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Occupational Stress And A Functional Area Of An Organization

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This study analyzes the relationships between occupational stress and functional area of an organization. The study is essentially a correlation study based on randomly selected sample of 20 private and public organizations. The alpha reliability of the scale was calculated which was significant. Results show that it shows that job insecurity and stress were significantly positively correlated. It also shows that long work hours and stress were significantly positively correlated and there is a more stress in Human resource, IT as compare to accounting and marketing department

Field of research: occupational stress, department of the organization

1. Introduction

The phenomenon of increasing occupational stress was formally identified in 1989, when the Commonwealth Commission for the Safety, Rehabilitation and Compensation of Commonwealth Employees initiated several research projects. During, the same period the percentage increase in claims for work-related psychological injury has been greater than any other injury (Pearson et al., 1999). Stress, is the body's physical and psychological response to anything that's perceived as irresistible. When challenge flips over into stress, it creates an imbalance that can trigger a whole variety of negative health effects. (Workers health and safety centre, job stress, 2001/2002). 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 (Sauter et al., 1999).

Occupational stress is becoming increasingly globalized and affects all countries, all professions and all categories of workers, as well as families and Stress, is the body's physical and psychological response to anything that's perceived as irresistible. When challenge flips over into stress, it creates an

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imbalance that can trigger a whole variety of negative health effects. (Workers health and safety centre, job stress, 2001/2002). 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 (Sauter et al., 1999). Occupational stress is becoming increasingly globalized and affects all countries, all professions and all categories of workers, as well as families and society in general (Ahmad & Ahmad, 1992; Beehr & Newman, 1978; Sharma & Sharma, 1984).

The Canadian Centre for Occupational Health and Safety (CCOHS) adds that stress can worsen when there are high demands placed on a worker in a particular job, but the worker has little control over those demands. Some of the early warning signs of job stress include: short temper, headache, shortness of breath, sleep disturbances, difficulty concentrating, upset stomach, apathy, and job dissatisfaction. Over the long run, constant workplace stress can also lead to several types of chronic health problems. The Encyclopedia of Occupational Safety and Health Research say many studies show positive links between stress and these conditions:

- cardiovascular diseases — many related to lack of control in the work process;
- musculoskeletal disorders — particularly in the back and upper limbs;
- Psychological disorders — mainly depression and burnout.

(Workers Health and Safety Centre, job stress. winter 2001/2002)

For this research paper Functional departmentalization is selected. Once managers have used work specialization to carve out the component jobs needed to accomplish all the organization's work, they must arrange and cluster these jobs. Departmentalization is the arrangement of individual jobs and activities into logical groups and the clustering of groups into large departments and units that combine to form the total organization. Four common methods are functional departmentalization, product departmentalization, geographical departmentalization and customer departmentalization (Bovee, Thill, Wood & Dovel, 2000). Functional departmentalization is the basis for grouping together jobs that relate to a single organizational function or specialized skill, such as marketing, finance, operations, human resources, information resources and research and development (Bovee, Thill, Wood & Dovel, 2000).

2. Literature Review

The literature on occupational stress has revealed many different classes of job related stressors and related them to such issues as job satisfaction and worker productivity (Beehr & Bhaget, 1985). One of the major sources of occupational stress is whether the person is satisfied with the job or not. Many researchers found that job related stress factors are related to variables like role ambiguity, role conflict, employee performance and satisfaction, work overload, need for achievement and organizational effectiveness. (Dunnettee,

1976. Ghosh & Ghorpade, 1981. Mohanty, 1986). Kaluzniacky conducted research on “Work Stress Factors among Information Systems Professionals in Manitoba”. In this research paper the IS workers are faced with rapidly and continuously changing technologies and methodologies, a phenomenon this cause stress in employees. While technological change has had an impact on individuals in many professions, this change is even more immediate, more direct for the IS worker. He / she is often forced to change working languages, equipment, and even entire development paradigms amidst comprehensive re-structuring with its initial ambiguities and amidst ever increasing demands. (Kaluzniacky, 1999)

Research conducted in the financial services sector identified that stress can also increase the likelihood of mistakes and confrontation as workers cut corners to achieve targets – 81% believe anger in the workplace has negative effect on morale, 74% are less productive when in a bad mood, and 15% work slower (in fear of making a mistake) when their boss is angry. Fear of violence is often on the minds of individuals who handle cash on a regular basis, and can be a major cause of mental and physical distress (Violence and stress in financial services, 2003).

A survey of 1,299 employees from 37 organizations identified ten factors as the more important contributors to employee stress. These were

- Employees not being free to talk with one another
- Personal conflicts on the job
- Employees not being given control over their work
- Inadequate staffing or budget
- Management and employees not talking openly
- Management perceived as being unsupportive
- Below average sick and vacation benefit
- Reduction in employees benefit
- Lack of recognition or reward for doing a good job

In another research “Managing Stress at Work” by Kate Jenkins conducted in 2001 outlined number of factors which contributed stress in work places, which are people are working longer hours, taking shorter or no breaks, with increase development in information technology and globalization, decrease in leisure time and less sleep and there are more time and travel pressures. (Jenkins, 2001) If key staff and large number of workers are affected, work stress may challenge the healthiness and performance of their organization. Unhealthy organizations do not get the best from their workers and this may affect not only their performance in the increasingly competitive market but eventually even their survival. Work stress thought to affect organization by:

- Increasing absenteeism.
- Decreasing commitment to work.
- Increasing staff turn-over.
- Increasing complaints from clients and customers.
- Increasing unsafe working practice.
- Adversely affect staff recruitment.

- Damaging the organization image both among its workers and externally

(Leka, 2003)

Recently, management analysts have been concerned over the negative effects of job stress on job performance and the physical well-being of their employees, as it adversely affects the overall effectiveness of the organization. The purpose of this paper is to investigate the relationship between occupational stress and functional area of the organization. Correlation analysis is used to better analyze the role of occupational stress in the organization.

Hypotheses

Although it has been assumed that working long work hours is related to poor health and quality-of-life outcomes, the empirical results have been inconsistent. Some studies report that long work hours are related to such negative outcomes as high experienced job demands, emotional exhaustion, marital tension and work-family conflict .Other studies find a relationship between long work hours and such positive outcomes as high role balance, good physical health, low psychological distress, and low anxiety. Still others report no significant relationship between long work hours and such outcomes as life satisfaction, marital-role quality, job-role quality, and intention to turn over**.**

An interview with Dr. Richard Lippin, an expert on occupational and environmental medicine specifies the two conditions contribute to the stress problem:

- time compression and
- Job loss or the fear of job loss.

Time compression means a requirement for doing more work in less time. The US National Institute for Occupational Safety and Health (NIOSH) states that in the last 2 decades, the average work year for prime-age working couples has increased by nearly 700 hours. The result is that high levels of emotional exhaustion at the end of the workday are the norm for 25-30% of the workforce. Moreover, 26% of US workers take no vacation at all. (Workplace stress, depression and the overuse of antidepressant drugs in the workplace,)

H_1: Long work hours lead to high stress.

H_2: Job security decrease occupational stress.

“Work Stress Among Information Systems Professionals In Manitoba” by Kaluzniacky conducted in 2000 stated that there is considerable reason to believe that the IS professional (applications programmer, data or systems analyst etc.) today is significantly more at risk of serious "burnout" than his

counterpart of 20-25 years ago. It is also mentioned that “high performance (requirements) with high technology can exercise a dangerous influence on the human personality... anyone who is constantly working or playing with computers is at risk". In survey with 231 responses, "a large majority agreed with the statements that change in computer technology creates pressure".

“Occupational stress: counts and rates” conducted by Webster stated that 3,418 cases of stress were collected and found that Finance, insurance, and real estate, with 2 percent of all injuries and illnesses, and services with 23 percent, had high percentages of occupational stress cases, 12 percent and 35 percent, respectively. Conversely, although 15 percent of all injuries and illnesses involved technical, sales, and administrative support occupations, 48 percent of occupational stress cases involved this occupational group. (**Issues in labor statistics, 1999)**

H_3: Marketing department experienced more stress than Human Resource department.

H_4: Human Resource department is more stress prone as compared to accounting department.

$H_{5:}$ Admin department employees experienced more stress than Human resource department.

H_6: IT department employees’ experienced more less than Human resource department.

3. Methodology

The study was aimed to check relationship between occupational stress and functional units of an organization. Data was collected from 94 middle level managers and employees from private and public (20) organizations located in Islamabad and Rawalpindi. The subjects were selected at non stratified sampling. Employees and middle level managers were chosen as subject because they are the one who really know the significance of the stress. In this research “Chronic Work Related Stress Evaluation” instrument had been used for the measurement of occupational stress. This instrument was invented in 1972 by a division of American Management Associations (J.R.P. French, Jr. and R.D. Caplan, 1972). The occupational stress scale consists of 25 statements falling into 11 sub scales: organizational security (1 item), organizational satisfaction (1 item), behavioral symptoms (3 items), physical symptoms (1 item), relationship (4 items), control (1 item), personal responsibility (4 items), drive (2 items), life-work (3 items), work load (3 items) and job satisfaction (2 items). The overall alpha reliability co-efficient of the scale was 0.623 indicating that the questionnaire was consistent and reliable. The occupational stress was designed in such a manner that its scoring was placed on a 5-point scale ranging from always to never. The score assigned to always be 1, often was 4, sometimes was 3, infrequently was 2 and never was 5. Statistical analysis was conducted to test the relationship between occupational stress and functional area of an organization. In the first step

relevant information collected from internet and from various other resources to know about the indicators of the stress. Non probability sampling was done since a specific group of people were chosen for study. The study specific groups were employees and middle level managers. The managers and employees were assured that all information provided by them would be kept confidential and would be used only for research purpose. They were requested to fill the stress questionnaire.

4. Results and Discussion

Hypothesis 1

Statistical analysis was conducted to test the hypothesis that is long work hour lead to high stress. The table gives the results

Table 1 Multiple Correlation

Variables	N	Correlation P-value
Working hours and stress	94	0.550**

****. Correlation is significant at the level 0.01 level (2-tailed).**

The correlation coefficient for work hour and stress was 0.550. Since 0.550 was relatively close to 1, this indicates that long work hour and stress were positively correlated. The significance level or p-value was 0.000 which indicates a very low significance so null hypothesis was accepted and it shows that long work hours and stress were significantly positively correlated.

Hypothesis 2

The table given the results

Table 2 Multiple Correlation

Variables	N	Correlation P-value
Job security and stress	94	0.458** 0 .000

****. Correlation is significant at the level 0.01 level (2-tailed).**

The correlation coefficient for job insecurity and stress was 0.458.Since 0.458 was not relatively close to 1 or -1 this indicates that job insecurity and stress were not strongly correlated. Factors other than stress may contribute to job insecurity. Since significance level or p-value is 0.000 which indicates a very

low significance so null hypothesis was accepted and it shows that job insecurity and stress were significantly positively correlated.

Hypothesis 3

Since there were more than two groups (six different departments) and stress was measured on an interval scale, ANOVA was appropriate to test the hypothesis. From table of homogeneity significance value 0.272, suggesting that the variances for the five departments are equal so for this hypothesis ANOVA. In this case, F=1.698. This F value was significant at the 0.143 level. This implies that hypothesis was substantiated. That was, there was significant differences in the mean stress in the six departments.

Table 3 Multiple comparison

Department	Department	Mean difference
HR	Marketing	6.6734
	Accounting	2.7378
	Admin	1.1295
	IT	-1.7395
	Others	3.1821

According to the results in table, reflected that more stress was experienced in HR department as compared to marketing because it values tends to be 6.67 which moves towards the option in questionnaire that workers never fell stress. The same results were found that more stress was experienced in HR department as compared to accounting, admin and other department because it values tends to be 2.73, 1.13 and 3.18 respectively.

Table 4 Multiple Comparison

Department	Department	Mean difference
Marketing	HR	-6.6734
	Accounting	-3.9356
	Admin	-5.5439
	IT	-8.4670
	Others	-3.4913

Comparing marketing department with HR, accounting, admin. IT and others department reflected that marketing department experiencing less stress. All values having negative sign.

Table 5 Multiple Comparison

Department	Department	Mean difference
Accounting	HR	-2.7378
	marketing	3.9356
	Admin	-1.6083
	IT	-4.5314
	Others	0.44429

This table show that values for admin and IT departments were -1.60 and -4.53 that shows accounting department of an organization experiencing more stress than admin and IT departments and experiencing less stress than others department of an organization because value was 0.444.

Table 6 Multiple Comparison

Department	Department	Mean difference
Admin	HR	-1.1295
	Marketing	5.5439
	Accounting	1.6083
	IT	-2.9231
	Others	2.0526

This table shows that admin department of an organizations were experiencing more stress as compared to IT department. Its value was -2.92.

Table 7 Multiple Comparison

Department	Department	Mean difference
IT	HR	1.7935
	Marketing	8.4670
	Accounting	4.5314
	Admin	2.9231
	Others	4.9757

This table shows that IT department experiencing more stress as compared to HR, marketing, accounting, admin, IT and other departments because their values were 1.79,8.47,4.53,2.93and 4.97 respectively.

Table 8 Multiple Comparison

Department	Department	Mean difference
Others	HR	-3.1821
	Marketing	3.4913
	Accounting	-0.44429
	Admin	-2.0526
	IT	-4.9757

This table shows that others departments (project and development, technical, engineering departments) experienced more stress than marketing department and value was 3.49.HR, accounting, admin and IT departments were experiencing more stress than other departments and their values falls as -3.18,-0.444,-2.05 and -4.97 respectively. Using the Tukey HSD procedure, all values under this column contained zero this reflect that the differences were not significant.

H_3: Marketing department experienced more stress than Human Resource department

From the results given in table null hypothesis was rejected because HR department was experiencing more stress than marketing department.

H_4: Human Resource department is more stress prone as compared to accounting department

From the results given in table null hypothesis was accepted because HR department was experiencing more stress than accounting department.

$H_{5:}$ Admin department employees experienced more stress than Human resource department

From the results given in table null hypothesis was rejected because HR department was experiencing more stress than admin department.

H_6: IT department employees' experienced more less than Human resource department

From the results given in table null hypothesis was accepted because HR department was experiencing more stress than IT department.

5. Conclusion

Analyzing the occupational stress in work place and associating these with the functional areas of the organization it is clearly stated that Human Resource and IT departments of the organization experience high stress because of the increasing demand of change in process as well as procedure. It is also verified that low job security and long working hour creates high occupational stress.

References

Aftab, A. 1998. “Introduction to stress”. (www.google.com).

Ahmad, S., &Ahmad, H. 1992 in press. “Role stress and work satisfaction: a study on middle managers”. Indian psychiatry Journals.

Agrawal, Marimuthu and Manoharan. “Occupational Stress and Job Satisfaction among Managers”. (http://medind.nic.in/iay/t03/i2/iayt03i2p6.pdf).

Bharatai, T.A., and Newman, J.E. 1978. “Job stress, employee health and organizational effectiveness. Personnel Psychology”, Vol. 31,pp. 665-669.
Bovee, Thill, Wood and Dovel. 2000. Management.

Cooper, C.L. 1978. “Stress at work”. New York: Wiley.

Jenkins. 2001. “Managing Stress at Work”.

J.R.P. French, Jr., and R.D. Caplan. 1972. “The Failure of Success”.

Kaluzniacky. 1999. “Work stress among information systems professionals in Manitoba”. (http://itwellness.ncf.ca/1/results/alaska2000-1col.pdf)

Lee. “Managing employee stress and safety” (www.google.com, pp.12-13).
Leka. 2003.
http;
//www.who.int/occupatonal_health/publications/en/oehstress.pdf

Minter. 2003. “Will employers heed the doctors' advice and stop pushing employees so hard?”.

MO. 1991.”Teacher burnout: relation with stress, personality and social support.”

Selye, H. 1974. “The stress of life”. New York: McGraw-Hill.
Siu O.L. 1998.”Managerial stress in Hong Kong before and after the handover in 1997. Second World Congress On stress: collaborative international study of managerial stress symposium”, Melbourne. Australia.

Smith, N.M., Bybee, H.C &, Raish, M.H. 1988. “Burnout and the library administrator: carrier or cure”. Journal of Library Administration, vol. 9. No. 2. pp. 13-21.

NIOSH (1999) *Stress at work.* NIOSH PUB # 99-101, USA

Workers health and safety centre, job stress. winter 2001/2002. http://whsc.on.ca/publications/hazardbulletins/winter01-02/jobstress.html

Workplace stress, depression and the overuse of antidepressant drugs in the workplace, An interview with Dr. Richard Lippin, An expert on occupational environment medicine http://www.medicationsense.com/articles/july_sept_04/lippen_interview.html

Webster . 199? Probable year. Occupational stress: counts and rates

www.bls.gov/opub/ils/pdf/opbils35.pdf.

www.ccohs.ca

www.date.hu/acta-agraria/2003-11i/berde.pdf.

www.google.com

www.ilo.org/public/english/dialogue/sector/papers/service/wp210.pdf.

www.niosh.com.

www.rci.rutgers.edu/~sjacksox/PDF/doesjobcontrolcontroljobstress.pdf.

www.resourcesystems.co.uk/research/johp.pdf.