

To Study the Role of Training and Development in Reducing Work-Related  
Stress among Information Technology Employees in Mumbai, India

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## **Abstract**

To Study the Role of Training and Development to Reduce Work-Related Stress among IT employees in Mumbai, India.

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The purpose of this research is to study the role of training and development in reducing work-related stress among IT employees in Mumbai, India. The researcher contacted five small to medium sized companies through her existing contacts to be a part of this study. Surveys were sent which included demographic details, questions relating to training and development and a stress diagnostic survey. The results obtained were coded and then transferred to SPSS for analysis. Test of scale reliability, test of normality and Spearman's correlation was conducted. The results of this study was that the prominent causes of work-related stress among the participants was quantitative work overload as highest was scored on this component of the scale. In terms of correlation one hypotheses could not be tested to due statistical insignificance, the result of the third objective using Spearman's correlation revealed that there was a statistical significant relationship between stress management training and level of work-related stress.

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## **List of Abbreviation**

IT- Information Technology

## Chapter 1- Introduction

The effects of stress are felt in every sphere of life be it at home, work or interpersonal relations. The definition of stress has been subjected to frequent and continuous debates and hence, it can be said that there is no universally accepted definition (Blaugh, Kenyon, and Lekhi, 2007). For this study, the researcher has adopted the definition by Hans Selye who first coined the term stress in 1936 and defined stress as “the non-specific response of the body to any demand for change” (Viner,1999). Stress is present in every job and this phenomenon is becoming a growing concern for organisations, employees and governments at a global level (Tahseen, 2005). The popularity of research on stress has accounted for having its impact on an individual and an organisations performance (Nagar, 2012; Lim et al .2010).

Work -related stress has been a topic of active research across different occupations (Geraghty and Oliver, 2015; Zhao and Ghiselli, 2016; Wang et al. 2009). Noblet and Lamontagne (2006) mentioned that both the human and economic cost associated with work-related stress can be devastating for any organisation and hence initiatives to tackle work stress must be high on agenda. This study explored literature related to work-related stress among IT employees not only in India, but also critically reviewed international research done on this topic. The key literature noted that there are various causes of work stress namely heavy workload, role conflict, unrealistic schedules, new technology, role ambiguity and bad pay (Raghavan, Sakaguchi and Mahaney ,2008; Sethi, King and Quick ,2004; Shropshire and Kadlec, 2012). Keeping this causes in mind companies must review an employee’s level of stress periodically and take appropriate measures (Padma et al. 2015). These measures can be classified as stress management trainings and there is a vast body of research done in this domain, studies have contributed towards how stress management trainings are an effective tool to reduce stress levels (Wanda, Orlikowsly and Yates, 2002; Hart ,2007). While on the other hand studies have contradicted this view and stated that stress management trainings have an effect on stress only for a short period of time (Kim et al

.2014). Studies also mentioned that since the information technology industry have been developing at a fast pace to due new technological advancements, information technology employees must be provided with job related trainings to tackle this cause of stress (Agarwal and Ferret ,2001; Rajeswari and Anantharaman, 2003; Pai et al .2012).

### **1.1 Statement of problem**

Work stress has known to be an occupational hazard in the fast growing IT industry and needs to be addressed without delay. From the literature it is evident that there have been several studies contributing to what are the causes of work-related stress in IT employees, but this study aims at addressing more than just this. This study will research on whether there is any relationship between trainings (on the job and stress management trainings) and level of work-related stress among IT employees in Mumbai, India considering the contradicting views in the explored literature. The researcher decided to carry out this research in Mumbai, India as India has emerged to be a key player in the field of information technology and communication since 1990s employing millions of people (Kumari et al.2014). Availability of skilled labour, cost advantage, and government policies are the primary reasons for the success of the Indian information technology industry. Moreover, the employee in this industry in India are stressed due to increasing competition, new technologies, dynamic business environment and changing customer expectation. The researcher also identified that most of the studies in regards to work stress among IT employees in India were carried out in regions such as Chennai, Hyderabad and Bangalore as many multinational companies outsource their IT departments to these cities, on the work stress among IT employees in Mumbai has not been extensively researched (Krishnamurthy and Prabakaran; 2015, Kumari et al .2014). In terms of the gap in the literature, the study conducted by Raghavan, Sakaguchi and Mahaney (2008) mentioned that the results of the causes of work-related stress could be only applied to IT companies employing more than 100 IT employees. The researcher aims at filling this gap by conducting a study involving only small-medium sized companies in Mumbai, India. The overall

research question is “To study the role of training and development in reducing work-related stress among IT employees in Mumbai, India” with the following objectives -

Objective 1- To identify the most prominent cause of work-related stress among IT employees in Mumbai, India.

Objective 2- To examine if there is exist a relationship between job related trainings and level of work-related stress

Objective 3-To examine if there exist a relationship between stress management trainings and work-related stress

## **1.2 Importance of this study**

Stress in a work environment is unavoidable, but companies can recognise this phenomenon and develop strategies to tackle or reduce it. This dissertation will focus on examining if there is a correlation between the job related trainings, stress management training and the level of work-related stress and will also identify the causes of work-related stress present in small-medium sized companies based on this sample. The result of this study would be of interest to the human resource department in particular to the training and development professionals, the management of companies and employees.

## **1.1 Scope of this study**

The scope of this study is limited to IT employees in Mumbai, India employed in small- medium sized companies. The results may not be applicable to other professions or large sized IT organisations. The study does not cover previous research done on the impact of age, gender and length of years in a company on work-related stress as the sole objective of this research is to identify causes of work-related stress among IT employees and if there is any relationship between job related trainings, stress management trainings and the level of work-related stress.

## **1.4 Structure of Dissertation**

### Chapter 1- Introduction

This chapter outlines the definition of stress and work-related stress, implications of work-related stress in companies, cause of work-related stress in IT, statement of problem and the scope of this study

### Chapter 2 -Literature review

The literature review chapter reviews and critics relevant existing literature relating to work-related stress and training and development. The literature review begins with defining stress and work-related stress followed by the different causes of work-related stress. One major aspect of this dissertation which is identifying the causes of work-related stress in the IT industry has been explored by critically reviewing both international research and research done in India. Existing literature related to on the job trainings, stress management trainings and their role in managing stress has been explored.

### Chapter 3- Methodology

This chapter will state the research questions and will provide a rationale for each stated objective. The research methodology will be identifying all the stages to be covered for a research question to be answered along with identifying the most appropriate alternate approach. This chapter will also consist of ethical consideration and limitations of the research methodology.

### Chapter 4- Finding and Analysis

This chapter will begin with conducting a reliability test to determine the Cronbach Alpha followed by test of normality to determine if the dissertation will follow parametric or non-parametric analysis. The first objective will be attained by calculating and comparing the mean values to the different components present in the scale. Followed by doing a correlation test to examine relationships between the decided variable.

### Chapter 5- Discussion

This chapter in detail analyses the results in relation to all the objectives and compare it to the literature review to determine if there are any similarities or contrasts.

### Chapter 6- Conclusion

This chapter will draw conclusion to all the key findings and will provide further recommendations for this research.

## **Chapter 2- Literature Review**

### **2.1 Introduction**

The purpose of this literature review is to explore relevant studies to get an understanding of this topic. This literature review will begin with defining stress and work-related stress, followed by discussing the causes of work-related stress in general. It will then discuss previous international studies conducted on work -related stress on IT employee's. An overview of the IT industry in India along with identifying the studies conducted in relation to work stress among IT employees will be explored. The definition of training and development has been outlined along with how job related trainings and stress management trainings have an effect of the level of work- related stress.

### **2.2 Definition of Stress and work -related stress**

Stress is known to have an adverse effect on human beings in every sphere of life, be it home, work or interpersonal relations (Tahseen, 2015). The concerns about the impact of stress on an individual has been well discovered and has its roots in medicine and the revolutionary work by the father of stress Hans Selye (Luthans, 2002). The term stress was first coined by Hans Selye in 1936 who defined stress as "the non-specific response of the body to any demand for change" (Viner, 1999).

Work- related stress is defined as a response to excessive pressures or demands which arise when an individual tries to cope with certain responsibilities connected to their given job, but finds it difficult and tends to worry in order to cope with it (The Health and Safety Authority, 2011). Work-related stress can occur due to the job itself which includes heavy workload, role ambiguity, role conflict and responsibilities (Michie and William, 2003; Robinson, Clements and Land, 2003). On the other hand, long working hours, poor training and inadequate salary are causes of work-related stress that could be caused by organisational policies (Mohammad, 2013; McCann, Hughes, Adair and Cardwell 2009). Poor management style, resource shortage and lack of support from colleagues all of these are a part of the work

environment that can make work stressful for employees. (Flanagan, 2006). Work -related stress has an effect on an organisation as it reduces employee motivation, increases turnover and cost of health maintenances which may impact the profitability of an organisation (Mohammad, 2013). These negative effects of stress are known as “distress” proposed by Selye, whereas the good stress is known as “eustress” which states that moderate level of stress acts as a motivational factor for employees and increases efficiency and skills (Kranner et al. 2010)

### **2.3 Causes of work - related stress**

A large number of research has been done to identify the causes of stress among professionals in different occupations (Geraghty and Oliver, 2015; Zhao and Ghiselli, 2016; Wang et al .2009). The Irish Congress of Trade Union carried out a research to voice the opinions of workers in regards to work stress and it was known that the causes of work stress were job insecurity, numbers of hours worked, bullying or harassment at work, lack of support from superiors, lack of clarity about role or limited authority/ responsibility to manage own work process (O'Brien, 2014). The Communication Workers Union (2001) ranked bad management and excessive workload as the top two causes of stress at the workplace.

Job insecurity -This has been viewed as a cause of stress which arises when an employee feels threaten in regards to the job and has feeling of powerlessness to react to the threat (Richter et al. 2013). Events such as downsizing, new technology and international competition may be classified as the reasons of job security (Kaplan and Lerouge, 2007).

Workload – This is defined as the amount of task assigned to an employee to be completed in a set time period (Milbourn, 2006). The level of work stress can be affected by both quantitative and qualitative work overload (Sonnentag and Frese, 2003; Diestel & Schmidt, 2009). Jain, Giga and Cooper (2009) in their research concluded that long working hours is a major cause of stress.

Role ambiguity and role conflict -Role clarity is described as the degree of clarity is to an individual regarding expectations and responsibility towards his/her work (Sethi et al. 2004). Many a times employees find themselves in a position wherein they are not clear and uncertain regarding what level of performance is expected from them. Role conflict on the other hand is when an employee perceives that he/ she is incapable of performing the demand placed on them (Kim, 2005).

Limited authority/responsibility to manage your own work patterns- Employees who are not given the authority to manage their own working hours can lead to unpredicted long working hours and inflexible working schedule which may result into issues such as lack of sleep and could hinder job performance, lower concentration levels thus, increasing work-related stress (Health and Safety, 2011; Clarke, 2005).

#### **2.4 International research on work-related stress among IT employees**

Information technology employees will continue to grow in importance and number, as countries and businesses all around the world are investing a significant amount in the information technology industry (Niederman and Ferratt, 2006). Kaplan and Lerouge (2007) mentioned that an IT employee's nature of work changes continuously as and when there is a change in technology. Research carried out by Pai, Yeh and Huang (2012) in Taiwan concluded that IT employees incur high levels of work stress heavy workloads and long working hours.

Companies all around the world want to keep their technologies up to date, for the purpose of this a lot of demand is placed on IT employees (Kaplan and Lerouge, 2007). IT employees are not only responsible for developing and implementing new systems but are also responsible for maintaining portfolios of existing technology systems (Mak and Sockel, 2001). Work must be performed continuously with little or no room of any errors along with incorporating different changes in the system due to reasons such as change in customer demand and technology advancements (Kim, 2005). IT employees are a part of rotating shifts, off hour work and on call duties due to

24/7 modes of operation along with this unrealistic schedules, reduced staff and tight budgets lead to IT employees being stressed (Kaplan and Lerouge, 2007).

Sethi, King and Quick (2004) studied the causes of work stress among IT professionals and identified career development, job insecurity and training as the major causes of work stress. Similarly, Raghavan, Sakaguchi and Mahaney (2008) carried out a quantitative research in the United States and identified pay, role demands, bad management, changes in technology and role ambiguity as causes that contribute to work stress among information technology employees. However, the limitation of this study is that organizations with more than 100 IT employees were selected, and these findings may not be applicable to smaller companies.

Shropshire and Kadlec (2012) through their research mentioned that causes of work stress among IT employees in small and medium sized organisations is because they are expected to be available 24/7. These researchers also identified that IT employees in large companies have to take turns to be on-call to resolve any technical issue if it arises. Li and Shani (1991) carried out a study to identify a study to identify work-related stress among IT managers and concluded that workload was major cause of work-related stress followed by role conflict and ambiguity. Laudon and Laudon (2007) stated that the entire work process in an IT industry is carried out between various teams, due to which interaction must take place between the members of different teams. Due to this pressure can be created on one of the team members to respond timely to other team members with updated and details of the designated task.

The above mentioned studies have identified various causes of work-related stress pertaining to IT employees. It would be worthy to examine if these causes are also present among the Indian IT employees.

## **2.5 Overview of the IT industry in India**

India since the 1990s has emerged as a key player in sectors such as information technology and web based services. This industry has led to an incredible economic transformation and currently has a work force of about 10 million (Indian Brand Equity Foundation, 2016). The perception of India as an economy on the global level has been shaped in a positive manner due to this industry (Palacios ,2013). In the fiscal year this industry is predicted to grow at a rate of about 12% to 14%(Indian Brand Equity Foundation, 2016) The Indian IT sector has proved its capabilities both in having companies and being a destination for outsourcing services to clients all around the world (Kumari et al.2014). It could be said that this industry has transformed India from being an agricultural based economy to a more knowledge based economy. Moreover, this sector is known to be one of the fastest growing industries in India due to availability of skilled employees, cost advantage and quality services (Kumari et al 2014). According to Chakraborty and Kumar (2013) market potential, government policies and trade regulations have played an important role for the success of the Indian information technology industry.

### **2.5.1 Work-related stress among IT employees in India**

For the purpose of this study an IT employee is described as a professional involved in computer and end user support, IT management, system developer, integrator and technical services and operations (Kim, 2005). A study done by Bolhari, Rezaeian, Bolhari, and Bairamzadeh (2012) stated that the group of information professionals are one of the fast growing workforces. However, there are severe challenges faced by the employees in the IT industry which contribute towards stress and are mainly due to the dynamic business environment, competitive marketplace and changing customer expectations (Jafari, 2014). Globalisation along with privatisation in the IT industry has led to issues surrounding job insecurity, new work relations and skills obsolescence (Padma et al. 2015).

Krishnamurthy and Prabakaran (2015) studied work stress among IT employees in Chennai, India and discovered that job insecurity, heavy workload, staff shortages and inadequate training and development are the

major causes of stress. Amudha and Badrinath (2014) through their study identified lack of teamwork, inadequate financial compensation and long hours of work as the causes of stress. Pattnaik and Misra (2015) noted that excessive workload is the cause of stress for IT employees in India which can be reduced by recreational activities, training and flexible work schedule. Aziz (2003) conducted a research on Indian IT professionals identified high resource inadequacy, role overload, role conflict and role ambiguity as the causes of work-related stress. Ramesh U and Kurian Joseph (2012) through their research identified four causes of work-related stress which were job insecurity, workload, work culture and lastly work and family life. In their study they also mentioned that occupational stress among IT employees has led to health problems such as obesity, neurological disorders and diabetes.

The empirical research done on work stress and IT employees in different parts of India as identified various causes of work-related stress. It would be worthwhile to examine if any of these causes are present in the current study and compare it to the international research.

## **2.6 Training and development and work-related stress**

Training and development is a part of the human resource department which can be described as efforts by an organisations to enable learning of job related competencies which include skills, behaviour and knowledge to a specific job (Noe, 2013). Kulkarni (2013) identified general functions of training and development which are helping employees to increase productivity, commitment towards work, reducing stress levels by creating a balance between work and personal lives and mostly importantly update skills. Rees and Redfern (2002) noted that organisations expect training and development to play an integral role in reducing work-related stress. Since training and development impart several training and have various functions, for the purpose of this study job related trainings and stress management training specific to IT employees will be considered.

### **2.6.1 On the job training and work-related stress**

The IT industry is growing at a fast pace which requires IT employees to be exposed to training related to new technologies (Jain,2009). Expansion and technology evolution has bought fear of obsolescence in the minds of IT employees regarding their skills and knowledge, compelling them to constantly update learn (Rajeswari and Anantharaman, 2003; Mak and Sockel, 2001). IT as an industry evolves continuously with new technology, and the danger of becoming outdated poses as a fear for IT employees (Maguire, 2007). Any IT employee with no knowledge of current technology may lose or not even get a job (Niederman and Ferratt, 2006). The pressure to keep skills and knowledge updated at all time, which are constant demands place on an IT employee leads to stress (Kaplan and Lerouge, 2007).

Agarwal and Ferret (2001) mentioned that training and development based on new technologies can broaden IT employee's knowledge and managerial skills. Raghavan, Sakaguchi and Mahaney (2008) noted that activities for professional development such as job related training can be viewed as a stress reliever. Since IT employees need to constantly keep up with any sort of change in technology, constant training provided is considered as a way to reduce stress. This study also revealed that training can influence workload and may help to diminish role ambiguity. Pai, Yeh and Huang (2012) in their research noted that companies must assist IT employees by providing on the job training related to technology which will help them to tackle work stress, and thus gradually convert it to a positive factor. Jain, Giga and Cooper (2003) explored that managing stress at workplace will have benefits for both the organisation and the employees and if ignored or mismanaged will create issues for both. Training and development programmes directed towards the use of new technology can reduce stress and increase innovation. Imtiaz and Ahmad (2009) through their study identified that overall stress levels and training and skill development were negatively correlated.

While all the above studies discovered the effect of job related trainings reducing stress, Teo and Waters (2002) mentioned that even though there was a high number of human resources practices such as training, promotional

opportunity, pay systems and stress management interventions being followed, the stress levels of employees were not affected implying that there was no relationship between HR practices and occupational stress.

### **2.6.2 Stress management trainings and work-related stress**

Stress management trainings are defined as programmes that help employees deal with work stressors that are difficult to remove or change (Landy and Conte, 2010). Richardson and Rothstein (2008) identified three stress management interventions known as primary, secondary and tertiary. Primary intervention tries to reduce sources of work stress which can be done through redesigning job, providing co-worker support and giving employees flexibility in making their own decisions. Secondary interventions help to reduce stress before it leads to severe health problems and include programmes related to time management and relaxation (Murphy and Sauter, 2003). Tertiary interventions help employees to recover from stress and can be done through employee assistance programme which allow employees to access to counselling sessions. (Sidle, 2008).

Redfern, Rees and Rowland (2008) carried out an extensive research on training and development specialist handling occupational stress and noted that training and development specialist must create stress management programmes which aims at understanding what causes work stress and managing one's work stress. They also mentioned that these specialists must intervene in managing work stress at an earlier stage as job design can be an important cause for stress.

Kushwaha (2014) noted that stress management trainings in companies must include trainings such as improving communication, managing time and a healthy life style. Michie and Williams (2003) through their study mentioned that counselling through employee assistance programmes is considered as an effective method to reduce stress. Shah and Muncer (2005) stated that there should exist a negative correlation between stress management strategies and work-related stress. Kearns, Forbes and Gardiner (2007) through their research pointed that an employee's stress level can be lowered,

if companies provide them with time management trainings. Wanda, Orlikowsly and Yates (2002) had a similar view and stated that increasing competition, excessive workloads and time pressure make employees stressed which can be relieved to a certain extent by time management trainings. Matteson and Ivancevich (1987) ascertained that relaxation is the best form of stress management technique that can reduce work-related stress. Hart (2007) and Kaspereen (2002) noted that employees who participate in relaxation and wellness programmes report lesser levels of work stress than the ones who do not. Improved and open communication may also reduce stress management and if companies commit to employees that they are willing to listen and accept their views and suggestions, employees will be more inclined to take initiatives in the workplace Adkin et al (2002).

Through the various studies mentioned above, it is evident that various stress management trainings have been effective to reduce stress. The study conducted by Bolhari, Rezaeian, Bolhari, and Bairamzadeh (2012) mentioned that there is no significant relationship between employees receiving stress management programmes and the level of occupational stress. Stress management trainings has been criticised for reducing stress for a short period of time and suggested that management must have follow up sessions to observe if the stress management trainings are still effective (Kim et al .2014). Shuttleworth (2004) study stated that the greatest challenge for any stress management training programme is to make sure that the training imparted is transferred back to the workplace and proposed that managers must ensure that regular sessions are held to understand if team members are successfully implementing lessons learnt for the stress management training. Redfern, Rees and Rowland (2008) stated that stress management trainings can provide the best results if all the level within the organisations are a part of it, so that social support can be provided to highly stressed employees.

Looking at real world examples it can be known that many companies have taken initiatives to reduce work-related stress for IT employees. Cognizant organised yoga session for stressed employees along with planning outdoor events such as adventure travels. Tata consulting and Wipro organized

wellness programmes along with planning family day functions. From this it is evident that companies are trying to reduce the effects of work-related stress among employees (Venugopal, 2010).

## **2.7 Conclusion**

The literature review has discussed the definition of work-related stress, causes of work-related stress in general and most importantly has identified key studies that have explored the causes of work-related stress pertaining to the IT industry both overseas and in India. Existing literature in relation to the role of training and development through job related trainings as well as stress management trainings in reducing work stress has been identified. Different causes of work-related stress have been identified such as role conflict, role ambiguity, workload, limited authority and bad management and the researcher feels it would be worthy to investigate if these are the causes of work-related stress among IT employees in Mumbai as India has seen a phenomenal growth in its IT industry. It would also be interesting to investigate the relationship of job related training and stress management trainings with the level of work-related stress.

## **Chapter 3- Research methodology**

### **3.1 Introduction**

This chapter will entail a description of the research process through clearly identifying the research philosophy and approaches, research strategy, sampling technique, data analysing, ethical consideration and limitation. Before doing so the researcher will state the research question and will state the objectives of this study in detail.

### **3.2 Research Question and Objectives**

A research question is formulated to address the research problem. Research objectives help to answer the overall research questions and this study entails one research question supported by three objectives (Saunders et al.2009). The overall research question is 'To study the role of training and development in reducing work-related stress among IT employees in Mumbai, India'.

#### **3.2.1 Objective 1**

*To identify the most prominent cause of work-related stress among IT employees in Mumbai, India.*

The literature review has explored studies which have contributed towards identifying causes of work-related stress among IT employees not only in India, but in different parts of the world. Kumari, Joshi, and Pandey (2014) mentioned that the IT industry is one of the fast growing industries in India due to availability of skilled labour, cost advantage and quality services. Globalisation, increased competition and changing customer demands have led IT employees to be stressed (Padma et al.2015). Keeping these factors in mind, the researcher feels it worthwhile to identify the most prominent cause of work-related according to the participants who were a part of this study.

### **3.2.2 Objective 2**

*To examine if there exists a relationship between job related training received and level of work-related stress.*

The IT industry is growing at a fast past due to continuous technology advancements, this has led IT employees to be stressed as they need to update themselves with the new technologies at all times. Studies have identified job related trainings as a method to reduce stress for IT employees (Jain et al .2003; Pai et al .2012; Agarwal and Ferret,2001; Raghavan et al.2010). On the contrary, Teo and Waters (2002) mentioned that various human resource practices which include trainings has no relationship with the level of work-related stress. Through this objective the researcher can determine if there exists a relationship between job related trainings and level of work-related stress from the information obtained for the sample of IT employees in Mumbai, India.

Null hypotheses (H<sub>0</sub>) - There is no significant relationship between job related trainings and level of work stress.

Alternate hypotheses (H<sub>1</sub>) - There is a significant relationship between job related trainings and level of work stress

### **3.2.3 Objective 3**

*To examine if there exists a relationship between stress management trainings received and level of work-related stress.*

Stress management trainings are known to handle stress, much of the literature explored in this domain states how different techniques such as time management, relaxation and wellness programmes, communication and employee assistance programme have helped employees to reduce their stress levels (Hart, 2007; Kaspereen, 2002). On the contrary studies have mentioned that there is no relationship between stress management trainings and level of work-related stress (Bolhari et al .2012). Keeping these arguments as the focus the author feels that it would be of important to examine whether there exists a relationship between stress management trainings and the level

of work-related stress specifically the participate IT employees in Mumbai, India.

Null hypotheses (H<sub>0</sub>) - There is no significant relationship between stress management trainings and level of work stress.

Alternate hypotheses (H<sub>1</sub>) - There is a significant relationship between stress management trainings and level of work stress.

### **3.3 Research Philosophy and approach**

Research philosophy guides a researcher as to how a research should be conducted (Blumberg, 2008). Saunders, Lewis and Thornhill (2009) stated that the research philosophy consists of three categories which are Ontology, Axiology and Epistemology. Ontology is guided by the nature of reality on the way the world operates and is divided into subjectivism and objectivism (Collins, 2010). Axiology is a philosophy which studies values and ethics (Saunders et al. 2009). Epistemology is the study of the nature of knowledge within a field of study and is divided into positivism, interpretivism and realism (Saunders et al. 2009). The researcher will be analysing the three divisions of epistemology to identify the relevant one for this study.

Positivism is concerned with observing and predicting outcomes, this philosophy adopts a scientific methodology to propose and test theories (Saunders and Tosey, 2012). It undertakes data which is highly structured, and is not influenced by values of the researcher. Large samples of quantitative data along with statistical testing is a major aspect of positivism (Saunders et al. 2009). Interpretivism relates to conducting research amongst people in their natural environment. This philosophy adopts an empathic view and the researcher considers research is value bound unlike positivism and is linked to quantitative research (Saunders and Tosey, 2012). Saunders, Lewis and Thornhill (2009) mentioned data collection and analysis is done through qualitative methods such as in-depth interviews involving a small sample. Realism states that the reality exists independent of the mind. This philosophy to some extent is guided by the researchers own experience. The data

collection and analysis can either be qualitative or quantitative or in some cases both (Saunders et al .2009).

The research approach must be selected in accordance to the research problem and the audience for this study (Creswell, 2014). The research approach is divided into deductive and inductive. The deductive approach refers to development of a theory which is then subjected to rigorous testing whereas the induction approach is when the theory is developed after data has been collected and analyse (Saunders et al. 2009). The deductive approach is associated with being positivist and thus utilises the quantitative research methodology whereas the inductive approach is categorised as being interpretive, thus uses the qualitative research methodology.

### **3.3.1 Rationale for adopting positivism philosophy and deductive approach**

The researcher adopted the positivism philosophy and the deductive approach as this research is not influenced by the researcher's values and contains "working with an observable reality" in this instance work stress in the lives of IT employees in Mumbai, India. The objectives of this study are to examine relationship between variables and would be testing hypotheses which is an integral aspect of positivism and deductive approach. The literature review that has been explored in relation to the study have to undertake the deductive approach to test hypotheses (Bolhari et al. 2012; Raghavan et al .2008; Jain et al .2009).

Quantitative research is when a phenomenon is explained with the help of collecting numerical data which is analysed mathematically (Aliaga and Gunderson ,1999). Objectives are tested by examining the relationship among variables usually through instruments (Creswell, 2014). The sample size is large as compared to qualitative methodology as the larger sample size is needed for meaningful statistical analysis (Creswell, 2014). Qualitative research is undertaken to understand individual or groups experience, attitude, behaviour. It uses an inductive approach, interprets raw data using a flexible structure and generates non-numerical data (Pathak, Jena and Kalra,

2013). Data collection techniques for qualitative research is in-depth interviews and focus group (Saunders et al.2009)

### **3.3.2 Rational for Quantitative research**

As aforementioned by Creswell (2014) quantitative research tests objectives by examining the relationship between variables, this research method would be appropriate for this study, two objectives entails examining if there exists a relationship between variables such as job related trainings, stress management trainings and level of work-related stress. Also the first objective which is to identify the most prominent cause of work-related stress among IT employees in Mumbai, India could be best determined through a large sample size. Moreover, studies in the literature have used quantitative research through surveys (Raghavan et al,2008; Jafari, 2004; Ramesh and Kurian, 2014; Teo and Waters ,2002; Bolhari et al. 2012; Krishnamurthy and Prabakaran ,2015; Kim et al .2014)

### **3.3.3 Alternate approach**

Mixed method or triangulation could be used as an alternate research methodology as it would enhance the researchers understanding in relation to the research problem. Real thoughts and feelings of the participants towards training and development and work-related stress could be understood through in depth interviews and the circulation of questionnaires would allow the researcher to access a larger sample. However, using a mixed method approach could be costly and time consuming (Creswell, 2014)

### **3.4 Research Strategy and choice**

The next three layers which are research strategy, research choice and time horizon are an important aspect of a research design, this will assist the research to address and answer the research question (Robson, 2002). A research design thus can be described as a plan describing how the research question will be answered, which will consist of clear objectives, data collection method, limitations and ethical issues (Saunders et al 2009). A researcher may use a number of research strategies such as case study, survey, experiment, action research, grounded research and ethnography (Saunders et al .2009).

For the purpose of this research, survey would be used as the research strategy. Surveys are a popular and common strategy in management and business research and is usually associated with the deductive approach and the analysis of quantitative data could be done through inferential or statistical data (Saunders et al .2009). The collection of data from a sizeable population in an economical way makes surveys popular (Edwards et al .2002) The choice of using surveys were guided by the literature review, wherein similar studies related to training and development and work-related stress were conducted such as (Jafari,2014; Raghavan, Sakaguchi and Rahaney,2008; Ramesh and Kurian,2012; Sethi, King and Quick, 2004; Moore ,2000; Krishnamurthy and Prabakaran,2015)

#### **3.4.1 Alternate approach**

Bryman (2004) stated that the examination of must be done undertaking qualitative techniques as the reaction to stress is subjective and may differ from one person to another. In depth interviews could be an alternate approach for this research wherein the researcher could ask open ended questions to gain an understanding of work-related stress and role of training and development department in reducing stress from an employee's perspective. However, the author did not take this approach as much of the literature review dictated towards using quantitative research methodology through the use of a survey strategy and the researcher needed a larger sample for achieving the set research objectives.

#### **3.5 Research choice**

Mono method and multiple method is what constitute the research choice. Mono method is when the researcher uses one of the data collection technique along with the corresponding data analysis technique (Saunders et al .2009) whereas multiple method is when the researcher undertakes more than one data collection and data analysis technique (Tashakkori and Teddlie 2003). The researcher used surveys as a data collection technique which included four open ended questions, however majority of the survey yielded quantitative data which would be analysed numerically through SPSS hence mono methods deemed appropriate for this study.

### **3.6 Time Horizon**

The time horizon for a research could be cross sectional or longitudinal. Cross sectional is when a phenomenon is studied during a particular period of time. This is usually done through executing the survey or the case study strategy (Rubin and Babbie, 2009). Longitudinal is when data is collected for a long period of time to answer the research question or the problem which is done through the use of action research, experiment and grounded theory (Hassett and Paavilainen-Mantymaki ,2013). For the purpose of this study, cross-sectional time horizon would be appropriate due to time constraints and also because the researcher is using a survey strategy which is best fit for a cross sectional study.

### **3.7 Data Collection**

To analyse the role of training and development in reducing work-related stress for IT employees in Mumbai, India primary and secondary research was conducted. Secondary research was undertaken first, followed by primary research. The instrument used involved a survey -questionnaire which contained questions relating to training and development along with work-related stress.

#### **3.7.1 Secondary research**

Secondary research establishes what previous work has been established in particular area. Secondary data can be obtained from journal articles, government publications, reports and research organisations (Saunders et al .2009). For the purpose of this research, existing work on training and development and work-related stress relating to the IT employees was reviewed and critically analysed.

#### **3.7.2 Primary research**

The primary data for this research was through surveys- questionnaires. Self-administered questionnaires were sent to IT companies in Mumbai, India. This type of questionnaire is administered electronically using the internet (Saunders at al 2009). The questionnaire was designed using lime survey

which is an online survey application that allows users to develop, publish and collect data from their survey.

### **3.7.3 Procedure**

The data collection began after reviewing the secondary data. Primary data was collected through self-administered questionnaires. In order to do so the researcher had initially contacted IT companies in Dublin however, all the companies contacted denied to be a part of this study. The researcher then decided to collect data from companies in Mumbai, India. The researcher visited Mumbai and through her contacts in the IT companies, contacted the HR teams. Five small-medium sized companies gave their consent to be a part of this study. The researcher explained the research aims and objective to the concerned people, and did mention that the name of the company or the employee would not be disclosed and stated that anonymity would be maintained. After the survey was ready, emails with the survey link was sent to all the agreed IT companies in Mumbai, who would circulate this link to the IT employees. The survey link was sent on the 25<sup>th</sup> July 2016 and the companies were told that two weeks would be given for employees to complete this survey. Once all the surveys were returned the data was stored on the researcher's personal device and was security coded as the researcher wanted to make sure that confidentiality of the data would be maintained at all times.

### **3.7.4 Sampling**

There are two types of sampling which is probability and non-probability sampling, probability sampling or representative sampling is generally associated with survey based research strategies. Each member of the population has equal chances of being selected for the research (Quinlan,2011). Non probability sampling is when cases that are selected from the total population are not known and may not be able to answer research aims and objectives which require statistical analysis (Jani,2014)

This research will be using the non-probability sample in particular convenience sampling. This type of sampling technique involves selecting

people that are the easiest to obtain for a given research, this technique is less time consuming and economical (Kelley et al .2003). The researcher used her existing contacts who were IT employees in Mumbai to gain access to the HR departments. Five small -medium sized IT companies to be a part of this discussion.

A total of 120 questionnaires were sent, out of which 103 were completed and 17 were incomplete. The number of female participants were 47 and male participants were 56 (Appendix A, table 2). In terms of the age of the participants 91 were between the age groups of 22 to 30 years and 12 were between the age groups of 31 to 39 years (Appendix A, table 2).

### **3.7.5 Alternate sampling technique**

The researcher agrees that probability sampling technique would have been a more appropriate which could be used to provide generalisability of the results however, the researcher did not have resources to access the whole population of employees in the IT industry.

### **3.7.6 Instrument**

The survey questionnaire is divided into three parts with a total of 40 questions. The three sections are namely demographics, training and development participation and lastly the stress diagnostic survey. The whole survey questionnaire is attached to the appendix along with the consent form (Appendix E)

#### Cluster 1- Demographics

This sections contains questions relating to age, gender, position and number of years in the organisations.

## Cluster 2 – Training and development participation

This section entails open ended questions relating to the number of job related training and stress management trainings received. This information will allow the researcher to examine the relationship between the trainings received and the level of work-related stress.

## Cluster 3- Stress Diagnostic Survey

This survey is developed by Ivancevich and Matteson in 1980 (Chireshe and Mapfumo, 2003). Matteson (1986) mentioned in her study that over 3400 employees have answered different versions of the stress diagnostic survey and the majority of the participants were nurses, managers, information system personnel, clerical employees and technicians. Larson (2004) also used the stress diagnostic survey in her research and mentioned that this instrument's greatest advantage is that it is designed to areas in a job that contribute high level of stress rather than just providing an overall scale to measure work stress.

This instrument consists of 30 questions under six categories namely role ambiguity, role conflict, quantitative role overload, qualitative role overload, career development and responsibility for people. The respondent is supposed to mark a number from 1 to 7, 1 being never a source of stress and 7 being always a source of stress (Larson, 2004). The highest score that can be achieved is 210 and the lowest is 30.

Scoring of the stress diagnostic survey is done through scoring key wherein each item of the questionnaire is associated with an individual -level stressor. The role ambiguity items are 1, 7, 13, 19 and 25. Role conflict items are 2, 8, 14, 20 and 26. Quantitative role overload items are 3, 9, 15, 21 and 27. Qualitative role overload items are 4, 10, 16, 22 and 28. Career development items are 5, 11, 17, 23 and 29. Responsibility for people items are 6, 12, 18, 24 and 30. Items under each dimension must be added to derive the score of that particular stressor. After which all the six dimensions must be added to derive the total score whose interpretation is that if the total less than 10 indicates

low level of stress, moderate levels of stress are indicated if the total score is between 10 and 24 and high levels of stress when the total score is above 25 (Caponetti, 2012)

The rationale behind using the stress diagnostic survey is because it has been widely used across a number of professions to measure work stress such as internal auditors, agricultural employees, mental healthcare workers and nurses. (Larson ,2004; Caponetti, 2012; Ankih and Lowies ,2014; Madsen, 1986;). Most importantly it measures stress with the use of dimensions such as role conflict, role ambiguity and workload which has identified as the causes of stress in the literature review. Caponetti (2012) mentioned that the overall consistency of the scale using Cronbach's alpha was .924. The researcher explored alternate surveys too, such as sources of work factor stress (Hystad et al ,2011), job strain (Wong and Lin, 2007) work-related stress scale (Triplett and Scarborough,1999). Out of these the researcher first decided to use the work-related stress scale however, while reading the scale it was noticed that that there were no mentions about how to the scale items were to be ranked and measured. The researcher also noticed that majority of the scale was adopted from Ivancevich and Matteson (1988) stress diagnostic survey and hence to review this scale and noted that this scale would be best fit for this study.

### **3.8 Data analysis**

The data would be would be transferred from lime survey to SPSS (Statistical Package for Social Scientists) version 22 for data analysis. All the items would be coded in order for them to be analysed. The researcher will firstly conduct a scale reliability test to determine the Cronbach Alpha which should ideally range between 0.70 and 1.0 (Saunders et al. 2009). Means of the scale components will be calculated and compared to obtain the first objective. Following to this a test of normality will be done for objective 2 and 3 to determine if data is normally distributed or has deviated from normality. Conducting this test will determine if this research will follow parametric or non-parametric analysis approach. If the statistical significance value is more than 0.05 it would mean that the data is normal and would undertake parametric

test, however if this value is below 0.05 it would mean that the data has deviated from normality. Since objective 2 and 3 need to examine relationships between variables, correlation analysis will be done and will also be presented through scatter plots. If the statistical significance value in the correlation is below 0.05, it would mean that it is statistically significant, however if this value is above 0.05 it would mean that there is it statistically insignificant.

### **3.9 Ethical consideration**

This research entails human participation through survey, which directs to the fact that there would be the need of ethical consideration. The researcher followed the guidelines stated by National College of Ireland. The companies and the employees would have concerns about how the data will be stored and used. The companies would have three major concerns which is the sensitivity of the topic, time taken to complete the topic and the confidentiality of the data. For the purpose of this the researcher did mention that the name of the company and the participants name will be completely confidential and anonymity will be maintained at all times and that the survey will not take more than 10 minutes. The permission was received from the organisation however, answering the survey was based on the employee's discretion. If the employee felt that this survey was personal and sensitive, he/she were given the option to withdraw from answering the survey.

### **3.10 Limitations**

There are limitations to both qualitative as well as quantitative methodology. The limitation of positivism philosophy is that there could be inaccuracy in the data collected if the participants provided random answers instead of authentic response. This philosophy would not allow flexibility as the positivist researchers believe that everything can be measured and calculated (Johnson and Onwuegbuzie, 2004). The researcher used survey- questionnaires and the limitation associated with them is that predetermined questions in the survey cannot be elaborated further. There are also limitations associated with the time taken to complete the survey, longer questionnaire may reduce response rate when compared to shorter questionnaires (Edwards et al. 2002).

There are also a few open ended questions to understand training and development participation and open ended questions often tend to be ignored by participants which reduces the overall response rate. To overcome the shortcomings of quantitative research methodology, a mixed method approach could be used however due to time constraints was not. Convenience sampling was used and the limitation of this type of sampling method is that it may be biased and may not guarantee a representative sampling (Gravetter and Forzana, 2012). However, the researcher ensured that only IT employees in Mumbai were a part of this study.

## Chapter 4- Findings

### 4.1 Introduction

This chapter will analyse the findings of the quantitative research carried out. All the objectives will be discussed but before that a test for scale reliability will be conducted followed by test of normality and correlation analysis.

### 4.2 Scale reliability result for Stress diagnostic survey

This section will test the scale used in this study for its reliability. Table 3 and Table 4 represent the reliability test for the stress diagnostic survey scale. There were 103 valid responses out of a 120 across 30 items. A Cronbach reliability value of .948 has been achieved. After conducting this test, the 17 responses that were incomplete were excluded from the study to conduct the other tests.

		N	%
Cases	Valid	103	85.8
	Excluded <sup>a</sup>	17	14.2
	Total	120	100.0

a. Listwise deletion based on all variables in the procedure.

*Table 3- Case processing summary for scale reliability test*

Cronbach's Alpha	N of Items
.948	30

*Table 4- Result of Cronbach's Alpha*

### 4.3 Objective 1

The first objective is to identify the most prominent cause of work-related stress among IT employees in Mumbai, India amongst factors such as role ambiguity, role conflict, quantitative work overload, qualitative work overload, career development and responsibility of people. To do so the mean value of each component of the scale was calculated and compared. Table 5 depicts the results of the compared means and the results are as follows quantitative work overload ranked the highest with mean of 20.45, role conflict 18.47, quantitative work overload 17.30, career development 16.94, role ambiguity 15.47 and responsibility for people 15.71.

	Role Ambiguity	Role Conflict	Quantitative work overload	Qualitative work overload	Career development	Responsibility for people
Mean	15.74	18.42	20.45	17.30	16.94	15.71
N	103	103	103	103	103	103
Std. Deviation	5.48	6.27	6.89	6.23	6.92	6.62

*Table 5- Compared means of scale components*

To further analysis which was the prominent cause of work-related stress within quantitative role overload, all the questions within this section were compared for their mean value. Table 6 represents that the compared mean values for the questions within quantitative work overload. The mean value of the questions are as follows "I have to take work home in the evening or on the weekends stay caught up" is 4.35, "I spend too much time in unimportant meeting that take me away from work" is 4.01, "I am responsible for an almost unmanageable number of projects or assignments at the same time was 3.71,"

I simply more work to do than can be done in an ordinary day” and lastly “I feel that I don’t have time to take an occasional break” is 4.45.

	I have to take work home in the evening or on weekends stay caught up	I spend too much time in unimportant meeting that take me away from my work	I am responsible for an almost unmanageable number of projects or assignments at the same time	I simply have more work to do than can be done in an ordinary day	I feel that I just don’t have time to take an occasional break
N	103	103	103	103	103
Mean	4.35	4.01	3.71	3.94	4.45

*Table 6- Mean value of questions within quantitative work overload*

Mean values of questions under each component questions each are present in Appendix B from table 7-11. The bar graph percentage for response for each question is present from figure 3 to 32 in Appendix B.

#### **4.4 Objective 2**

To examine if there exists a relationship between job related trainings and level of work-related stress

##### **4.4.1 Test of Normality**

The second objective for this study is to examine if there exist a relationship between the numbers of job related trainings received and work-related stress. Prior to testing this objective, a test of normality must be conducted as it is the precondition of statistical testing in order to analysis if the data set is distributed normally or not (Saunders et al.2009). The Shapiro-Wilk will be considered for the test normality and this test mentions that if the statistical significance value is greater than 0.05 the data is normally distributed. Looking at table 12 it can be noted that the data for number of job related trainings have deviated significantly from normality as  $p < 0.05$  ( $W = .779$ ,  $df = 103$ ,  $p = .000$ ) and for the level of work-related stress it could be assumed that the data is normally distributed as  $p > 0.05$  ( $W = .984$ ,  $df = 103$ ,  $p = .250$ )

Variable	Shapiro -Wilk		
	Statistics	df	Sig.
1) Number of job related trainings	0.779	103	.000
2) Level of work- related stress	0.984	103	.250

*Table 12- Result of Shapiro-Wilk test of normality*

The test of normality obtained from SPSS is present in Appendix C, table 13. The descriptive statistics is present in Appendix C, table 14.

Histograms can be another way to interpret visually if the data is normally distributed or not. From the figure 33 which represents the histogram for number job related trainings, it could be noted there is not a bell shaped curve, rather shows a distribution which is skewed to the right which indicates that the data is not normally distributed. Figure 34 presents the histogram for the level of work-related stress and it can be known that there to some extent is a bell- shaped curve with peaks which indicated that the data is normally distributed

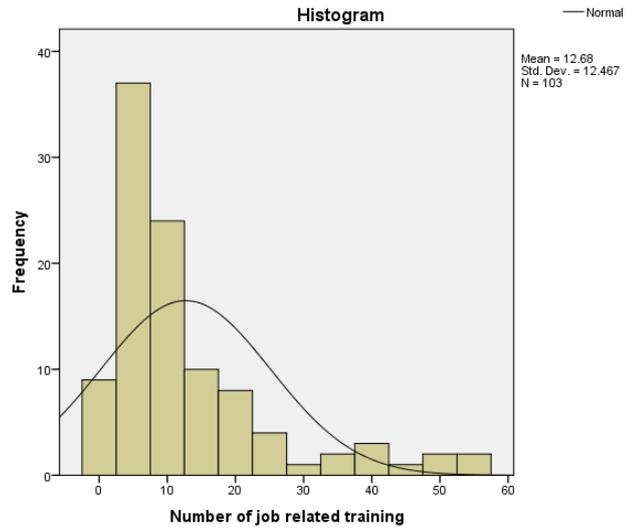


Figure 33- Histogram for number of job related training

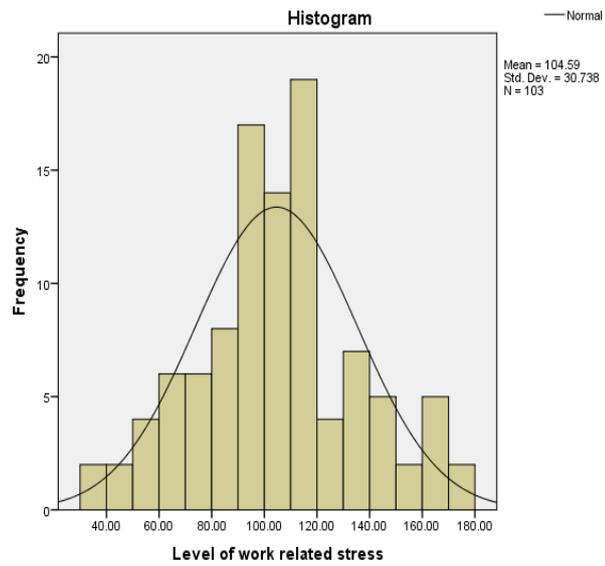


Figure 34- Histogram for level of work-related stress

#### 4.4.2 Correlation analysis

After testing for normality, the second objective can be tested for correlation. To do so the Spearman's rank order correlation has been used as number of job related training is continuous data on an interval scale and level of work-related stress is measured through an ordinal scale. The correlation coefficient's value can be between -1 representing perfect negative correlation and +1 representing perfect positive correlation. Table 15 represents the correlation between the number of job related trainings and level of work-related stress. The correlation coefficient represents the strength of the relation which in this case is very weak but positive ( $r=.173$ ), degrees of freedom is 103 and the significance value ( $p$ ) is .086 ( $r=.173$ ,  $df= 103$ ,  $p=.081$ ). Hence, no correlation could be found between job related trainings and level of work-related stress since the correlation is insignificant ( $p > 0.05$ ).

Number of job related training		Level of work-related stress
	Correlation Coefficient	.173
	Sig. (2-tailed)	.081
	N	103

*Table 15- Result of Spearman's rank correlation*

While this correlation is insignificant, the researcher decided to interpret this relationship through a scatter plot. Figure 35 represents the scatter plot, the horizontal axis represents the number of job related training which ranges from 0 to 60, the vertical axis represents the level of work-related stress which ranges between 30 to 210. The trend line is a very weak positive upward slope and through this it can be said that when there is a slight increase in the number of job related, the level of work-related stress also increases slightly which shows that there is a positive relationship however, since no clear

pattern can be formed to see the best fit for the trend line it can be said that there is no correlation between number of job related trainings and the level of work-related stress.

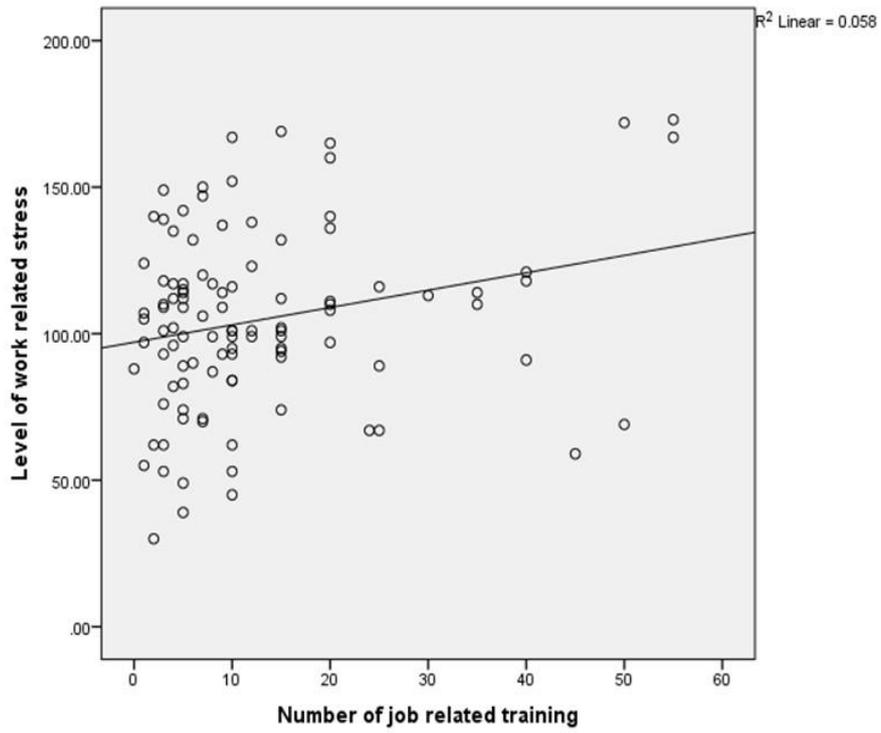


Figure 35- Scatter plot for correlation between job related trainings and level of work-related stress

### 4.5 Objective 3

To examine if there exists a relationship between stress management trainings and level of work-related stress

#### 4.5.1 Test of Normality

Table 17 the test of normality for number of stress management trainings and level of work related stress. The results will be stated based on the results obtained from the Shapiro-Wilk test of normality. The data from the number of trainings has deviated from normality as  $p < 0.05$  ( $W = .825$ ,  $df = 103$ ,  $p = .000$ ) The test of normality for the level of work-related stress as been already mention in the first objective .

Variable	Shapiro -Wilk		
	Statistics	df	Sig.
1) Number of stress management trainings	0.825	103	.000
2) Level of work- related stress	0.984	103	.250

*Table 17 -Result of Shapiro-Wilk test of normality*

As per the histogram, it can be noted that in figure 36 which represents the histogram for number of stress management trainings it can be noted that it does not have a bell shaped curve, instead it is skewed to the right which depicts that the data is not normally distributed. The results for the level of work-related stress present in figure 37 shows a bell shaped curve with a few peaks nonetheless, it can be assumed that the data is normally distributed.

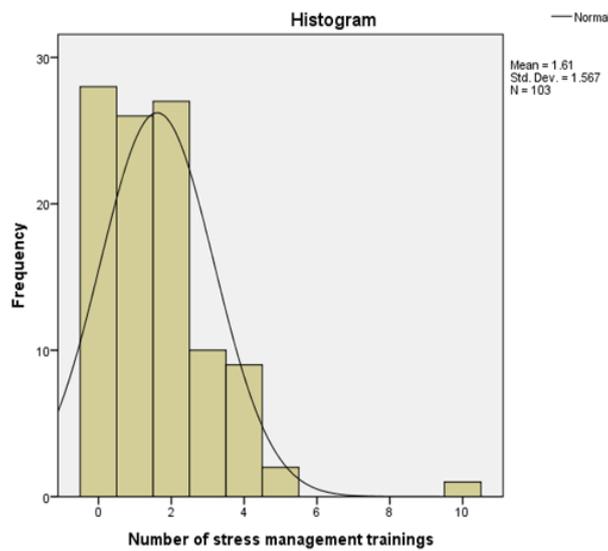


Figure 36 - Histogram for stress management training

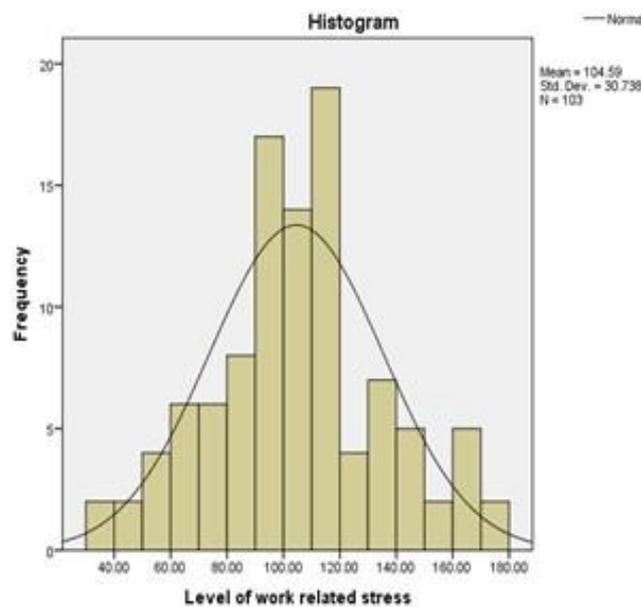


Figure 37 – Histogram for level of work-related stress

#### 4.5.2 Correlation analysis

The Spearman's rank correlation has been used as the number of stress management training is continuous data on an interval scale and the level of work-related stress is measured through an ordinal scale. Table 20 represents the correlation between the number of stress management trainings and the level of work-related stress. The correlation coefficient (r) represents the strength of the relationship and in this case a very weak but positive correlation coefficient, degrees of freedom is 103 and significance value (p) is .025 ( $r=.220$ ,  $df=103$ ,  $p=.025$ ). Hence there is a statistically significant correlation between the number of stress management training and level of work-related stress as  $p<0.05$ .

Number of stress management training		Level of work-related stress
	Correlation Coefficient	.220*
	Sig. (2-tailed)	.025
	N	103

\*Correlation is significant at 0.05

*Table 20- Result for Spearman's rank correlation between number of stress management training and level of work-related stress*

#### 4.6 Summary of key findings

This chapter addressed the key findings of this study that was obtained from the survey. The mean values of the subscales were calculated and compared to each other to attain the highest mean for the first objective. For the second objective a correlation could not be found between job related training and level of stress as the relationship was not statistically significant. The result of the third objective was that there is a statistically significant correlation between stress management trainings and level of stress. The results obtained would be interpreted in the following chapter.

## **Chapter 5- Discussion**

### **5.1 Introduction**

This chapter will discuss in detail the results obtain and will compare it with the literature that has been explored to understand if there are any similarities or contradictions. Practical implications along with limitations of the study will be mentioned.

### **5.2 To identify the prominent cause of work-related stress**

The stress diagnostic survey consisted of 30 questions divided into 6 components known as role ambiguity, role conflict, quantitative work overload, qualitative work overload, career development and responsibility for people. From the components, quantitative work overload had the highest mean value of 20.45 and the second highest mean value of 18.42 was obtained by role conflict. From this result it could be said that the participants scored the highest on the quantitative work overload component in the stress diagnostic survey scale followed by role conflict. Also there was not much difference between the mean values of role ambiguity (15.74) and responsibility for people (15.71).

The mean values of all the 5 questions within quantitative role overload were compared and it was noted that the question “I feel that I just don’t have the time to take an occasional break” had the highest mean value of 4.45. 30 participants ranked this question as “Often a source of stress” and 22 participants ranked it as “Usually a source of stress”. The question “I have to take work home in evening or stay caught up in the evenings” received the second highest mean value of 4.35. It would be worthwhile to compare this finding with the international research and research done in India on work-related stress among IT employees.

The current finding of the most prominent cause of work-related stress supports the international research. Li and Shani (1991) identified work load followed by role conflict as the major source of stress among 109 IT managers in the United States and the current study too had the same result. However, the current finding was not only obtained by researching on a particular position like in the study of Li and Shani (1991) but included different positions

within an IT company. Considering a more recent research by Kaplan and Lerouge (2007) and Shrosphire and Kadlec (2012) mentioned that IT employees are stressed due to reasons such as unrealistic schedule, off hour work and continuously performing work with little or no room for error. This findings of this study was similar to the current study's findings as the participants scored high on questions such as "I feel that I just don't have the time to take occasional break" followed by "I have to take work home in evening or stay caught up in the evenings"

The current finding of the study was then compared to studies done in different parts of India in relation to work-related stress among IT employees and similarities were found. Various studies (Aziz, 2003; Pattnaik and Misra (2015); Krishnamurthy and Prabakaran;2015) mentioned that long working hours, heavy workload and role conflict as causes of work-related stress which was a major finding in the present study too. Drawing attention to the study of Raghavan, Sakaguchi and Mahaney (2008) who mentioned that results of their study would be applicable to organizations only employing more than 100 IT employees and concluded that the causes of work-related stress is due to workload and role ambiguity. Similarities of results were found as the participants had scored the highest on the quantitative work overload component.

### **5.3 To examine if there exist a relationship between number of job related trainings and level of work-related stress.**

The Spearman's correlation result suggests that correlation between the number of job related trainings and the level of stress is not significant as the  $p > 0.05$ . As per the scatter plot results, it could be said that there is no correlation between the number of job related trainings an employee receives and the level of work-related stress as no clear trend line can be formed.

The study in the literature review mentioned that there is a negative significant relationship between work stress and training and skill development, that is when trainings are imparted an employee's stress level decreases (Imitaz and Ahmad,2015). Other few studies also contributed to this view and identified that if IT employees are provided with on the job trainings, work stress could

be reduced (Raghavan et al .2008; Pai et al. 2012; Giga et al. 2003). On the other hand Teo and Waters (2002) mentioned that even though there was a high number of human resources practices such as training, promotional opportunity, pay systems and stress management interventions being followed, the stress levels of employees were not affected implying that there was no correlation between human resource practices and occupational stress .The finding of the current study support the above study that there is no correlation between job related training and level of work stress . But from a statistical perspective, the results of this present study cannot be compared to other studies as the correlation was not significant.

#### **5.4 To examine if there exists a relationship between number of stress management training and level of work stress**

The Spearman's correlation result suggests there is a statistically significant correlation between stress management training and level of work-related stress. The strength of this correlation was weak positive. A positive correlation would mean that when the horizontal axis variable increases, the vertical axis variable would also increase. In this case it would mean that when there is an increase in stress management training, the level of stress also increases. This result obtained is contradicting to studies in the literature review.

The study of Bolhari, Rezaeian, Bolhari and Bairamzadeh (2012) stated there is no significant relationship between stress management trainings and the level of work-related stress however, the result of this study stated that there is a statistically significant relationship between stress management training and the level of work-related stress. Other studies stated that different stress management technique trainings such as time management, relaxation and communication can reduce the level of work-related stress (Michie and Willams ,2003; Hart ,2007; Kaspereen ,2002; Wanda, Orlikowsly and Yates, 2002). On the other hand, stress management trainings are criticized stress management trainings to reduce stress only for a short period of time, this could be applied to the result of this study and it could be assumed that even though employees had received stress management trainings the effects of it

was not sustained for a long period of time and hence their stress levels were high.

The study done by Shuttleworth (2004) stated that the greatest challenge for any stress management training programme is to make sure that the training imparted is transferred back to the workplace and proposed that managers must ensure that regular sessions are held to understand if team members are successfully implementing lessons learnt for the stress management training. In the present studies result it could be noted that even though stress management trainings were increasing, level of stress was also increasing hence an assumption could be made that may be the employees are not transferring what they have learnt back to their actual workplace or there could be a possibility that there are no sessions being held to ensure if the stress management trainings have been effective. An interesting insight was that 63.1% of the participants mentioned that these trainings were mandatory and 36.9% of the participants mentioned that these training were voluntary (Appendix D, table 22). It could be assumed that because these trainings were mandate, employees attended them without actually transferring back the lessons learnt to their workplace.

### **5.5 Limitation of the study**

The first and the most important limitation of this study was a correlation could not be found for the second objective as the correlation was insignificant. The researcher assumes that this must have occurred due to a sampling error as convenience sampling was used with a total response of 103 responses. A greater sample size along with a probability sampling which is more of a representative sampling would have acted as a better platform for statistical testing. Along with surveys, in-depth interviews with IT employees would assist in better understanding of employee's thoughts about whether trainings have in any way affected the levels of stress. The sample consisted of 88.3% of employees between the age group of 20-30 years and 11.7% of employees between the age group of 31-40 years, it could be said that only a glimpse could be provided of the level of work stress between the age group of 31-40

years. The researcher felt that having more participants under this age group could have led to better results.

## **5.6 Conclusion**

The key finding of the three objectives have been discussed in detail. Participants scored highest on the quantitative work overload component for objective 1 , this result supported the literature review .The second objective the correlation could not be found as it was insignificant , but as per the scatter plot it could be said that there was no correlation between the job related training an employee receives and the level of stress .Lastly for the third objective there was a statistically significant relationship between stress management training and level of work stress which a weak but a positive relationship, this result supported and also contradicted studies in the literature review .

## **Chapter 6- Conclusion and Future Recommendation**

This research was undertaken to study the role of training and development in reducing work-related stress among IT employees in Mumbai, India. A significant amount of research has been conducted on work-related stress across different professions. The researcher for this study not only explored research done in India in relation to work-related stress among IT employees in but also looked that the various causes of work-related stress present overseas. Secondly, to examine what role does training and development play in reducing stress was researched through exploring literature in relation to how job related training and stress management trainings can be used as effective tool to reduce stress. Three objectives were established which was to identify the most prominent cause of work-related stress, examining if there exist a relationship between job related trainings and level of work-related stress and lastly to examine if there exist a relationship between stress management trainings and level of work-related stress. To achieve these objectives, the researcher sent surveys to five small-medium sized IT companies and had 103 responses.

The Indian informational technology industry is changing at a fast pace due to advancements in technology. The literature stated that IT employees are stressed due to various reasons such as heavy workload, pay, bad management, inadequate resources, lack of career development opportunities, role conflict and role ambiguity. The first objective identified quantitative work overload followed by role conflict as the most prominent cause of work-related stress among IT employees in Mumbai, India. Questions such as “I feel that I just don’t have the time to take an occasional break” had the highest mean value of 4.45 wherein 30 participants ranked this question as “Often a source of stress” and 22 participants ranked it as “Usually a source of stress”. The results obtained in this study was similar to what had been explored in the literature review and it could also be noted that the causes of work stress which is workload present in larger IT companies as found by Raghavan, Sakaguchi and Mahaney (2002) was also present in small-medium sized companies that were a part of this study. From the above results it could

be said that workload is one the reasons that because work-related stress of IT employees in Mumbai, India. The management of the various IT companies can introduce flexible working hours, responsibility to manage own work and realistic deadline to tackle this issue.

The second objective's result was not statistically significant which made it impossible for the researcher to interpret the results and no conclusions could be made in regards to if there exists a relationship between job related trainings and level of work-related stress. Interestingly the results obtained from the scatter plot was not supporting majority of the literature review. The trend line in the scatter plot result suggested a weak upward sloping line, which meant that when there was a slight increase in number of job related trainings increases the level of work-related stress also increase slightly however, no was clear pattern formed which meant that there is no correlation between job related trainings received and the level of stress. The literature review on the contrary stated that job related trainings can reduce the level of work-related stress of IT employees as IT as an industry is constantly changing with the advent of new technology. With the results obtained from the scatter plot, various question arise such as are the job trainings received being successfully transferred back to the work environment as according to the results obtained from the sample employees receiving more number of job related trainings were stressed equally or more than employees who were receiving lesser job related trainings.

The third objective's result stated that there was a statistically significant relationship between the level of stress management training. The strength of this relation was a weak positive strength, which meant that when there is a slight increase in the number of stress management trainings, the level of work-related stress also increased slightly. It was concluded that this result did not support the literature review that stated that stress management trainings such as time management, communication and relaxation programmes reduced work-related stress. Through the result obtained from this sample that, the level of work stress was increasing with the increase in the number of stress management trainings questions arise as to whether these training

are successfully being transferred back to the workplace or no this supports one of the study mentioned in the literature review that states the greatest challenge for any stress management training is it to make sure that the trainings have been successfully transferred back to the workplace.

### **6.1 Future research possibility**

This research limits itself to IT employees in Mumbai, India and the results obtained through this study may not be applicable to other parts of India, different professions or large sized organisations considering the different dynamics involved. The main aim of this research was to study the role of training and development to reduce work-related stress among IT employees and to obtain an answer to this research question, the researcher examined if there exist a relationship between job related trainings, stress management training and the level of work-related stress. Future research could also explore the relationship between gender, age and length of service with the level of work-related stress.

This research was undertaken using quantitative research methodology with the use of surveys, a qualitative methodology through in-depth interviews along with this surveys could provide a much detailed understanding to this study. Moreover, future research could consider having a larger sample size consisting of the representative population which in turn could provide better grounds to obtain statistical results.

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## Appendices

### Appendix A

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	47	45.6	45.6	45.6
	Male	56	54.4	54.4	100.0
	Total	103	100.0	100.0	

Table 1- Case processing for frequency for gender

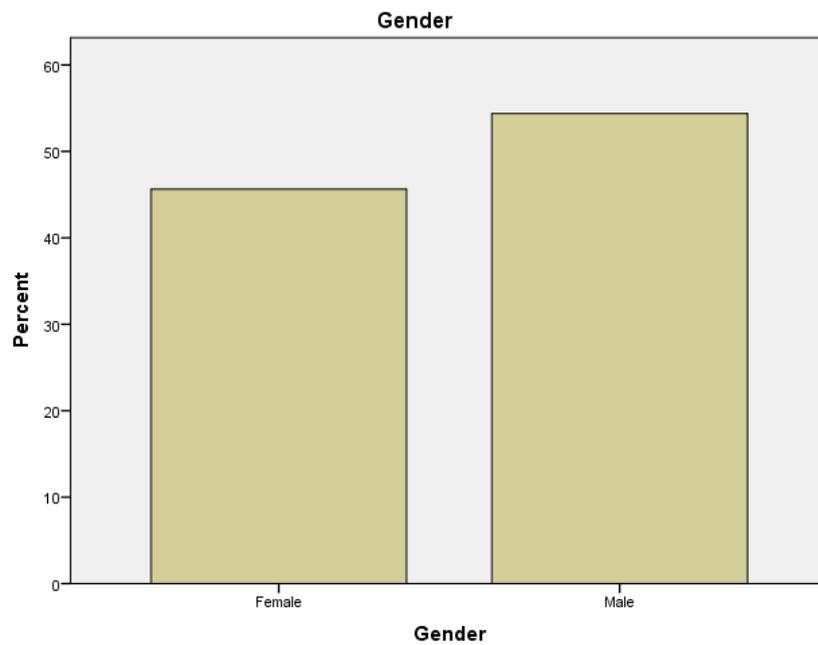


Figure 1-Bar Chart with percentage of female and male participant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30 years	91	88.3	88.3	88.3
	31-40 years	12	11.7	11.7	100.0
Total		103	100.0	100.0	

Table 2- Case processing summary for frequency of age

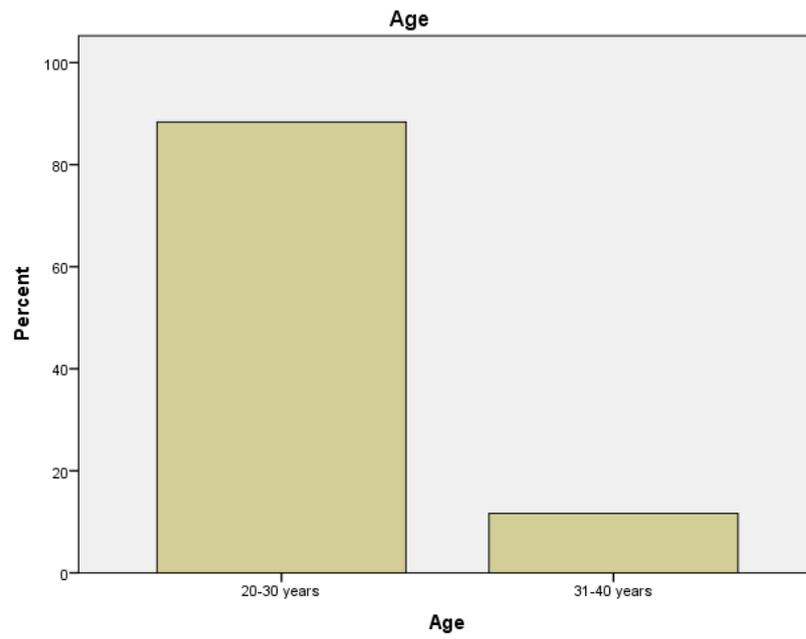


Figure 2- Bar chart with percentage of age

## Appendix B

This appendix will consist of the means values of questions within each component. Bar graphs are also present to highlight the percentage for each question

		Statistics				
		My job duties and objectives are unclear to me	I am unclear about who I report / or who reports to me	I lack the authority to carry out my responsibilities	I do not fully understand what is expected from me	I do not understand the part my jobs plays in meeting the overall organisational objectives
N	Valid	103	103	103	103	103
	Missing	0	0	0	0	0
Mean		3.16	2.55	3.68	3.34	3.02

Table 7- Compared mean value for questions within Role Ambiguity

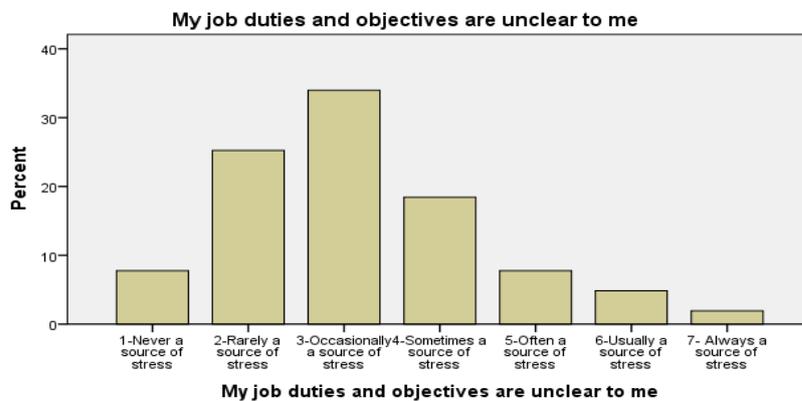


Figure 3- Bar chart representing percentage of score for this question

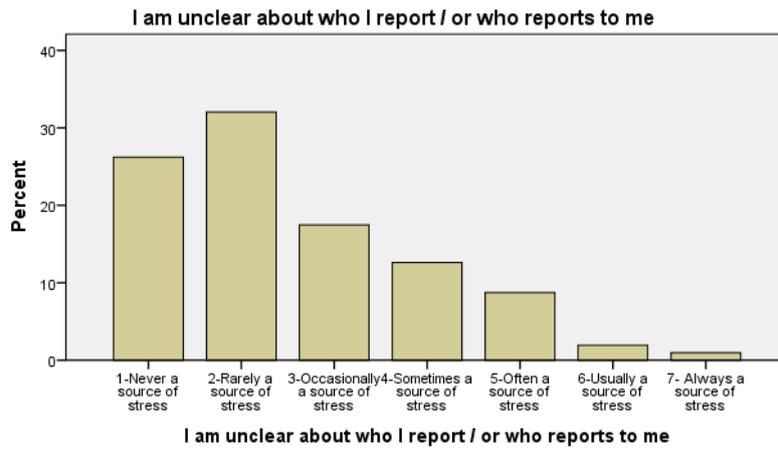


Figure 4 – Bar chart representing percentage of score for this question



Figure 5- Bar chart representing percentage of score for this question

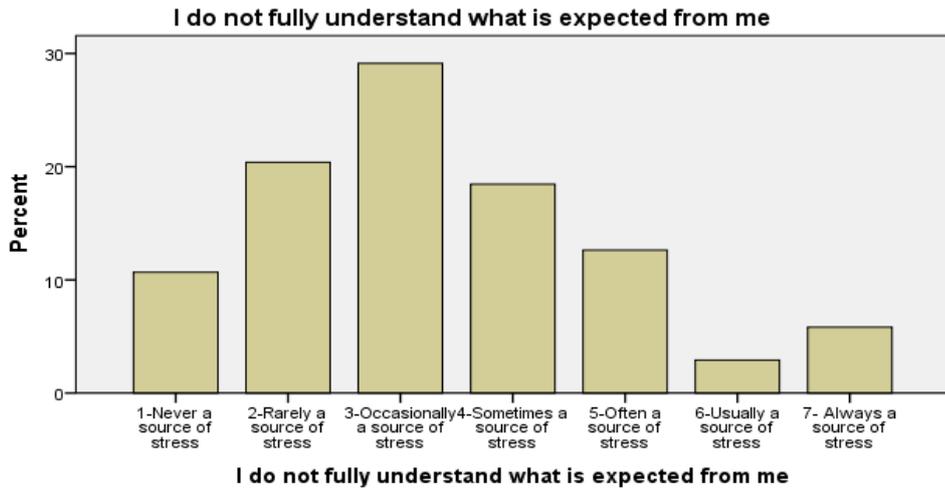


Figure 6- Bar chart representing percentage of score for this question

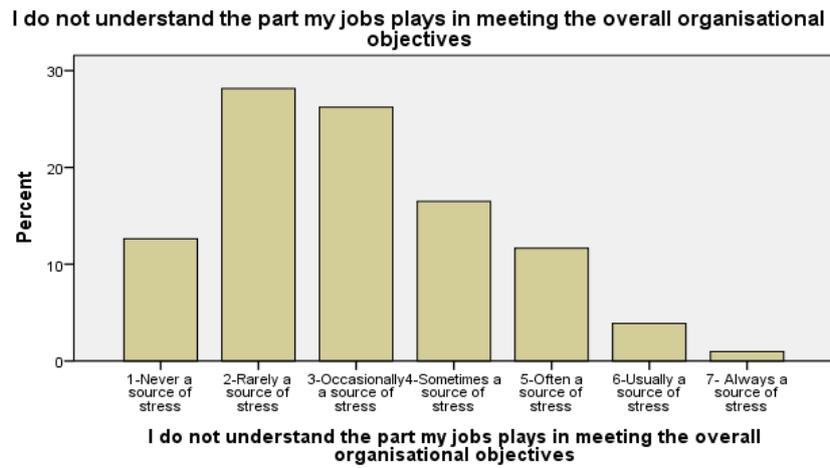


Figure 7- Bar chart representing percentage of score for this question

## Mean value for Role Conflict

**Statistics**

		I work on unnecessary tasks or projects	I get caught in middle between my supervisors and my subordinates	The formal chain of command is not adhered to	I do things on the job that are accepted by one person and not by others	I receive conflicting requests for two or more people
N	Valid	103	103	103	103	103
	Missing	0	0	0	0	0
Mean		3.92	3.74	2.98	3.75	4.04

Table 8- Compared mean value for questions within Role Conflict

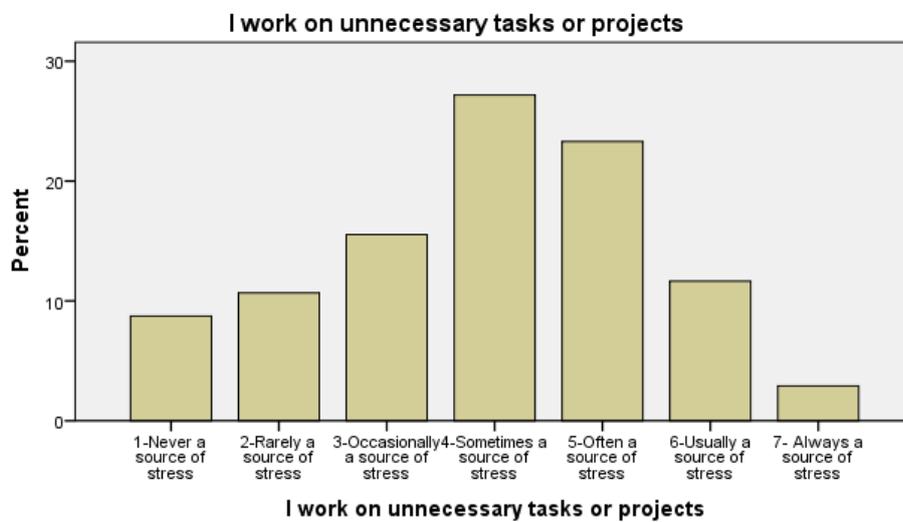


Figure 8- Bar chart representing percentage of score for this question

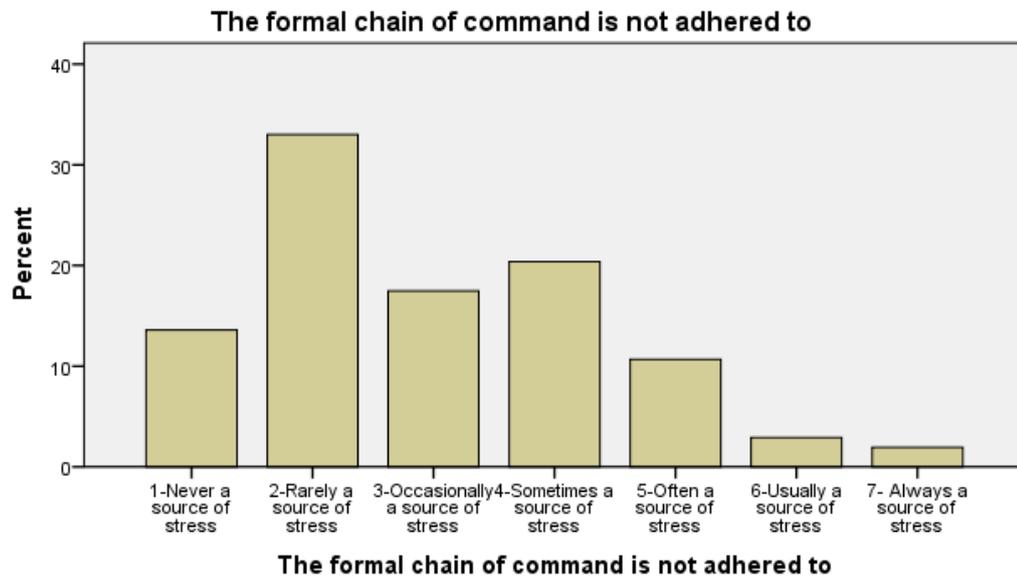


Figure 9- Bar chart representing percentage of score for this question

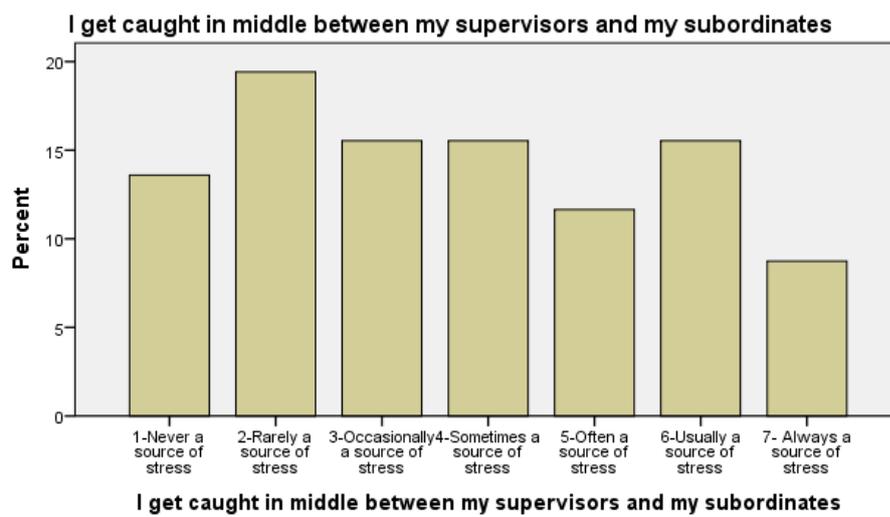
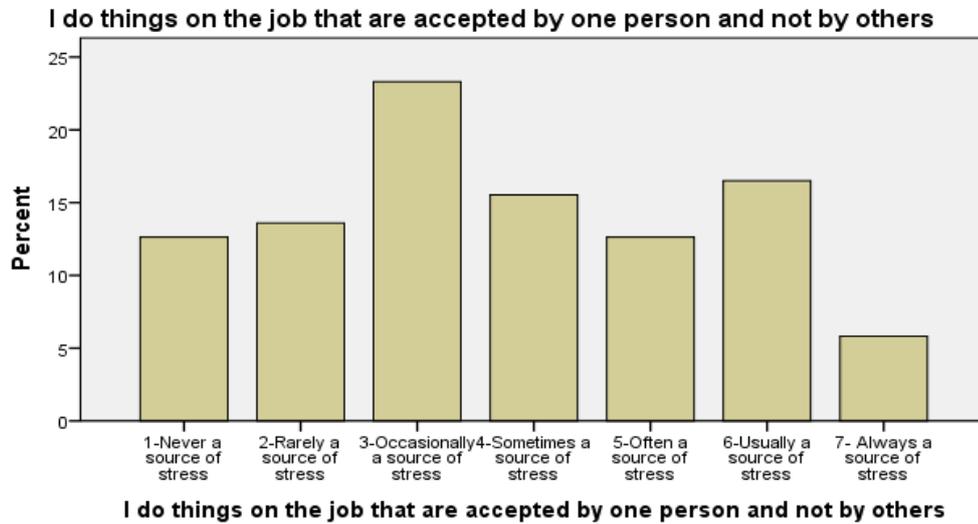
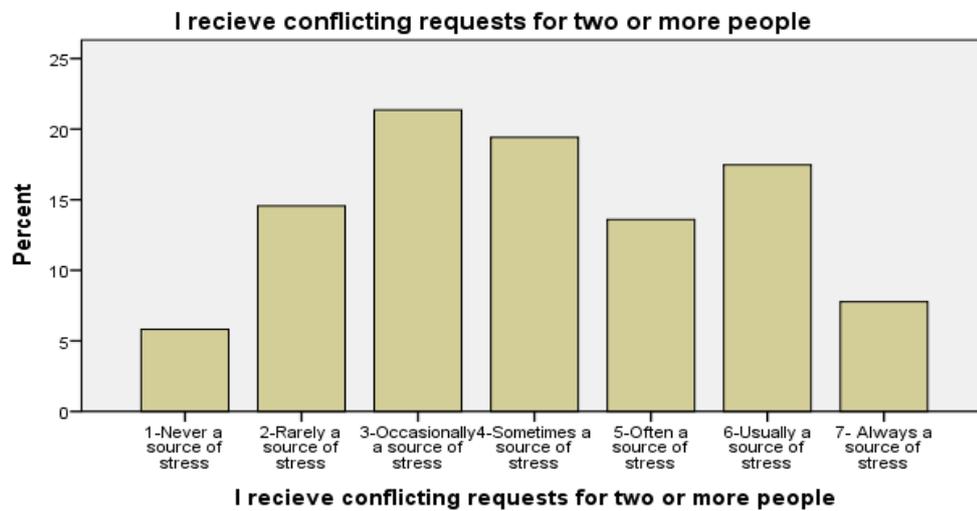


Figure 10- Bar chart representing percentage of score for this question



**I do things on the job that are accepted by one person and not by others**

*Figure 11- Bar chart representing percentage of score for this question*



**I receive conflicting requests for two or more people**

*Figure 12- Bar chart representing percentage of score for this question*

Bar graph for questions under Quantitative role overload

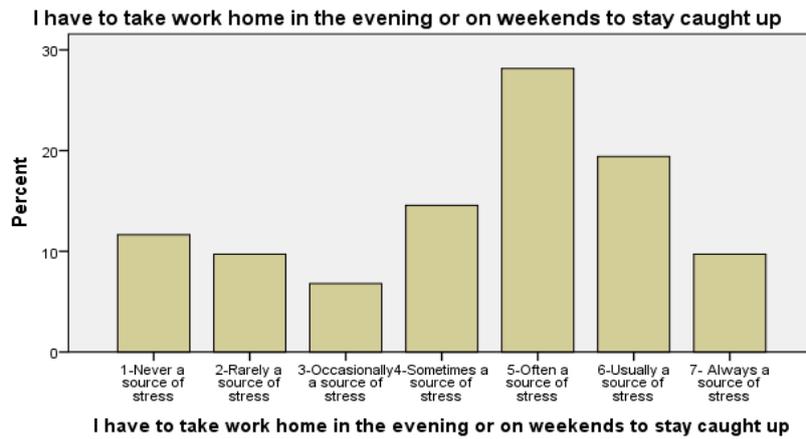


Figure 13- Bar chart representing percentage of score for this question

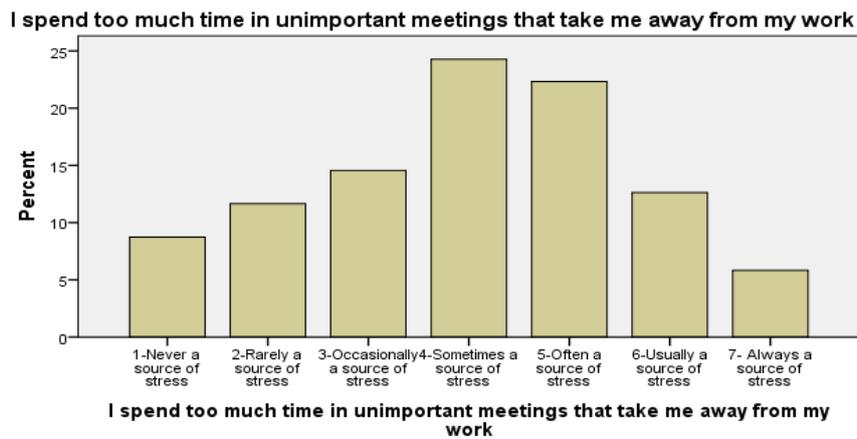
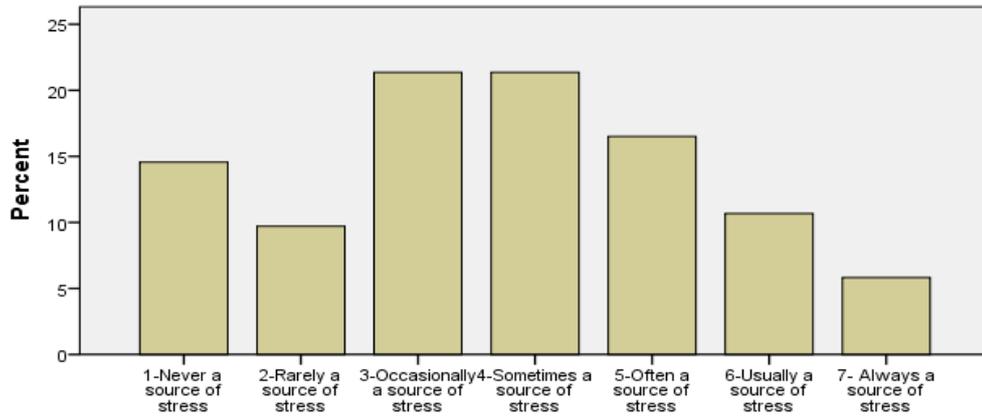


Figure 14- Bar chart representing percentage of score for this question

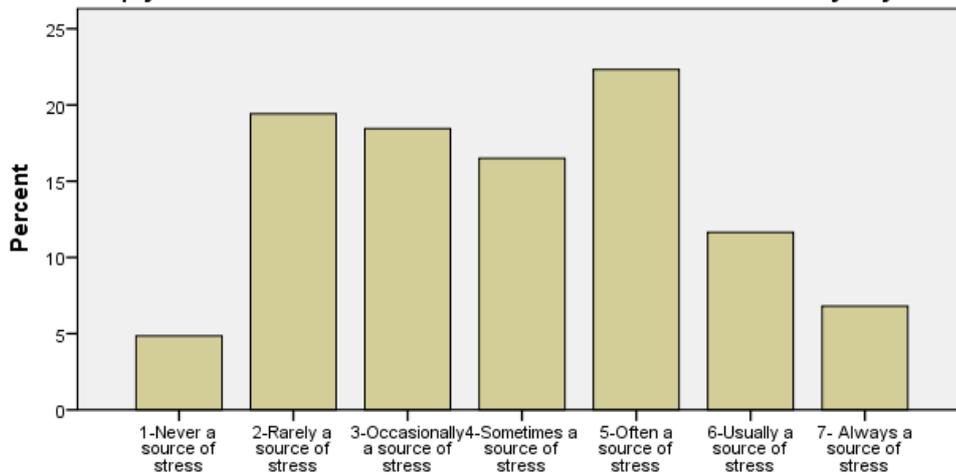
**I am responsible for an almost unmanageable number of projects or assignments at the same time**



**I am responsible for an almost unmanageable number of projects or assignments at the same time**

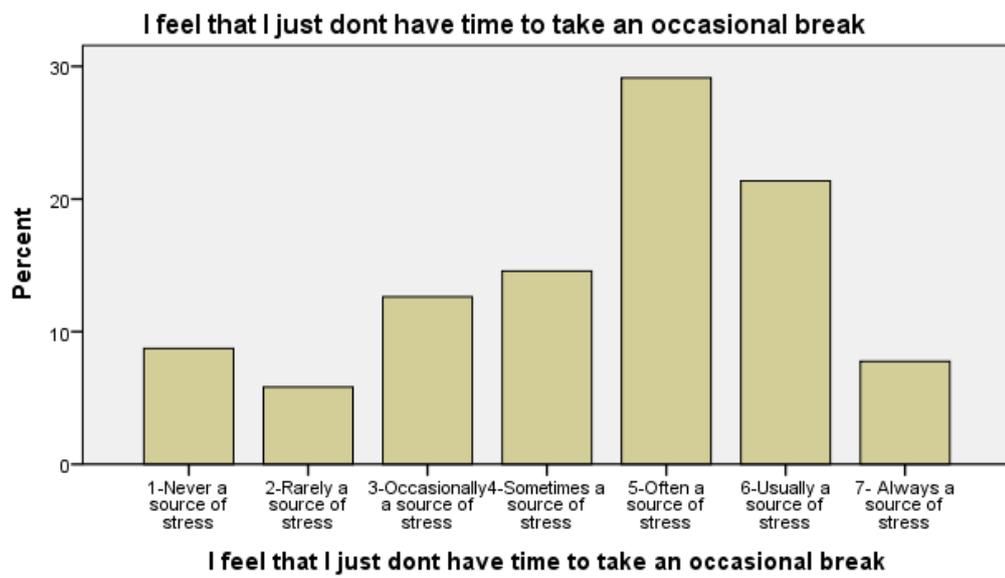
Figure 15- Bar chart representing percentage of score for this question

**I simply have to more work to do than can be done in an ordinary day**



**I simply have to more work to do than can be done in an ordinary day**

Figure 16- Bar chart representing percentage of score for this question

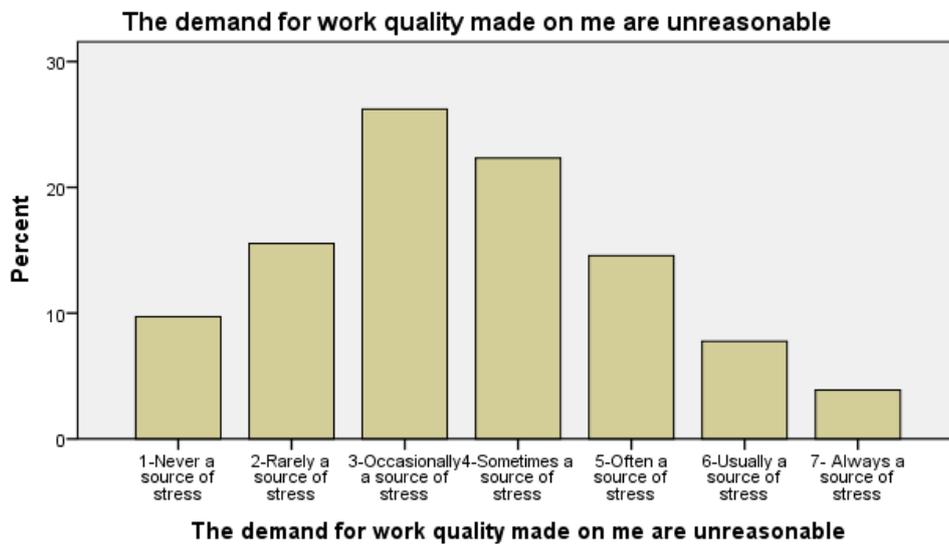


*Figure 17- Bar chart representing percentage of score for this question*

**Statistics**

		The demand for work quality made on me are unreasonable	My assigned tasks are sometimes too difficult/ and or complex	Tasks seem to be getting more and more complex	The organisation expects more of me than my skills and /or abilities provide	I have insufficient training and /or experience to discharge my duties properly
N	Valid	103	103	103	103	103
	Missing	0	0	0	0	0
Mean		3.55	3.50	3.67	3.63	2.94

*Table 9 - Compared mean value for questions within Qualitative work overload*



*Figure 18- Bar chart representing percentage of score for this question*

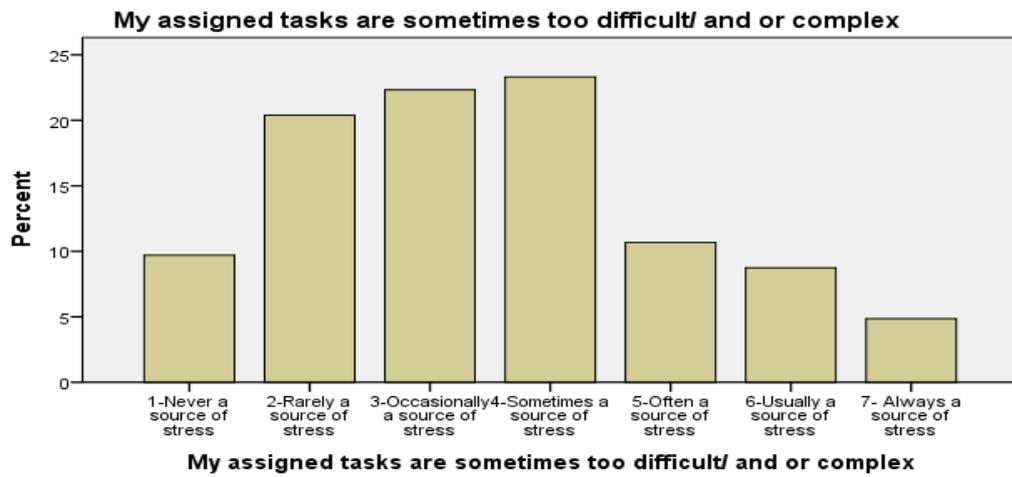


Figure 19- Bar chart representing percentage of score for this question

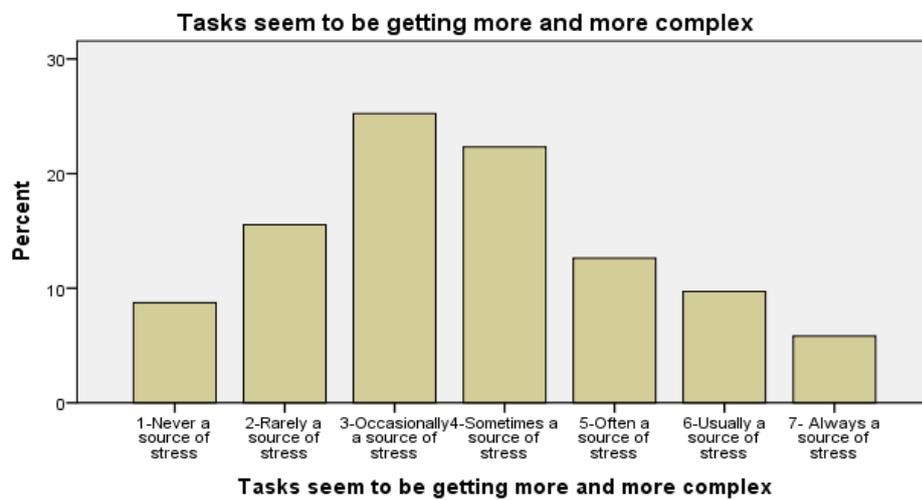


Figure 20- Bar chart representing percentage of score for this question

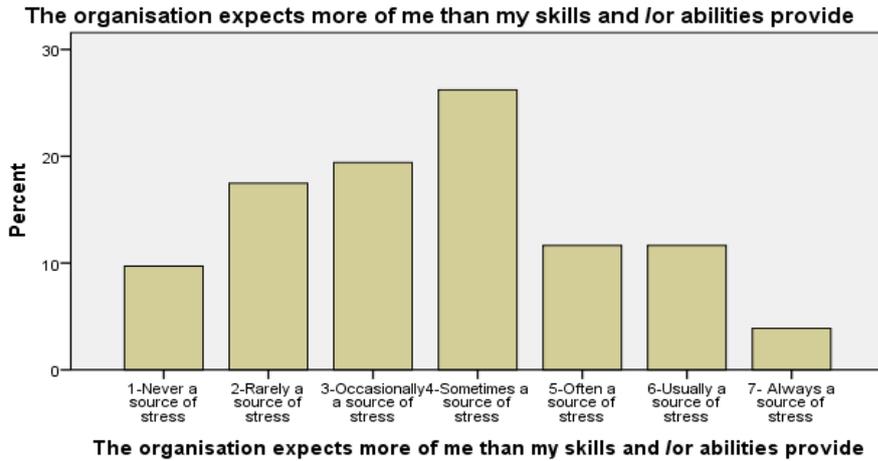


Figure 21- Bar chart representing percentage of score for this question

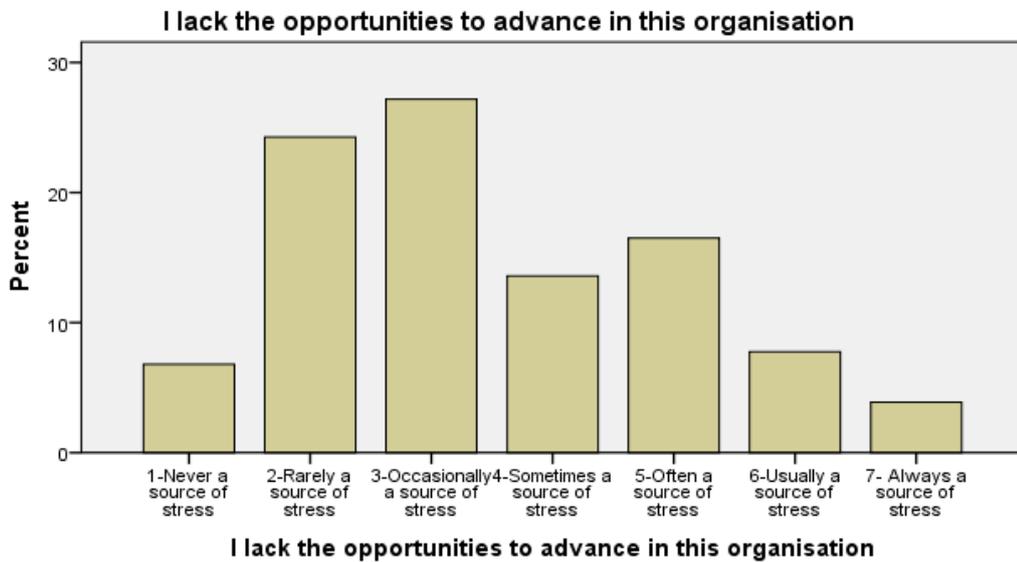


Figure 22- Bar chart representing percentage of score for this question

**Statistics**

		I lack the opportunities to advance in this organisation	If I want to get promoted , I have to look for a job with another organisation	I am hurting my career process by staying within this organisation	I have few oppurtunites to grow and learn new knowledge and skills in my jobs	I feel that I am at a standstill in my career
N	Valid	103	103	103	103	103
	Missing	0	0	0	0	0
Mean		3.48	3.43	3.29	3.45	3.30

*Table 10- Compared mean value for questions within Career Development*



*Figure 23- Bar chart representing percentage of score for this question*

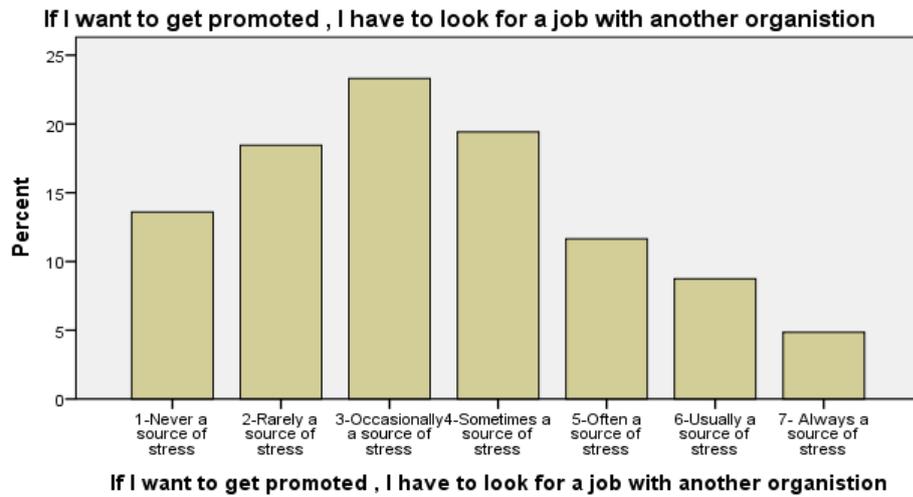


Figure 24- Bar chart representing percentage of score for this



Figure 25- Bar chart representing percentage of score for this question



Figure 26- Bar chart representing percentage of score for this question

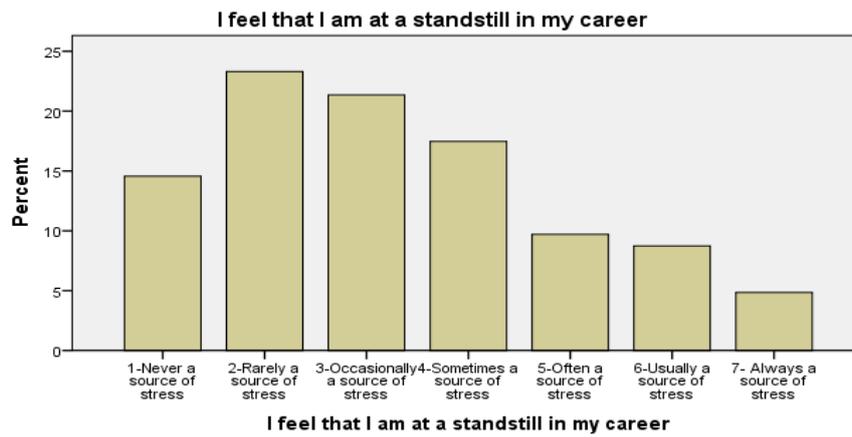
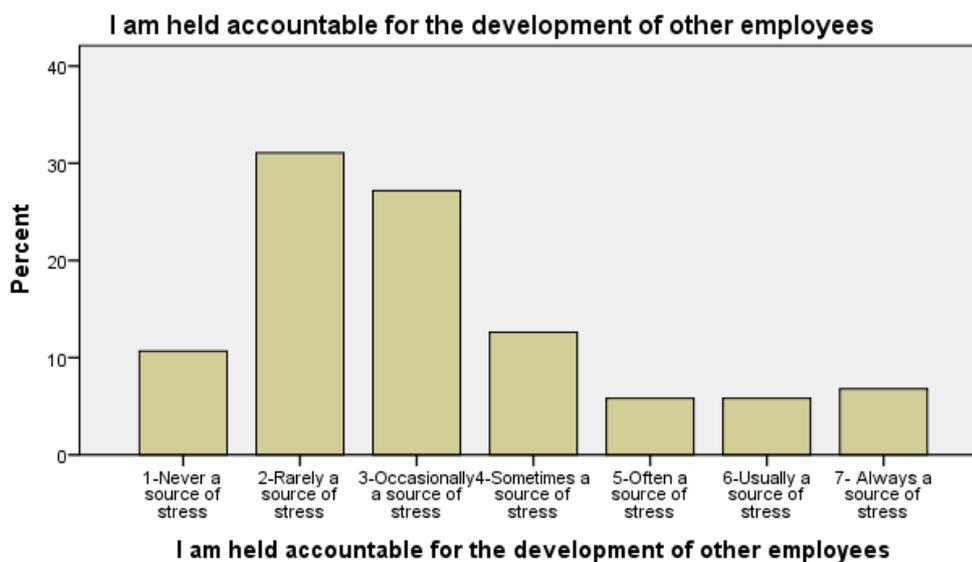


Figure 27- Bar chart representing percentage of score for this question

**Statistics**

		I am held accountable for the development of other employees	I am responsible for counselling with my subordinates and /or helping them solve their problems	I take actions or make decisions that affect the safety and wellbeing of others	My responsibility in this organisation are more for people than for things	I have responsibility for the future (careers) of others
N	Valid	103	103	103	103	103
	Missing	0	0	0	0	0
Mean		3.17	3.00	3.00	3.24	3.31

*Table 11 - Compared mean value for questions within responsibility for people*



*Figure 28- Bar chart representing percentage of score for this question*

**I am responsible for counselling with my subordinates and /or helping them solve their problems**

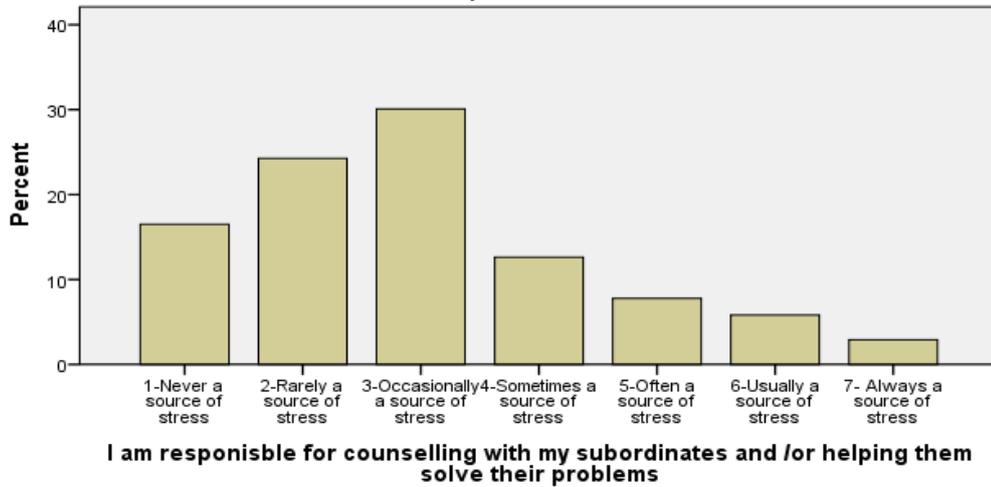


Figure 29- Bar chart representing percentage of score for this question

**I take actions or make decisions that affect the safety and wellbeing of others**

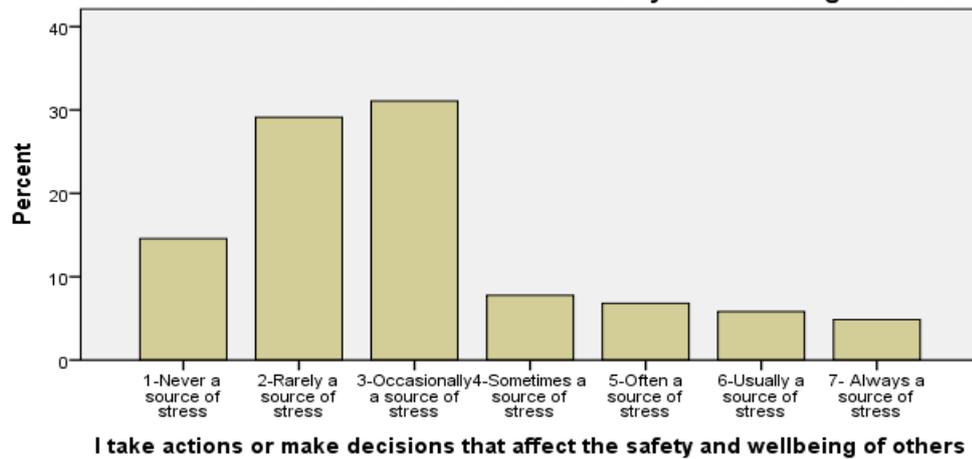


Figure 30- Bar chart representing percentage of score for this question

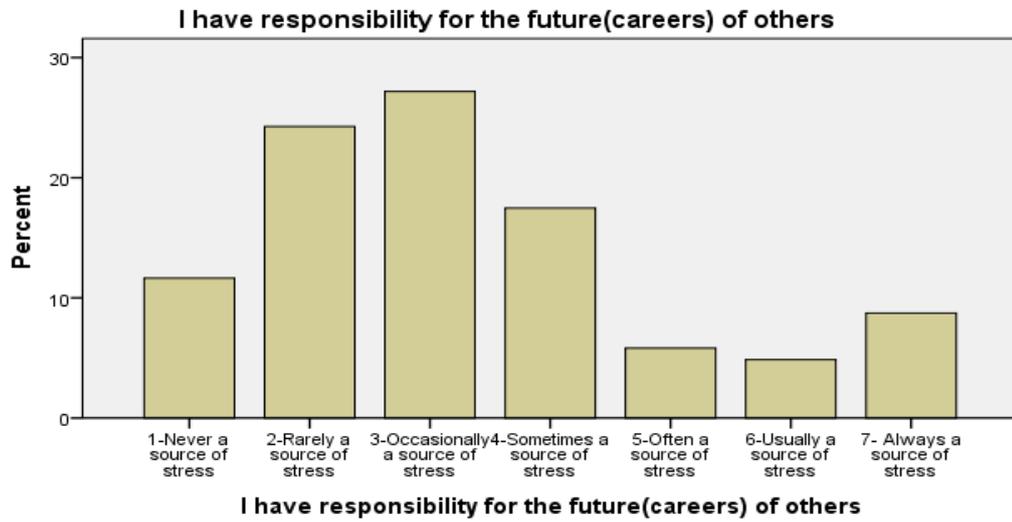


Figure 31- Bar chart representing percentage of score for this question

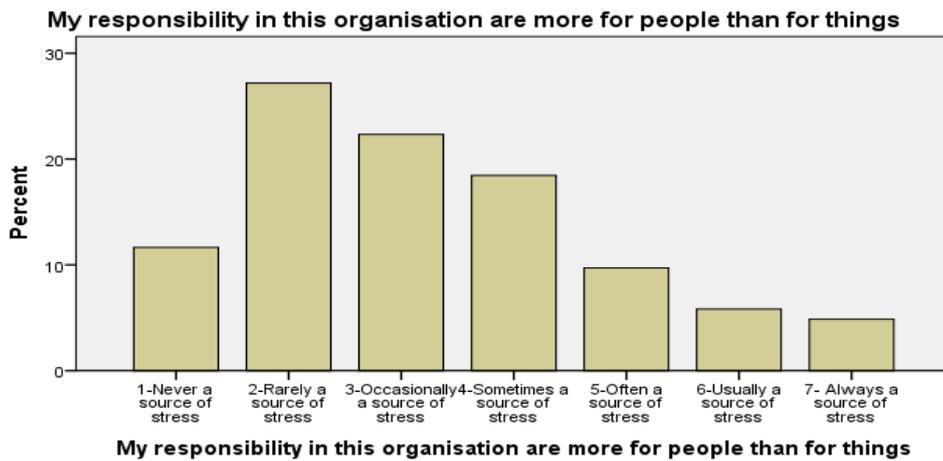


Figure 32 Bar chart representing percentage of score for this question

## Appendix C

This section will consist of all the results obtained from SPSS in relation to the objectives

### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Number of job related training	.226	103	.000	.779	103	.000
Level of work related stress	.089	103	.045	.984	103	.250

a. Lilliefors Significance Correction

Table 13- SPSS result for test of normality

### Descriptives

		Statistic	Std. Error	
Number of job related training	Mean	12.68	1.228	
	95% Confidence Interval for Mean	Lower Bound	10.24	
		Upper Bound	15.12	
	5% Trimmed Mean	11.23		
	Median	9.00		
	Variance	155.416		
	Std. Deviation	12.467		
	Minimum	0		
	Maximum	55		
	Range	55		
	Interquartile Range	10		
	Skewness	1.823	.238	
	Kurtosis	2.976	.472	
Level of work related stress	Mean	104.5922	3.02872	
	95% Confidence Interval for Mean	Lower Bound	98.5848	
		Upper Bound	110.5997	
	5% Trimmed Mean	104.3830		
	Median	102.0000		
	Variance	944.832		
	Std. Deviation	30.73812		
	Minimum	30.00		
	Maximum	173.00		
	Range	143.00		
	Interquartile Range	30.00		
	Skewness	.104	.238	
	Kurtosis	-.050	.472	

Table 14- Descriptive statistics for job related training and level of work-related stress

**Correlations**

			Number of job related training	Level of work related stress
Spearman's rho	Number of job related training	Correlation Coefficient	1.000	.173
		Sig. (2-tailed)	.	.081
		N	103	103
	Level of work related stress	Correlation Coefficient	.173	1.000
		Sig. (2-tailed)	.081	.
		N	103	103

*Table 16- SPSS result for Spearman's rank correlation between job related trainings and level of work-related stress*

**Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Number of stress management trainings	.189	103	.000	.825	103	.000
Level of work related stress	.089	103	.045	.984	103	.250

a. Lilliefors Significance Correction

*Table 18- SPSS result for test of normality for stress management training and level of work-related stress*

**Descriptives**

			Statistic	Std. Error
Number of stress management trainings	Mean		1.61	.154
	95% Confidence Interval for Mean	Lower Bound	1.31	
		Upper Bound	1.92	
	5% Trimmed Mean		1.48	
	Median		1.00	
	Variance		2.456	
	Std. Deviation		1.567	
	Minimum		0	
	Maximum		10	
	Range		10	
	Interquartile Range		2	
	Skewness		1.808	.238
	Kurtosis		6.804	.472
Level of work related stress	Mean		104.5922	3.02872
	95% Confidence Interval for Mean	Lower Bound	98.5848	
		Upper Bound	110.5997	
	5% Trimmed Mean		104.3830	
	Median		102.0000	
	Variance		944.832	
	Std. Deviation		30.73812	
	Minimum		30.00	
	Maximum		173.00	
	Range		143.00	
	Interquartile Range		30.00	
	Skewness		.104	.238
	Kurtosis		-.050	.472

*Table 19- Descriptive statistics for stress management trainings and level of work-related stress*

**Correlations**

			Number of stress management trainings	Level of work related stress
Spearman's rho	Number of stress management trainings	Correlation Coefficient	1.000	.220*
		Sig. (2-tailed)	.	.025
		N	103	103
	Level of work related stress	Correlation Coefficient	.220*	1.000
		Sig. (2-tailed)	.025	.
		N	103	103

\*. Correlation is significant at the 0.05 level (2-tailed).

*Table 21- Result of Spearmen's rank correlation*

## Appendix D

This section entails the response for the question – “Whether the trainings are mandatory”

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mandatory	65	63.1	63.1	63.1
	Voluntary	38	36.9	36.9	100.0
Total		103	100.0	100.0	

Table 22- Frequency of question whether job related and stress management training are mandatory or compulsory

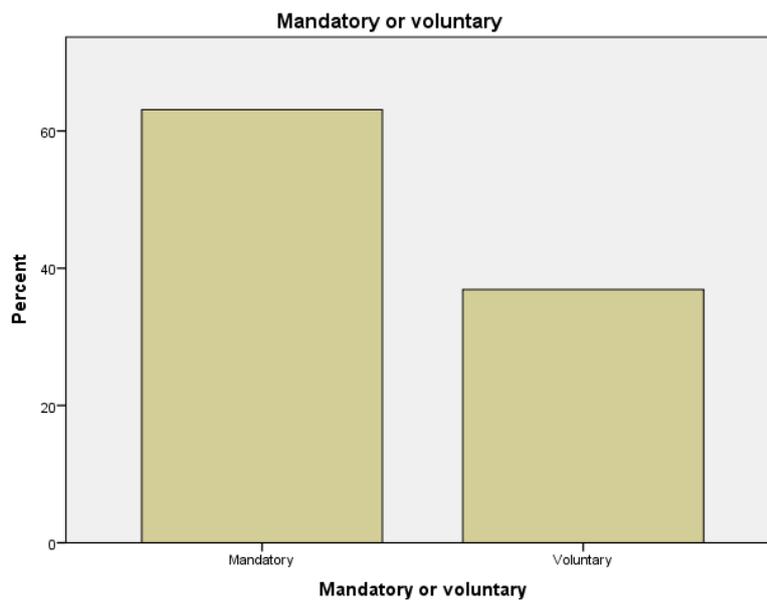


Figure 38- Bar graph percent for this question

## **Appendix E**

### **Consent Form and Survey**

Role of training and development in reducing work-related stress among IT employee's in Mumbai, India.

My name is Sakshi Khanna and I am student at the National College of Ireland. I am currently researching on the role of training and development to reduce work-related stress among IT employees in Mumbai, India for the purpose of my dissertation. This dissertation is supervised by Dr Joanna McHugh.

The aim of this survey is to ascertain whether there exists a relationship between the levels of engagement in workplace Training and Development Programs and work-related stress and to identify the most prominent cause of work-related stress for IT employees in Mumbai, India.

The survey is comprised of three sections which are general respondent details, training and development participation and the stress diagnostic survey. The main objective of this study is to ascertain if there exists a relationship between the training and development provided and work-related stress. The stress diagnostic survey will allow to identify what causes work stress for an IT employee

This survey is voluntary and should take approximately 10 minutes to complete. The responses will be anonymous and all the data will be confidential. I request you to please read each question before answering.

Question marked with (\*) are mandatory

This survey will begin, once the participant gives consent to voluntarily be a part of this survey. The general respondent details section will commence with giving your consent to be part of this study, however if you wish to withdraw from this survey at any given time you may feel free to do so.

If you have any questions regarding this survey you can contact me on [sakshikhanna448@gmail.com](mailto:sakshikhanna448@gmail.com)

### **General Respondent Details and Consent**

This section asks the respondent to specify their age, gender, position in the company and how long (in years) have you worked in the company. All questions are mandatory.

#### **1 [S1IT1] I agree to take part in this study \***

Please choose **only one** of the following:

- Yes
- No

#### **2 [S1IT2] Please specify your gender: \***

Please choose **only one** of the following:

- Female
- Male

**3 [S1IT3] Please specify your age: \***

Please write your answer here:

**4 [S1IT4] How long (in years) have you worked for this company: \***

Please write your answer here:

**5 [S1IT5] What is your position in this company? \***

Please write your answer here:

### **Training and Development Participation**

This section of the survey is comprised of 5 questions asking the respondent to detail how often they participate in training and development programmes which consists of on job related trainings and stress management trainings. All questions are mandatory.

For the purpose of this study job related training is defined as training provided to improve knowledge and skill that help employees to better perform their duties.

Stress management trainings are useful for employees as it helps them to deal with workplace stress which are difficult to remove or change.

**6 [S2IT1] How many job related trainings have you attended? \***

Please write your answer here:

**7 [S2IT2] Name a few job related trainings attended \***

Please write your answer here:

**8 [S2IT3] How many stress management trainings have you attended? \***

Please write your answer here:

**9 [S2IT4] Name of few stress management trainings attended \***

Please write your answer here:

**10 [S2IT5] Are all these trainings mandatory or voluntary? \***

Please choose **only one** of the following:

- Mandatory
- Voluntary

**Stress diagnostic survey**

This part of the survey consists of 30 questions which aims at providing an indication of the extent to which various individual -level stressors are a source of stress for you.

For each of the question, a condition list has been given. I request you to select one of the given condition for each question .

- Select 1- if the condition described is never a source of stress
- Select 2- if the condition described is rarely a source of stress
- Select 3- if the condition described is occasionally a source of stress
- Select 4- if the condition described is sometimes a source of stress
- Select 5- if the condition described is often a source of stress
- Select 6- if the condition described is usually a source of stress
- Select 7- if the condition described is always a source of stress

**11 [S3IT1] My job duties and objectives are unclear to me \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress

7-Always a source of stress

**12 [S3IT2] I work on unnecessary tasks or projects \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**13 [S3IT3] I have to take work home in the evenings or on weekends to stay caught up \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**14 [S3IT4] The demand for work quality made upon me are unreasonable \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress

7-Always a source of stress

**15 [S3IT5] I lack the proper opportunities to advance in this organisation \***

1-Never a source of stress

2-Rarely a source of stress

3-Occasionally a source of stress

4-Sometimes a source of stress

5-Often a source of stress

6-Usually a source of stress

7-Always a source of stress

**16 [S3IT6] I am held accountable for the development of other employees \***

Please choose **only one** of the following:

1-Never a source of stress

2-Rarely a source of stress

3-Occasionally a source of stress

4-Sometimes a source of stress

5-Often a source of stress

6-Usually a source of stress

7-Always a source of stress

**17 [S3IT7] I am unclear about whom I report to and /or who reports to me \***

Please choose **only one** of the following:

1-Never a source of stress

2-Rarely a source of stress

3-Occasionally a source of stress

4-Sometimes a source of stress

5-Often a source of stress

6-Usually a source of stress

7-Always a source of stress

**18 [S3IT8] I get caught in the middle between my supervisors and my subordinates \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**19 [S3IT9] I spend too much time in unimportant meetings that take me away from my work \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**20 [S3IT10] My assigned tasks are sometimes too difficult and/or complex \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**21 [S3IT11] If I want to get promoted, I have to look for a job with another organisation \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**22 [S3IT12] I am responsible for counselling with my subordinates and /or helping them solve their problems \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**23 [S3IT13] I lack the authority to carry out my responsibilities \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**24 [S3IT14] The formal chain of command is not adhered to \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**25 [S3IT15] I am responsible for an almost unmanageable number of projects or assignments at the same time \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**26 [S3IT16] Tasks seem to be getting more and more complex \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**27 [S3IT17] I am hurting my career process by staying with this organisation \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**28 [S3IT18] I take action or make decisions that affect the safety and well-being of others \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**29 [S3IT19] I do not fully understand what is expected of me \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**30 [S3IT20] I do things on the job that are accepted by one person and not by others \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**31 [S3IT21] I simply have more work to do than can be done in an ordinary day \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**32 [S3IT22] The organisation expects more of me than my skills and/or abilities provide \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**33 [S3IT23] I have few opportunities to grow and learn new knowledge and skills in my job \***

Please choose **only one** of the following:

- 1-Never a source of stress

- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**34 [S3IT24] My responsibilities in this organisation are more for people than for things \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**35 [S3IT25] I do not understand the part my jobs play in meeting overall organisational objectives \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress
- 3-Occasionally a source of stress
- 4-Sometimes a source of stress
- 5-Often a source of stress
- 6-Usually a source of stress
- 7-Always a source of stress

**36 [S3IT26] I receive conflicting requests from two or more people \***

Please choose **only one** of the following:

- 1-Never a source of stress
- 2-Rarely a source of stress

3-Occasionally a source of stress

4-Sometimes a source of stress

5-Often a source of stress

6-Usually a source of stress

7-Always a source of stress

**37 [S3IT27] I feel that I just don't have time to take an occasional break \***

Please choose **only one** of the following:

1-Never a source of stress

2-Rarely a source of stress

3-Occasionally a source of stress

4-Sometimes a source of stress

5-Often a source of stress

6-Usually a source of stress

7-Always a source of stress

**38 [S3IT28] I have insufficient training and/or experience to discharge my duties properly \***

Please choose **only one** of the following:

1-Never a source of stress

2-Rarely a source of stress

3-Occasionally a source of stress

4-Sometimes a source of stress

5-Often a source of stress

6-Usually a source of stress

7-Always a source of stress

**39 [S3IT29] I feel that I am at a standstill in my career \***

Please choose **only one** of the following:

1-Never a source of stress

2-Rarely a source of stress

3-Occasionally a source of stress

4-Sometimes a source of stress

5-Often a source of stress

6-Usually a source of stress

7-Always a source of stress

**40 [S3IT30] I have responsibility for the future (careers) of others \***

Please choose **only one** of the following:

1-Never a source of stress

2-Rarely a source of stress

3-Occasionally a source of stress

4-Sometimes a source of stress

5-Often a source of stress

6-Usually a source of stress

7-Always a source of stress

I thank you for being a part of this survey.

If you have questions regards the result of this study you can contact me on [sakshikhanna448@gmail.com](mailto:sakshikhanna448@gmail.com)