CHAPTER – X

SUMMARY AND CONCLUSION

Stress is an inextricable part of human life. To put it in very simple terms, it has turned out to be a part and parcel of human life. The fact is that, stress has no boundaries. It can affect any one born as a human being: whether working as executives, heads of governments, religious heads, military generals or farmers, transcending all national barriers. It can have disastrous effects on the quality of life and the quality of work, while stimulating the bodys’ physiological, emotional and psychological responses in such a way as to motivate and activate people to achieve their goals, change their environment and face life’s challenges. This study seeks to portray the problem of stress haunting the lives of software professionals, who are playing a key role in revolutionizing the process growth in all walks of life. A summary of the discussions held on various aspects of stress and the conclusions arrived at, are contained in this chapter. It will help any one to understand what a dreaded problem stress is and how it is sought to be over come, as a prelude to widen the frontiers of growth of the software industry, still more vigorously.

As it has been pointed out at the beginning of this study, it is purely explorative in nature. It begins with a comprehensive introduction, highlighting the memory haunting attributes of stress and the important role the software industry is called upon to play in fostering the multifaceted growth of a
country. What follows is a very comprehensive review of all related studies. Enshrined in the third chapter is a clear statement of the objectives, hypotheses and the methodology of the study.

The study is based on six objectives. In keeping with the first objective, an attempt has been made in chapter four to give a detailed account of the most leading and internationally reputed software companies in Tamilnadu. It gives any casual reader of the thesis an idea about the growth potentials of the SW companies and the himalayan bights they have been able to attain in their scintillating growth path during the last few years. The first company dealt with was WIPRO. Its total revenue which stood at Rs. 437,628 million in 2013-14 has grown up steadily and reached an all time high of Rs. 546,359 million in 2017-18. Similarly, the volume of capital it has deployed has gone up from Rs. 396,478 million in 2013-2014 to Rs. 623,605 million in 2017-2018. Quite encouragingly, its profits, after deducting all taxes, stood at Rs. 77,967 million in 2013-2014. It increased to Rs. 8652.8 million in 2014-2015, 89075 million in 2015-2016, Rs. 84895 million 2016-2017. But in 2017-2018, it declined to 80081 million rupees.

The second software firm which was subjected to an exclusive study was Cognizant. It came into being in the year 1994. Now, it has emerged as an outstanding multi-national provider of customary information technology and consulting and business process outsourcing services. As it is widely known, out of its total global employee strength, around 75 percent work in India. Its
total revenue in the March quarter of 2017, registered on increase of 11 percent and stood at $5.5 billion. This achievement has been attributed to its strong performance in business consulting and digital solutions. Another creditable achievement of cognizant during the March quarter 2017 was that its profits showed a 26 percent hike and stood at $557 million. It has attained a revenue and profit level which is far above that of its peers in Chennai.

Next comes TCS which has been recognized as the fastest growing IT services brand in 2018. As it has already been pointed out, it has joined the exclusive club of brands rated over US $ 10 billion in value. Its total revenue in 2013-2014 was found to be of the order of Rs. 67787.64 crore. It has shot up to Rs. 103159 crores in 2017-2018. A similar trend could be seen in the growth of its profits as well. They have progressed towards Rs. 21533.72 crores in 2013-2014 and to Rs. 27805 crores in 2017-2018. It has been acclaimed as a marvelous feet by any standard.

The next software firm studied in very great detail, as a major prerequisite, to understand the problem of stress in its proper perspective, was INFOSYS. As it is well known, it has firmly established its glittering footprints in all most all the developed countries around the globe. The investigator could find out from the records available to him, that the company has made wonderful strides progress. As it is has been pointed out in chapter four, its total revenue has gone up from Rs. 46917 crores in 2013-2014 to Rs. 65960 crore in 2017-2018. Similarly its net profit levels have also gained tremendous
momentum over the years. It has gone up from Rs. 10194 crore in 2013-2014 to Rs. 11752 crore in March 2015, Rs. 12,693.00/crores in March 2016, Rs. 13,818.00 crore/in March 2017 and Rs. 16155.00/crore in March 2018. Thus, the growth registered by Infosys over the years is amazing.

The software company founded by Shiv Nadar of Tucorin has established itself firmly both in India and in Overseas countries. The company is noted for the priority it has given over the years, to further the interest of its professionals. Its total revenue which stood at Rs. 17156.49 crores in 2013-2014 has gone up to a total of Rs. 22775.0 crores in 2017-2018. Similarly its net annual profits were found to be Rs. 5984.62 crores in 2013-2014. In 2017-18 it has gone up to a lofty height of Rs. 7362.00 crores.

The last software firm studied for the specific purpose of drawing samples was Microsoft. It was founded in 1975. Over the years, it has emerged as a world wide leader in software services and solutions that help people in business to realize their full potentials. As it has been pointed out in chapter four, it has emerged as a multi national technology corporation that develops, manufacturers, licenses and supports a wide range of software and hardware products for computing devices. True, Microsoft has been acclaimed as one of the most valuable companies in the world. Its total turnover was found to be of the order of Rs. 311.00 crore in 2014-15. It increased to Rs. 6201.00 crore in 2015-16. It reported a net profit of Rs. $17 billion in 2012. It increased to
$21.5 billion in 2013. Surprisingly it has come down to $12.2 billion in March 2018. Thus its growth in terms of profits has not been steady.

The second objective of the study was to examine in very great detail the nature of stress and its various dimensions. In keeping with this objective an attempt has been made in chapter five to subject to a thread bare analysis all the important characteristics of stress. The investigator has clearly pointed out that stress brakes out when the demands made by any given job on the abilities and time of an individual is found to be far in excess of all tolerable limits. He has pointed out that the factors that cause stress could be rightly termed as stressors. When individuals are under stress, there comes about very great changes in their physiological, psychological and behavioral responses. As a result of this kind of reactions to stress, heart rate changes, and brain activity goes up, affecting normal brain functioning. This form of stress which has a negative impact on the psychological and the physical systems is called destructive stress. Stress that has a positive impact, resulting in a feeling of excitement is called constructive stresses. The investigator has closed his analysis in this chapter by contending that this pattern of high degrees of stress followed by an interval of relief could be referred to as episodic stress. Further, he has gone on to add that when stress is faced continuously with out any room for fighting or fleeing the situation could be termed as chronic stress.

The third objective of the study was to identify some of the well known stressors which keep assailing or tormenting the male and female software
professionals. In keeping with this objective efforts have been made in chapter six, to categories software professionals on the basis of gender and age, to examine their proclivity to stress. The impact of stressors like work overload, frequent client intervention, changes is technology, ill health, domestic problems, assignment of both technical and managerial roles simultaneously, stretched working hours, poor work life balance and mounting problems of family and work over load both among male and female software professionals, has been given a mathematical interpretation. It is clear from this part of the analysis that stress is purely a psychological problem and it can never be attributed to the sex or age or experience of a person. It lends credence to the contention of the investigator that a positive mind set will help any software professional to get over his/her stress problems. In the opinion of the investigator, the SW professionals should come forward to work overtime to achieve targets and add to the vibrance of the software firms, without thinking too much about an attractive work life balance, in the larger interest of the nation on the one hand and in the interest of their own personal and professional growth and prosperity on the other.

The fourth objective of the study was to bring out the relationship between the organizational behaviour of the software professionals and their stress problems. In keeping with this objective an attempt has been made in chapter eight, to throw light on the organizational culture in software firms and the organizational behaviours expected of every one of their technical and non-
technical professionals. It has been pointed out that jobs in software companies are target oriented. Software professionals, in every cadre, are supposed to work hard to promote the growth of their companies, not only at the national level but at the global level as well, by promptly achieving targets fixed for them without compromising on the quality of their services. They should also concentrate on skill promotion by properly availing themselves of the facilities provided for the same by their respective companies at their own expense. The table given in table 7.1 shows the interest evinced by the software companies in the infusion of new technologies and the percentage of the professionals who have come forward to accept them with open arms, during the years from 2013 to 2017 in companies like HCL, Infosys, WIPRO, TCS, Cognizant and Microsoft. This shows that the software professionals while working hard to meet deadlines are under compulsion to find time for training programmes as well. This leaves them with very limited opportunities to promote interpersonal relationships and to extend help to those who are in dire need and distress. On top of all these the software professionals who wish to emerge as achievers and innovators are under compulsion to remain satisfied with a deplorably poor work life balance. They are led to believe that every work related stress problem is an opportunity for growth.

It has been proved that the time honoured backward sloping supply curve of labour and the theories associated with it, cannot be applied to the work culture and the organizational behaviour of the software professionals. It
is mandatory for the software professionals to adapt themselves to the stress inducing work environment of the software companies as a major prerequisite for shooting in to global prominence with creditable achievements.

The fifth objective of the study was to attempt an empirical study of stress and productivity related problems. In keeping with this objective, efforts have been made to show in chapter eight, how the productivity of the software professionals is measured by the asset accounting methods. Further, the analysis has illustrated how the productivity of the software professionals is determined by the number of external links established every year. Table 8.1 shows how the external links established by average software professional has gone up from 2013 to 2017. In the case of software professionals in the age group of 20-25, the external links created has gone up from 35 in 2013 to 112 in 2017. In the cases of those who belong to the age group of 25 to 30 the increase has been found to be from 20 in 2013 to 273 in 2017. Similarly those who are in the age group of 30 – 35 could establish 116 external links in 2013. It increased to 200 in 2017. In the case of software professionals belonging to the next age group of 35–40, the increase has been found to be from 101 in 2013 to 172 in 2017. Software professionals in the last age group could succeed in creating 81 external links in 2013. It has increased to 142 in 2017. Thus, it has become abundantly clear that software professionals have worked hard and created records for themselves by creating highly laudable number of external
links every year. This is the secret behind the growth of software companies in terms of their profit.

The last objective of the study was to examine in detail the efficacy of certain “the job stress management programmes” envisaged as possible escape routes for overstressed software professionals, reeling under stress burdens. Based on this objective an illuminating discussion has been attempted in chapter nine on some of the stress management programmes which are fast gaining ground among high profile software firms. In the opinion of the investigator, software professionals working in the midst of stressors, surrounded by a stressful environment, can become very successful and emerge as enviable achievers, if they can convert their stressful environment in to a practical field to acquire the basic skills needed to change their cognitive skills needed to change their cognitive behaviours through meditation, creative visualization and methodic counseling to prove themselves equal to their mounting work pressure. The investigator contends that this idea has been accepted on all hands by software professionals whose only ambition in life is, to emerge as trail blazers and pace setters in the fields of their interest and choice. It means that they are gearing themselves up for a multi-pronged battle against the life threatening adversary of stress. As the software professionals have been led to believe that their identity is based on the jobs they have been called upon to execute, they have started shedding the catastrophising attitude. As their growing interest is material prosperity and an alluring life style and
getting international reputation, they are volunteering themselves to go through the stress management programmes launched by the companies in which they work.

The statistical account given in the ninth chapter makes it quite apparent that the stress management programmes have been well received by the stress prone software professionals. They have volunteered to meet their counsellors and get themselves trained to focus their mental energy on their high tech and dead line oriented jobs. They are given adequate help and guidance to refocus and reprogramme their minds, so that they can indulge themselves in creative visualization.

Another stress management programme which has been launched with significant success, is the introduction of meditation sessions and places and time for rest, relaxation and yoga. Meditation, relaxation and yoga practices are basically intended to quiet the troubled minds of the software professionals. It is an invigorating experience because it allows any one to watch the incessant and relentless activity of ones own mind and how much one is driven by it. The software professionals facing stress, have openly acknowledged that by constant practice they can quiet their thoughts and mind. They have understood that an inner balance can help them to overcome the turmoil of life. The investigator has been given to understand, by the top brasses of the companies he visited for statistical enquiries that, meditation relaxation and yogic practices have renewed the energy and the enthusiasm of their over
strained professionals. The attitudinal changes observed among the software professionals, who have undergone, ‘on the job stress management programmes’, have led their respective companies to conclude that a few minutes of meditation a day can change a habit that took years to form and get reinforced. The investigator could get conclusive evidences to establish that, “on the job stress management programmes” can earn handsome dividends for the software companies, by helping their professionals to overcome their negative thinking, actions and attitudes and emerge as achievers, innovators and globe trotters.

The study has been based on three important hypotheses. The first hypothesis was that the organizational culture and behaviour of the esteemed software professionals would result in stress. This hypothesis has been verified and proved to be quite, correct on the basis of a statistical study enshrined in chapter seven.

The second hypothesis was that on the job training programme would add to the skill and knowledge of software professionals. The tables in chapter seven have brought out very clearly how eagerly the software professionals take to these programme and get benefited by them. It has been proved in this chapter, that it is these training programmes which help them to blossom forth as achievers and innovators. This is a sound proof that the second hypothesis is quite right.
The third hypothesis was that on the job stress management programmes can usher the software professionals in to a stress free era. Based on this hypothesis efforts have been made to carefully list down the most common stress busters tried with tremendous success in software firms. The discussions in chapter nine clearly show how opportunities for rest relaxation, exercises, yogic practices, religious observances create an out let for the emotions and fast accumulating boredom in the lives of software professionals. This hypothesis and the discussions made to prove it as contained in chapter nine, would provide enough food for thought, to innovative researchers, striving hard to improve scientifically the work culture in software companies.

Findings

The investigator could see in the course of his survey and interviews with the software professionals, that it is quite an uphill task to get from them unbiased statistical accounts about their own problems. Most of them came forward to fill in questionnaires only under conditions of anonymity. The investigator ensured their anonymity by assigning each one of them a number. Inspite of all these difficulties, the investigator as a technocrat, closely associated with the production and marketing of robots, has come to feel that he should also acquire the mind set and work culture of the software professionals, in high profile software companies, to distinguish himself as a trail blazer in his field of operation at the national and international levels. His findings could be listed as follows:
1. The software industry has become the pride of the nation. It has distinguished itself as a fast growing industry with tremendous potentials to contribute sizably to the foreign exchange earnings of the country.

2. His frequent visits to the high profile software companies and his exhaustive studies related to their marvelous achievements have made it easy for him to find out how they have helped our country to emerge as a major player in the fields of software engineering, information technology services and web based services since 1991.

3. Stress related studies have made it possible for him to find out that stress is an ubiquitous phenomenon. It is inescapable for any one who is keen on making an optimum use of his/her latent potentials.

4. In high profile software companies, organizational characteristics like company size, hierarchical structure and job ambiguities result in frightful stressors like role conflict and work overload.

5. Software professionals are undertaking highly complicated computer supported works. They result in very serious health problems like visual discomfort, musculoskeletal disorders cardiological complications, neck pain and chronic stomach disorders.

6. In the software companies, informants feel that their companies try to achieve their lofty goals with inadequate number of staff. Hence,
the major responsibilities fall on the existing staff, who are already confronted with the problems of time pressure and role conflicts.

7. The respondents are generally grieved over the appalling difference between the salaries promised and the salaries received.

8. The respondents are deeply concerned about the growing communication gap among professionals, which according to them will result in role ambiguity. The reason for this state of affairs could be better understood if it is put in their own words. “work of the software professionals are project based. They need to be completed blemish free and delivered in time. Any fresher who joins a company is accommodated in a project, rather hurriedly, with out giving adequate information about the project itself and the person who has to be contacted while facing difficulties. This ultimately causes a stress inducing communication gap.

9. In the software companies the work environment is such that the software professionals are under necessity to work on their computers for hours together. Working on computers for hours on end cause severe neck pain and eye problems. Further, software professionals are under compulsion to keep their skills updated for handling high tech jobs with utmost dexterity. This, results in unavoidable stressful situations.
10. Software professionals are on the lookout for experiences which would stand them on good stead in life and provide an element of escape both mentally and physically from the demands of work. So companies have come forward to provide opportunities for rest, relaxation, meditation exercise, and yogic practices to facilitate a temporary escape from stressful events.

11. Some of the software professionals interviewed divulged their inclination to leave their companies, to go in search of greener pastures, where there are plenty of opportunities and time for a stress-free and happy family life.

12. The software companies try their best to retain their hardworking, dynamic, and well-trained professionals at any cost. They feel that it would be an irreparable loss if such professionals leave their companies. So, they have come out with support schemes which are aimed at positively influencing the personal and professional lives of their professionals. The examples set by HCL in this regard are worthy of emulation.

13. The investigator could see in the course of his study that software professionals are called upon to learn new technologies to keep pace with the growing demands on their time and skill. This is a welcome thing for those who are interested in career advancement.
14. The job of the software professionals is quite a tedious one, as they are expected to run faster than before to remain in the same place. Further, as any project nears its completion, work life will be full of meetings, disorganization, over time and stress. Even a normal working day for any software professional would prop up the need for heavy thinking, problem solving and stress inducing efforts to overcome frustrating compilation errors.

15. In the present study, fleeting allusions have been made to the frequent insurgence of novel technologies as a prerequisite to keep the industry growing in its competitive strength with renewed energy and creative vision. The study has not failed to make similar allusions to the frequent insurgence of stress busters closely related to the psychological, emotional and spiritual ways of dealing with stress.

16. The work culture has proved to the world that one should never allow oneself to rust unburnished. Instead one should always try to shine in use.

17. India is a fast growing nation. The need of the hour is that every one of us, should learn to work hard, like our counter parts in the software firms by “scorning delight and living laborious days”. We can keep pace with countries like Japan and China in industrial production, if we can acquire the mind set of the software
professionals to view every stress related problem as a splendid opportunity for strident growth. The long and short of what has been said so far, is that the software industry is highly knowledge based. Highly talented students of science and technology endowed with rare innovative skills and an unsurmountable love for the nation should join it, to make our nation really great.

RECOMMENDATIONS

The investigator deems it fit and pertinent, at this stage to make a few recommendations for facilitating the vibrant growth of the software firms in the years ahead and for protecting the interests of the software professionals. They include:

1. In our country, a huge number of highly talented and hard working scientists and technocrats are produced every year, by universities and colleges of national and global reputation. The governments at all levels should necessarily come forward to collaborate with all the software firms and create an environment to lure such people to the software field guaranting them, job security, salary protection, health safeguards and career advancement.

2. The central government has brought out numerous labour welfare measures with the lofty aim of protecting the working class from cruel capitalistic exploitation. The number of hours they are supposed to work every day and holidays and leave facilities to which they are
eligible, have been clearly laid down and carefully enforced. It is therefore necessary to take tough measures to see that all software companies in India strictly abide by these regulations without fail. This would protect the well being of the software professionals and help them to make still bigger contributions to the growth of our economy.

3. The software professionals need a proper outlet for their emotions. If they do not find a suitable outlet for their emotions, they would run in to problems of acute blood pressure, depression and anxiety. The investigator feels that software companies should come forward to understand the needs of their staff and encourage them to go ahead with their regular religious observances in the stress ridden work environment too.

4. The next important recommendation of the investigator is related to performance counseling. It involves, helping software professionals to understand his/her own performance level, find out where he stands in relation to others and to identify the ways to improve his/her own performance and skills. This strategy would ultimately motivate the software professionals to keep their skills and knowledge updated.

5. In all the software companies it is mandatory that efforts are made to monitor the break down of integrity among employers and employees. Failure to do so well result in stress.
6. Software profession is knowledge based. The software professionals would turn out to be the salt the earth and the light of the world, if their life is fully insured and they are never allowed to retire.

CONCLUSIONS

As a technocrat who is enjoying the rare privilege of handling challenging problems in the production and marketing of robots, the investigator is happy to place on record that the software professionals whom he met, have turned out to be an ever ready source of never failing inspiration and motivation to him. He concludes that:

1. The software industry has transformed the lives of all classes of people and industries, every where in the world. The unique services rendered by the software industry and the IT companies have influenced, beyond measure, the growth of education, medical institutions and their services, the administrative systems and the data processing systems of the governmental and nongovernmental organization, space exploration, the functioning of service sectors, military operations, trade and communication patterns among people and nations all over the world. In fact, the world looks rather small with all the nations coming closer and closer due to the startling services provided by the software industry. So it is only logical to hold that the software industry has turned out to be the pride of the nation.
2. The software professionals have to use their brain to prove themselves equal to the challenging jobs assigned to them. As they keep ruminating over the possible ways of churning out new technologies, they easily become mentally fatigued. But they can easily get over this problem by taking recourse to the stress busters suggested.

3. Stress is not an illness. It is purely a mental perception.

4. Stress is an inextricable part of human life. Stress is always associated with hard work as it is quite true of the software industry. We should try to live with it and adapt ourselves to any stress ridden work environment, like our esteemed software professionals.

More and more explorative and innovative researches are necessary to usher in an era of dazzling opportunities of growth and achievements for our software professionals who work hard day night, braving the rigours of stress. The investigator wishes to conclude his thesis with a positive note that, the faster the software industry grows, the greater will be our achievements on the economic front.