



A STUDY ON OCCUPATIONAL STRESS AMONG THE EMPLOYEES - WITH SPECIAL REFERENCE TO ONGC, KARAİKAL

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Abstract

Several research studies have been conducted to measure the occupational stress among employees in various sectors. Whereas this study focus on exploring the level of occupational stress among the employees with special reference to ONGC (Oil and Natural Gas Corporation started in 1955), Karaikal. Stress is the major factor which affects the work performance and health of an employee and organization output. So the researcher has prepared a questionnaire which helps to measure the perceived level of occupational stress. Researcher collected around 200 samples out of 720 employees. The collected data were analysed using some statistical tools to come out with the result. Finally researcher found that workload; job security and management support for career planning and development, ineffective time management are the major identifiable variables in determining stress among employees.

Key words: Occupational Stress, Employees, ONGC

Introduction and Definition

Modern living has brought with it, not only innumerable means of comfort, but also a plethora of demands that tax human body and mind. Now-a-days everyone talks about stress. Stress is the term that has been commonly used by all of us in today's world. With every new invention, life is rapidly changing, every one finds to get busier and stressed out striving to be in pace with the changes. Not only just high pressure executives are its key victims but it also includes laborers, slum dwellers, working women, businessmen, professionals and even children. Stress is an inevitable and unavoidable component of life due to increasing complexities and competitiveness in living standards.

UniversityDurham (1992) defined stress as a process of behavioral, emotional, mental, and physical reactions caused by prolonged, increasing, or new pressures that are significantly greater than the availability of coping strategies.

Stephen Robbins (1999) defined stress as "a dynamic condition in which an individual is confronted with an opportunity, constraint or demand related to what he / she desires and for which the outcome is perceived to be both uncertain and important."

Stress Vs Productivity

Job stress can be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress can lead to poor health and even injury. Work related stress accounts for approximately sixty percent of all job absences with a national annual cost of fifty-seven billion dollars.

The concept of job stress is often confused with challenge, but these concepts are not the same. Challenge energizes us psychologically and physically, and it motivates us to learn new skills and master our jobs. When a challenge is met, we feel relaxed and satisfied. Thus, challenge is an important ingredient for healthy and productive work. The importance of challenge in our work lives is probably what people are referring to when they say "a little bit of stress is good for you."

The situation is different when the challenge has turned into job demands that cannot be met, relaxation has turned to exhaustion, and a sense of satisfaction has turned into feelings of stress. In short, the stage is set for illness, injury, and job failure.

1.2. Individual Reactions to Stress

It is always important to remember how different people are and this is very true regarding reactions to stress. What is a stimulus for one person may represent a high degree of stress for another.

Differences between individuals are especially important in assembly-line work in the manufacturing industry. The work organization is often such that an equal contribution is expected from every worker. The consequences will be too heavy a burden on the weakest, while the more competent worker will lack all the challenges that create positive stress.

One can imagine a human being covered by a shell which varies in thickness. Stress factors are like arrows which hit the shell. The blows may be stray or weak, single or multiple, or continuous and wearing. Sometimes repetitive trauma can



harden the shell and it will grow stronger and thicker. Sometimes a stress factor is strong enough to break right through the shell, especially if it hits a weak point. It is virtually impossible to know where in an individual the weak points are and surprises are often encountered.

An individual's reaction to a stress factor also varies with personal well-being. Tiredness and sickness weaken the shell and make it fragile. Lots of shortcomings in the physical work environment will make the individual more vulnerable: noise, poor illumination, vibrations, crowding, fear of danger from machines. Dangerous substances, which are normally accepted as not at all stress provoking, can become harmful and provide the explanation for some astonishing stress reaction, especially in workshops.

All heavy physical or mental demands or strains can provoke stress if the individual is weak. On the other hand, if the individual is strong, the demand or strain may be positive and create a feeling of strength and satisfaction.

Objectives

- To study the perceived level of occupational stress among employees with special reference to ONGC karaikal
- To study the various reasons for creation of work stress in the fulfillment of core objectives of their work
- To offer suggestions for reducing the job stress

Review of literature

Author and Year	Major Findings
Selye, 1976	a response to challenging events
Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964	an event that places demands on the individual
French, Kaplan, & Harrison, 1982	an environmental characteristic which poses a threat to the individual
Lazarus, 1991	unable to deal adequately with the demands placed upon
UniversityDurham (1992)	a process of behavioral, emotional, mental, and physical reactions caused by prolonged, increasing, or new pressures that are significantly greater than the availability of coping strategies
Luthans, 1994	abnormal reaction that the organism displays against threatening environmental elements
Krüger, 1993	successful people are those who convert their stress to creative energy and creative power
Steers, 1981	that those who work in a moderate level of stress work with a higher performance
Palmer and Hyman, 1993	Stress is not always a negative fact
Kahn and Cooper (1993)	limited opportunities for advancement, insufficient performance feedback, performance assessment measures being inadequate and biased control systems and culture within the organisation, may be perceived as potential stressors.
Kelly & cooper (1981)	casting work in a steel manufacturing plant, poor working conditions such as noise, fumes and, to a lesser extent, heat, together with the social and psychological consequences, including isolation and tension among workers, had a significant impact.
Mossholder and Bedeian (1980)	postulate casual relationship among role ambiguity, role conflict, and organizationally valued outcomes such as job satisfaction, physical symptoms, and turnover intentions.

Profile of the ONGC 1947 - 1960

During the pre-independence period, the Assam Oil Company in the northeastern and Attock Oil company in northwestern part of the undivided India were the only oil companies producing oil in the country, with minimal exploration input. The major part of Indian sedimentary basins was deemed to be unfit for development of oil and gas resources. After independence, the national Government realized the importance of oil and gas for rapid industrial development and its strategic role in defense. Consequently, while framing the Industrial Policy Statement of 1948, the development of petroleum industry in the country was considered to be of utmost necessity.



Until 1955, private oil companies mainly carried out exploration of hydrocarbon resources of India. In 1955, Government of India decided to develop the oil and natural gas resources in the various regions of the country as part of the Public Sector development. A delegation under the leadership of Mr. K D Malviya, then Minister of Natural Resources, visited several European countries to study the status of oil industry in those countries and to facilitate the training of Indian professionals for exploring potential oil and gas reserves.

The main functions of the Oil and Natural Gas Commission subject to the provisions of the Act, were "to plan, promote, organize and implement programs for development of Petroleum Resources and the production and sale of petroleum and petroleum products produced by it, and to perform such other functions as the Central Government may, from time to time, assign to it". The act further outlined the activities and steps to be taken by ONGC in fulfilling its mandate.

1961 - 1990

Since its inception, ONGC has been instrumental in transforming the country's limited upstream sector into a large viable playing field, with its activities spread throughout India and significantly in overseas territories. In the inland areas, ONGC not only found new resources in Assam but also established new oil province in Cambay basin (Gujarat), while adding new petroliferous areas in the Assam-Arakan Fold Belt and East coast basins (both inland and offshore).

ONGC went offshore in early 70's and discovered a giant oil field in the form of Bombay High, now known as Mumbai High. This discovery, along with subsequent discoveries of huge oil and gas fields in Western offshore changed the oil scenario of the country. Subsequently, over 5 billion tones of hydrocarbons, which were present in the country, were discovered.

After 1990

The liberalized economic policy, adopted by the Government of India in July 1991, sought to deregulate and de-license the core sectors (including petroleum sector) with partial disinvestments of government equity in Public Sector Undertakings and other measures. As a consequence thereof, ONGC was re-organized as a limited Company under the Company's Act, 1956 in February 1994.

During March 1999, ONGC, Indian Oil Corporation (IOC) - a downstream giant and Gas Authority of India Limited (GAIL) - the only gas marketing company, agreed to have cross holding in each other's stock. This paved the way for long-term strategic alliances both for the domestic and overseas business opportunities in the energy value chain, amongst themselves. Consequent to this the Government sold off 10 per cent of its share holding in ONGC to IOC and 2.5 per cent to GAIL. With this, the Government holding in ONGC came down to 84.11%.

In the year 2002-03, after taking over MRPL from the A V Birla Group, ONGC diversified into the downstream sector. ONGC will soon be entering into the retailing business. ONGC has also entered the global field through its subsidiary, ONGC Videsh Ltd. (OVL). ONGC has made major investments in Vietnam, Sakhalin and Sudan and earned its first hydrocarbon revenue from its investment in Vietnam.

Methodology

Research Design

The researcher has used descriptive cum diagnostic research design. Descriptive research studies are concerned with describing the characteristics of a particular individual, or a group, whereas diagnostic research studies determine the association between the variables.(C.R.Kothari, 2007).

Nature of Data

Researcher has used both primary and secondary data for his study. Primary data were collected through occupational stress questionnaire and secondary data was collected through various literatures, company profile and internet, etc.,

Survey tool used

For collecting the data researcher has used questionnaire which will enable the researcher to understand and analyse the perceived level of occupational stress among ONGC (oil and natural gas Corporation started in 1955) employees and the various reasons for creation of work stress.

Population and Sample Size

There are around 720 employees working for ONGC, karaikal. Out of which 200 samples were chosen at executive and non executive level.



Sampling Method

Here the researcher has used stratified random sampling method to collect the samples from the universe.

Tools used for analysis

Finally the researcher has used Percentage Analysis, Chi-Square test, Weighted average method, One way ANOVA method for analyzing and interpreting the results of the collected data.

Data Analysis And Interpretation

Percentage Analysis: Table 1

S No.	AGE	NO. OF RESPONDENTS	PERCENTAGE
1	Below 25	10	5%
2	25-30	18	9%
3	31-40	52	26%
4	41-50	76	38%
5	Above 50	44	22%
GENDER			
1	Male	128	64%
2	Female	72	36%
MARITAL STATUS			
1	Single	52	26%
2	Married	148	74%
	TOTAL	200	100%

Source : Primary Data

Interpretation

The above table indicates that 90% of respondents belongs to male and remaining 10% of respondents belongs to female.

It is understood from the above table that 38% of respondents are in the age group of between 41-50, followed by 26% of respondents at 31-40, 22% of respondents at above 50, 9% of respondents at 25-30 and only 5% of respondents are below 25. 74% of respondents are married and remaining 26% of respondents are unmarried.

Table 2

sno	PARTICULARS	NO. OF RESPONDENTS	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Inadequate welfare services	NO. OF RESPONDENTS	4	11	33	69	83
		PERCENTAGE	2%	5.50%	16.50%	34.50%	41.50%
2	Proper performance measurement	NO. OF RESPONDENTS	16	120	16	26	22
		PERCENTAGE	8%	60%	8%	13%	11%
3	Mgmt support for career planning and development	NO. OF RESPONDENTS	0	131	19	50	0
		PERCENTAGE	0%	65.50%	9.50%	25%	0%
4	Proper counseling for problems	NO. OF RESPONDENTS	16	131	53	0	0
		PERCENTAGE	8%	65.50%	26.50%	0%	0%

Intpretations: Around 76% of respondents feel that the welfare services are inadequate.25% of respondents expects that the management should be supportive for career planning and development.



Table 3

S.NO	Reasons for stress		STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE	TOTAL
1.	Insecure job	No. of respondents	2	4	28	116	50	200
		Percentage	1%	2%	14%	58%	25%	100%
2.	Transportation problem	No. of respondents	52	33	20	51	44	200
		Percentage	26%	16.5%	10%	25.5%	22%	100%
3.	Things go wrong	No. of respondents	84	52	44	20	0	200
		Percentage	42%	26%	22%	10%	0%	100%
4.	Ineffective time management	No. of respondents	48	92	20	18	22	200
		Percentage	24%	46%	10%	9%	11%	100%
5.	Family	No. of respondents	8	20	27	37	108	200
		Percentage	4%	10%	13.5%	18.5%	54%	100%

Interpretations: Around 52% of respondents feel that they do not have proper transportation facility. 90% of respondents opine that things happening in their organization are beyond their control and 80% of respondents feel that as they are stressed because of ineffective time management.

Chi-Square Test: Gender and Environmental Factors

Aim: To find whether there is association between gender and environmental factors which make the respondents feel stressed in the organization.

Hypothesis

H₀: There is no association between gender and environmental factors.

H₁: There is an association between gender and environmental factors.

Observation:

Table 4

FACTORS GENDER	WORK	RELATIONSHIP	FAMILY EVENTS	ROW TOTAL
MALE	101	16	11	128
FEMALE	47	8	17	72
COLUMN TOTAL	148	24	28	200

Conclusion

Since the calculated value (8.65352) of Chi-square is greater than the tabulated value (5.991). [i.e., $|t_2| > t^2$]. We reject the null hypothesis. Therefore there is an association between gender and environmental factors.

Weighted Average Method

A. SOURCE OF STRESS IN ORGANISATIONAL FACTORS

Aim: To find out the roles in organizational factors, that makes the employees stressful.

Table 5

RANK	1	2	3	4	5	WEIGHTED MEAN	RANK
ROLES							
Role demand	20	11	7	90	72	2.085	IV
Role ambiguity	18	43	79	46	14	3.025	III
Role conflict	58	84	55	1	2	3.975	II
Role overload	96	52	40	10	2	4.15	I
Role under load	8	10	19	53	110	1.765	V



Conclusion

In the test of roles in organizational factors, that makes the employees stressful, the highest rank of I for Role overload, and II, III, IV and V rank for Role conflict, Role ambiguity, Role demand and Role under load.

B. Priority For Recreational Activities

Aim: To find out the priority of employees for various recreational activities which are provided by your organization.

Observation

Table- 6

RANK	1	2	3	4	5	WEIGHTED MEAN	RANK
PARTICULARS							
Cultural Activities	31	32	30	57	50	2.685	V
Indoor & outdoor games	50	48	35	35	32	3.245	I
Library	43	35	37	46	39	2.985	IV
Health Club	42	44	40	43	31	3.115	II
Vacation tour	34	41	58	34	33	3.045	III

Conclusion

In the test of employees priority for various recreational activities, the highest rank of I for Indoor & outdoor games, and II, III, IV and V rank for Health Club , Vacation tour, Library and Cultural Activities.

ONE WAY ANOVA:

A. REASON FOR STRESS

Aim:To find whether there is a significant relationship between opinions of respondents with respect to reason for stress.

Hypothesis

H₀: There is no significant relationship between opinion of respondents with respect to reason for stress.

H₁: There is a significant relationship between opinion of respondents with respect to reason for stress.

Observation

Table 7

OPINION	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE	ROW TOTAL
REASONS						
Job insecurity	2	4	28	116	50	200
Transportation problem	52	33	20	51	44	200
Things go wrong	84	52	44	20	0	200
Organizing time	48	92	20	18	22	200
Family	8	20	27	37	108	200
COLUMN TOTAL	194	201	139	242	224	1000

Table 8

Source of variation	Sum of square	Degree of freedom	Mean of square	F - ratio	5% F-limit
BSS	1219.6	(5 - 1) =4	1219.6/4 = 304.9	304.9/1128.42= 0.2702	F(4,20)=2.87
WSS	22568	(25 - 5)=20	22568.4/20 = 1128.42		

Conclusion

Since the tabulated value (2.87) of F is greater than the calculated value (0.2702). We accept the null hypothesis.



Therefore there is a significant relationship between opinion of respondents with respect to reason for stress.

B. Stress Due to Task Force

Aim: To find whether there is a significant relationship between opinion of respondents with respect to stress due to task force.

Hypothesis:

H₀: There is no significant relationship between opinion of respondents with respect to stress due to task force.

H₁: There is a significant relationship between opinion of respondents with respect to stress due to task force.

Observation:

Table 9

OPINION	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE	ROW TOTAL
REASONS						
Criticism of work	5	34	25	87	49	200
Respond irritably	9	15	7	105	64	200
Personal attack	87	52	41	17	3	200
Emotion seems	39	97	23	18	23	200
Lack of confidence	89	16	37	38	20	200
COLUMN TOTAL	229	214	133	265	159	1000

Table 10

Source of variation	Sum of square	Degree of freedom	Mean of square	F - ratio	5% F-limit
BSS	2286.4	(5 - 1) =4	2286.4/4 = 571.6	571.6/695.98= 0.8212	F(4,20)=2.87
WSS	13919.6	(25 - 5)=20	13919.6/20 = 695.98		

Conclusion

Since the tabulated value (2.87) of F is greater than the calculated value (0.8212). We accept the null hypothesis. Therefore there is a significant relationship between opinion of respondents with respect to stress due to task force.

Findings and Conclusion

Findings

- Around 76% of respondents feel that the welfare services are inadequate.34.5% of respondents expects that the management should be supportive for career planning and development.
- Around 52% of respondents feel that they do not have proper transportation facility. 80% of respondents feel that as they are stressed because of ineffective time management.
- There is an association between gender and environmental factors.
- In the test of roles in organizational factors, that makes the employees stressful, the highest rank of I for Role overload, and II, III, IV and V rank for Role conflict, Role ambiguity, Role demand and Role under load.
- In the test of employees priority for various recreational activities, the highest rank of I for Indoor & outdoor games, and II, III, IV and V rank for Health Club , Vacation tour, Library and Cultural Activities.
- Therefore there is a significant relationship between opinion of respondents with respect to reason for stress
- Therefore there is a significant relationship between opinion of respondents with respect to stress due to task force.

Conclusion

On the basis of analysis researcher has found that the ONGC has to focus on employees' welfare services and career development, ineffective time management and work load so that the company can enhance the satisfaction level of employees at the same time it will result in increased productivity and reduced occupational stress. Employees should be given periodical training to cope up with the changes taking place in their work.



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