Job Stress in Software Companies: A Case Study of HCL Bangalore, India

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GJCST-C Classification : 0

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Abstract- In India software industry has become one of the fastest growing industries. The reason for choosing a particular software industry and its employees is that the level of stress these employees face is comparatively higher than employees in other private companies. Any kind of a job has targets and an employee becomes stressed when he or she is allotted with unachievable targets and are unable to manage the given situation. Thus the main aim of this article is to bring to lime light the level of stress with software employees in HCL and the total sample size for the study is 100 chosen by random sampling method in HCL. When the employees were asked how often they feel stressed while working while working at the company, 98 out 100 said they feel stressed about daily physically, mentally or emotionally. In a sample space of 100 employees, 16% of employees work for 4-6 hours a day, 32% works for 6-8 hours, 30% works for 8-10 hours while 22% works for 10-12 hours daily. When asked about the overtime they have to do, 28% said employees saying always were mainly from age group 20-29. 54% of employees said often while 18% of employees said they worked overtimes rarely. The other few aspects have also been studied about job satisfaction.

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I. Introduction

In the 1990s India emerged as a major player in the field of software engineering, information technology services and Web-based services. Presently the Indian information technology industry employs a little more than half million people and provides indirect employment to over a quarter of a million people (NASSCOM). In today's world, the degree of stress increased owing to urbanization, globalization that results into cut-throat competition. Stress is inescapable part of modern life, work place is becoming a volatile stress factory for most employees and it is rightly called as the Age of anxiety. Stress has becoming significantly with the result of dynamic social factors and changing needs of life styles. Stress is man's adaptive reaction to an outward situation which would lead to physical mental and behavioural changes. Brain cells create ideas, Stress may kill brain cells. The truth is that not all stresses are destructive in nature. Appropriate amount of stress can actually trigger your passion for work, tap your latent abilities and even ignite inspirations. Stress is the emotional and physical strain caused by our response to pressure from the outside world. Common stress reactions include tension, irritability, inability to concentrate, and a variety of physical symptoms that include headache and a fast heartbeat. Stress is a condition or feeling experienced when a person perceives that- demands exceed the personal and social resources the individual is able to mobilize. S= P>R i.e., stress occurs when the pressure is greater than the resources. Stress is our body's way of responding to any kind of demand. It can be caused by both good and bad experiences. When people feel stressed by something going on around them, their bodies react by releasing chemicals into the blood. These chemicals give people more energy and strength, which can be a good thing if their stress is caused by physical danger. But this can also be a bad thing, if their stress is in response to something emotional and there is no outlet for this extra energy and strength.

Stress is everywhere, but as a relatively new phenomenon. How can we define it and how can we explain its extraordinary cost to both business and government? The suffering induced by stress is no figment of the imagination but can we accurately examine the relationship between stress and ill-health? Whatever stress is, it has grown immensely in recent years, which brings us to question – what is happening in society that is causing stress? The report shows that stress has its greatest effects on those at the very top and those at the very bottom of the socio-economic ladder. The Indian Software industry has grown at a compounded annual growth rate (CAGR) of 28 % during the last 5 years. The key segments that have contributed significantly to the industry's exports include – software services - BPO sector is playing vital role in the growth of our country's economy. Due to liberalization of Indian economic policy, the growth of software industry is in commendable position. Due to cost advantage, availability of skilled manpower, quality services are the main reasons for the growth of IT industry in India. The perception of the effects of stress on an individual has changed. Stress is not always dysfunctional in nature, and, if positive, can prove one of the most important factors in improving productivity within an organization (Spielberger, 1980). If not positive, stress can create a

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number of physical and psychological disorders among employees, and can be responsible for frustration, haste, and job dissatisfaction. As a result, the lack of work may cause complacency within the organization. Stress is, therefore, multidimensional, and its results depend on whether employees perceive it as a problem or a solution.

Different studies have classified occupational stress in terms of physical environment; role stressors, organizational structure, job characteristics, professional relationships, career development, and work-versus-family conflict (see Burke, 1993). Cooper and Marshall (1976) add to this list factors intrinsic to a job, the management's role, and professional achievements. Based on these complexities, stressors can be grouped into two main categories: (i) job-related stressors, and (ii) individual-related stressors. Stress is a slow and insidious malady which is an unavoidable one and a common problem in the workplace. The level of stress and its amount of consequences vary between organizations based on the nature and type of work practices. Organization must begin to manage people at work differently, treating them with respect and valuing their contribution. Recognition, participation and continuous training of employees are required to retain the skilled employees. Stress issue has become contemporary, being an occupational hazard in fast pacing IT profession, needs to be addressed without delay. Hence the importance of the study of stress at various levels, among IT employee is growing. At organizational level, well designed coping strategies have become the attention of companies like Tata Consultancy Services, Infosys, Wipro, Microsoft, and Cognizant etc., Stress can make an individual productive and constructive when it is identified and well managed. In times of great stress or adversity, it's always best to keep busy, to plough anger and energy into something positive. Positive attitude and meditation will be helpful for coping the stress. Having broader perspective of life will definitely change the perception of stress. Let us hope that we will be successful eliminating stress for our healthy lifestyle as well as organizational well-being. Stress is measured using a number of instruments. Our focus, however, is organizational role stress (ORS), which measures total role stress. We use Pareek's (1983) scale, which evaluates respondents' quantum of stress in terms of total ORS scores. It also measures the intensity of the following ten role stressors that contribute to the total ORS score:

1. Inter-role distance (IRD): Conflict between organizational and non-organizational roles.
2. Role stagnation (RS): The feeling of being "stuck" in the same role.
3. Role expectation conflict (REC): Conflicting expectations and demands between different role senders.
4. Role erosion (RE): The feeling that functions that should belong to the respondent's role are being transformed/performed or shared by others.
5. Role overload (RO): The feeling that more is expected from the role than the respondent can cope with.
6. Role isolation (RI): Lack of linkages between the respondent's role and that of other roles in the organization.
7. Personal inadequacy (PI): Inadequate knowledge, skills, or preparation for a respondent to be effective in a particular role.
8. Self-role distance (SRD): Conflict between the respondent's values/self-concepts and the requirements of his or her organizational role.
9. Role ambiguity (RA): Lack of clarity about others' expectations of the respondent's role, or lack of feedback on how others perceive the respondent's performance.
10. Resource inadequacy (RIn): No availability of resources needed for effective role performance.

II. Review of Literature

Darshan et al (2009)[1] in their article, A study on professional stress, depression and alcohol use among Indian software professionals, observed that the software employees are professionally stressed and are at 10 times higher risk for developing depression and also significantly increase the incidence of psychiatric disorders. Preventive strategies like training in stress management, frequent screening to identify professional stress and depression at the initial stages and addressing these issues adequately might help the software professionals cope with their profession better without affecting their lifestyle and health. Saurabh Shrivastava and Prateek Bobhate (2010)[2] in their study, Computer related health problems among software professionals in Mumbai: A cross-sectional study, investigated that Ocular discomfort, musculo-skeletal disorders and psycho-social problems form key category of health problems found among constant computer users. This study has also brought into focus factors contributing to the occurrence of these problems. Thus, the problem requires a multidisciplinary action and hence there is an immediate need for the concerned authorities to collaborate and enforce suitable preventive measures.

Jakkula Rao and Chandraiah (2011)[3] in their article, Occupational stress, mental health and coping among information technology professionals, found that job satisfaction and mental health are correlated but not significant. However, job satisfaction was positively and significantly correlated with coping behaviour. The mental health is negatively and significantly correlated with occupational stress. It can be explained that as job satisfaction and mental health increases coping

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behaviour increases. And as stress increases mental health decreases. Kesavachandran et al (2012)4 in their study, Working conditions and health among employees at information technology - enabled services: A review of current evidence, identified that muscular-skeletal disorders, ocular disorders and psycho-social problems were some of the key health problems observed among software professionals. There is a need for implementation of the programs that include the concepts of ergonomics, health education, training of personnel to prevent and overcome the morbidity, as well as psycho-social problems among workers in software industry.

Michael R. Frone (2008), the relationship of work stressors, those work over load and job insecurity, to employees alcohol use illicit drug use resulted, support the relation of work stressors to alcohol and illicit drug use before work, during the workday, and after work. Vijay V. Raghavan, (2010), the effect of flexible work schedule, employee support and training, and telecommuting as potential coping resources to relieve stress. Perceived workload, role ambiguity, work facilitation, and decision latitude are potential stressors of IT professionals. Removing role ambiguity and improving work facilitation reduce work-related stress and allowing employees to have flexible work schedules ease their perceptions of workload. Sahana Charan, (2007), High work pressure, long hours in front of the computer and a fast-paced lifestyle, if these factors team up to weaken your physical health, here is one more strong reason why they are simply unhealthy: mental health professionals are now convinced that an increasing number of persons working in the IT and IT-enabled services sector fall prey to depression, because of the high stress they undergo. Murali Raj, (2009), Depression is usually related to work and stress these people undergo because of the pressure to perform better, compete with other colleagues and meet tight deadlines. Most of their work is target-oriented and if targets are not met, it can lead to anxiety. Peers are not very supportive as they also competing in the same field. Moreover, insecurity about the job may lead to feelings of expression.

Elkin and Rosch (1990) have summarized a wide range of other strategies which are directed towards increasing worker autonomy, participation and control. These strategies include: redesigning tasks, redesigning the physical work environment, role definition and clarification, establishing more flexible work schedules, participative management, employee-centred career development programmes, providing feedback and social support for employees and more equitable reward system. These are approaches which could prevent stress at work rather than treat stress once it has developed. 75% to 90% of all visits to primary care physicians are for stress-related complaints.

- 40% of job turnover is due to stress; Up to 80% of on-the-job accidents are stress-related.
  -American Institute of Stress
- The annual cost to Canadian companies due to stress-related disorders is $12 billion Absenteeism due to stress has increased by over 300% since 1995
  -Statistics Canada
- Employees in extreme workplace stress conditions suffer from: more than triple the rate of cardiovascular problems; over five times the rate of colorectal cancer; up to three times the rate of back pain
  -Health Canada
- Problems at work are more strongly associated with health complaints than are any other life stressor; more so than even financial problems or family problems

St.Paul Fire and Marine Insurance Co.

Every year in Japan around 30,000 deaths occur because of Karoshi (over work). In a study conducted by Delhi based NGO - Saarthak in 30 Indian companies, it was found that 50% of the employees suffered from stress related problems. Further, in the studies conducted in the US and UK, it was found that more than 60% of employees complain to be stressed out in their jobs. Pestonjee and Singh (1983) study the psychodynamics of people working in the field of computers as software or hardware personnel. In this study job satisfaction and morale were taken, as dependent variables and alienation, participation, involvement and role stress were independent variables. It was hypothesized that personas scoring high on the role stress measure would be less satisfied and obtain lower scores on the morale measure in comparison to those who scored low on the role stress measure. Singh (1987) conducted another study related to computer professionals. While reviewing the literature, he noted that there are very few studies on computer professionals and foreign researchers using foreign samples conduct all of them. All such studies have reported that job dissatisfaction, high role stress and high rate of turnover are common phenomena related to computer professionals.

Mishra et al (1997) studied the nature and inter relationship between motivation and role stress on entrepreneurs in and around Delhi. The major findings of the study revealed that women entrepreneurs scored higher on the motivational variables namely safety, belongingness, self-esteem and self-actualisation as compared to role stagnation, role isolation and role ambiguity. Self-esteem was associated positively and significantly with role overload. Sharma et al (2001) found that gender related unequal division of domestic duties when coupled with a job, may not result in more severe psychological or subjective health impairments. It was found that job provides women with means of

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feeling useful and important and provides an opportunity to interact with people and this could be the important source of satisfaction for women. The study also revealed that paid work enhances the status of the employee resulting in enhanced self-esteem. Matthews et al. (2006), in his study compared EI and the personality factors of the Five Factor Model (FFM) as predictors of task-induced stress responses. Results confirmed that low EI was related to worry states and avoidance coping, even with the FFM statistically controlled. However, EI was not specifically related to task-induced changes in stress state.

III. Objective of Study

1. To study on job stress among employees of software industries.
2. To examine the relaxation techniques practiced in the organization.
3. To study the relationship between self-esteem and stress.
4. To ascertain the impact of job stress on personal health of employees.
5. To give some suggestions for future studies.

IV. Conceptual basis of the Study

This qualitative study takes the lead from a recent survey (2010), published in the Journal of Occupational and Environmental Medicine, and noted that for those working 12 hours a day, there was a 37% increase in risk of illness and injury in comparison to those who work fewer hours. And another study done by North-western National Life, reports that one-fourth of employees view their jobs as the number one stressor in their lives. A St. Paul Fire and Marine Insurance Co. study concluded that problems at work are more strongly associated with health complaints than any other life stressor, even financial or family problems.

Sethy and Schulter (1996) outlined four major reasons why job stress and coping have become important issues:

1. *Concern for individual employee health and well-being:* (E.g. coronary heart disease, high blood pressure, job related accidents).
2. *The financial impact on organization:* (Including days lost due to stress related illness and injury).
3. *Organizational effectiveness:* for organizational health and wellbeing.
4. *Legal obligations:* on employers to provide safe and healthy working environment.

According to Global business and Economic Roundtable of Addiction and Mental Health, the top 9 stressors are:

a) *Lack of Control*

Less control employees have over their situations, the greater their stress. Solicit and consider employee suggestions, comments and input.

b) *Lack of Communication*

Try communicating early and often, making sure you listen as often as you deliver news or observations.

c) *No Appreciation*

When is the last time you praised an employee for a job well done? Say "Thank you" more often. Put it in writing for even greater impact. Corporate wellness is a good investment, with a strong return on investment.

d) *No Feedback, good or bad*

Don't wait until the annual review to let employees know how they're doing. They wonder every day. Career and Job ambiguity Uncertainty about opportunity within the company or job security can lead to a feeling of loss of control. Keep employees clear about performance goals, room for advancement and how your organization is doing.

e) *Unclear Policies and no Sense of Direction*

Clearly communicate policies and company goals, and alert top management if employees need further clarity.

f) *Mistrust, Unfairness and Office Politics*

It's important to treat everyone the same and perfectly appropriate to reprimand someone who is negative about other employees. Backbiting keeps everyone on edge.

g) *Pervasive Uncertainty*

This results from inadequately explained or unannounced changes. Meet with people individually to review changes. Follow those meetings with a written memo so everyone can review the facts after emotions have died down.

h) *Random Interruptions*

Telephone calls, e-mails, walk-ins and supervisor demands can keep employees from completing the work at hand. Consider time management training to help people prioritize and delegate.

i) *The Treadmill syndrome*

Having too much or too little to do results in self-defeating behaviour that can lead to high stress. Make sure work is evenly divided, and hire additional help where needed.

The research problem is formulated on the basis of vast study of related literature survey which provides theoretical background and conceptual frame work to this study which broaden knowledge base in this area of research. The research takes the lead from the following dimensions; those are the impact of stress on

body, mind, behaviour and emotions on the basis of review of literature.

Impact of stress in various dimensions

- *Impact on Body*
    1. Headaches, taut muscles, breathlessness
    2. Worrying, muddled thinking, night mares
    3. Accident prone, loss of appetite
- *Impact on Mind*
    1. Loss of confidence, more fussy
    2. Frequent infections, skin irritations
    3. Impaired judgment, indecisions
- *Impact on Behaviour*
    1. drinking and smoking more
    2. irritability, depression, apathy
    3. Fatigue, muscular twitches
- *Impact on Emotions*
    1. Negativity, hasty decisions
    2. Loss of sex drive, insomnia
    3. Alienation, apprehension

V. Hypothesis

The Hypotheses may be stated as:

1. The relationship between the profile of the individual and the level of job stress in the company.
2. The relationship between esteemed employees and stress.
3. The relationship between Gender and Personal health.
4. The relationship between marital status and personal health.
5. Organizational level of outcomes is dependent on occupational stress.

VI. Analysis and Discussion

The study is based on a survey conducted in HCL in Bangalore with sample size 100. Out of total sample, 69 were men and rest women. The respondents were software professionals at lower and middle levels with a mean of about 5 years in the company.

When the main cause of stress was asked from the employees the main reasons came out to be:-

1. Work environment
2. Supervision
3. Workloads
4. Social injustice
5. Organisational culture
6. Fear of loss of job
7. Operating style

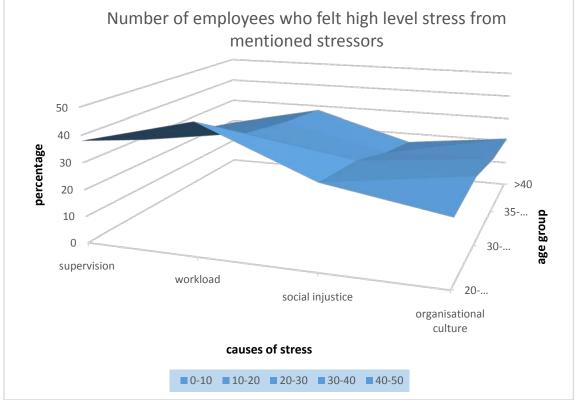Table1: shows sample description on the basis of employee's age group.

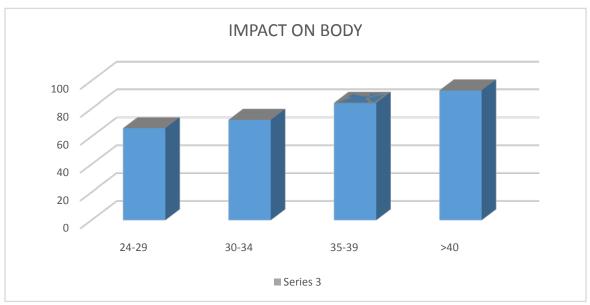*Table 1 :* Sample description

Sample size=100

Analysis of the Table 1 statistics

The chart below shows the different causes of stress faced by different groups of people along with their percentage.
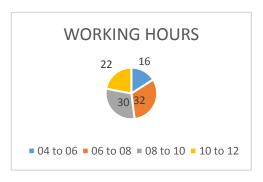
AGE GROUP	SAMPLE SIZE
20-29	18
30-34	24
35-39	36
>40	22

Number of employees who felt high level stress from mentioned stressors

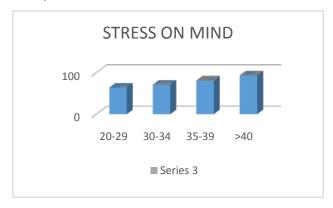- Impact on Body

IMPACT ON BODY

From the Table 1, 93% of employees from >40 age group felt high level of stress impact on body followed by 84% from 35 -39 age group, 72% from 30 - 34 age group and 66% from 20 -29 age group. Headaches, fatigue, Hypertension, Coronary artery diseases, Skin disease etc. are impacts of stress. The data obtained from the employees, draw the attention and alarming the individual as well as the company. Considering the physical stress when they were asked about the number of hours they were working daily the answer was-

WORKING HOURS

In a sample space of 100 employees, 16% of employees work for 4-6 hours a day, 32% works for 6-8 hours, 30% works for 8-10 hours while 22% works for 10-12 hours daily. When asked about the overtime they have to do, 28% said employees saying always were mainly from age group 20-29. 54% of employees said often while 18% of employees said they worked overtimes rarely.

- Impact on Mind

STRESS ON MIND

VII. CONCLUSIONS

93% of employees from 35 -39 age group felt high level of stress impact on mind followed by 91% from the age group of 30 -34 and 80% from the rest age groups. Stress on mind causes Depressions, Anger, Irritability, Mood swings, Lack of self-confidence etc. which leads to vulnerable effect on individual. When asked that do they feel that they are constantly under pressure going from one deadline to another, 52% of the employees said always, 31% of the employees said often while 17% of the employees said sometimes. When asked that do they feel that they have lost or losing a sense of control in their life and that the balance they need is gone, 53% of the employees said always, 29% of the employees said often while 18% of the employees said sometimes. When asked about how they feel while working in the organization, the answers were unexpected. Only 26% of the people were feeling satisfied or great and rest were just working as if they were no other options. Remaining 74% were frustrated, depressed or unable to concentrate. The following pie chart shows their percentage.

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