

# Occupational Stress and Depression among IT Professionals with Regard to Gender in Chennai

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The present study is concerned with how the information technology and the consequent change in job culture affect the life of the IT professionals in relation to gender. This is particularly relevant because jobs in the information technology is the most coveted one in modern India and the most brilliant section of the youth are going for it. While each job has its own hassle the IT jobs are rather different from the conventional and distinctive concept of secured employment. The IT jobs are mostly indenture with less job security but with high pay, and require strong competitiveness, along with a globalized way of life. There are a few evidences that the IT jobs are offering an elevated standard of life, but taking tolls on the mental health and relationship aspects of the professionals. In the face of growing demand, the information technology (IT) field suffers from a labour deficiency composited by the under depiction of women in the IT field. This study examined predictors of occupational stress and depression among IT professionals and explored it in relation to gender. At present Chennai is the second largest exporter of IT and the IT enabled services in India next to the Silicon Valley. The city is a hub of a number of technological parks and promises employment for nearly five lakh people. Hence, the study is confined to the occupational stress and depression among the professionals of the IT sector in Chennai. The main objectives of conducting the study are to spot out the personal and work profile of the IT professionals with regard to gender; to identify the significant differences between the occupational stress factors and the gender of the IT professionals and to decipher the relationship between demographic and work profiles and the level of depression of IT professionals in relation to gender. Descriptive statistics like mean and standard deviation have also been used. ‘F’

test is applied to identify the significant differences between the occupational stress factors and the gender of the IT professionals and chi-square test is applied to decipher the relationship between personal and work profiles and the level of depression of IT professionals with regard to gender. Suitable recommendations are also propounded for mitigating stress and depression of IT professionals.

## **1. Introduction**

The Information Technology Sector has made the world a global village, shrinking national boundaries and integrating cultures. The Indian IT sector is on the increase swiftly and it has before now made its existence felt in all parts of the globe. This sector has a major role in strengthening the economic and technical foundations of India. The Indian IT industry has developed valuable brand equity for itself in the worldwide marketplace. The IT industry in India encompasses software industry and information technology enabled services (ITES), and business process outsourcing (BPO) industry. India is considered as a forge in software development and a favourite end for the IT-enabled services. The present study is concerned with how the information technology and the consequent change in job culture affect the life of the IT professionals in relation to gender. This is particularly relevant because jobs in the information technology is the most coveted one in modern India and the most brilliant section of the youth are going for it. While each job has its own hassle the IT jobs are rather different from the conventional and distinctive concept of secured employment. The IT jobs are mostly indenture with less job security but with high pay, and require strong competitiveness, along with a globalized way of life. There are a few evidences that the IT jobs are offering an elevated standard of life, but taking tolls on the mental health and relationship aspects of the professionals. In the face of growing demand, the information technology (IT) field suffers from a labour deficiency composited by the under depiction of women in the IT field.

In the diversified economic foundation, software service has gained a major ground in the Tamilnadu economy. The late 1990s, witnessed the birth of the Business Process Outsourcing (BPO) and software development and within few years there was a prominent squirt of outgrowth in the number and magnitude of the software industries in the state. This in turn created a great impact on the state's economy. Chennai, which is the capital city of Tamilnadu, is now one of the important software centers of India. Cheap and quality IT labour is one of the main facts that has attracted multitude of multi-billion-rupee. Foreign software companies have to establish their business in the city as well as in other software centers of India like Bangalore, Hyderabad, Kolkata, and Delhi making the country a booming software exporter worldwide. Cognizant Technology Solutions, HCL, Infosys, IBM, Polaris, TCS and Wipro are the major software companies in Chennai. At present Chennai is the second largest exporter of IT and the IT enabled services in India next to the Silicon Valley. The city is a hub of a number of technological parks and promises employment for nearly five lakh people. Hence, the study is confined to the occupational stress and depression among the professionals of the IT sector in Chennai.

## 2. Literature Review

Trayambak Tiwari et al., (2008), in their study, “Information Technology – Induced Stress and Human Performance: A Critical Review”, examined the association of information-induced stress in terms of mental workload and computerization malfunction detection performance in a highly computer-aided task setting. The intellectual workload has been considered as a result of highly computerized system use which has been conferred in the light of various automated complex task setting.

Kathirvel (2009), in his article, “A Study on Stress among Employees Working in BPOs with Special Reference to Coimbatore”, stated that the BPO sector is dependent on the knowledge of the workers, they may be considered as the ‘input’ of the sector. This article takes a keen look at the stress related problems faced by the personnel working in the various BPO companies and analyses the factors accountable for the same.

Karad (2010) in his article, “Job Stress in Information Technology Sector - The Cause and Effect Analysis”, stated that in the present day changing work environment stress level is escalating and is encompassing everyone. Prolonged stress not efficiently managed causing a variety of physical, physiological and psychosomatic disorders that are affecting the health and productivity of an individual and also the performance of an organization..

Drushca Lalloo and et al., (2022) in their article reported psychological vulnerability of information technology (IT) work and detected that mental health conditions in IT personnel are lacking. They also reported the mental health outcomes and incident anxiety/depression in IT workers compared to others in employment in a large population-based cohort.

Iswarya V.S. and et al., (2024) in their article stated that professionals in the Information Technology (IT) industry are recurrently stressed at work and are at jeopardy of developing health exertion as a result of their jobs. The outcome shows the significant impact of demographic factors like age, gender, marital status, and education of employees causing stress in their work setting.

## 3. OBJECTIVES OF THE STUDY

The main objectives of conducting the study are:

1. To spot out the personal and work profile of the IT professionals with regard to gender;
2. To identify the significant differences between the occupational stress factors and the gender of the IT professionals;
3. To decipher the relationship between demographic and work profiles and the level of depression of IT professionals in relation to gender and
4. To offer suitable suggestions for mitigating stress and depression among IT professionals.

4. METHODOLOGY USED

The researcher has collected data from both primary and secondary sources. Primary data were collected directly from the IT professionals through questionnaire. The secondary data were collected from books, journals and websites. The study was carried out with the IT professionals working in Chennai. On the whole, it is decided to select 400 IT professionals of various background and they are selected by adopting convenient sampling technique. After collection of data, it is found that 22 questionnaire are found to be incomplete. Thus a final sample size of 378 is considered for the study. The researchers themselves carried out the fieldwork for this study. It was conducted during the period from February 2024 to September 2024. Simple percentages are used to identify the personal and work profile of the sample respondents. Descriptive statistics like mean and standard deviation have also been used. ‘F’ test is applied to identify the significant differences between the occupational stress factors and the gender of the IT professionals and chi-square test is applied to decipher the relationship between personal and work profiles and the level of depression of IT professionals with regard to gender.

5. ANALYSIS AND INTERPRETATION OF DATA

The analysis is carried out in three parts.

- a) Profile of the IT professionals in relation to gender;
- b) Relationship between the occupational stress factors and the gender of IT professionals
- c) Relationship between profile and the level of depression of IT professionals

They are tabulated and explained below:

- a) Profile of IT Professionals

The profile of the IT professionals includes age, marital status, educational qualification, monthly income, type of family, family size, number of dependents, years of work experience, type of accommodation, mode of transport and shift of IT professionals. They are tabulated and discussed in this section.

TABLE 1: PROFILE OF IT PROFESSIONALS

S.No.	Profile of IT professionals	Male		Female	
	Age (in years)	No. of respondents	Percentage of Total	No. of respondents	Percentage of Total
1	Below 25	68	30	<u>52</u>	<u>34</u>
2	25 – 30	<u>72</u>	<u>32</u>	34	23
3	31 – 35	66	29	39	26
4	Above 35	21	9	26	17
	Total	227	100	151	100
S.No.	Marital status	No. of respondents	Percentage of Total	No. of respondents	Percentage of Total
1	Married	<u>177</u>	<u>78</u>	65	43
2	Unmarried	50	22	<u>86</u>	<u>57</u>
	Total	227	100	151	100
S.No.	Educational Qualification	No. of respondents	Percentage of Total	No. of respondents	Percentage of Total

1	Graduates	<u>149</u>	<u>66</u>	<u>129</u>	<u>85</u>
2	Post-graduates	78	34	22	15
	<b>Total</b>	<b>227</b>	<b>100</b>	<b>151</b>	<b>100</b>
<b>S.No.</b>	<b>Monthly Income</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>
1	Below Rs.45,000	<u>159</u>	<u>70</u>	<u>62</u>	<u>41</u>
2	Rs.45,000 – Rs.65,000	30	13	46	30
3	Rs.65,000 – Rs.85,000	26	12	34	23
4	Above Rs.85,000	12	5	9	6
	<b>Total</b>	<b>227</b>	<b>100</b>	<b>151</b>	<b>100</b>
<b>S.No.</b>	<b>Type of family</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>
1	Joint	96	42	<u>101</u>	<u>67</u>
2	Nuclear	<u>131</u>	<u>58</u>	50	33
	<b>Total</b>	<b>227</b>	<b>100</b>	<b>151</b>	<b>100</b>
<b>S.No.</b>	<b>Family size</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>
1	Up to 4	<u>120</u>	<u>53</u>	<u>98</u>	<u>65</u>
2	Above 4	107	47	53	35
	<b>Total</b>	<b>227</b>	<b>100</b>	<b>151</b>	<b>100</b>
<b>S.No.</b>	<b>Number of dependents</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>
1	Up to 3	<u>130</u>	<u>57</u>	<u>100</u>	<u>66</u>
2	Above 3	97	43	51	34
	<b>Total</b>	<b>227</b>	<b>100</b>	<b>151</b>	<b>100</b>
<b>S.No.</b>	<b>Years of Work Experience</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>
1	Below 5	<u>145</u>	<u>64</u>	<u>68</u>	<u>45</u>
2	5 – 10	48	21	30	20
3	10 – 15	18	8	40	26
4	Above 15	16	7	13	9
	<b>Total</b>	<b>227</b>	<b>100</b>	<b>151</b>	<b>100</b>
<b>S.No.</b>	<b>Type of Accommodation</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>
1	Rental	<u>138</u>	<u>61</u>	<u>123</u>	<u>81</u>
2	Owned	69	30	20	14
3	Quarters	20	9	8	5
	<b>Total</b>	<b>227</b>	<b>100</b>	<b>151</b>	<b>100</b>
<b>S.No.</b>	<b>Mode of Transport</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>
1	Own Vehicle	<u>112</u>	<u>49</u>	40	26
2	Public Transport	45	20	31	21
3	Employer's Vehicle	70	31	<u>80</u>	<u>53</u>
	<b>Total</b>	<b>227</b>	<b>100</b>	<b>151</b>	<b>100</b>
<b>S.No.</b>	<b>Shift</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>	<b>No. of respondents</b>	<b>Percentage of Total</b>
1	Day	82	36	<u>115</u>	<u>76</u>
2	Night	57	25	24	16
3	Day / night	<u>88</u>	<u>39</u>	12	8
	<b>Total</b>	<b>227</b>	<b>100</b>	<b>151</b>	<b>100</b>

Source: Primary data

From Table 1, it is clear that out of 378 samples selected, 227 respondents are male and the remaining 151 respondents covered are female. Out of 227 male respondents, major parts of the respondents are between 25 and 30 years of age; majority of them are married, graduates, earning upto H45,000 per month as salary, living in nuclear family system, having family size upto 4 members and the number of dependents is upto 3. Majority of them work experience below 5 years and they also reside in rental accommodation. Also, major part of them use

own vehicle as a mode of transport and they also prefer day or night shift.

Out of 151 female respondents, major parts of the respondents are below 25 years of age; majority of them are unmarried, graduates, living in joint family system, having family size upto 4 members and the number of dependents is upto 3. Major part of them are earning upto Rs.45,000 per month as salary and having work experience below 5 years. Majority of them reside in rental accommodation, they use employer vehicle as a mode of transport and they also prefer day shift to night shift.

b) Relationship between the occupational stress factors and the gender of IT professionals

The quantity and quality of leisure time distribution between the genders is an interesting index of how women get burdened with stress for either natural or social obligations. Absence of reciprocal and joint emotion management within family is a nagging stressor for women. Mostly mothers handle the bulk of the parental responsibility such as educational and emotional care of children. This can be both physically and psychologically draining. Thus it is essential to classify the IT professionals based on gender. The gender-wise classification of the IT professionals is presented in the following table.

TABLE 2: MEAN SCORES OF THE IT PROFESSIONALS IN RELATION TO GENDER

S.No.	Occupational Stress Factors	Male		Female	
		Neutral Point	Mean	Neutral Point	Mean
1	Work demands	48	57.3023	48	59.8098
2	Relationship with others	24	29.1581	24	30.1779
3	Career concerns	24	25.7721	24	23.8589
4	Systems maintenance	30	31.7116	30	29.4233
5	Role ambiguity	15	16.8140	15	16.9018
6	Administrative tasks	9	10.0186	9	9.8712
7	Job dissatisfaction	45	50.6093	45	51.0613
8	Job induced tension	21	22.6326	21	23.0245
9	Intention to quit	9	9.9163	9	9.9221

From the above table, it is found that male professionals have a higher mean score above the neutral point for all the factors namely 'work demands', 'relationship with others', 'career concerns', 'systems maintenance', 'role ambiguity', 'administrative tasks', 'job dissatisfaction', 'job induced tension' and 'intention to quit'. Thus it is clear that male IT professionals work under a great deal of stress.

In case of female professionals, the mean score is higher than the neutral point on the factors, 'work demands', 'relationship with others', 'role ambiguity', 'administrative tasks', 'job dissatisfaction', 'job induced tension' and 'intention to quit' which states that they have experienced stress due to the above factors alone. But the mean scores for 'career concerns' and 'systems maintenance' is lower than the neutral point which shows that they have not experienced stress on these factors.

In order to find out whether there is any significant difference between the occupational stress factors and the gender of the IT professionals, the "ANOVA" test is applied. The null hypothesis framed is "There is no significant difference between the occupational stress factors and the gender of the IT professionals". The results of the ANOVA test are presented in Table below.

TABLE 3: RESULTS OF ANOVA – RELATIONSHIP BETWEEN GENDER AND OCCUPATIONAL STRESS FACTORS

S.No.	Occupational Stress Factors	Male			Female		
		‘f’ Value	Table Value	Results	‘f’ Value	Table Value	Results
1	Work demands	6.3286	3.8663	Significant	7.3286	3.8663	Significant
2	Relationship with others	4.480	3.8663	Significant	3.480	3.8663	Significant
3	Career concerns	10.819	3.8663	Significant	6.645	3.8663	Significant
4	Systems maintenance	9.602	3.8663	Significant	8.780	3.8663	Significant
5	Role ambiguity	0.040	3.8663	Not significant	2.150	3.8663	Not significant
6	Administrative tasks	0.401	3.8663	Not significant	1.541	3.8663	Not significant
7	Job dissatisfaction	0.896	3.8663	Not significant	5.694	3.8663	Significant
8	Job induced tension	8.724	3.8663	Significant	4.274	3.8663	Significant
9	Intention to quit	12.224	3.8663	Significant	10.420	3.8663	Significant

The calculated ‘f’ value of the occupational stress factors, ‘work demands’, ‘relationship with others’, ‘career concerns’, ‘systems maintenance’, ‘job induced tension’ and ‘intention to quit’ are higher than the table value of 3.8663. Hence the null hypothesis is rejected and concluded that the above factors are significantly related to the with the gender group male. On the contrary, the calculated ‘f’ value of the occupational stress factors, ‘role ambiguity’, ‘administrative tasks’ and ‘job dissatisfaction’ are lower than the table value of 3.8663. Hence, the null hypothesis is accepted and concluded that the above factors are not significantly related with the gender group male.

On the other hand, the calculated ‘f’ value of the occupational stress factors, ‘work demands’, ‘relationship with others’, ‘career concerns’, ‘systems maintenance’, ‘job dissatisfaction’, ‘job induced tension’ and ‘intention to quit’ are higher than the table value of 3.8663. Hence the null hypothesis is rejected and concluded that the above factors are significantly related to the with the gender group female. On the contrary, the calculated ‘f’ value of the occupational stress factors, ‘role ambiguity’ and ‘administrative are lower than the table value of 3.8663. Hence, the null hypothesis is accepted and concluded that the above factors are not significantly related with the gender group female.

c) Relationship between profile and the level of depression of IT professionals

In this part an attempt is made to identify the significant relationship of personal and work profile of the IT professionals in the study area with depression. The hypothesis framed for identifying the relationship is, “There is no significant relationship between the depression of the IT professionals and their personal and work profile in relation to gender”. The personal profile for the study are age, marital status, educational qualification, monthly income, type of family, family size and number of dependents. The work profiles taken for the study include years of work experience, type of accommodation, mode of transport and shift of IT professionals.

TABLE 4: CONSOLIDATED RESULTS OF CHI-SQUARE TEST

S.No.	Personal and work profile	Male			Female		
		Table Value	Calculated Value	Result	Table Value	Calculated Value	Result
1	Age	7.82	9.328	S	7.82	8.854	S
2	Marital status	3.84	1.524	NS	3.84	11.431	S
3	Educational qualification	3.84	10.381	S	3.84	8.145	S
4	Monthly income	7.82	16.180	S	7.82	11.844	S
5	Type of family	3.84	5.344	S	3.84	3.995	S



6	Family size	3.84	7.153	S	3.84	5.513	S
7	Number of dependents	3.84	8.095	S	3.84	7.405	S
8	Years of work experience	7.82	8.143	S	7.82	10.311	S
9	Type of accommodation	5.99	9.016	S	5.99	8.614	S
10	Mode of transport	5.99	6.333	S	5.99	7.313	S
11	Shift	5.99	6.111	S	5.99	6.158	S

By the application of Chi-Square test, it is found from Table 4 that the calculated values are greater than the table value at 5 per cent level of significance for all the profiles except the personal profile marital status. Hence, the null hypothesis is rejected and concluded that the personal and work profiles like age, educational qualification, monthly income, type of family, family size, number of dependents, years of work experience, type of accommodation, mode of transport and shift of IT professionals are significantly related with depression of male employees. On the contrary, the calculated value of the demographic variable marital status is less than the table value at 5 per cent level of significance. Hence, the null hypothesis is accepted and concluded that the personal profile marital status is not significantly related with depression of male employees.

On the other hand the calculated values are greater than the table value at 5 per cent level of significance for all the personal profiles. Hence, the null hypothesis is rejected and concluded that the personal and work profiles like age, marital status, educational qualification, monthly income, type of family, family size, number of dependents, years of work experience, type of accommodation, mode of transport and shift of IT professionals are significantly related with depression of female employees.

## 6. RECOMMENDATIONS

The following are some of the suggestions offered by the researchers for mitigating stress and depression among IT professionals.

- Developing human relations, skills for harnessing and enriching their internal strengths and capacities may help the professionals to establish intimacy with people around. Such behaviour may lead to closer relationship and yield greater social support which would be of psychological benefits in terms of stress and crisis in workplace.
- When a stressful situation arises in the work place, preventive strategies can be infused by enhancing professionals' internal resources. For example, helping the IT professionals to acquire hardiness, self-esteem, and emotional – social intelligence may have a buffering effect on the occupational stress.
- To reduce the work load the role slimming and role adjustment process should be resorted to.

## 7. CONCLUSION

Gender differences found in the stress variables indicate that gender is a cause for stress for the IT professionals. The professionals should be convinced by the organization to accept the fact that stress is an inevitable part of their lives and they can most conveniently manage it at



their cognitive and behavioural levels by themselves. This would also help not only the professionals but also the managers to improve the productivity ratio. Safeguarding the mental health of the professionals is the basis for the peaceful nation. The professionals' peace paves peacefulness in the family, then the whole community and ultimately the whole nation.

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