CHAPTER V
SUMMARY OF FINDINGS AND SUGGESTIONS

5.1 Analysis of data

Data collected have been analysed using appropriate statistical tools. The statistical tools used to analyse data includes (i) Analysis of Variance (ANOVA) (ii) Chi-square test (iii) Multiple Regression (v) Step-wise Regression (vii) correlation analysis (vi) Path analysis (vii) Factor Analysis

5.2 Summary of findings

5.3 Job stress of the respondents

Twenty two variables have been chosen to observe and judge whether the personal attributes, causes of job stress, effects of job stress and the coping strategies adopted to overcome job stress differ from person to person based on these variables and if there exists any association among the variables personal attributes, causes of job stress, effects of job stress and the coping strategies adopted by the respondents. These variables are grouped under the personal and classification information of the respondents. Analysis of variance (ANOVA) and Chi-square test have been made use to study differences in mean values and association among the variables and level of influence of personal attributes, causes of job stress, effects of job stress and the coping strategies adopted to overcome job stress are identified. Levels of significance chosen are one and five percent.

5.3.1 Variables influencing the personal attributes of the respondents on job stress

The chi square result shows that there is no significant association between age, income, years of work experience, mode of transport adopted, working hours in a day, gender, marital status, family type, status of employment of spouse, spouse in the same profession, spouse working in the same company number of children, company name, designation, job specification, shift work, driving vehicles and the personal attributes of the respondents.

The chi- square result indicates that, the variables number of family members, commuting time between home and office, number of dependents, number of earning members, education and designation are significantly related to the personal attributes of the respondents.

Anova result indicates that there is no significant difference between age, income, years of work experience, mode of transport adopted, working hours in a day, gender, marital status, family type, status of employment of spouse, spouse in the same profession.
profession, spouse working in the same company, number of earning members, number of children, education, company name, designation, job specification, shift work, driving vehicles and the personal attributes of the respondents.

Anova result indicates that there is significant difference between number of family members, commuting time between home and office, number of dependents and the personal attributes of the respondents.

5.3.2 Variables influencing the psychological effects of the respondents on job stress

The chi square result shows that there is no significant association between age, income, years of work experience, mode of transport adopted, working hours in a day, gender, marital status, status of employment of spouse, spouse in the same profession, number of earning members, company name, designation, job specification, shift work, driving vehicles and the psychological effects of the respondents.

The chi-square result indicates that, the variables number of family members, commuting time between home and office, number of dependents, family type, spouse working in the same company, number of children and education are significantly related to the psychological effects of the respondents.

Anova result indicates that there is no significant difference between age, years of work experience, mode of transport adopted, working hours in a day, marital status, status of employment of spouse, spouse in the same profession, spouse working in the same company, number of earning members, number of children, education, company name, designation, job specification and the psychological effects of the respondents.

Anova result indicates that there is significant difference between commuting time between home and office, number of dependents, gender, family type and the psychological effects of the respondents.

5.3.3 Variables influencing the behavioral effects of the respondents on job stress

The chi square result shows that there is no significant association between age, income, years of work experience, mode of transport adopted, gender, family type, status of employment of spouse, education, company name, designation, job specification, shift work, driving vehicles and the behavioral effects of the respondents.

The chi-square result indicates that, the variables working hours in a day, number of family members, commuting time between home and office, number of dependents,
marital status, spouse working in the same company, spouse in the same profession, number of earning members, number of children are significantly related to the behavioral effects of the respondents.

Anova result indicates that there is no significant difference between age, income, years of work experience, mode of transport adopted, number of dependents, working hours in a day, marital status, spouse in the same profession, number of earning members, number of children, education, company name, designation, job specification, shift work, driving vehicles and the behavioral effects of the respondents.

Anova result indicates that there is significant difference between number of family members, commuting time between home and office, gender, family type, status of employment of spouse, spouse working in the same company and the behavioral effects of the respondents.

5.3.4 Variables influencing the physical effects of the respondents on job stress

The chi square result shows that there is no significant association between mode of transport adopted, working hours in a day, spouse working in the same company, spouse in the same profession, number of earning members, education, company name, shift work and the physical effects of the respondents.

The chi-square result indicates that the variables age, income, years of work experience, gender, family type, status of employment of spouse, number of family members, commuting time between home and office, number of dependents, marital status, number of children, designation, job specification and driving vehicles are significantly related to the physical effects of the respondents.

Anova result indicates that there is no significant difference between age, income, number of family members, years of work experience, commuting time between home and office, mode of transport adopted, number of dependents, working hours in a day, marital status, spouse in the same profession, spouse working in the same company, number of earning members, number of children, education, company name, designation, job specification, shift work, driving vehicles and the physical effects of the respondents.

Anova result indicates that there is significant difference between gender, family type, status of employment of spouse and the physical effects of the respondents.
5.3.5 Variables influencing the economic, financial and family outcomes of the respondents on job stress

The chi square result shows that there is no significant association between age, income, number of family members, years of work experience, number of dependents, working hours in a day, gender, marital status, family type, status of employment of spouse, spouse working in the same company, company name, designation, driving vehicles and the economic, financial and family outcomes of the respondents.

The chi-square result indicates that, the variables, mode of transport adopted, commuting time between home and office, number of children, spouse in the same profession, number of earning members, education, job specification and shift work, are significantly related to the economic, financial and family outcomes of the respondents.

Anova result indicates that there is no significant difference between age, income, number of family members, years of work experience, mode of transport adopted, number of dependents, working hours in a day, marital status, spouse in the same profession, spouse working in the same company, number of earning members, number of children, gender, family type, status of employment of spouse, education, company name, designation, job specification, shift work, driving vehicles and the economic, financial and family outcomes of the respondents.

Anova result indicates that there is significant difference between commuting time between home and office and the economic, financial and family outcomes of the respondents.

5.3.6 Variables influencing the individual stress coping strategies of the respondents on job stress

The chi square result shows that there is no significant association between age, income, years of work experience, working hours in a day, gender, marital status, number of children, education, company name, designation, job specification, shift work, driving vehicles and the individual stress coping strategies of the respondents.

The chi-square result indicates that, the variables number of family members, commuting time between home and office, mode of transport adopted, number of dependents, family type, status of employment of spouse, spouse in the same profession, spouse working in the same company, number of earning members are not significantly related to the individual stress coping strategies of the respondents.
Anova result indicates that there is no significant difference between age, income, mode of transport adopted, number of family members, number of dependents, commuting time between home and office, working hours in a day, marital status, spouse in the same profession, number of children, education, company name, designation, job specification, shift work, driving vehicles and the individual stress coping strategies of the respondents.

Anova result indicates that there is significant difference between years of work experience, gender, family type, status of employment of spouse, spouse working in the same company, number of earning members and the individual stress coping strategies of the respondents.

5.3.7 Variables influencing the practicing relaxation techniques of the respondents on job stress

The chi square result shows that there is no significant association between age, income, years of work experience, mode of transport adopted, working hours in a day, marital status, spouse in the same profession, number of children, education, company name, shift work, driving vehicles and the practicing relaxation techniques of the respondents.

The chi-square result indicates that, the variables gender, number of family members, commuting time between home and office, number of dependents, family type, status of employment of spouse, spouse working in the same company, number of earning members, designation, job specification are not significantly related to the practicing relaxation techniques of the respondents.

Anova result indicates that there is no significant difference between age, income, years of work experience, number of family members, mode of transport adopted, working hours in a day, marital status, spouse in the same profession, spouse working in the same company, number of earning members, gender, family type, number of children, status of employment of spouse, education, company name, designation, job specification, shift work, driving vehicles and practicing relaxation techniques of the respondents.

Anova result indicates that there is significant difference between number of dependents, commuting time between home and office and the practicing relaxation techniques of the respondents.
5.3.8 Variables influencing the organisational strategies to cope with job stress

The chi square result shows that there is no significant association between income, years of work experience, working hours in a day, number of children, company name, shift work and the organisational strategies to cope with job stress.

The chi-square result indicates that, the variables age, gender, mode of transport adopted, number of family members, commuting time between home and office, number of dependents, education, marital status, spouse in the same profession, family type, status of employment of spouse, spouse working in the same company, number of earning members, designation are not significantly related to the organisational strategies to cope with job stress.

Anova result indicates that there is no significant difference between age, income, number of family members, working hours in a day, marital status, spouse in the same profession, spouse working in the same company, number of earning members, number of children, status of employment of spouse, gender, family type, company name, designation, job specification, shift work, driving vehicles and practicing relaxation techniques of the respondents.

Anova result indicates that there is significant difference between years of work experience, number of dependents, mode of transport adopted, commuting time between home and office, education, job specification, driving vehicles and the practicing relaxation techniques of the respondents.

5.4 Determinants of job stress

In order to ascertain the combined influence of the selected variables on personal attributes, causes of job stress, effects of job stress and the coping strategies adopted to overcome job stress, multiple regression has been carried out. The relationship that exists between significant variables and the variables influencing job stress are brought out in this chapter.

In order to examine the nature and strength of relationship between the selected variables, identified through partial correlation and the personal attributes, causes of job stress, effects of job stress and the coping strategies adopted to overcome job stress, correlation analysis has been carried out. The nature of relationship and the extent to which each of the correlated variable accounts for the variation in personal attributes, causes of job stress, effects of job stress and the coping strategies adopted to overcome job stress are brought out in this chapter.
To find out the prominent variables that influence the job stress, step wise regression analysis has been employed.

To examine the direct and indirect effect of the selected variables on personal attributes, causes of job stress, effects of job stress and the coping strategies adopted to overcome job stress, path analysis has been made use of.

To pinpoint the prominent variable that influence job stress, factor analysis has been employed.

5.4.1 External causes or antecedents of job stress

Factor analysis reveals that, the variable “There are shouting and grinning people around” explain the maximum variances among the retained factors followed by “The organisation structure and hierarchy does not support my advancement in career” which has the next highest value. Hence the retained factors have 83.01 percent of variation.

5.4.2 Personal attributes of the respondents

The variables psychological index, years of work experience, working hours in a day, job specification and education were found to be reasonably significant. The values in the regression co-efficient indicate that the respondents have high impact over these variables.

Out of seventeen variables selected for correlation analysis, the variables psychological effects, number of dependents and number of family members have a large bearing on the findings. All the three variables are positively correlated which implies that for every increase in the level of these variables there is an increase in the level of the personal attributes of the respondents.

Six variables are found to be prominently influencing the personal attributes of the respondents namely, psychological effects, number of earning members, years of work experience, income, education and family type. These variables together account for 89.1 percent of variation in the personal attributes of the respondents.

Path analysis reveals that, psychological effects index has the highest direct effect on the personal attributes index while working hours has the least direct effect.

Factor analysis reveals that, the variable “I have unrealistic expectations from others” explains for the maximum variances among the retained factors followed by “Delegation of work to team members and subordinates is a problem” which has the next highest value. Hence the retained factors have 88.9 percent of variation.
5.4.3 Psychological effects of job stress

The variables age, marital status, number of family members, number of dependents, years of work experience, commuting time between home and office, mode of transport adopted, personal attributes, physical effects index and number of earning members were found to be reasonably significant. The values in the regression co-efficient indicate that the respondents have high impact over these variables.

Out of sixteen variables selected for correlation analysis, the variables, number of family members, number of dependents, working hours, commuting time between home and office, personal attributes index, physical effects index, status of employment of spouse have a large bearing on the findings. Commuting time between home and office and working hours are inversely related whereas the other variables are positively correlated, which implies that an increase in the level of these variables leads to an increase in position of the behavioral effects of the respondents.

Four variables are found to be prominently influencing the psychological effects of the respondents’ namely physical effects, personal attributes, commuting time between home and office and number of family members. These variables together, account for 82 percent of variation in the psychological effects of the respondents.

Path analysis reveals that, personal attributes has the highest direct effect on psychological effects index while age has the least direct effect.

Factor analysis reveals that, the variable “Unable to accept changes in the normal work” explain for the maximum variances among the retained factors followed by “Lack of concentration and focus on my work” which has the next highest value. Hence the retained factors have 80.7 percent of variation.

5.4.4 Physical effects of job stress

The variables age, marital status, income, status of employment of spouse, number of family members, number of dependents, working hours, commuting time between home and office, mode of transport adopted, personal attributes, psychological effects and behavioral effects were found to be reasonably significant. The values in the regression co-efficient indicate that the respondents have high impact over these variables.

Out of seventeen variables selected for correlation analysis, the variables, gender, spouse working in the same company, number of family members, personal attributes, psychological effects and behavioral effects index, working hours and status of
employment of spouse have a large bearing on the findings. working hours is negatively correlated and the other variables are positively correlated which goes on to show that for every increase in the level of these variables, there will be an upward trend in the levels of the physical effects of the respondents.

Eight variables are found to be prominently influencing the physical effects of the respondents’ namely behavioral effects, psychological effects, personal attributes, mode of transport adopted, gender, commuting time between home and office, working hours and marital status. These variables together, account for 82.9 percent of variation in the physical effects of the respondents.

Path analysis reveals that, behavioral effects index has the highest direct effect on physical effects index while psychological effects index has the least direct effect.

Factor analysis reveals that, the variable “There is anxiety of meeting with accidents” accounts for the maximum variances among the retained factors followed by “I have developed a problem with my vision” which has the next highest value. Hence the retained factors have 83.3 percent of variation.

5.4.5 Behavioral effects of job stress

The variables age, marital status, number of family members, number of dependents, years of work experience, commuting time between home and office, mode of transport adopted, personal attributes, physical effects index, number of earning members were found to be reasonably significant. The values in the regression co-efficient indicate that the respondents have high impact over these variables.

Out of sixteen variables selected for correlation analysis, the variables, number of family members, number of dependents, working hours, commuting time between home and office, personal attributes index and physical effects index, status of employment of spouse have a large bearing on the findings. Commuting time between home and office and working hours are inversely related whereas the other variables are positively correlated, which implies that an increase in the level of these variables leads to an increase in position of the behavioral effects of the respondents.

Four variables are found to be prominently influencing the physical effects of the respondents’ namely physical effects, personal attributes, commuting time between home and office, number of family members. These variables together, account for 82 percent of variation in the behavioral effects of the respondents.
Path analysis reveals that, psychological effects index has the highest direct effect on the behavioral effects index while number of dependents has the least direct effect.

Factor analysis reveals that the outcome manifested in “There is deterioration in my job performance mainly due to monotonous work” explains the maximum variances among the retained factors followed by the next after effect which is “Absenteeism has become very common in my work life” And that has the next highest value. hence the retained factors have 74.7 percent of variation.

5.4.6 Economic, financial and family effects of job stress

The variables personal attributes, psychological effects, practicing relaxation techniques, years of work experience, number of earning members, number of family members and gender were found to be reasonably significant. The values in the regression co-efficient indicate that the respondents have high impact over these variables.

Out of seventeen variables selected for correlation analysis, the variables, practicing relaxation techniques, psychological effects and personal attributes, number of dependents, number of family members, spouse working in the same company, gender and transport adopted have a large bearing on the findings. Mode of transport adopted has a negative correlation and the other variables are positively correlated and as a result, an increase in the level of these variables leads to a corresponding increase in level of economic, financial and family effects of job stress.

Three variables are found to be prominently influencing the physical effects of the respondents’ namely psychological effects, personal attributes, practicing relaxation techniques. These variables together, account for 58.3 percent of variation in the economic, financial and family effects of job stress of the respondents.

Path analysis reveals that, psychological effects index has the highest direct effect on economic financial and family effects index while personal attributes index has the least direct effect.

Factor analysis reveals that the variable put forth as “I lack intimacy” gives the maximum variances among the retained factors followed by the reactions “I have the feeling of job insecurity” and “I had numerous job hopping due to work stress” which have the next highest values. Therefore, the retained factors have 72.6 percent of variation.
### 5.4.7 Individual strategies to cope with job stress

The variables physical effects, personal attributes, transport time, family type, mode of transport adopted, working hours, job specification and years of work experience were found to be reasonably significant. The values in the regression co-efficient indicate that the respondents have high impact over these variables.

Out of sixteen variables selected for correlation analysis, the variables, physical effects index, behavioral effects index and family type are negatively correlated and personal attributes index is positively correlated which means that for every increase in the level of these variables, there is an increase in level of the individual strategies to cope with stress of the respondents.

Five variables are found to be prominently influencing the individual strategies to cope with stress of the respondents’ namely physical effects, personal attributes, commuting time between home and office, family type and mode of transport adopted. These variables together, account for 71.5 percent of variation in the individual strategies adopted to cope with stress of the respondents.

Path analysis reveals that personal attributes index has the highest direct effect on the individual strategies to cope with job stress index while psychological effects index has the least direct effect.

Factor analysis reveals that the variable “Cultivate allies with my co-worker at work” accounts for the maximum variances among the retained factors followed by “Between work and home do something to get the mind off work (E.g. going to a coffee shop)” which have the next highest value. Hence the retained factors have 84.3 percent of variation.

### 5.4.8 Practicing relaxation techniques for job stress

The variables physical effects, behavioral effects, personal attributes, spouse working in the same company, family type was found to be at 1% significant level and the variables such as, psychological effects, driving vehicle, commuting time between home and office were found to be reasonably significant. The values in the regression co-efficient indicate that the respondents have high impact over these variables.

Out of fifteen variables selected for correlation analysis, the variables, physical effects, behavioral effects, psychological effects personal attributes and commuting time between home and office have a large bearing on the findings. Commuting time between
home and office is negatively correlated and the other variables are positively correlated which shows that an increase with the level of these variables leads to the increase in level of the practicing relaxation techniques index of the respondents.

Five variables are found to be prominently influencing the individual strategies to cope with stress of the respondents’ namely physical effects, personal attributes, psychological effects and behavioral effects, spouse working in the same company and commuting time between home and office. These variables together, account for 80.2 percent of variation in the individual strategies adopted to cope with stress of the respondents.

Path analysis reveals that personal attributes index has the highest direct effect on the practicing relaxation techniques index while physical effects index has the least direct effect.

Factor analysis reveals that the variable “Listening to relaxing Music” rationalizes for the maximum variances among the retained factors followed by “Exercising, Taking a walk” which has the next highest value. Hence the retained factors have 77.1 percent of variation.

5.4.9 Organisational stress coping strategies

The variables psychological effects, personal attributes, behavioral effects, physical effects, years of work experience, education, number of children, number of dependents, number of earning members, marital status, commuting time between home and office and spouse working in the same company were found to be reasonably significant. The values in the regression co-efficient indicate that the respondents have high impact over these variables.

Out of sixteen variables selected for correlation analysis, the variables, like individual strategies to cope with stress, psychological effects personal attributes, commuting time between home and office, spouse working in the same company behavioral effects and education have a large bearing on the findings. Individual strategies to cope with stress, psychological effects, personal attributes, behavioral effects, education, spouse working in the same company, are inversely proportional whereas, the other variables are positively correlated going on to prove that an increase in the level of these variables obviously leads to an increase in level of the organisational strategies to cope with stress index of the respondents.

Seven variables are found to be prominently influencing the individual strategies to cope with stress of the respondents namely, personal attributes, behavioral effects, individual
strategies to cope with job stress, commuting time between home and office, education, physical effects and psychological effects. These variables together, account for 52.8 percent of variation in the organisation strategies adopted to cope with stress of the respondents.

Path analysis reveals, individual strategies to cope with job stress index has the highest direct effect on organization strategies to cope with job stress index while personal attributes index has the least direct effect.

Factor analysis reveals that the variable “Attending the stress reduction workshops organized by the companies” explain the maximum variances among the retained factors followed by “Go to Gym and other health maintenance programs provided by the organisation” which has the next highest value. Hence the retained factors have 67.1 percent of variation.

**SUGGESTIONS AND CONCLUSION**

**5.5 Suggestions**

Stress experienced by the employees in their job has negative impact on their health, performance and their behavior in the organisation. Thus, stress needs to be managed effectively so as to set off these harmful consequences. Strategies for managing stress are as follows-

**5.5.1 Organisational strategies for managing stress**

- Jobs design to be within the capabilities of the employees and should grant them independence, timely feedback and greater responsibility. Proper career path should be drawn for each employee in the organisation.

- Organisations should create a just and spacious working environment and the temperature should be maintained with proper air conditioned facilities.

- Employees should be provided with clear information about the structure, purpose and practices of the organisation.

- Distribution of working hours and reduction in the amount of shift work among the employees should be considered.

- An organisational culture should value each and every individual worker and the organisational goals should be realistic and stimulating.

- The organisation should provide quarters facility for their employees who are stressed due to long transport time and imposed traffic congestions.
• Technical constraints should be taken care of and proper technical expertise to cater the needs of the employees should be employed.

• Job content and work organisation should be designed so that the employee is not exposed to physical or mental strains that may lead to illness or accidents. Where ever possible, employees should be encouraged to develop new skills to help them to undertake new and challenging pieces of work.

• The organisation should provide information to enable employees to understand their role and responsibilities; it should encourage more of organisational communication with the employees so that there is no role ambiguity / conflict.

• The organisation should provide employees with adequate and achievable task demands in relation to the agreed hours of work. Work from home option should be provided for those employees who prefer the same.

• Employees should be given the opportunity to participate in the design of his/her own work situation, and in the processes of change and development affecting his/her work. Participatory management should be introduced within the organisations.

• The organisation should promote positive behaviors at work to avoid conflict and ensure team building within the organisation.

• Frequent breaks and mind relaxing events should be conducted to ensure that the employees are at optimum stress level.

5.5.2 Individual strategies for managing stress

• The employees should have optimistic approach about their spouse employment either in the same profession or in the same company.

• Employee counselling is a very good strategy to overcome employee stress. Through counselling, employees can become aware of their strengths and how to develop those strengths; their weaknesses and how to eliminate them; and they can develop strategies for changing their behaviour. Employees should take career counselling which helps in reducing their ambiguities with regard to their career.

• Any work related issues should not be taken home as to decrease work – family conflict.

• Mobility in job (such a over seas opportunities ) should be taken as a task of career advancement and the mind should be set so as to mend themselves with the culture of the other countries.
• Indulge in physical exercises, promote relaxation techniques such as yoga, listening music and meditation, as it diverts mind from work pressures.

• The employees may opt for office cab than driving vehicles by self as it hinders the relaxed mind of the employees.

• Learning should be considered as a boon than a bane. So, technology upgradation (such as attending certification examinations) should be done frequently in order to keep abreast with others.

• The employees should build social support. They should have close connections with trustworthy peer who can listen to their problems and boost their confidence level. This social network will help the employees to overcome stress.

• The employees should have emotional intelligence at workplace. They should have self-awareness, self-confidence and self-control at workplace.

• Economic, family and financial issues should not be considered as a burden but as a challenge to be met with.

• The stressed employees should change their personal attributes by replacing their self defeating thoughts with positive ones.

   Apart from the above recommendations, the employees should be aware of the organisations’ systems and resources for managing stress. Employees must be aware of the culture of the organisation and explore it in relation to the management of work stress. If necessary the employers should engage in culture change activities as an important aspect of improving the management of stress at work.

5.6 Conclusion

This study is unique as three different factors i.e., causes of professional stress among IT professionals, effects caused due to job stress and the coping strategies adopted both by the individuals and organisation were screened and association among them were studied.

Since the sample contains professionals from various software companies, it can be considered that the study sample was representative of IT professionals from electronic city, Bangalore. The study showed that the demographic variables have a vital say in influencing the job stress of software professionals. The software professionals’ inspite of their age, designation, years of work experience and other demographic characters are professionally stressed and are having higher risk for developing depression.
India being a forerunner in IT segment, its continuing growth largely depends on its employees' mental and physical health. Such higher rates of professional stress, risk for developing depression among software engineers could hinder the progress of IT development and also significantly increase the incidence of psychiatric disorders.

Preventive strategies like training in stress management, frequent screening to identify professional stress and depression at the initial stages and addressing these issues adequately might help the IT professionals cope with their profession better without affecting their lifestyle and health.