

**An Empirical Study on the Sources of Stress Among Select  
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**ABSTRACT**

In information technology industries occupational stress is a big issue. Stress is an unpleasant or negative experience which causes workers psychologically and mentally depressed state. It may lead to health disorders such as musculoskeletal disorders, cardiovascular diseases and gastrointestinal problems. It may also lead to harmful emotional and physical reactions whenever the worker cannot satisfy the requirements of the job. In Information technology industries employees have to work maximum of 12 hours depending upon the assignment of work. Some times in order to complete the work they have to work even in late night which leads to mental disorders. Nature of work condition is the main issue in IT companies. They have to satisfy both the management people as well as the customers. Even a delay of one day to complete the work may lead to big problems. Employees have to face the critical situation from both sides. Administrative polices and strategies will force the employees to complete the work within the prescribed time limit. Apart from these occupational demand and ineffective communications also lead to work stress among the employees. So, this is a global issue prevailing nowadays in IT industries. In order to assess the nature and causes of the work stress among the employees of IT companies in Banglaore a few companies have been selected and the data was collected from 300 top management people . The collected data was entered in excel package and in order to know the opinions of the respondents for the causes of stress such as work conditions, administrative polices and strategies, role ambiguity, occupational demands, ineffective communication and other reasons for the stress percentage analysis was made to find out the major causes of stress among the employees and in order to test its effectiveness Structural Equation Model was employed using AMOS software.

**Keywords:** Stress, cardiovascular disease, occupational demands, administrative policies**INTRODUCTION**

Employees stress is a growing concern for organizations today. Stress can be defined as a lively circumstance in which people face constraints, opportunities, or loss of something they desire and for which the consequence is both unpredictable as well as crucial. Stress is the response of people to the unreasonable/excessive pressure or demands placed on them. Stress may due to occupational factors such as discrimination in pay/salary structure, strict rules and regulations, ineffective communication, goals ambiguity, more of centralized and formal organization structure, less promotional opportunities, lack of employees participation in decision making and excessive control over the employees by the managers. Individual factors such as various expectations which the family members, peer, superior and subordinates have from the employee. Failure to understand such expectations or to convey such expectations lead to role ambiguity/role conflict which in turn causes employee stress. Other individual

factors causing stress among employees are inherent personality traits such as being impatient, aggressive, rigid, feeling time pressure always, etc. Similarly, the family issues, personal financial problems, sudden career changes all lead to stress. Job concerning factors such as monotonous nature of job, unsafe and unhealthy working conditions, Lack of confidentiality and crowding may also cause stress among the employees. Top management should find out the causes or sources of stress among the employees and relieve their stress by means of stress management programmes. In order to assess the nature and causes of the work stress among the employees of IT companies in Bangalore and a few companies have been selected and the data was collected from 300 top management people. The collected data was entered in excel package and in order to know the opinions of the respondents for the causes of stress such as work conditions, administrative policies and strategies, role ambiguity, occupational demands, ineffective communication and other reasons for the stress percentage analysis was made to find out the major causes of stress among the employees and in order to test its effectiveness Structural Equation Model was employed using AMOS software.

### **OBJECTIVES OF THE STUDY**

1. To study the opinion of the selected respondents on the various sources of stress.
2. To investigate the main causes of stress among IT professional in select IT companies in Bangalore
3. To test the effectiveness of causes of stress among IT professionals
4. To suggest suitable measures to overcome stress among the IT professionals

### **METHODS OF STUDY**

Primary data was collected from 300 IT professionals in select IT companies in and around Bangalore city. The data was entered in Excel sheet. Percentage analysis was used to find out the major sources of stress among the IT professionals. To test the effectiveness of various sources of stress Structural Equation Model was employed using AMOS software.

### **MATERIALS AND METHODS:**

1.Singh Anurag (2012) Occupational stress has become a great matter of concern among the IT companies all over the world, which create lots of human resources problems like executives intention to leave the organization, it also create loss of talent as well as money of IT companies. The present Paper studies assess level of occupational stress among the executives in Indian multinationals IT companies the paper also studies level of occupational stress among the executives in foreign multinational IT companies.

2.Kohinoor Akhtar (2012) emphasized that the stress is mandatory according to modern school of thought but excessive targets and lack of motivational practices degenerates the engagement level of employee within the organization which causes less job satisfaction and leads to less organizational commitment. HRM policies play a major role in handling stress and healthy environment in organization and show that stress has a inverse relationship with psychological fitness which contribute to the total productivity and employability. This study is based on trend analysis of corporate stress and its relation with the psychological fitness of employees working in Information Technology Industry in Mumbai Region.

3.P.S. Swaminathan,& Rajkumar S. (2013)- He conducted a study that focused on the levels of stress among the age group, profession, different varieties of jobs, hours of work and the influence of work environment on the degree of stress faced by employees. Stress in an employee is very individual in nature. His study indicates about an optimum level in which every individual can perform with his full capacity. He has identified three conditions responsible for work stress they are a) Role overload b) Role self distance c) Role stagnation.

P.S. Swaminath, Dr. S. Rajkumar, Stress levels in Organizations and their Impact on Employees' Behaviour, BVIMR Management Edge, Vol. 6, No. 1 (2013) PP 79-88

4.Sharma S., Sharma J. & Devi A.(2012)- The level of stress within a role varies because of individual differences in mindset, age, gender, and their performance in job. How-ever, various factors

that influence stress are age where the younger employees are more stressed as compared to other employees, level of qualification, pay, authorities of control, awards, word of praise, improved designations and working couples. The study recommended a reinforcement approach that should be positive in nature so as to reduce the degree of stress at the workplace.

## DISCUSSION AND RESULTS

### AN EMPIRICAL STUDY ON THE SOURCES OF STRESS AMONG SELECT IT PROFESSIONALS IN BANGALORE

#### PERCENTAGE ANALYSIS

##### SOURCES OF STRESS

Stress is our body's way of responding to any kind of demand. It can be caused both by good and bad experiences. Many different things can cause stress, from physical like fear of something emotional, survival stress, internal, environmental and work load stress etc. Keeping this in mind, sources of stress viz., work conditions, administrative policies and strategies, role ambiguity, occupational demands, ineffective communications and others are selected and analyzed with the opinion of the respondents and the results of the same is presented in the following table.

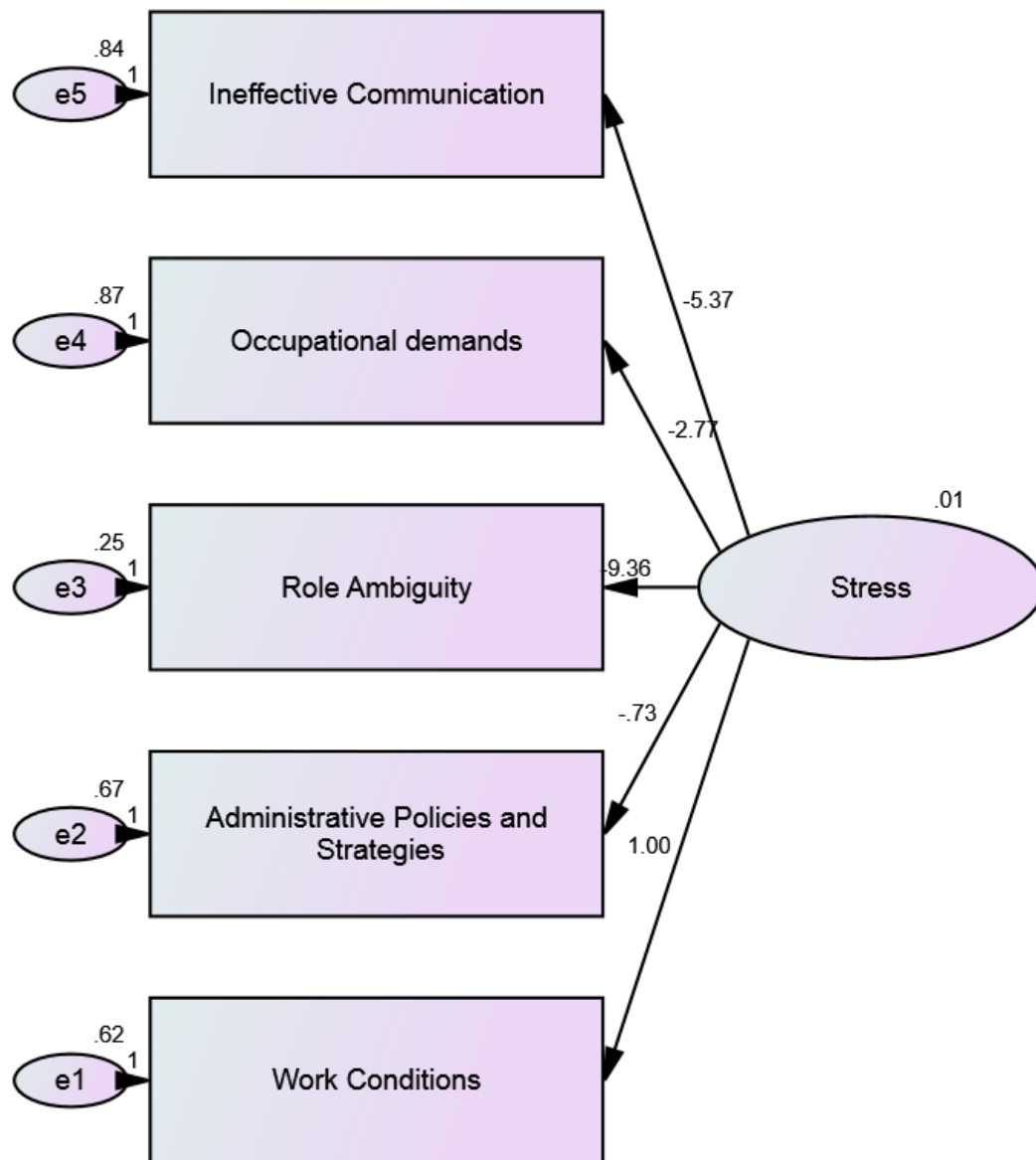
**TABLE No.**  
**SOURCES OF STRESS**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid work conditions	24	8.0	8.0	8.0
administrative policies and strategies	20	6.7	6.7	14.7
role ambiguity	40	13.3	13.3	28.0
occupational demands	203	67.7	67.7	95.7
ineffective communication	8	2.7	2.7	98.3
others	5	1.7	1.7	100.0
Total	300	100.0	100.0	

Source: **Primary Data**

It is glaring from the above table that 8.0 percent of the respondents put forward their opinion that the major sources of stress for them is work conditions, 6.7 percent of the respondents declared that administrative policies and strategies is the sources of stress, 13.3 percent of the respondents propound that role ambiguity is the sources of stress, 67.7 percent of the respondents conceived that occupational demands are the sources of stress, 2.7 percent of the respondents surmised that communication is the source of stress and only 1.7 percent of the respondents ventured other sources of stress. It is concluded from the above table that majority of the respondents express their opinion that occupational demands are the major sources of stress for them.

## STRUCTURAL EQUATION MODEL



### Default model (Default model)

#### Notes for Model (Default model)

#### Computation of degrees of freedom (Default model)

Number of distinct sample moments: 15  
 Number of distinct parameters to be estimated: 10  
 Degrees of freedom (15 - 10): 5

#### Result (Default model)

Minimum was achieved  
 Chi-square = .645  
 Degrees of freedom = 5  
 Probability level = .986

#### Group number 1 (Group number 1 - Default model)

#### Estimates (Group number 1 - Default model)

#### Scalar Estimates (Group number 1 - Default model)

#### Maximum Likelihood Estimates

### Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
Work conditions	<---	Stress	1.000				
Administrative policies And strategies	<---	Stress	.727	.135	3.722	***	par_1
Role ambiguity	<---	Stress	.563	.363	2.993	***	par_2
Occupational demands	<---	Stress	.767	.404	3.151	***	par_3
Ineffective communication	<---	Stress	.573	.397	3.222	***	par_4

The above table shows the regression co-efficient of the exogenous variables. It is noted that the critical ratio of work conditions, administrative policies and strategies, role ambiguity, occupational demands and ineffective communication is above table value 2.977 and it is significant at 1 percent level. All the selected variables work conditions, administrative policies and strategies, role ambiguity, occupational demands and ineffective communication are the most influenced sources of stress among the employees of select IT companies in Bangalore.

### Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Stress	.512	.089	4.609	***	par_5
Work conditions	.621	.089	6.999	***	par_6
Administrative policies And strategies	.668	.095	7.019	***	par_7
Role ambiguity	.652	.076	7.539	.590	par_8
Occupational demands	.868	.068	6.654	***	par_9
Ineffective communication	.835	.094	4.298	***	par_10

From the above covariance matrix, it is identified that the critical ratio value of all the six combinations of variables is higher than the table value of 2.977. All the selected variables work conditions, administrative policies and strategies, role ambiguity, occupational demands and ineffective communication are the most influenced sources of stress among the employees of select IT companies in Bangalore.

### Model Fit Summary

#### CMIN

The following table shows that CMIN for the default model. A significant chi-square indicates satisfactory model fit.

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	.645	5	.986	2.729
Saturated model	15	.000	0		
Independence model	5	37.618	10	.000	3.762

CMIN is a chi-square statistics comparing the default model and the independence model with the saturated model. The above table infers that the default model has been associated as 2.729 percent with saturated model and on the other side, the independence model has been associated as 3.762 percent with the saturated model.

#### RMR, GFI

The Root Mean Square Residual model is the mean absolute value of the co-variance residuals, which reflect the difference between observed and model-estimated covariance. Specifically, RMR is the co-efficient which results from taking the square root of mean of the squared residuals. The closer is RMR is to 0, the better model fit. The GFI is the goodness of fit index and is equal to 1-(chi-square for the default model/chi-square for the null-model).

Model	RMR	GFI	AGFI	PGFI
Default model	.014	.997	.992	.332
Saturated model	.000	1.000		
Independence model	.186	.868	.802	.579

From the above table it is indicated that the model is good fit by the influence of RMR value which is closer to zero, ie. .014 GFI (Goodness of Fit Index) refers to 99.7 percent has been fitted in the Default model for the proportion of variance-covariance matrix. On the other hand, 86.8 percent fit in the independence model.

**Baseline Comparisons**

The NFI, Normal Fit Index, also known as Delta1, was developed as the alternative to CFI, comparative fit index, is also known as the Bentler Comparative Fit Index, compares the existing model fit with the null model which assumes the latent variables correlates with the independent variables.

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.983	.966	1.134	1.315	1.000
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

From the above table it is inferred that the model fit indices are good fit with the evidence of NFI(0.983), and CFI (1.000) which is greater than 0.9.

**RMSEA**

Root Mean Square Error of Approximation is the popular measure of fit, because it does not require comparison with the null model. It is one of the fit indices less affected by sample size. There is good model fit if RMSEA less than or equal to 0.05

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.000	.000	.000	.992
Independence model	.167	.112	.225	.001

It could be noted from the above table that the RMSEA value is 0.000 which is lesser than 0.05 and the model resulted as good fit.

**FINDINGS OF THE STUDY**

The results of percentage analysis that 8.0 percent of the respondents put forward their opinion that the major sources of stress for them is work conditions, 6.7 percent of the respondents declared that administrative policies and strategies is the sources of stress, 13.3 percent of the respondents propound that role ambiguity is the sources of stress, 67.7 percent of the respondents conceived that occupational demands are the sources of stress, 2.7 percent of the respondents surmised that communication is the source of stress and only 1.7 percent of the respondents ventured other sources of stress. It is concluded from the above table that majority of the respondents express their opinion that occupational demands are the major sources of stress for them. The results of regression weight in SEM analysis shows that the critical ratio of work conditions, administrative policies and strategies, role ambiguity, occupational demands and ineffective communication is above table value 2.977 and it is significant at 1 percent level. All the selected variables work

conditions, administrative policies and strategies, role ambiguity, occupational demands and ineffective communication are the most influenced sources of stress among the employees of select IT companies in Bangalore. The results of variance also identified that the critical ratio value of all the six combinations of variables is higher than the table value of 2.977. All the selected variables work conditions, administrative policies and strategies, role ambiguity, occupational demands and ineffective communication are the most influenced sources of stress among the employees of select IT companies in Bangalore. The results of Model fit summary shows that the default model has been associated as 2.729 percent with saturated model and on the other side, the independence model has been associated as 3.762 percent with the saturated model. The results of RMR and GFI also indicated that the model is good fit by the influence of RMR value which is closer to zero, ie. .014, GFI (Goodness of Fit Index) refers to 99.7 percent has been fitted in the Default model for the proportion of variance-covariance matrix. On the other hand, 86.8 percent fit in the independence model. The results of Baseline comparisons inferred that the model fit indices are good fit with the evidence of NFI(0.983), and CFI (1.000) which is greater than 0.9. The results of RMSEA showed that the RMSEA value is 0.000 which is lesser than 0.05 and the model resulted as good fit. The SEM results also confirms that among the various sources of stress occupational stress is the main source of stress and other sources like work conditions, administrative policies and strategies, role ambiguity, and ineffective communication also influence the stress among the sample respondents of select IT companies in Bangalore.

## CONCLUSION AND SUGGESTIONS

To overcome the stress among the IT professionals Stress management programs should be conducted at organisational level with the objective of creating awareness about stress and making employees to learn stress management techniques. Apart from this physical activities should be planned in job design, conducting stress-audit at organizational level, for the purpose teaching individual, what causes stress and its impact on themselves, to combat the ill effects of stress, life style modification programs at individual and organizational level are recommended, after discussing experts. Ultimately individual should be responsible to carry forward these programs, Identifying triggers and stressors through continuously monitoring health of the employees and proactive organizational style will be a coping strategy in stress management, a supportive organizational system will integrate an individual system in order to understand stress and designing appropriate coping strategies, need for improvement in equipment used at work, and physical working conditions are in much demand in present tech-savvy world, and undoubtedly this will become one of the best stress coping strategies at organizational level, introducing stress counselling programs, in order to understand and solve stress related problems to control mostly behavioural and emotional outcomes of employees and conducting spiritual programs at organizational level will leads to introspection of employees and reduce stress to create more energetic and enriched platform which can increase organizational performance.

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