# INVESTIGATION OF EFFECT OF STRESS ON PROFESSIONALS OF MULTINATIONAL I.T. COMPANIES OF NOIDA CITY

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#### **ABSTRACT**

Stress is unavoidable factor in the life of a professional of Multinational I.T. Company. An individual I.T. professional, when stressed, can experience sickness, anxiety, depression, poor performance and reduced productivity. Stress has implications for both the individual and I.T. companies. The present research study follows standard methods of statistical research using a new and innovative approach to analyze the effects of stress on professionals of Multinational I.T. Companies. These professionals are classified into four groups depending upon the effects of stress on them as: Mild, Tolerable, Dominant and Highly Dominant. Observed effects of stress on these groups are listed in order of their frequent occurrence. The findings of this study will be in larger interest of individual professionals, I.T. Companies and our present society.

Keywords: Stress, I.T. Professionals, Multinational I.T. Company, Group Stressors.

#### Introduction

Stress is unavoidable factor in the life of a professional of Multinational I.T. Company. An individual IT professional, when stressed, can experience sickness, anxiety, depression, poor performance and reduced productivity. Stress may cause poor health, excess use of alcohol, smoking or drugs. This may lead to high rate of absenteeism, work burn out and a desire to change career. His well-being and family life may also be adversely affected.

From IT Company's perspectives, employee stress may affect the company in several ways at a substantial cost. Employees' poor performance and reduced productivity may adversely affect company's overall performance, progress and growth. Company may face problem of absenteeism and subsequent loss of numerous working hours. Some stressed employees may quit the job. Thus, money and time invested in their training are lost. Moreover, company may fail to deliver high quality of customer service, thus affecting its reputation. Company may lose valuable clients and may lag in the present competitive global market. This in turn will fail to attract talented youth to take up company's challenging jobs.

When several IT Companies are adversely affected by employee stress, their contribution to IT sector and national economy is greatly reduced. Thus, the problem of employee stress in IT companies is a matter of great concern. As such, a detailed research study to identify the various factors leading to stress among IT professionals is urgently needed. It is also required to evaluate the level of their stress and to reveal the effects of stress on these professionals.

The present research study follows standard methods of statistical research using a new and innovative approach to analyze the effects of stress on professionals of Multinational I.T. Companies. These professionals are classified into four groups depending upon the effects of stress on them as: Mild, Tolerable, Dominant and Highly Dominant. Observed effects of stress on these groups are listed in order of their frequent occurrence. Findings of this study will be in larger interest of individual professionals, I.T. Companies and our present society.

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#### **Review of Literature**

The earliest research related to Stress is traced to **Walter Canon [1]** in the 1930s, who conceptualized the "fight or flight" theory to highlight how living organisms respond to harmful environment. **Hans Selye [2]** introduced for the first time the term "**Stress**" into life science. It was derived from a Latin word "Stringere" meaning: 'to be drawn tight'. Various terms synonymously used with stress are frustration, anxiety and pressure.

**Bennet [3]** has defined stress "as a wide collection of physical and psychological symptoms that result from difficulties experienced by an individual while attempting to adapt to an environment". **Robbins, S. P. [4]** found that "Stress is a dynamic condition in which an individual is confronted with an opportunity, constraint, or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important".

Stress at workplace has been a big problem for organizations. National Institute for Occupational Safety and Health observed that stress affects about 80% of workers. **Keeley and Harcourt [5]** were of the opinion that "Stress is caused by heavy work demands in the job itself". According to **Sauter and Murphy [6]** work stress can be defined as "the harmful physical and emotional responses that occur when requirements of the job do not match the capabilities, resources or need of the worker". Mostly, high demands of job and little control of the situation leads to stress.

Quick and Quick [7] suggested four major types of stressors: Physical demands, task demands, role demands and interpersonal demands. Hendrix [8] proposed work overload, control supervision with support, work autonomy, role conflicts and role ambiguity as five major organizational stressors. Cooper and Marshal [9] identified "intrinsic nature of work demands, employee intrinsic role participation, interpersonal workplace conflicts, slow career progression and fragmented organizational structure & climate" as the five broad factors causing workplace stress.

The work stress is found in all professional jobs. However, IT jobs are known for their very high stress level. These jobs are mostly contractual, highly target driven and result oriented. Globalization, cut throat competition, long working hours, fear of obsolescence, threat to job security are some of the major reasons of high stress in IT professionals.

Several investigations have shown that job stress (occupation stress) leads to many negative consequences. This may adversely affect employee health and cause anxiety, tension, absenteeism, reduce motivation and productivity, and desire to leave the job. All these reasons adversely affect overall performance and productivity of the organization. As such, it is essential for an organization to follow such policies and programs which effectively manage job stress at workplace.

**Aziz, M. (2003) [10]** conducted a study to examine the prevailing organizational role stress affecting Indian IT professionals. His findings show that Resource inadequacy is the most potential stressor. This study also reported that men experienced more stress than women.

**Talwar, R. et al. (2009) [11]** investigated health related disorders and their associated dependence on working environment in computer professionals employed in Delhi NCR. The study concluded that a large number of these computer professionals are having health related problems due to their working environment and this should be properly addressed.

Rao, Jakkula V. (2012) [12] investigated occupational stress, related mental health, subsequent job satisfaction and stress coping among IT professionals employed at Hyderabad City. Findings indicated that mental health and subsequent job satisfaction were mutually correlated but not very significantly. Moreover, job satisfaction was significantly as well as positively correlated with stress coping pattern. Mental health was found to be significantly and negatively correlated with corresponding occupational stress. The study inferred that increase in job satisfaction and mental health increase coping behavior. However, increase in stress causes decrease in mental health.

**Shrivastava, S. R. et al. (2012) [13]** investigated computer-related health issues among software professionals employed in Mumbai. This research found that musculo-skeletal disorders as well as ocular discomfort along with psycho-social problems are the key health issues faced by these software professionals. The study brought into focus various factors that contribute towards the occurrence of these problems.

**Darshan, M. S. et al. (2013) [14]** conducted a study of professional stress and depression along with use of alcohol among IT professionals of India. Findings revealed that 51.2% of respondents were professionally stressed, whereas 43.4% of them were at the risk of depression development. Results also revealed that professionally stressed employees were at ten time's higher risk of depression

development. Moreover, professionally stressed employees showed 5-9 times' higher harmful alcohol use. Higher professional stress causes risk for depression development and harmful use of alcohol among software professionals. It could also diminish the advancement of IT development and significantly increase the incidence of psychiatric disorders.

**Dwamena, M. A. (2012) [15]** investigated the factors causing work stress and their influence on employees' productivity. It was noticed that negative factors which stressed employees, had a negative impact on productivity. Thus, it was proved that stress had a negative impact on employees' productivity.

**Nayak**, R. D. (2014) [16] investigated the comparative level of anxiety along with mental health of mechanical and software professionals. Findings showed that anxiety level of software professionals differed widely from that of mechanical professionals. Significant positive relationship was observed in psychological related dimension of their mental health.

**Jomoah, I. M. (2014) [17]** conducted an investigation on work-related effects of health disorder in computer users of Saudi Arabia. The study observed high level of instances of vision-related and musculoskeletal-related complaints. The quantum of complaints was found to increase when - (a) work station ergonomic score decreases (b) duration and age progresses (c) smoking increases (d) computer use increases (e) there is lack of work related satisfaction and (f) operators have history of previous ailments. The study recommended enhancement of work station ergonomics, setting up of proper training programs and conducting periodical examinations of these employees.

**Saleem, M. et al. (2015) [18]** carried out a study to determine the pattern related to Musculo-Skeletal Disorders and its prevalence among Indian software professionals. The investigation concluded that Musculo-Skeletal Disorder is widely reported among Indian software professionals employed in IT field. As such, an appropriate preventive strategy is urgently needed, so that these professionals can work comfortably.

**Padma, V. et al. (2015) [19]** studied the stress and health related issues in business outsourced IT professionals. It was observed that such professionals were prone to develop several health related problems due to constant physical and mental work stress. It was suggested that proper diet advice, suitable lifestyle modification and psychological counseling would reduce work stress and health related problems in IT professionals, thus improving quality of this work force.

**Ekienabor, E. E. (2016) [20]** conducted a study to examine the influence of employee job stress on productivity and commitment of academic staff employed at Nigerian Universities. The study observed that job stress affected both productivity and commitment of these professionals. High job stress with no control lowers employee performance which in turn lowers organizational reputation and this causes loss of skilled talent. The study suggests introduction of suitable stress interventions to reduce job stress, thus enhancing employee satisfaction.

**Okeke, M. N. et al. (2016) [21]** examined the impact of employee stress over employee productivity at Nigerian banking industry. The study found that pressure of workload caused stress, and greatly affected employee performance and productivity. The study observed the necessity of suitable remedial measures for reduction in employee stress.

**Sabbarwal, S. et al. (2017) [22]** identified the prevailing stressors among IT employees. The study noticed that high workload, long & late working hours and family related problems are major contributors towards occupational stress of these employees. Insecurity of job, family issues, ill health, low monetary compensations are the other factors causing occupational stress. These stressors cause physical & mental problems such as high B. P., body and back pain, exhaustion, depression and sleep disorders in IT employees. The study suggested suitable stress management programs for all IT employees.

**Shalini, S. et al. (2018) [23]** explored the job stress among women employees in IT companies of Coimbatore City. The study indicated that majority of these employees are experiencing high stress which causes back pain and other health related problems. The study emphasized the necessity of proper stress management programs for them. It was also suggested that excellent work done by women IT employees should be acknowledged by suitable rewards and awards. This will make IT industry an attractive and preferred career destination for women employees.

**Sudarshini, S. et al. (2018) [24]** explored the health related problems in computer professionals due to exposure of computer work. The study found that more than three-fourth of such employees suffered from one or more health related problems. The study suggested that an appropriate ergonomic should be applied to enhance the quality of work and reduce their health related problems.

**Srinivas, P. S. et al. (2019) [25]** explored the effect of yoga-based intervention on job anxiety and perceived stress of Indian IT professionals. Findings showed that after a period of eight week intervention, job anxiety was reduced by 19.51% and perceived stress was reduced by 34.77%. The study proves that yoga based practices help to greatly reduce Job Anxiety and Perceived Stress among Indian IT professionals. The study also highlights the need to explore the role of yoga based practices in IT professionals' work life to a larger extent.

From the detailed literature review following observations are made:

- Professionals working in Information Technology Companies experience high level of stress.
- Stress of IT professionals is a matter of huge concern to IT organizations as well as individual employees because it adversely affects employees' health as well as performance.
- A few research investigations have been made on employee stress, its effect and coping
  methods. However, these attempts have been in pieces. A detailed and comprehensive
  research study with an innovative approach is needed to investigate this problem and find
  suitable solutions.
- Results of this study will be very useful to IT professionals as well as IT companies. Thus, the study will be in larger interest of the society.

# **Objectives of Study**

For the professionals of Multinational I.T. Companies of Noida City:

- To understand the demographic and job-related profile.
- To identify various sources of stress in professionals.
- To measure the level of stress in professionals.
- To measure the effects of stress on professionals.

#### Methodology

The present research study has followed the standard methods of research as suggested and discussed by the renowned authors of this field [26-29]. However, it uses a new and innovative approach in the investigation of the various factors causing stress among professionals of Multinational I.T. Companies and their subsequent effects on these professionals. Extensive review of literature made the researcher to fix four major categories of stressors among I.T. professionals: Individual Stressors, Group Stressors, Organizational Stressors and Extra-Organizational Stressors. Organizational Stressors are the most important category of Stressors and they are further classified among eight sub-categories: Stressors related to – Environment, Nature of Job, Subordinates, Organizational Climate, Relationship within Organization, Role in Organization, Career Design and I.T. Specific Issues.

Ten demographic and job-related variables have been selected for in depth study: Gender, Age, Experience, Education, Salary, Food Habits, Marital Status, Type of Family, Spouse's Employment and Present Staying.

Census survey method has been selected for this study. A suitable instrument (Questionnaire) has been developed for primary data collection for measurement of stress among professionals of I.T. Companies of Noida City. The first component of the Questionnaire gathers information regarding gender, age, experience, education, salary, food habits, marital status, type of family, spouse's employment and present staying of the respondents. The second component is related to measurement of various stressors. It has 75 statements grouped into four major categories: Individual Stressors, Group Stressors, Organizational Stressors and Extra-Organizational Stressors. The third component has 20 statements on effects of stress on I.T. professionals. A suitable sample of 150 professionals working in different multinational I.T. companies was selected for this study. Out of 150 distributed questionnaires, 137 were received completely filled in. Thus the response rate was 137/150 i.e. 91.33%. The responses of these 75 statements have been recorded using Likert's 5 point scale scoring method. Data of this study has been tabulated using Microsoft Excel 2010 Spreadsheet Package. Data was subjected to Internal Consistency/Reliability test by calculating 'Cronback's Alpha ( )' using 'Real Statistics Using Excel' open software package. Since all values of were above 0.6 and very close to 0.7, Internal Consistency/Reliability test of data was successful.

Statistical Analysis of data was done using various statistical tools made available by world renowned Statistical Software Packages: SPSS [30], JASP [31] and Real Statistics Using Excel [32].

#### **Measurement of Stress**

The responses of the above 75 statements were recorded using Likert's 5 point scale scoring method. The responses are Strongly Disagree (SD), Disagree (D), Not Sure (NS), Agree (A) and Strongly Agree (SA) having corresponding score values of 1, 2, 3, 4 and 5 respectively.

#### **Classification of Stress Level**

For the above set of 75 statements, minimum score is 75 (75x1) and the maximum score is 375 (75x5). Difference of these scores (375 - 75=300) is divided by 4 to define 4 ranges of stress level as shown in Table 1.

**Table 1: Classification of Stress Level** 

Stress Level	Range of Scores
Low Stress	75 – 150
Medium Stress	151 – 225
High Stress	226 – 300
Extreme Stress	301 – 375

# **Effects of Stress**

There are twenty statements in the third component of the questionnaire. The responses of these twenty statements address the effects of stress on I.T. professionals. The responses are - Always (A), Frequently (F), Often (O), Sometimes (S) and Never (N). The corresponding score values are 5, 4, 3, 2 and 1 respectively.

#### **Classification of Effects of Stress**

For the above set of 20 statements, minimum score is 20 (20x1) and the maximum score is 100 (20x5). Difference of these scores (100 - 20 = 80) is divided by 4 to define 4 ranges of effects of stress as shown in Table 2.

Table 2: Classification of Effect of Stress

Level of Effect of Stress	Range of Scores
Mild	20 – 40
Tolerable	41 – 60
Dominant	61 – 80
Highly Dominant	81 – 100

The overall scores of each effect are subjected to rank correlation. The effects are also ranked.

# **Analysis and Interpretation of Data**

After statistical analysis of data the results are presented below:

# Demographic & Job-Related Profile

- 36.50% of the respondents are female and 63.50% are male.
- 59.12% of respondents are in the age range 31-40, followed by 32.85% for 25-30age-group. Age-group 41-50 respondents constitute only 8.03%.
- 60.58% of the respondents have 6 to 10 years' experience. 30.66% are having 1 to 5 years' experience, whereas only 8.76% are having 11 to 15 years' experience.
- 45.98% are post-graduates or possess higher qualification. 32.85% are graduates, whereas 21.17% have professional qualification.
- 33.57% respondents are drawing salary in the range 45001-55000, followed by 31.39% in the range 35001-45000. 26.28% are drawing salary greater than 55000 whereas only 8.76% draw salary lower than 35000.
- 37.23% are non-vegetarians, while 62.77% are vegetarians.
- 33.58% respondents are un-married, while 66.42% are married.
- 26.28% lead a joint family life and the families of 73.72% respondents are of nuclear type.
- 18.98% respondents' spouses are not employed and 47.44% respondents have employed spouse.
- 48.91% respondents are staying away from their families and 51.09% of respondents are staying with their families.

# **Explorative Data Analysis**

Salient features of Explorative Data Analysis are elaborated by the following tables:

**Table 3: Overall Stress Level of Respondents** 

S. No.	Stress Level	Frequency	Percent
1	Low	0	0.00
2	Medium	16	11.68
3	High	119	86.86
4	Extreme	2	1.46
	Total	137	100.00

According to Table 3, majority of the respondents (86.86%) are experiencing high level stress. 11.68% respondents experience medium level stress followed by 1.46% having extreme stress. Low level stress is not visible in the respondents. Only medium, high and extreme levels of stress are observed.

**Table 4: Effects of Stress on Respondents** 

S. No.	Effects	Frequency	Percent
1	Mild	4	2.92
2	Tolerable	53	38.69
3	Dominant	80	58.39
4	Highly Dominant	0	0.00
	Total	137	100.00

According to Table 4 majority of the respondents (58.39%) are experiencing dominant level of Stress effect, 38.69% are experiencing tolerable level of stress effect, while only 2.92% are having mild effect. Highly dominant level of stress effect is not present among the respondents (Figure 1).

**Chart Title** 80 60 40 20 ■ Frequency 0 ■ % of Respondents Mild Tolerable Dominant Highly **Dominant** 

Figure 1

Table 5: Stress Level and Effects of Stress on Respondents

Stress Level	Effect of Stress on Health				Total
Stress Level	Mild	Tolerable	Dominant	Highly Dominant	Total
Low Stress	0	0	0	0	0
Low Siless	0.00%	0.00%	0.00%	0.00%	0.00%
Medium Stress	3	3	10	0	16
	18.75%	18.75%	62.50%	0.00%	100.00%
High Stress	1	48	70	0	119
riigii Stiess	0.84%	40.34%	58.82%	0.00%	100.00%
Extreme Stress	0	2	0	0	2
Extreme Stress	0.00%	100.00%	0.00%	0.00%	100.00%
Total	4	53	80	0	137
	2.92%	38.69%	58.39%	0.00%	100.00%

Table 5 depicts relationship between Stress Level and Effects of Stress on health of the respondents. In the Medium and High Stress categories, majority of the respondents are having dominant effects of stress.

Condon	Stress Level				
Gender	Low	Medium	High	Extreme	Total
Mala	0	12	75	0	87
Male	0.00%	13.79%	86.21%	0.00%	100.00%
Camala	0	4	44	2	50
Female	0.00%	8.00%	88.00%	4.00%	100.00%
Total	0	16	119	2	137
Total	0.00%	11 68%	86 86%	1 46%	100 00%

Table 6: Gender & Stress Level of Respondents

Table 6 reveal that majority of male respondents (86.21%) and female (88.00%) are experiencing high stress level. 13.79% of male and 8.00% of female respondents are having medium stress level, whereas 4.00% of female respondents are having extreme stress level.

0		Total			
Gender	Mild Tolerable Dominant Highly Dominant				
Male	3	38	46	0	87
iviale	3.45%	43.68%	52.87%	0.00%	100.00%
Famala	1	15	34	0	50
Female	2.00%	30.00%	68.00%	0.00%	100.00%
Total	4	53	80	0	137
Total	2.92%	38.69%	58.39%	0.00%	!00.00%

Table 7: Gender & Effects of Stress on Respondents

Table 7 Explains that majority of male (52.87%) and female (68.00%) respondents are experiencing dominant effects of stress. 43.68% of male and 30.00% of female respondents are having tolerable effects of stress, whereas only 3.45% of male and 2.00% of female respondents are having mild effects on their health.

## Effects of Stress

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There are 20 statements in the questionnaire for evaluating the effects of stress on IT professionals.

Statement Effects of Stress on Employees I suffer headache / migraine. 2 I suffer High blood pressure. 3 I suffer indigestion / stomach problems. 4 I am unable to concentrate. 5 I am unable to get sound sleep. I suffer muscular tension (neck / back / jaw/ wrist). 6 7 I suffer loss of appetite. 8 I feel exhausted / fatigued. 9 I suffer palpitation of heart and difficulty in breathing. 10 I get nervousness and anxiety. 11 I get frustrated feelings. 12 I get nightmares and bad memories. 13 I suffer skin rashes. 14 I take leave for personal reasons. 15 I get reduced interest in usual and social activities. 16 I find loss of motivation and commitment. 17 I find reduction in my work output and increase in my error rate. 18 I find deterioration in my planning and control work.

My timekeeping becomes erratic and poor.

I find increase in my smoking and / or use of alcohol.

Table 8: Effects of Stress on Employees

The respondents are divided into 4 groups depending upon the total score:

- MILD
- TOLERABLE
- DOMINANT
- HIGHLY DOMINANT

For each group ranks are assigned based on the scores.

Table 9: Ranking of Effects of Stress on Respondents' Health

Statement	Mild	Tolerable	Dominant
1	2	1	1
2	13	2	2
3	2	5	10
4	2	6	6
5	1	3	8
6	8	6	17
7	13	15	16
8	8	9	15
9	2	20	10
10	8	10	8
11	2	11	13
12	19	19	20
13	13	17	19
14	2	12	4
15	8	18	3
16	13	12	17
17	19	12	12
18	8	8	13
19	13	16	4
20	13	4	7

#### Inference

Only three types of categories are observed:

# Mild, Tolerable and Dominant

Effects of stress on these categories are listed in order of their frequent occurrence on the basis of the above table:

- Mild Group: Unable to get sound sleep, Suffer headache / migraine, Suffer indigestion / stomach problems, Unable to concentrate, Suffer palpitation of heart and difficulty in breathing, Take leave for personal reason.
- **Tolerable Group:** Suffer headache / migraine, Suffer high blood pressure, Unable to get sound sleep, Find increase in smoking and / or use of alcohol, Suffer indigestion / stomach problems.
- **Dominant Group:** Suffer headache / migraine, Suffer high blood pressure, Get reduced interest in usual and social activities, Take leave for personal reason, Time keeping becomes erratic and poor.

Table 10: Summary of Effects of Stress on Health with Job-related and Demographic Variables

	Variable	Category	Effects of Stress				
S. No.			Mild	Tolerable	Dominant	Highly Dominant	Total
1	Gender	Male	3	38	46	0	87
'	Gender	Female	1	15	34	0	50
	٨٥٥	25-30	2	14	29	0	45
2	Age	31-40	2	32	47	0	81
	(Years)	41-50	0	7	4	0	11
	Cynoriones	1-5	2	11	29	0	42
3	Experience	6-10	2	34	47	0	83
	(Years)	11-15	0	8	4	0	12
		UG	2	15	28	0	45
4	Education	PG/PG+	2	27	34	0	63
		Professional	0	11	18	0	29

		<35000	0	4	8	0	12
5	<b>_</b> Salary	35001-45000	2	14	27	0	43
э	(Rs. pm)	45001-55000	0	17	29	0	46
		>55000	2	18	16	0	36
6	Food Habits	Vegetarian	2	29	55	0	86
0	FOOG Habits	Non-Vegetarian	2	24	25	0	51
	Marital	Un-married	2	16	28	0	46
7	Status	Married	2	37	52	0	91
	Status	Others	0	0	0	0	0
8	Type of	Joint	2	12	22	0	36
0	Family	Nuclear	2	41	58	0	101
	Canada i	Employed	1	24	40	0	65
9	9 Spouse's Employment	Not Employed	1	13	12	0	26
		Not Applicable	2	16	28	0	46
10	Presently	With Family	3	24	43	0	70
10	Staying	Away from Family	1	29	37	0	67

#### **Findings**

## Demographic & Job-Related Profile

- Majority of respondents (63.50%) are male.
- Majority of respondents (59.12%) of respondents are in the age range 31-40.
- Majority of respondents (60.58%) have 6 to 10 years' experience.
- 45.98% are post-graduates or possess higher qualification. 32.85% are graduates, whereas 21.17% have professional qualification.
- 33.57% respondents are drawing salary in the range 45001-55000, followed by 31.39% in the range 35001-45000. 26.28% are drawing salary greater than 55000 whereas only 8.76% draw salary lower than 35000.
- Majority of respondents (62.77%) are vegetarians.
- Majority of respondents (66.42%) are married.
- The families of majority of respondents (73.72%) are of nuclear type.
- Majority of respondents (47.44%) have employed spouse.
- Majority of respondents (51.09%) are staying with their families.

# Explorative Data Analysis

- Majority of respondents (86.86%) are having high stress level whereas 11.68% respondents have medium stress level. Only 1.46% respondents experience extreme level of stress. (Table 3).
- Majority (58.39%) respondents experience dominant level of effect due to stress whereas 38.69% respondents experience tolerable level of effect. Only 2.92% respondents are having mild effect of stress. (Table 4).
- In the medium and high stress categories, majority of respondents (62.50% and 58.82 respectively), are having dominant effect of stress. (Table 5).
- Majority of male (86.21%) and female (88.00%) respondents are experiencing high stress level. (Table 6).
- Majority of male (52.87%) and female (68.00) respondents are experiencing dominant effects of stress. (Table 7).

# Effects of Stress

The following are the observed effects of stress experienced by various categories of respondents in order of their occurrence: (Table 9)

- Mild Group: Unable to get sound sleep, Suffer headache / migraine, Suffer indigestion / stomach problems, Unable to concentrate, Suffer palpitation of heart and difficulty in breathing, Take leave for personal reason.
- Tolerable Group: Suffer headache / migraine, Suffer high blood pressure, Unable to get sound sleep, Find increase in smoking and / or use of alcohol, Suffer indigestion / stomach problems.

 Dominant Group: Suffer headache / migraine, Suffer high blood pressure, Get reduced interest in usual and social activities, Take leave for personal reason, Time keeping becomes erratic and poor.

The effects of stress due to various demographic and job-related variables, on health of majority of respondents, are of dominant nature. (Table 10)

#### Conclusion

The present research study has investigated the effects on IT professionals of multinational companies located at Noida City. Various statistical tools provided by world renowned statistical software packages: SPSS, JASP and Real Statistics Using Excel have been used in the analysis. The profile of the sample-respondents as portrayed by their demographic and job-related variables has been analyzed in detail. Explorative study has shown that majority of respondents are having high stress level. Effects of stress on respondents' health have been investigated in detail. It has been observed that majority of respondents experience dominant level of effect. The observed effects of stress experienced by various categories of respondents have been identified and listed in order of their occurrence. Analysis reveals that effects of stress due to various demographic and job-related variables on the health of majority of respondents are of dominant nature.

It is believed that the findings of this research study will help IT professionals and companies in understanding of stress and its effects in a better way. This will help them in developing strategies for better stress management. In brief, the results of this investigation would contribute significantly in better understanding of stress and its effects on I.T. professionals of multinational companies and will be helpful in managing this important problem. The results of this research study would certainly enrich the present literature on stress management.

#### References

- 1. Cannon, W. (1932), 'Wisdom of the body', Norton and Company (USA).
- 2. Selye, Hans (1956), 'The Stress of Life', Longmans, Green and Co., London (Great Bretain).
- 3. Bennet, R. (1994). 'Organisational Behavior', 2<sup>nd</sup> Ed., Pitman Publishing, London.
- 4. Robbins, S.P. (2003). 'Organizational Behavior', Pearson Education (Singapore) Pte Ltd., India Branch, Delhi.
- 5. Keeley, K. and Harcourt, M. (2001). 'Occupational Stress: A Study of the New Zealand and Reserve Bank', Research and Practice in Human Resource Management, 9(2), pp. 109-118.
- 6. Sauter, S.L. and Murphy, L.R. (1995). 'Organizational risk factors for job stress', American Psychological Association, Washington, D.C.
- Quick, J.C. and Quick, J.D. (1984), 'Organizational stress and preventive management', McGraw-Hill, New York.
- 8. Hendrix, W. et al. (1994). 'Organizational and Extra Organizational Factors Affecting Stress, Employee Well-being, and Absenteeism for Males and Females', Journal of Business & Psychology, 9, 2, pp. 103-128.
- Cooper, C.L. and Marshal, J. (1976). 'Occupational Sources of Stress: A review of the literature relating to coronary heart disease and mental ill hearth, Journal of Occupational Psychology', 49, pp. 11-28.
- 10. Aziz, M. (2003), 'Organizational role stress among Indian information technology professionals', Asian Pacific Newsletter on Occupational Health and Safety, 2003, 10 (2), pp. 31-33.
- 11. Talwar, R., Kapoor, R. Puri, K. Bansal, K. and Singh, S. (2009), 'A Study of Visual and Musculoskeletal Health Disorders among Computer Professionals in NCR Delhi', Indian Journal of Community Medicine, 34(4), October 2009, pp. 326-328.
- 12. Rao, Jakkula V. and Chandraiah, K. (2012), 'Occupational stress, mental health and coping among information technology professionals', Indian Journal of Occupational & Environmental Medicine, 16(1), Jan-April 2012, pp. 22-26.
- 13. Shrivastava, S.R. and Bobhate, P.S. (2012), 'Computer related health problems among software professionals in Mumbai: A cross-sectional study', International Journal of Heath & Allied Sciences, Vol. 1, Issue 2, 2012, pp. 74-78.
- 14. Darshan M.S., Raman, R., Rao, T.S.S., Ram, D. and Annigeri, B. (2013), 'A study on professional stress, depression and alcohol use among Indian IT professionals', Indian Journal of Psychiatry, 55(1), Jan-March 2013, pp. 63-69.

- 15. Dwamena , M.A. (2012), 'Stress And Its Effects On Employees Productivity A Case Study Of Ghana Ports and Harbours Authority, Takoradi', MBA Thesis, Institute of Distance Learning Kwame Nkrumah University of Science and Technology.
- 16. Nayak, R.D. (2014), 'Anxiety and Mental Health of Software Professionals and Mechanical Professionals', International Journal of Humanities and Social Science Invention, Vol. 3, Issue 2, February 2014, pp. 52-56.
- 17. Jomoah, I.M. (2014), 'Work-Related Health Disorders among Saudi Computer Users', Hindawi Publishing Corporation, The Scientific World Journal, Vol. 2014, Article ID 723280, 27 pages.
- 18. Saleem, M., Priya, S., Govindrajan, R., Balaji, E. Diwahar, A.J., Shylendra Babu, P.G. and Dhivypriya, S. (2015), 'A cross sectional study on work related musculoskeletal disorders among software professionals', International Journal of Community Medicine and Public Health, 2(4), November 2015, pp. 367-372.
- Padma, V., Anand, N.N., Gurukul, M.G.S., Syed, S.M.A., Javid, M., Prasad, A. and Arun, S. (2015), 'Health problems and stress in Information Technology and Business Process Outsourcing employees', Journal of Pharmacy & BioAllied Sciences, April 2015, 7 (Suppl 1), S9-S13.
- Ekienabor, E.E. (2016), 'Impact Of Job Stress On Employees' Productivity And Commitment', International Journal for Research in Business, Management and Accounting, Vol. 2, Issue 5, May 2016, pp. 124-133.
- 21. Okeke, M.N., Ojan, E. and Oboreh, J.C. (2016), 'Effects Of Stress On Employee Productivity', International Journal of Accounting Research (IJAR), Vol. 2, No. 11, 2016, pp. 38-49.
- 22. Sabbarwal, S., Singh, M.M. and Amiri, M. (2017), 'Occupational Stress On Employees In Information Technology Organization', Asian Journal of Social Sciences & Humanities, Vol. 6 (3), August 2017, pp. 103-109.
- 23. Shalini, S. and Brindha, C. (2018), 'A study on job stress of IT women employees in selected IT Companies: With special reference to Coimbatore City', International Journal of Applied Research, 4(1), 2018, pp. 342-348.
- 24. Sudarshini, S., Anantha Raman, V.V. and Mathew, A.M. (2018), 'Computer Professionals and their Health issues and Managements', International Journal of Public health Research, Vol. 5, Issue 3, July-September 2018, pp. 117-122.
- 25. Srinivas, P.S., Kumari, S., Akhilesh, K.B. and Nagendra, H.R. (2015), 'Is job anxiety and perceived stress modifiable in Indian IT Professionals? An experimental study using Yogabased intervention', Journal of Health Research and Reviews, Vol. 2, Issue 3, September December 2015, pp. 81-85. (Downloaded free from http://www.jhrr.org on Monday, March 18, 2019)
- 26. Marczyk, G., DeMatteo, D. and Festinger, D., 2005, 'Essentials of Research Design and Methodology', John Wiley & Sons, Inc., New Jersey (USA).
- 27. Adams, J., Khan, Hafiz T.A., Raeside, R. and White, D., 2007, 'Research Methods for Graduate Business and Social Science Students', Response Books, Business Books from SAGE, New Delhi.
- 28. Kothari, C.R., 2004, 'Research Methodology: Methods & Techniques', New Age International (P) Limited Publishers, New Delhi.
- 29. Kumar, Ranjit, 2011, 'Research Methodology : a step-by-step guide for beginners', SAGE Publications Ltd., London.
- 30. SPSS (Statistical Package for Social Sciences', Distributors: SPSS Inc., Chicago (USA).
- 31. JASP (Jeffereys's Amazing Statistic Program), University of Amsterdam, The Netherlands. (https://jasp-stats.org)
- 32. Real Statistics Using Excel, Developed by: Charles Zaiotz. (http://www.real-statistics.com).