EVALUATING INTERVENTIONS AND COPING MECHANISMS FOR ALLEVIATING OCCUPATIONAL STRESS IN THE IT INDUSTRY AND THEIR INFLUENCE ON JOB PERFORMANCE

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ABSTRACT

Occupational stress is a growing problem in today's businesses of all sizes. Companies dependent on IT are not exempt from this rule. The Information Technology (IT) industry in Bangalore, India's main IT city, is one of the top ten most stressful workplaces in the country. Although the IT industry has embraced new technologies and innovation, workers are overburdened with tasks and experiencing high levels of stress. Stress is on the rise among IT workers because of the industry's rapid pace of change. This research aimed to determine what factors in the IT industry contribute to employees' stress levels. The effects of stress on the health of IT workers are highlighted in this research. This research also makes an effort to zero in on the stress management initiatives undertaken by several IT companies. Despite efforts to lessen occupational stress among IT personnel, the study's findings reveal that many different factors contribute to mental health problems in the industry. According to the results of this survey, the majority of workers experienced both mental and physical stress as a result of their workloads.
KEYWORDS: Occupational Stress, IT Industry, Job performance, Evaluation, Intervention

1. INTRODUCTION

The state of the art world is probably a universe of successes and stresses. Stress can occur in any group or institution, be it a family, a business, or a government agency. A person's life is fraught with pressure from the moment they are born until the moment they take their last breath. Therefore, it should come as no surprise that interest in the subject has grown as the century dubbed the "Period of Nervousness and Stress" has progressed.

Avoiding the topic of stress altogether may be difficult. Today's society is unquestionably more stressful than it was thirty years ago, as one prominent scientist put it: "Stress is a typical partner of living." How we respond to it is what matters most. The word has become so commonplace in our culture that it has been discussed on radio, TV, in newspapers, and in magazines. Since there is no single cause for stress and numerous possible responses to it, there is a wide range of opinions on the topic. If we ask five different people for their definitions, we could get at least that many responses.

People's reactions to the word "stress" are unpredictable and diverse. The air traffic controller views stress as a problem with concentration and focus, the financial expert views it as a letdown or excessive stress, and the organic chemist views it as a completely synthetic abnormality.

1.1. Occupational Stress

The stress caused by the relentless march of fashion has substantial, far-reaching consequences for people's quality of life. Workplace health and productivity might suffer when an employee is under stress. When it comes to stress management, many companies face the same challenges. The stress that a person experiences on the job is among the most important kinds of stress. Occupational stress is widely believed to impact people of all professions and levels of employment. It's a major worry for the company's leadership, workers, and other interested parties. Different types of enterprises and workplace environments as well as degrees of occupational stress can be found even within the same industry. When a person is under stress, it often shows up in their behaviour, especially if it suddenly shifts. Anxiety, depression, irritability, and exhaustion are all examples of emotional responses; withdrawal, aggression, crying, and a lack of motivation are all examples of behavioural responses; cognitive responses include problems focusing and solving problems; and somatic responses include heart palpitations, nausea, and headaches are all examples of physiological responses. Anxiety, depression, and heart disease are just a few of the bad health outcomes that have been linked to prolonged stress. When any of these functions is impaired, our ability to cope with stress is diminished, and we have trouble shifting gears when

necessary. The way in which staff members cope with stress is affected by this.

1.2. Sources of Occupational Stress
- Unfavourable working conditions
- Positive shifts in workload
- Exclusion from the crowd,
- Hours worked,
- Role conflict and ambiguity,
- Barriers to career advancement,
- Challenging relationships with managers and coworkers,
- Different social controls,
- Harassment behaviours,
- Alterations in organisational climate.

1.3. Types of Occupational Stress
1) To begin with, situational occupational stress In this type of occupational stress, the individual has already gone through burnout in a particular situation. After handling the situation, the employee's tension decreases or disappears as well.
2) Potential Workplace Stress Based on an employee's expectations within a corporation, this stress exists. It has to do with how eagerly anticipated upcoming events are by the employee. For instance, the employee has job stress due to the impending presentation they will be presenting.
3) Feeling stressed at work How a person interacts with their coworkers has an impact on how they experience this kind of stress. It is mostly associated with the stress caused by interpersonal contacts at work, which is work-related stress in an environment where interpersonal skills are important.
4) Temporally based occupational stress This type of work-related stress is time-based and may be correlated with arriving at or departing from a job, completing a task, etc. Employee stress could be caused by the pressure to finish the work in the allowed time.

2. LITERATURE REVIEW
Hassan, et al. (2015) carried a research to determine what influences productivity in Libyan and Indonesian workers. Researchers have been attempting to understand how employees feel about the factors that are most crucial to their productivity. The study examined the variables influencing people's levels of productivity. (2007) Sarmiento and Beale According to their analysis, a combination of skills and competencies are required for employment success. According to the authors, in order to succeed in work, employees must possess these qualities. According to Jex and Britt (2008), an employee's success on the work can be assessed based on their behaviour while performing their duties as well as their pay.

Motowidlo and Kell (2012) To provide a summary of job performance, employ multidimensional models of job performance. They consider concepts like flexible performance and trait activation. The study examined the connections between traits including IQ, attitude, motivation, and skill in the job. According to the study's findings, workplace stress, corporate culture, job satisfaction, training, and growth all have an impact on how productive employees are.

Researchers Khaled Al-Omari and Haneen Okasheh (2017) examined the effect of company culture on employees' productivity. For their case study, the authors spoke with 85 employees and gathered information from them. Cross-sectional polling methods were used to compile the basic statistics. The study looked at the reactions of workers to noise, air quality, light, colour, and space as well as their overall level of job satisfaction. According to the research, unpleasant working conditions are linked to lower levels of productivity. The authors contend that if workers were encouraged to put their all into their work, they would do better work and be happier.

Goswami and Talukdar (2013) examined engineers serving in managerial positions in the public sector to determine whether there was a connection between EQ and workplace stress. 30 engineers from an Assam government office completed the survey. We measured emotional intelligence and occupational stress using tried-and-true surveys. The results of the study demonstrated that those with high EI are also skilled communicators. They were more open to discussing their feelings and ideas. Managers who scored highly on the emotional intelligence test were able to identify negative emotions as well as identify the root cause and address it.

Bindu Chhabara and Mohanty (2013) examined how stress at work is affected by emotional intelligence at various management levels. A total of 103 managers participated. They came from junior to senior positions across the organisation. The results showed that EQ is decreased by job stress. Senior executives took satisfaction in having greater emotional intelligence than their less experienced peers. Some of the duties that were the province of lower-level supervisors were taken away from them.

Pakistani academics (Yusoff et al., 2013) have examined the connection between emotional intelligence, achievement, and job stress. From a college with both public and private students, 65 teachers and staff members responded. While workplace stress has a definite detrimental impact on performance, emotional intelligence had a definite positive impact on production. According to analysts, institutions should prioritise identifying the root causes of stress and attempting to address it by educating students on how to be passionate and providing them with representational support in a welcoming setting.

2.1. Research Objectives
- To evaluate how these approaches have helped to lower occupational stress and enhance work performance.
- To identify workplace stress in the IT industry.

2.2. Hypothesis of the study
Null Hypothesis (H0): In the IT sector, there is no discernible link between job performance and occupational stress.
Alternative Hypothesis (H1): In the information technology sector, there is a considerable link between job performance and occupational stress.

3. RESEARCH METHODOLOGY
Research can be compared to a journey that takes you from the known to the unknown. Informally speaking, research refers to an investigation of a subject. The Advanced Learner's Dictionary of Contemporary English defines research as "a careful investigation or inquiry especially through search for new facts in any branch of knowledge." 1 Research is another activity associated with academics. We are all naturally curious about the world. When faced with the unknown, our innate curiosity drives us to research and gain as much knowledge as we can. Our desire for information drives us forward, and the methods by which we obtain it open the door to more inquiry.

3.1. Sample Population
My study will include the IT companies in Bangalore, as well as a general estimate of their staff sizes and the survey's sample size. The sample size for the study is 100.
- **TCS (Tata Consultancy Services)**
TATA Consultancy Services Ltd in Bangalore is one of the leading businesses in the Software Companies. Software has become an integral part of our lives as everything is technology-driven.

3.2. Sample Size
Example files can be investigated similarly by grouping individuals, substances, and objects that are thought to together make up a bigger population for computing needs. It is crucial that the sample be representative of the population as a whole in order to maximise one's capacity to extrapolate from an analysis sample to the entire population (Englander, 2012).

3.3. Sampling Techniques
The stratified and random sample methods are both used in this investigation. It is possible to determine the right sample size using the Krejcie Morgan table. A population is first divided into smaller groups called strata in order to conduct a stratified random sampling. Stratification, commonly referred to as stratified random sampling, separates populations into groups according to their shared socioeconomic and demographic characteristics. Among the numerous fields where stratified random sampling might be helpful are demography and life expectancy research, to name just two.

The responses were graded from 1 to 5 on a scale. The methodology for this process is based on likert scales. Rensis Likert, who invented this approach of conducting attitude surveys, detailed its benefits in his 1972 article "A Technique for the Measurement of the Attitudes." The benefit of this strategy was that it could be put into practise more quickly than any other method. Another factor contributing to the popularity of the Likert scale in the business world is the ability to utilise it without including negative possibilities. The Likert technique uses a Likert scale with possible responses of Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly Disagree (1).

3.4. Tools And Techniques
- **Average Mean**
Typical or mean The most widely used measure of central tendency is the mean, or arithmetic average, which is calculated by dividing the sum of the values of a collection of items by the total number of items in the set. The most popular and practical method for evaluating central tendency is the mean. Its main purpose is to enable series comparisons by providing a summary of each series' essential traits. It can be handled algebraically, therefore it can be used in many different statistical procedures. It serves as a trustworthy barometer of the middle ground. Nevertheless, it has some disadvantages, including being skewed by outliers, not necessarily reflecting the true value of a particular item in a series, and creating the wrong impression, particularly when item values are not presented alongside the average. However, mean is preferable to other averages, particularly in disciplines like sociology and economics where precise numerical measurements are practical.
- **Factor Analysis**
Thurstone coined the term "Factor analysis" in 1931 to designate a particular study methodology. It's a method for either streamlining data or uncovering buried patterns. To condense a large number of variables into a smaller, more manageable group, factor analysis is frequently utilised. Three steps make up factor analysis: (i) figuring out the initial factor loadings; (ii) rotating the factors; and (iii) figuring out the factor scores. Principal component analysis and principle axis factoring are two typical methods for figuring out initial factor loadings. Two techniques for determining factorability are Bartlett's test of sphericity and the Kaiser-Meyer-Olkin measure of sample adequacy (KMO). In the current inquiry, the KMO test was employed; a result above 0.5 suggests that factor analysis is appropriate for the available data.

4. DATA ANALYSIS
It is the procedure that aids a researcher in successfully and efficiently analysing the gathered and recorded data. The information is ready to be analysed once it has been entered and tabulated in the designated fields. Experts are required for this procedure in order to successfully analyse the data and understand the necessary outcomes from it. To locate relevant data, support

conclusions, and encourage decision-making, data analysis is a technique that involves checking, cleansing, remodelling, and modelling information.

4.1. Factor Analysis

A statistical method called factor analysis is used to investigate the underlying structure of a collection of observable variables. In order to understand the patterns of correlations between the variables, it seeks to discover latent components or constructs. Reduced dimensionality of the data and the discovery of common factors that explain the observed covariation are the key goals of factor analysis.

Table 1: Factor Analysis

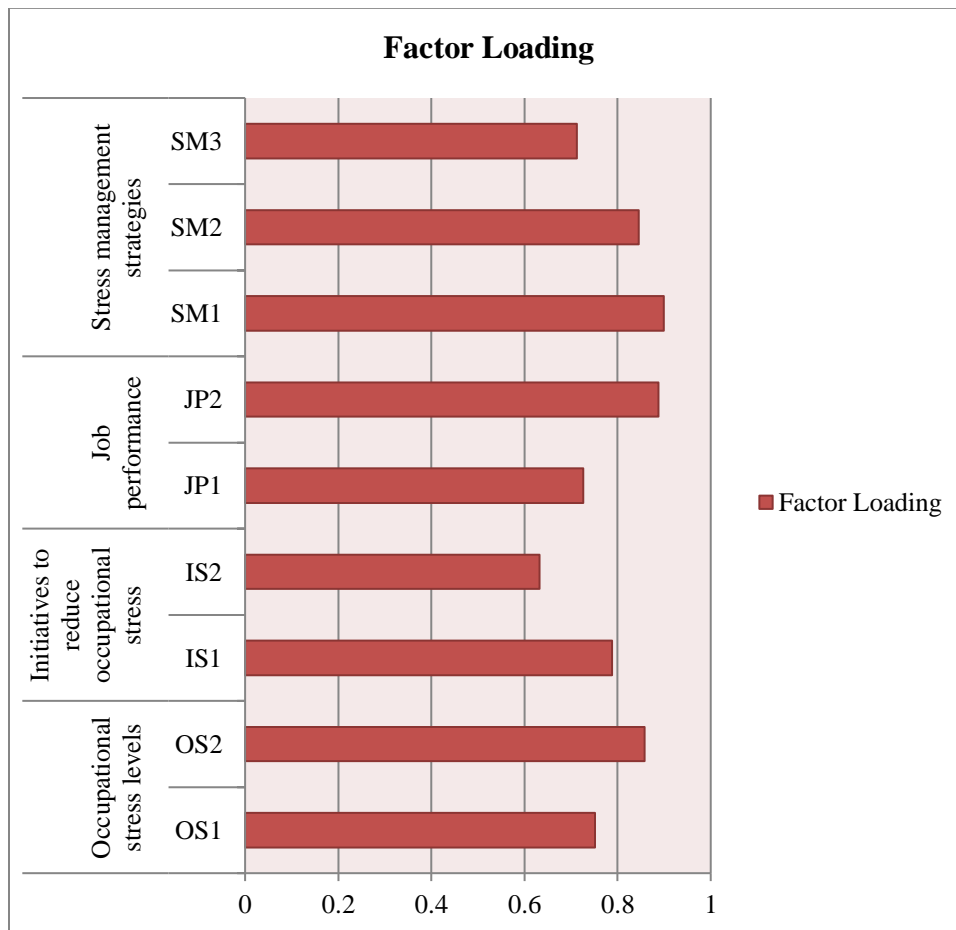| Construct	Variables	Factor Loading	Eigen	Variance	Cronbach's value
Occupational stress levels	OS1	.752	4.363	70.3	0.95
	OS2	.858			
Initiatives to reduce occupational stress	IS1	.788	3.023	75.3	0.76
	IS2	.632			
Job performance	JP1	.726	2.223	72.6	0.82
	JP2	.888			
Stress management strategies	SM1	.899	5.236	39.23	0.79
	SM2	.845			
	SM3	.712			

Figure 1: Factor Analysis

This factor analysis reveals that each construct's variables and related factors have important correlations. According to eigenvalues, the weight of the components changes between the constructions. Initiatives to lessen occupational stress and job performance have variables with higher variances, which suggest that they contribute more to overall variability. The Cronbach's alpha coefficients show that the constructs also exhibit respectable levels of internal consistency and dependability.

In SPSS, Pearson Product Moment Correlations were utilised to examine the validity of the survey. The Product Moment Pearson Correlations validity test is finished by comparing the final score with the answers to each question on the questionnaire. The questionnaire's legitimate items can be seen by their strong association to the result.

- **Demographic Profile**

4.2. Descriptive Analysis Of Data
Descriptive data analysis is a type of research methodology that focuses on outlining the characteristics of the workforce or population under study. Instead than concentrating on the "why" of the study's topic, this approach emphasises the "what" of the assessment issue. Either measurements of central tendency or measures of variability are the foundation of all descriptive statistics. These 2 measures make use of graphs, tables, and general discussions to aid people in understanding the significance of the analysed data. Various data pieces are analysed in the form of tables and graphs in this descriptive examination of the data. Responses based on gender, age, Indian Railway departments, and information about each questionnaire's question are just a few descriptive data analysis components. The following paragraphs address the descriptive analysis of the current study:

Table 2: Age of Respondents

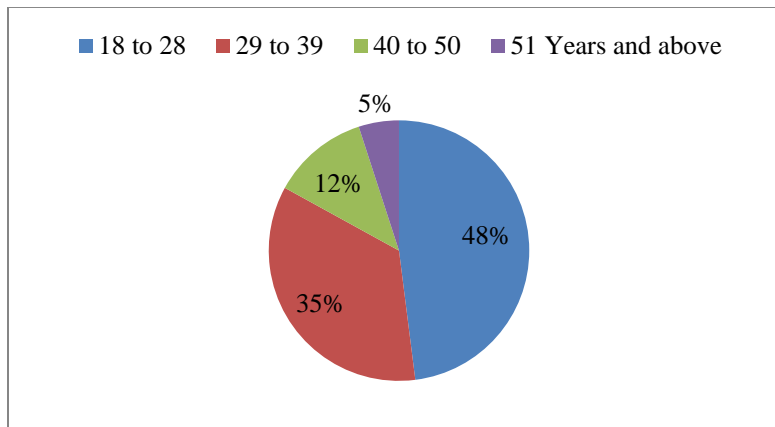| Age			
		Frequency	**Percent**
	18 to 28	48	48
	29 to 39	35	35
	40 to 50	12	12
	51 Years and above	5	5
	Total	100	100

Figure 1: Age of Respondents

Table 2 presents the distribution of respondents' age in the study. The data shows that out of the total 100 respondents, the highest proportion of participants (48%) falls within the age range of 18 to 28 years. The next most prominent age group is between 29 to 39 years, accounting for 35% of the respondents. Participants aged 40 to 50 years constitute 12% of the sample, while respondents aged 51 years and above comprise 5% of the total. Overall, the age groups of 18 to 28 and 29 to 39 represent the majority of the study population, making up 83% of the total respondents.

Hypothesis Testing
Null Hypothesis (H0): In the IT sector, there is no discernible link between job performance and occupational stress.
Alternative Hypothesis (H1): In the information technology sector, there is a considerable link between job performance and occupational stress.

Table 3: Association of Occupational Stress with Job Performance of the employees of IT Industry

Correlation			Occupational Stress	Job performance
Pearson	Occupational Stress	Correlation Coefficient	1	-.296
		Sig. (2-tailed)		.015
		N	100	100
	Job performance	Correlation Coefficient	-.296	
		Sig. (2-tailed)	.015	1
		N	100	
*Correlation is significant at the 0.05 Level (2-tailed)				

Table 3 presents the Pearson's correlation value, its significance value, and the sample size used in the computation to display the correlation values. The Pearson correlation coefficient in the given result is -0.15, the significance level is 0.005, and there were 100 test items. The significance value, which was calculated using the identified results, is 0.015.

Table 4 : Association of Job Stress Factors with Job Performance of the employees of IT Industry

Correlation			Job performance	Job stress Factors
Pearson	Job performance	Correlation Coefficient	1	.639**
		Sig. (2-tailed)		.001
		N	100	100
	Job stress Factors	Correlation Coefficient	.639**	
		Sig. (2-tailed)	.001	1
		N	100	
*Correlation is significant at the 0.05 Level (2-tailed)				

The Pearson's correlation value, its significance value, and the sample size used in the computation are all displayed in Table 4, which displays the correlation results. The Pearson correlation coefficient in the result that is being shown is 0.639, the significance value is 0.000 (determined using a 0.05 significance threshold), and there were 469 test items. The significance value of 0.000 to 0.050, which indicates a significant association between job stress factors and job performance, may be deduced from the identified results. It demonstrates a significant departure from the null hypothesis, which results in its rejection.

Table 5: Association of Organizational Stress Factors with Job Performance of the employees of IT Industry

Correlation			Job performance	Organisational stress Factors
Pearson	Job performance	Correlation Coefficient	1	-.163**
		Sig. (2-tailed)		.000
		N	500	500
	Organisational stress Factors	Correlation Coefficient	-.163**	
		Sig. (2-tailed)	.000	1
		N	500	
*Correlation is significant at the 0.05 Level (2-tailed)				

Table 5 presents the Pearson's correlation value, its significance value, and the sample size used in the calculation to show the correlation results. The Pearson correlation coefficient in the given result is -0.163, the significance value is 0.000 (measured using the 0.05 significance level), and there were 500 test items. It demonstrates a significant departure from the null hypothesis, which results in its rejection.

5. CONCLUSION

In human existence, stress is an inevitable process. Individuals experience different levels and types of stress according on their own systems, psychological makeup, alignment, working habits, and interactions with their families, friends, and coworkers. Additionally, each person's biological heritage has a role. However, the individual's stress is typically displayed in relation to their work and results. Every person's behaviour is solely evaluated in his or her professional and social relationships. Since it is firmly held that each person's occupational stress directly affects their personal, family, social, and environmental outcomes, psychoanalytic studies today insist on studying and measuring occupational stress of every individual with respect to the work environment, working condition, pattern, culture, and interaction. Numerous studies have shown that an individual's persona, family, social, psychological, and organisational backgrounds all contribute to their level of stress. The dimensions of the factors for each feature vary. In this context, personal, family, psychological, social, and environmental backgrounds also have an impact on the occupational stress experienced by women nurses. The theoretical model that is presented below explains the stress process and results for female nurses. The analytical findings of the current investigation, which were assessed using primary data sources in the study, have been used to develop the theoretical model. The expanding need for healthcare is being met by a variety of hospitals and related industries around the world. Individuals must be provided with comprehensive health protection due to changes in the environment, human consumption patterns, work systems and cultures, and food consumption habits. Additionally, the expansion of hospitals spurred by private and multinational involvement away from government services and assisted paradigm increased the demand for improved health care where patients are treated like clients. In today's healthcare services, patient relationship management has become a crucial instrument.

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