



## A STUDY ON EXPLORING THE CAUSES OF STRESS AMONGST IT EMPLOYEES WORKING IN CHENNAI

Sujith Kumar. E<sup>1</sup>, S.Veena<sup>2</sup>

1. II MBA – PG Scholar, School of Management, Hindustan Institute of Technology & Science
2. Research Guide - Asst. Prof. (SG), School of Management, Hindustan Institute of Technology & Science

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### ABSTRACT

In today's globalized era, when competition, innovation, and change abound, executives in every organization must deal with tension, stress, and anxiety every day. Individuals experience organization-related stress as a result of organizational demands. As a person occupies a certain position in a system, stress is built up in their role as well. This study examines the silent issue of stress and sheds light on the causes of stress among employees. The purpose of the study is to investigate if the Information Technology employees in Chennai are drowned by stress. The study is conducted on 148 samples to explore the various causes of stress in the workplace and to learn necessary coping mechanisms. The objectives of the proposed research are to study occupational stress among IT professionals and to segregate the employees into different clusters based on the level of stress they experience. The factors were classified into three factors- Encumbered, Nebulousness and Fulfilment by factor analysis.

Keywords: Stress, Information Technology, Coping mechanism

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### INTRODUCTION

We hear a lot about stress these days, but have a limited understanding of what it means. Despite everyone knowing what stress is and yet no one understanding it, the complexity of the word 'stress' is described in the phrase 'everyone knows what stress is and yet no one understands it'. Concerns about the various psychological stressors that adversely affect the quality of work life have been created in light of the growing awareness and concern about the working environment and the development of occupational health management plans(Thong & Yap, 2000, Gangopadhy, 1996).

Information Technology (IT) has experienced rapid growth among other industries due to its relative youth. Employees and organizations are under a lot of pressure with the introduction of new technology, as the new technology demands immediate and direct changes across all functional areas. IT professionals are exposed to an ever increasing flow of information due to the faster processing and transformation of information (Raitoharju, 2005). It is constantly challenging for IT and ITES professionals to deliver services as efficiently and cost-effectively as possible. Changing client expectations force these professionals to update/adapt very fast to keep up with their demands in terms of skills required for processing jobs. In times of high uncertainty and high risk, IT/ITES professionals are forced to change entire paradigms. Due to

the volatile nature of this sector, there is little job security, and skills must be constantly upgraded to remain competitive. It is becoming increasingly stressful to work in the Information Systems profession (Thong & Yap, 2000).

Globalized economies have been hard hit by the COVID-19 pandemic at present. In spite of this exceptional catastrophe, there are still positive signs in the Indian IT industry. Globally, it is becoming a strong economic force that contributes greatly to Indian and global economies. Globally, Indian software companies have taken prominent positions in the global IT industry in the last decade as India has emerged as an IT hub. The IT industry has become the largest sourcing destination in the world. The IT industry is growing rapidly due to online retailing, cloud computing, and e-commerce. The rate of growth in the IT sector for 2019-20 is approximately ten percent.

It is crucial in psychotherapy and other clinical work to be compassionate towards others (Gilbert, 2005). Moreover, clinicians who work continuously with people in mental distress are often at risk of psychological distress and burnout (Figley, 2002). A stress reaction is defined by the Health and Safety Executive (HSE) as an adverse reaction to excessive pressures or other types of demands. Accordingly, work-related stress occurs when an employee's resources and capabilities do not match the demands of their job. According to this definition, the relationship between individuals and their work environment is of paramount importance, and explains why a situation that one person considers stimulating may cause another to experience damage (Jeevitha et al., 2017).

Humans react to stressful situations by altering their physical, mental, and behavioral characteristics. (Matthews, 2001) argues that stress can originate from four basic sources: the environment, social stressors, physiological factors and thoughts. Due to urbanization and globalization, the degree of stress has increased in today's society. In modern society, stress has become an inevitability; the workplace has become a highly volatile stress factory for most employees. Despite the fact that stress can harm humans in several ways, not all forms of stress are destructive. When you experience the proper amount of stress, you can actually discover your latent abilities and even ignite your inspiration. An individual's stress is a dynamic reaction to opportunities, demands, or resources that are perceived to be both uncertain and important, and that are related to what they wanted (Schuler, 1980).

Health is influenced by psychological stressors in a variety of ways, including emotions, cognitive abilities, behavioural patterns, and psychological disorders. Stress is commonly caused by role ambiguity, role overload, role conflict, and strenuous working conditions (Chand & Sethi, 1997). In addition to the type of work assigned to an employee, the type of work that is assigned to them also affects their ability to cope with stress (Treadgold, 1999). A person's skills and abilities are not aligned with the demands of his/her job, and his/her needs are not being met by his/her work environment, which is what is referred to as stress in organizations. Cooper and Marshall believe occupational stress is meant by environmental factors or stressors such as work overload, role conflict, role ambiguity, and poor working conditions associated with a particular job (Cooper & Marshall, 2013).

## OBJECTIVES OF THE STUDY

- To study occupational stress among IT professionals.
- To segregate the employees into different factors based on the level of stress they experience by factor analysis.
- To segregate the employees into different clusters based on the level of stress they experience by cluster analysis.

## REVIEW OF LITERATURE

According to this study, the “Stress” issue has become a widely accepted silent problem that has been analysed and compared based on the causes of stress and its effects on employee performance at work in the International Agricultural Research Institute (IARI) and Information Technology Sector (ITS), as well as determining if there are any differences between employees of both areas. To assess the effects of the twelve independent variables on employees’ performance, the dependent variable, a survey of 150 employees was conducted at IARI and ITS. Based on the descriptive analysis, correlation techniques, and parametric statistics like the t-test and F-test, the conclusions were drawn. A reliability static Cronbach’s alpha (C-alpha) is used to assess the reliability of the scale used in this study and the internal consistency of the survey questionnaire. All variables showed C-alpha values between 0.60 and 0.70 for IARI, from 0.70 to 0.80 for ITS, whereas the overall C-alpha values were 0.74 and 0.84 for IARI and ITS (Prasad et al., 2016).

As a result of stress, feelings of disruption, rejection, anger, and depression may result in headaches, upset stomach, rashes, insomnia, ulcers, high blood pressure, heart disease, and stroke. Study objectives include identifying stress levels among professionals, analyzing their responses to stress, and identifying methodologies for coping with stress. In order to collect the necessary data, 100 samples from professionals at the top level were collected using a well-structured questionnaire. ANOVA, weighted average mean, and percentage analysis are the statistical tools used. Respondents’ views were measured using Likert’s five-point scale. Their coping methods also differ significantly from each other, ranging from always to rarely. Inner peace and improved immunity can be achieved through yoga and meditation, which are integral parts of the siddha system. Asanas (physical postures), pranayama (breathing techniques), relaxation and meditation (dhyaan) are a few of the techniques of yoga, along with the philosophy of how to maintain a simple and natural lifestyle. This paper is a small attempt in ameliorating the effects of stress through yoga and meditation (Jeevitha et al., 2017).

In general, the rapid growth of the IT/ITES industry is having a profound impact on the socioeconomic dynamics of the country. There are new working conditions in India due to the globalization of the world, which are placing people under enormous demands, which is resulting in occupational stress. It is common for these professionals to work in an environment that is rapidly changing, have very little control over their environment, pace of work, or the type of circumstances they have to deal with. These professionals experience high attrition rates and high absenteeism due to stress they experience in their work, which may contribute to their high

absenteeism rates. It is the objective of this study to examine the occupational stress among IT/ITES professionals as well as to determine if gender and marital status are significantly associated with differences in the nature and intensity of stress patterns among IT/ITES professionals (Bhatt & Pathak, 2010).

The researchers estimate that cardiovascular diseases account for 12 per cent of all lost worktime in the US, totaling about \$4 billion in a single year. Based on a report from the Department of Health and Social Security in the UK, as (ALDEIDGE, 1970) indicates, 22 million work days were lost in 1968 alone due to the combined incapacity of men with mental, psychoneurotic and personality disorders, nervousness, debilitation, and migraine headaches. (Bronchitis is second only to bronchitis in the league table of illnesses and days missed). As a result, coronary heart disease and mental illness together represent a serious economic and human cost for industry (Felton & Cole, 1963).

## **METHODOLOGY**

### **RESEARCH DESIGN**

The experimental research design was used in this study. An experimental approach to research involves manipulating and applying independent variables to dependent variables to measure their effects on the former. It is usually observed and recorded over time how independent variables affect dependent variables, which allows researchers to draw reasonable conclusions about their relationship.

### **DATA COLLECTION**

- The quantitative research design was utilized in this study, where a survey was allotted by sending the questionnaire to the employees working in various IT firms in Chennai.
- Primary data was collected through an online structured questionnaire which contained closed ended questions, prepared with the help of Google Forms.
- Secondary data was collected from various articles and books.
- Snowball sampling and convenience sampling techniques for data collection were also employed for various reasons.

### **TOOLS USED FOR ANALYSIS**

- The questionnaire data was analysed using SPSS software.

### **Factor Analysis**

It is a statistical technique that reduces a set of variables by extracting all their commonalities into a smaller number of factors. It was done to segregate the common factors that influence stress among employees.

### **Cluster analysis**

The task of arranging a set of items into clusters, often known as clusters, is termed cluster analysis or clustering. Clusters are created such that objects inside a cluster are more similar (in some manner) to one another than to objects within other clusters.

## RESULTS AND DISCUSSIONS

### Factor Analysis

Exploratory Factor Analysis has been done to identify the relationship between the characteristics displayed by the IT employees who undergo stress in their workplace. The Principal Component Analysis has been done to find out preferences of the investors towards the characteristics of financial advisors, by using varimax rotation. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy shows the score as 0.782 indicating that the factor analysis is more suited for the data. Bartlett's test of sphericity  $> 0.005$  has been significant and indicates that the factor analysis can be done. The standardised factor loadings for all the ten items stood from 0.533 to 0.838, in accordance with the standard specified  $> 0.5$ .

Three factors have been identified using principal component analysis with the total of 10 items that explain the factors causing stress among the employees. The three factors that have been extracted account for 90.37% of the total variance, which is well above standard prescribed i.e.,  $> 60\%$ . The Table 1 represents the Factors with corresponding items.

**Table 1: Factor Analysis**

<b>FACTORS INFLUENCING STRESS</b>	<b>FACTOR</b>
Role stagnation	Encumbered
Work overload	
Co-workers	
Higher officials	
Personal inadequacy	Nebulousness
Role ambiguity	
Resource inadequacy	
Psychological factors	Fulfilment
Job control	
Salary	

### Factor 1-Encumbered

Encumber is the restriction of someone or something in such a way that free action or movement is difficult. The employees feel encumbered by four factors such as role stagnation, workload, co-workers and higher officials. Hence, these characteristics are grouped together under the factor called Encumbered.

### Factor 2- Nebulousness

Nebulousness is defined as the unclear, hazy or cloudy vision. The employees under this factor are unclear of their roles and goals. They are ambiguous due to personal inadequacy, role ambiguity and resource inadequacy. Hence, these characteristics are grouped together under the factor called Nebulousness.

**Factor 3-Fulfilment**

Fulfilment, in this scenario, means the things that satisfies the needs of the employees. Employees undergo stress when their needs towards psychological factors, job control and salary goes unfulfilled. Hence, these characteristics are grouped together under the factor called Fulfilment.

Reliability of the Constructs**Table 2: Reliability of the constructs**

	Min	Max	Mean	SD	Skewness		Kurtosis	
Variable					Statistics	SE	Statistics	SE
Encumbered	1	3	2.09	0.664	-1.02	0.199	-0.713	0.396
Nebulousness	1	3	2.054	0.636	-0.04	0.199	-0.492	0.396
Fulfilment	1	3	2.02	0.686	-0.016	0.199	-0.84	0.396

The Table 2 shows the reliability of the constructs for the three factors: Encumbered, Nebulousness and Fulfilment. The mean value for the three factors were found to be 2.09, 2.054 and 2.02 respectively. The standard deviations were found to be 0.664, 0.636 and 0.686 for these factors. The skewness statistics values for the factors Encumbered, Nebulousness and Fulfilment was found to be -1.02, -0.04 and -0.016. The table also shows the Kurtosis statistics values as -0.713, -0.492 and -0.84 for the three factors respectively.

**CLUSTER ANALYSIS**

Segmenting of IT employees into distinct groups based on the level of stress they experience, Cluster Analysis has been performed and 3 distinct groups of employees have been identified. Cluster analysis has been performed with hierarchical clustering procedure with Ward's linkage and the clusters have been identified. The clusters with their proportion have been explained in the following section.

**Cluster 1- Low stressful**

The employees under this cluster experience low level of stress compared to the employees in other clusters. These employees can perform better and aid in increasing the productivity of the organisation. They do not need extensive focus on stress reduction. They tend to be content and satisfied with their work.

**Cluster 2- Highly stressful**

The employees under this cluster experience high level of stress compared to the employees in other clusters. These employees find it difficult to perform better and sometimes fail to increase the productivity of the organisation. They need extensive training programs to focus on stress reduction. They tend to be dissatisfied and discontent with their work.

**Cluster 3- Medium stressful**

The employees under this cluster experience moderate level of stress compared to the employees in other clusters. These employees perform at an average rate and contribute minimally to the

productivity of the organisation. They need moderate training programs from time to time to focus on stress reduction. They tend to be monotonous with their work.

## CONCLUSION

Every organization has its own culture and job demands. Not every employee can meet the requirements exactly like others and not everyone can cope and adjust to the organizational culture as well as the next person. Additionally, there is an exceeding demand to grow with the organization in the present day and those who are unable to meet these required demands tend to feel a lot of pressure. In many situations, if this pressure goes unchecked, it can result in stress and anxiety. Sometimes an individual is prone to stress while other times, it can develop because of an exceeding amount of job pressure. This in turn can affect the performance level of an individual in the long run. Our personality plays a role in determining how we cope with various situations. The organizations must consider the employees psychological health into consideration while planning welfare activities which can improve the productivity of employees without much stress.

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