of work life of ONGC (Cauvery Basin) employees is enhanced through better work environment.

Objectives of the study

- To know the socio-economic factors of the employees of ONGC, Cauvery Basin.
- To identify various factors influencing work environment of ONGC (Cauvery Basin) employees.
- To examine the satisfaction level of ONGC (Cauvery Basin) employees regarding their work environment.
- To exhibit how work environment enhances the Quality of Work Life of employees.

Research methodology

Both the primary and secondary data was used for this study. The primary data was collected through a well structured questionnaire which includes all the details pertaining to this study. The data was collected from 50 employees of ONGC, Cauvery Basin through convenient sampling technique out of which only 42 is valid. The secondary data was collected from various magazines, journals, books, web sites and published records etc. The statistical tool used for this study was percentage analysis, Chi-square test and t-test.

Discussion

The percentage analysis is applied to know about the employee's demographic factors. This includes the details about the place of residence, gender, age, educational status, qualification details, marital status, and monthly income details of the employees.

Demographic details wise classification

S. No	Demographic details	Classifications	Frequency	Percentage (%)
1	Place of residence	Urban	13	31.0
		Semi-urban	21	50.0
		Rural	8	19.0
		Total	42	100.0
2	Gender	Male	38	90.5
		Female	4	9.5
		Total	42	100.0
3	Age	Below 25 years	6	14.3
		26-35 years	5	11.9
		36-45 years	13	31.0
		46-55 years	10	23.8
		56 years & above	8	19.0
		Total	42	100.0
4	Educational qualification	Up to higher secondary	1	2.4
		Graduate	8	19.0
		Post – Graduate	17	40.5
		Professional	11	26.2
		Others	5	11.9
Total	42	100.0		
5	Monthly income	Up to Rs.15,000	0	0
		Rs. 15,001-25000	0	0
		Rs. 25,001-35,000	9	21.4
		Rs.35,001-45,000	7	16.7
		Rs.45,001 & above	26	61.9
Total	42	100.0		
6	Marital status	Married	33	78.6
		Unmarried	9	21.4
		Total	42	100.0

The above table it is clear that maximum 50% of the employees reside in semi-urban areas and maximum 90.5% of the respondents are male. 31% of the employees are between the age of 36-45 years with 40.5% of the post graduates. Utmost 78.6% of the employees are married and 61.9% of the employee's monthly income is Rs. 45,001 and above.

Predominant Factors of Work Environment

Factor analysis is applied to find out the pre-dominant factors that influence the work environment of the organization. The following are the results of this analysis;

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.804
Bartlett's Test of Sphericity	Approx. Chi-Square	556.156
	df	91
	Sig.	.000

From the above table it is found that the KMO measure of sampling adequacy is 0.804 and Bartlett's test of Sphericity with approximated chi-square value 556.156 are statistically significant at 5% level. This shows that the sample is adequate to group the variables into pre-dominant factors and conclude that the factors derived represent the population parameters.

The following are the communalities table that indicates the range of variance of work environment.

Table of Communalities

S. No	Work Environment	Initial	Extraction
1	Satisfied physical appearance of work place	1.000	.770
2	Clean environment	1.000	.675
3	Adequate basic requirement	1.000	.600
4	Adequate safety requirements	1.000	.664
5	Pollution/Contaminants Control	1.000	.878
6	Novel and promising work atmosphere	1.000	.698
7	Comfortable work environment	1.000	.750

Extraction Method: Principal Component Analysis.

From the above table it is found that range of variance varies from .600 and .878. This shows that the range of variance significantly vary from 60.0% to 87.8%. This show the variables adequately represent the population parameters.

This following total variance table denotes the number of factors extracted out of the variables numbers considered for the study.

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.474	60.529	60.529	5.375	38.394	38.394
2	1.594	11.388	71.917	4.693	33.523	71.917
3	.948	9.775	81.692			
4	.278	7.989	89.681			
5	.167	5.194	94.875			
6	.046	3.328	98.203			
7	.034	1.797	100.000			

Extraction Method: Principal Component Analysis.

From the above table it is found that the seven variables are reduced to two pre-dominant factors with the Eigen values 5.375 and 4.693 for variance along with individual variance 38.394% and 29.581%. The cumulative variance for all these 7 variables is found to be 71.917%. This shows that the two derived factors possesses with considerable quantity of variance to represent the seven underlying variables.

Rotated Component Matrix

S. No	Work environment factors 1	Component	
		2	
1	Satisfied physical appearance of work place	.839	-
2	Clean environment	.758	-

3	Adequate basic requirement	.807	-
4	Adequate safety requirements	-	.667
5	Pollution/Contaminants Control	-	.931
6	Novel and promising work atmosphere	.721	
7	Comfortable work environment	.821	

Extraction Method: Principal Component Analysis.

It is clear that factor one comprises of five variables namely satisfied physical appearance of work place, clean environment, adequate basic requirement, Novel and promising work atmosphere and Comfortable work environment. This denotes that each and every worker wishes to work in a good natured and most promising environment, therefore, this factor is known as "Essential amenities". The second factor is coined as "Imperative amenities" consists of two variables basic safety measures and pollution /contaminants control, which are most vital for the employees to maintain their physical health, which will ultimately enhance their mental ability to perform effectively in their job.

Association between age and work environment satisfaction

Age of the employees play a vital role in measuring their attitude towards the work environment.

Hypothesis: There is no significant relationship between the age and the satisfaction of the employees with respect to the work environment aspects.

Association between Age and Work Environment Satisfaction

Age	Work Environment					
	HS	S	M	DS	HDS	Total
Below 25	16.67%(1)	16.67%(1)	33.33%(2)	0	33.33%(2)	100%(6)
26-35	0	80.0%(4)	0	20%(1)	0	100%(5)
36-45	23.07%(3)	23.07%(3)	38.46%(5)	15.38%(2)	0	100%(13)
46-55	40.00%(4)	30.00%(3)	20.00%(2)	10.00%(1)	0	100%(10)
56 & Above	62.50%(5)	12.50%(1)	25.0%(2)	0	0	100%(8)
Total	30.95%(13)	28.57%(12)	26.19%(11)	9.52%(4)	4.76%(2)	100%(42)

The above table shows that 33.33% of the employees below 25 years stated that they are moderately and highly dissatisfied with their work environment, 80% of employees between 26-35 years are satisfied, 38.46% of employees between the age of 36-45 years are moderately satisfied, 40% and 62.50% of employees between the age group of 46-55 years and 56 years and above are highly satisfied with respect of their work environment.

The chi-square test revealed that there is no association between the age and the factors of work environment with chi-square value of 15.524 and p value of 0.487.

Association between educational qualification and work environment satisfaction

Educational qualification of the employees is considered to be a crucial factor that helps us in determining the stance of the employees towards the work environment.

Hypothesis: There is no significant relationship between the educational qualification and the satisfaction of the employees with respect to the work environment aspects.

Association between Educational Qualification and Work Environment

Educational Qualification	Work Environment					
	HS	S	M	DS	HDS	Total
Up to higher secondary	100.0%(1)	0	0	0	0	100%(1)

Graduate	0	42.85%(3)	57.14%(4)	0	0	100%(7)
Post-graduate	41.17%(7)	35.29(6)	17.6%(3)	5.88%(1)	0	100%(17)
Professional	16.67%(2)	16.67%(2)	25%(3)	25%(3)	16.67%(2)	100%(12)
Others	60.0%(3)	20.0%(1)	20.0%(1)	0	0	100%(5)
Total	30.95%(13)	28.57%(12)	26.19%(11)	9.52%(4)	4.76%(2)	100%(42)

From the above table it is clear that 100% of employees who are up to higher secondary qualification are highly satisfied with their work environment. 57.14% of graduates, 25% of professionals are moderately satisfied, 25% of professionals are dissatisfied, and 41.17% of post graduates and 60% of other category employees like IIT, and Diploma holders etc are highly satisfied with the work environment variables.

The chi-square test exposed that there is no association between the educational qualification and the factors of work environment with chi-square value of 24.982 and p value of 0.202.

Opinion of employees on the basis of work environment factors

The work environment and its relationship with Quality of work life depend upon the prevailing work environment in their organizations. Their opinion is sustained parametrically by applying a parametric t-test and the following results were applied;

One sample statistics for the opinion of employees on the basis of the Work Environment factors

S.No	Work Environment factors	N	Mean	Std. Deviation	Std. Error Mean
1	Satisfied physical appearance of work place	42	2.5000	1.06496	.16433
2	Clean environment	42	2.6190	.93580	.14440
3	Adequate basic requirement	42	2.4048	1.01356	.15639
4	Adequate safety requirements	42	2.1429	.87154	.13448
5	Pollution/Contaminants Control	42	2.4048	.79815	.12316
6	Novel and promising work atmosphere	42	2.4524	.88902	.13718
7	Comfortable work environment	42	2.3810	.88214	.13612

From the above table it is found that the mean values of 7 major variables varies from 2.1429 to 2.6190 with varying standard deviation. It is obvious that the employees expect clean, satisfied, novel and promising work atmosphere at first place. They also expect adequate basic facilities with pollution/Contaminants control measures which leads them to feel comfortable in their work place. Adequate safety facilities are the added benefits to the employees which motivates them to concentrate on productivity. This can be represented by the following diagram,

Work Environment and Quality of Work life rtreh



The above chart clearly indicates the significance of the work environment and its role on enhancing the quality of work life of the employees in ONGC, Cauvery Basin. The organization must ensure better and appropriate work environment to their employees so that they will be able to involve in their job with full efficiency that leads to increased productivity. Better work environment not only enhances productivity but also reduces the job stress among the employees which ultimately enhances his social life.

Conclusion

The study revealed that the work environment was considered to be the most important factor that enhances the employee's quality of work life when it is conducive in case of ONGC. In case of organizations like ONGC it is very essential to concentrate on the work environment aspects as the employees expect more from their organization. It is clear from this study that work environment factors have direct impact on employee's quality of work life which in turn increases the performance and productivity of an organization and helps it to succeed and survive in this competitive world.

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