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## **Effect of Occupational Stress on QWL: Amongst the associates of IT industry**

### **Abstract**

*The Study consists of a sample of 203 associates of IT industry in the age range of 20- 55 years. The sample was drawn using randomized sampling technique. The associates were tested on Job Satisfaction and Organizational Stress was administered to all the subjects individually. The mean scores of associates were calculated to ascertain their occupational stress and regression analysis was used to see the effect of Occupational Stress on Quality of Work Life amongst the associates of the IT sector. The results show that the IT associates feel good group cohesiveness that means people stick together on group decisions and also go along well. Also the associates feel averagely stressed out due to lack of role clarity, fair compensation, consistent role demands, adequate work load, managerial support, context sensitive, and comfortable job. This means that the associates are moderately stressed due to contradictory demands on the role incumbent, unjustified compensation, non clarity about the requirement of the job, required to do too much within assigned time and resources, passive and discouraging role of leader at the time he needs help and encouragement in tackling the problems, problems in coping with technological change as well as rigid rule regulations, and taxing job. The associates in the IT industry feels moderately stressed due to significantly different abilities from the requirements of the job and lack of adequate amount of authority to discharge his responsibilities.*

**Keywords:** Stress, Occupational Stress, QWL, IT Employees.

## **Introduction**

The end of the twentieth century witnessed a series of violent changes battering our society. In fact, a new civilization has been found to be emerging in our lives all over the world. The well-known social thinker Toffler (1980) describes this powerful tide of revolutions as the 'Third Wave' of change surging across the world. He made a startling sense of it when he wrote: "This new civilization brings with it new family styles; changed ways of working, loving and living; a new economy; new political conflicts; and beyond all this, an altered consciousness as well... The dawn of this new civilization is the single most explosive fact of our lifetimes". The third wave thus begins a truly new era. All the bio, socio, and techno spheres of the new century will have to be enmeshed with the weft and weave of these transformations. The key to such an extra ordinary change is, of course, the computer coupled with new advancements in electronics and communication technology. These technologies multiply the means and powers of spreading the new developments in different fields at different nook and corners of the world. Readymade information easily tapped from internet and other information technology sources trembles all spheres

of human life and all systems of human activity like marketing, engineering, management and so on. Information has become the vital resource, valuable input and a super power for societal development. The future society will be functioning around the axis of information values rather than material values. Knowledge capital will predominate over material capital in structuring the national economy.

Consequently, the information and knowledge industries assume greater significance and can play a prominent role in the economic transformation of a nation. Today, the primary and secondary information sectors have come to account for a significant proportion of the GDP and GNP of many developed and developing countries. Implications of this emerging scenario of 'Information Society' are likely to be profound in many ways and its ramifications manifold. They also raise a host of questions including those related to the labour and workforce strategies in every sector. In the volatile environment, work in the factories and offices grow less repetitive and becomes less fragmented. Each person is entitled to do a somewhat longer, rather than smaller task. Workers are forced to cope with more frequent changes in their tasks as well as a blending succession of personnel

transfers, product changes, and reorganizations. Changes in the organization of work dictate new roles and relationships, which will have a direct impact on jobs and staff. Consequently, responsiveness to the needs and problems of an organization's employees as well as its clientele also implies change and requires scrutiny. The speed of the busy life; cultural, economic and political changes in the society; ever changing roles and role ambiguity of the individuals etc. are causing to precipitate a strange disease to human beings – 'the stress'. Stress has become common and very frequent when and wherever there is human involvement. It has also become one of the most serious occupational health hazards of the time. Stress at work and the stressful transactions are characterized in all organizational settings. The factors that lead to stress at the workplace are categorized mainly into four by Summers, et al. (1994) (viz.), Personal characteristics, Organizational characteristics – structural, Organizational characteristics - procedural and Role characteristics. A person who enjoys the work and derives satisfaction alone can perform in the best perfect manner. The fulfillment of personal needs and goals leads to satisfaction, well-being and happiness. To be in a state of satisfaction or well-being

or happiness is the prime motto of individual life. But how far and how long the individual can be satisfied in his profession, which is full of work-related stress and strain? Finding an answer to this question is not an easy task.

### **Literature Review**

Laughlin (1985) studied the occupational stress and its relationship to social supports and life turbulence of teachers in New South Wales. The study revealed that nearly one third of the teachers considered their job to be extremely stressful. Self reported teacher stress was found to be negatively related to Job satisfaction and intension to continue teaching.

Whitlatch (1991) has made a study about the Job Satisfaction among reference librarians where the libraries are automated. He chose five academic libraries for the study. It affirmed that the automation raises stress in the job when attempting to improve services through automation. The arising stress is to be more focused. The general notion concerning stress is that too much or too little stress is not good. But a moderate level of stress motivate the professionals is good. The study reveals that one of the dangers of automation is that the professionals will become technicians and the job will become very routine. The

job satisfaction will be less in routine job. It found that the people working in the reference library departments report the work to be significantly less routine and that the reference personnel were more satisfied.

Billingsley and Cross (1992) conducted a study on 463 special educators and 493 general educators in Virginia. Analysis indicated that work-related variables, such as leadership support, role conflict, role ambiguity, and stress, are better predictors of commitment and job satisfaction than are demographic variables. Findings were similar for general and special educators.

Raza and Gupta (2000) have conducted a study to measure the extent of job satisfaction and effect of job anxiety on job satisfaction and their inter relationship among library professionals according to their hierarchy of the post. The data was collected from a sample of 65 library professionals employed in Delhi University System. This was an empirical study to establish some relationship between job anxiety and job satisfaction in the library environment, which could be useful for maximizing the output and efficiency of library operations. Questionnaire method has been used for the data collection. The 'J.S.Q.: Job Satisfaction Questionnaire' developed by D. M.

Pestonjee (1973) and 'J.A.S.: Job Anxiety Scale' developed by A.K.Srivastava (1974) were the main tools used to gather required information. The results indicate that library employees of different posts demonstrate individual differences in job anxiety. The percentage of satisfied employees pertaining to social relation area is the highest (92.30%), most of the persons are able to maintain good social relation. The extent of job satisfaction in personal adjustment area is 63%, which is the lowest percentage as compared to other areas of job satisfaction. There is an inverse relationship between the level of anxiety and hierarchy of posts in library.

A study was conducted by Hart (1992) to understand what are the positive and negative work experiences reported by teachers, and how do these contribute to their quality of work life? Structural equation analyses was conducted on questionnaire data obtained from 1,539 Victorian primary and secondary school teachers, as part of the evaluation of three organizational health programs. Drawing on Perceived Quality of Life research it was hypothesised that stress and morale would be separate outcomes of positive and negative work experiences. Results confirmed that stress and morale operate on different dimensions. Three structural equation models showed that positive

experiences were stronger determinants of morale than stress, whereas negative experiences were stronger determinants of stress than morale. Stress and morale contributed equally to a teacher's overall quality of work life. When examined simultaneously it was found that positive experiences contributed only to morale whilst negative experiences contributed only to stress.

Attempts have been made by Ahmad and Mehta (1997) to bring forward empirical evidence on the relationship between Organisational Role Stress (ORS) and Perceived Quality of Work Life (PQWL). The results indicate that all the ten dimensions of ORS, namely inter-role distance, role stagnation, role expectation conflict, role erosion, role overload, role isolation, role inadequacy were negatively correlated with the four dimensions of PQWL, namely, influence, work amenities, job satisfaction and supervisory behavior. Patanayak (1997) has conducted a study about Role Stress and Quality of Work Life specifically at Steel Authority of India (Rourkela Steel Plant) and National Aluminium Co. (NALCO) taking into account of 3 dimensions, namely type of organisation (new and old) area of work (production and service) and the position in the Organisation's hierarchy (executive and nonexecutive) with regard to

Organisational Role Stress and sub scales. It explained that all the three dimensions jointly contribute to the differential experience of role expectation conflict as ORS variables. The major dependent variable of the study is Quality of Work life as an index of organizational effectiveness.

### **Objectives**

- To identify the factors at workplace responsible for stress among employees of IT sector.
- To understand the impact of stress on quality of work life of employees of IT sector.

### **Hypotheses**

- It is assumed that the demands of the work have a direct impact on the level of occupational stress.
- It is assumed that the Occupational Stress has negative impact on the quality of work life of IT employees.

### **Sample**

The universe consisted of top level management, middle level management, supervisors out of which a sample of 203 associates was taken. Out of this sample, 188 were males and 15 females. The

associates taken in the sample were in the age range of 21-50 years.

### **Tools Used**

The following tests were constructed in the study to collect the primary data:

1. Occupational Stress Questionnaire
2. Quality of Work Life Questionnaire
- Organizational Stress Questionnaire (Singh, 1989) and Organization effectiveness Questionnaire was used. It is a 33 items questionnaire consisting of both positively and negatively keyed items in which each statement is rated on 5- point scale. This test can be administered individually or in group. It takes around 10 minutes to complete this test. The test measures 10 dimensions of stress, which are as follows:
  1. Lack of group cohesiveness: A situation of stress where people do not stick together on group decisions and do not go along well.
  2. Role Conflict: A situation of stress where contradictory demands are put on the role incumbent.
  3. Feeling of Inequality: A situation of stress where incumbent feels that compensation provided to him is not justified.
  4. Role Ambiguity: A situation of stress where incumbent is not clear about the requirement of the job.

5. Role Overload: A situation of stress where incumbent feels that the he is required to do too much within assigned time and resources.

6. Lack of Supervisory Support: A situation of stress where incumbent perceives the role of leadership as passive and discouraging at the time he needs help and encouragement in tackling the problems.

7. Constraints of Change and Rule Regulations: A situation of stress where incumbent experience problems in coping with technological change as well as rigid rule regulations.

8. Job Difficulty: A situation of stress where incumbent feels that job is taxing to her/his abilities, and is significantly different from the requirement of the job.

9. Job Requirement- Capability Mismatch: A situation of stress where incumbent feels that her/his abilities are significantly different from the requirement of the job.

10. Inadequacy of Role Authority: A situation of stress where incumbent perceives that he is not provided with adequate amount of authority to discharge his responsibilities.

Cronbach's alpha reliability for the 10 dimensions are as follows: Lack of group cohesiveness (.80), Role Conflict (.81), Feeling of Inequality (.90), Role

Ambiguity (.73), Role Overload (.83), Lack of Supervisory Support (.83), Constraints of Change and Rule Regulations (.61), Job Difficulty (.63), Job Requirement- Capability Mismatch (.65) and Inadequacy of Role Authority (.79). Content validity of the test is .80.

#### **Organizational Stress Questionnaire:**

The subjects were instructed that “below are given some job and work experiences. Choosing an appropriate number indicate to what extent they are true in your case; (1) true to almost no extent, (2) true to small extent, (3) true to some extent, (4) true to great extent, (5) true to very great extent.” Subjects took approximately ten to fifteen minutes to complete this test.

#### **Quality of Work Life Questionnaire:**

The subjects were instructed that “There are some statements which describe some possible characteristics of an organization. After each statement the subjects were asked to rate on five points from “almost no extent” to “a great extent”. Indicate to what extent you agree that the statement describes the characteristics of your organization by giving the appropriate option.” The subjects were also requested not to omit any statement and they were ensured that their responses would be kept totally confidential. Subjects were given twenty minutes to complete the test.

#### **Scoring Of The Tests**

Organizational Stress Questionnaire was rated on a 5- point scale. Questionnaire consisted of positive and negative key item. The response alternatives ranged in five categories from “true to almost no extent” to “true to a very great extent”. Positive key item carried a score of five if the response was in the category of “true to a very great extent” and carried a score of one if the response was in the category of “true to almost no extent”. While the reverse pattern of scoring was followed for the negative key items. Thus in this test high score indicate low level of stress and low scores indicate higher level of stress.

In Quality of Work Life Questionnaire summated rating scale was followed. The test contains some positively keyed items and some negatively keyed items. The score ranges from 1 to 5 for positively keyed items and from 5 to 1 for negatively keyed items. The scores for each dimension were calculated by averaging the sum of scores for all the items in the dimension. A higher score on each dimension indicates the higher presence of each dimension of Quality of Work Life.

**Procedure** The subjects for the study were selected by using random sampling for middle level management,

supervisory level and lower level associates and random sampling for top level management. The tests were administered in groups and sometimes in some stray cases individually. For this purpose firstly rapport was established with the subjects and then the purpose of the study was explained to them. The instructions for each test were given separately. For the top management questionnaires were given to them personally, explaining the instructions in details and these were collected from them later on.

### **Results & Discussion**

The mean scores of IT Industry employees' shows that the associates feel good group cohesiveness that means people stick together on group decisions and also go along well. Also the associates feel averagely stressed out due to lack of role clarity, fair compensation, consistent role demands, adequate work load, managerial support, context sensitive, and comfortable job (Table 1). This means that the associates are moderately stressed due to contradictory demands on the role incumbent, unjustified compensation, non clarity about the requirement of the job, required to do too much within assigned time and resources, passive and discouraging role of leader at the time he needs help and

encouragement in tackling the problems, problems in coping with technological change as well as rigid rule regulations, and taxing job. The associates in the IT industry feels moderately stressed due to significantly different abilities from the requirements of the job and lack of adequate amount of authority to discharge his responsibilities.

The analysis of the mean table (Table II) shows that the overall the associates of the industry scores above average on quality of work life. They feel that their quality of work life is fairly good. Further the analysis of each variable predicts that IT industry scores below average on Attractive Reward System. This means the degree to which rewards are based on efficiency and performance which helps in improving morale and quality of work life is below average in IT industry. Also scores nearly average on Relaxed and Congenial Work Culture. This means the degree to which the work environment is congenial, supportive, and easy going that leads to happy employees and better work life is average. Again it scores average on Well Structured Policies: means the degree to which the policies in the organization are well defined to reduce ambiguity and enhance quality of work life. They also score average on Growth Oriented Atmosphere: that is the



degree to which organization provides opportunities for the enhancement of capabilities and innovativeness of the employees which ultimately improve quality of work life. It scores average on Effective Crisis and Conflict Resolution i.e. the degree to which the organization provides support in managing crisis and conflict situations. And also average on Organic Structure: i.e. the degree to which the organizational policies and systems are open to change with the changing environmental demands. Here IT industry scores higher on Encouraging Management means the degree to which management provides encouragement and support to the employees who boost their morale and satisfaction and thereby improves the quality of work life.

The scrutiny of model summary for regression (Table III) shows significant impact of Occupational Stress factors on Quality Work Life (QWL) of IT industry. The R-square value comes out to be  $R^2 = .785$ ,  $p = .000$  (Table 5.2.2). Table 5.2.2a shows that the ANOVA for regression model is significant. **This means that the predicting variables are correlated with the Quality of Work Life and accounts for 78.5% variance in quality of work life of the associates of IT industry.** In all 10 variables were found to be the predictors (correlates) while 1 factor i.e. Consistent Role Demands

dropped out.. **The adjusted R-square value comes out to be  $Ad R^2 = .77$ . This means, when applied on population these predicting variables will account for 77% variance in the Quality of Work Life of IT industry associates.**

(A scrutiny of the table of regression shows that the t values are found to be significant for Role Clarity,  $t = -4.84$ ,  $p = .000$ , Adequate Workload,  $t = -6.998$ ,  $p = .000$ , Context Sensitive,  $t = -8.664$ ,  $p = .000$ , Job Capability Fit,  $t = -4.034$ ,  $p = .000$  and Overall Stress Score= 6.429,  $p = .000$ ).

The predicting variables will account for 77% variance in the Quality of Work Life of IT industry associates.

**The results here show that a higher stress will lead to poor quality of work life for IT professionals. However it is interesting to note that more role clarity, adequate workload, context sensitiveness, and job capability fit are contributing negatively to quality of work life.** These results are unexplainable. However quality of work life is not affected by lack of group cohesiveness, fair compensation, managerial support, comfortable job and role autonomy for IT industry associates.

## Conclusion

Human resources can be one of the biggest game-changers in terms of competitive advantage. The success of

the strategy rests in people's execution, which calls for the HR manager to be an equal partner at the strategic table. The re-established HR business objectives now expect the HR manager to parallel the needs of the organization with the dynamic business environment. The most important job of HR manager is to chord the harmony between the organization and its resources for the overall excellence of the both. To perform well in today's competitive environment an organization must have consistency amongst its structure, system, people, culture and good fit with the strategy. When these structural and cultural characteristics are appropriate, and fit the environmental, technological, and internal requirements, they have a positive impact upon individual satisfaction, performance and are less stressful. However, in IT industry though the technological environment changes

very fast but still things can be managed with older technologies. This may take a toll on time and efforts but financial investments can be saved by avoiding new technologies which gets converted in to stress for associates in the IT sector. Referring to the results of stress due to job capability fit, the probability of these results could be that in IT sector the technology changes very fast, the associates here have to keep themselves updated always and often they find their knowledge base obsolete. So this gets translated in to more stress amongst the associates of IT industry. The results emphasize that to have good quality of work life certain factors like fair compensation, consistent role demands, managerial support, comfortable job, job capability fit, role autonomy and stress are required to be in place. They all contribute directly to the quality of work life.

**Table I: Mean Score on various factors of Organizational Stress**

Factors	Mean Score
Group Cohesiveness	3.8276
Role Clarity	3.1084
Fair Compensation	3.0775
Consistent Role Demands	3.4865
Adequate Workload	3.0059
Managerial Support	3.1459
Context Sensitive	3.1034
Comfortable Job	3.1010
Job-Capability Fit	3.4891
Role Autonomy	3.2488

**Table II: Mean Scores on various factors of Quality of Work Life**

Quality Of Work Life Parameters	Mean Scores of IT Industry
Attractive Reward System	3.48
Relaxed and Congenial Work Culture	3.42
Well Structured Policies	3.74
Growth Oriented Atmosphere	3.48
Effective Crisis and Conflict Resolution	3.55
Organic Structure	3.34
Encouraging Management	3.77
Overall Quality of Work Life	3.54

**Table III showing Regression Model Summary for Impact of Occupational Stress Variables on Quality of Work Life in the IT Industry**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.886 <sup>a</sup>	.785	.774	.24738	.785	70.159	10	192	.000
a. Predictors: (Constant), Stress Score, Role Clarity, Managerial Support, Context Sensitive, Comfortable Job, Fair Compensation, Adequate Workload, Role Autonomy, Group Cohesiveness, Job-Capability Fit									

**ANOVA for the Significance of Regression Model**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	42.935	10	4.293	70.159	.000 <sup>a</sup>
Residual	11.750	192	.061		
Total	54.685	202			
a. Predictors: (Constant), Stress Score, Role Clarity, Managerial Support, Context Sensitive, Comfortable Job, Fair Compensation, Adequate Workload, Role Autonomy, Group Cohesiveness, Job-Capability Fit					
b. Dependent Variable: Quality Work Life Total Score					

### Regression Co-efficients of Occupational Stress on Quality Work Life in IT Industry

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.025	.224		.110	.913
Group Cohesiveness	-.037	.059	-.044	-.628	.531
Role Clarity	-.170	.035	-.207	-4.847	.000
Fair Compensation	.028	.042	.056	.680	.497
Adequate Workload	-.274	.039	-.397	-6.998	.000
Managerial Support	.041	.039	.050	1.072	.285
Context Sensitive	-.359	.041	-.438	-8.664	.000
Comfortable Job	-.032	.045	-.043	-.719	.473
Job-Capability Fit	-.229	.057	-.313	-4.034	.000
Role Autonomy	-.003	.047	-.005	-.058	.954
Stress Score	2.089	.325	1.238	6.429	.000
a. Dependent Variable: Quality Work Life Total Score					

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