

ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES'
SCHOOL OF PSYCHOLOGY

**EMPLOYEES' PERCEPTIONS OF THE CAUSES,
CONSEQUENCES AND MODERATORS OF OCCUPATIONAL
STRESS AT ETHIOPIA COMMODITY EXCHANGE**

BY

FASIKA MERKEBE W/TINSAE

DECEMBER 2021

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DECLARATION

I declare that this thesis work entitled “**EMPLOYEES’ PERCEPTIONS OF THE CAUSES, CONSEQUENCES AND MODERATORS OF OCCUPATIONAL STRESS: A CASE STUDY AT ETHIOPIA COMMODITY EXCHANGE**” is my original work that all sources of material used for the work have been duly acknowledged.

FASIKA MERKEBE

The Student Researcher

ABSTRACT

Occupational stress adversely affects the physiological, behavioural and psychological wellbeing of employees that hampers their efficiency, capability and productivity that also affect the organization's growth and development directly or indirectly. Hence, organizations shall give due attention to manage and reduce distressful work environment to ensure consistent and sustainable growth and development. The objective of this study is to examine employees' perception about the sources, consequences and moderators of stress at Ethiopia Commodity Exchange. The study also examined the presence or absence of statistical significant difference due to employees' selected demographic differences. The study adopted mixed approach by using both quantitative and qualitative techniques. The relevant data were collected from the sampled employees using survey questionnaire, FGD and Interview. The sample of the population was determined using Cochran's sample size formula used for known population and 282 employees drawn for quantitative data collection of which 60% from Head Quarter and 40% from Upcountry Branch Offices using stratified and random sampling techniques and 95% timely responded. For FGD and interview purposive and convenient sampling techniques were used. Various relevant research works, literatures, stress models, survey reports were consulted to get the full insight and support the study. The collected data from survey questionnaire were analysed using SPSS version 21 and frequency, percentage, mean, independent sample T test, One Way ANOVA and post hoc-Games-Howell tests were applied. Besides, the data obtained through FGD and interview were transcribed and analysed in light of the study objectives. The findings of the study demonstrated that occupational stress were experienced by all, though the degree might differ with majority fall under moderate level. Statistical significant differences were observed at mean difference of 0.05 level with regard to gender, age, work experience, educational level, job positions and supervisory responsibility differences among respondents groups and the null hypothesis rejected. The study revealed that frustration, demotivation, job insecurity, poor time management, gross negligence and malpractices, increased turnover and intentions to look outside were sensed by majority of the respondents. The after effect of the occupational stress on employees were directly and/or indirectly affected the efficiency and survival of the institute unless timely curbed. It was found out that the main sources of stressors were external factors dominated that mainly incorporates the presence of diverse and over-demanding market actors with conflicting interests, policy circle and regulatory bodies, unstable and conflicting interest on the sector, over-interference and imposition of stage driven vicious quick fix reforms without considering the overall effect on the system, media campaign and sabotage that defame the image of the institute and labelling etc. The study also identified organizational factors mainly seasonal work-overload, effort-reward imbalances, person-environment-fitness concern, demanding but low level-control and support particularly from the policy circle and regulatory bodies, absence of strong research wing, reactive responses to customers feedbacks and concerns and taking the government protection for granted and engaged in transactional daily routines. The study recommends all parties i.e. the policy circle, regulatory bodies, government offices, the leadership team including the Board of Directors, all the staffs, market actors associations and market actors advised to pay due attention and play their collective and independent roles to address the current challenges faced by the Ethiopia Commodity Exchange and manage staff tensions and mental strains. This will benefits all the individual staff, the organization, the market actors the government and the public at large.

Key Words: Stress, Occupational Stress, Moderators

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ABBREVIATIONS

ECX: refers to Ethiopia Commodity Exchange

ECXA: refers to Ethiopia Commodity Exchange Authority

ECTA: refers to Ethiopian Coffee and Tea Authority

MOTI: refers to Ministry of Trade and Investment

OS: refers to Occupational Stress

FGD: refers to Focus group Discussion

P-Value: refers Probability Values

SPSS: refers Statistical Package for the Social Science

CHAPTER ONE: INTRODUCTION

1.1. Background

Most researchers confirmed that modern society and the corporate world have become highly competition oriented and everyone is experiencing stress. Stress is a fact of life where every one of us deals with it in our day to day life. Stress, according to Gillspie, et al. (2001), is any stimulus that either raises excitement or anxiety level beyond what is regarded as above ones usual or personal capabilities. As referenced by Huges et al. (2017) from the work of Passer and Smith (2001) stress is a pattern of cognitive appraisals, physiological responses and behavioural tendencies that occurs in response to a perceived imbalance between situational demands and the resources needed to cope with them. Occupational stress is one part of life stress where an individual is experiencing in the organizational set up that mainly emanates from the overall working environment and surroundings but might be rooted once outside work life. Occupational stress can be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker (Hughes et al. 2017).

Depending on the individual response capability, psychological readiness, personality, exposure level, attitude towards a given situation and the resources needed to cope, stress could be positive (eustress) that gives energy and motivation to seek opportunities in difficult/stressful situation or negative/distress that suppress and weakens once performance and gradually leads to critical health problems unless timely managed.

According to Singh (2018), stress is nothing but the reaction of human body, both physical and mental, towards changes, situations and events in their lives. These reactions of human body are the result of attitude and perception which they carry i.e. if a person has a negative vision to a situation, he or she will feel distress i.e. overwhelmed or out of control. On the other hand, if a person has positive vision, he or she will experience Eustress (good stress). So, for any organization, it is important to maintain a healthy environmental culture also known as corporate culture. Another important factor that can control stress is emotional intelligence. It is the ability of the individual to think logically and have a balanced emotional maturity that can influence one's own as well as other's emotions too.

Work-related stress has become a significant and relevant problem for the employees, causing physiological, psychological, or even mental health problems. Occupational stress among employees can also negatively affect their efficiency, productivity, and increase turnover rates, which in turn will imply costs for the company. It has become a major issue of the modern and competitive world and is one of the common work-related health problems that call due attention by all. Nevertheless, occupational stress is a complex and multifaceted concept and it needs to be investigated not only as such, but also in relation to other important factors influencing job conditions, such as job satisfaction and employee loyalty. Thus, considering that most people are spending a significant amount of time at work, their working conditions and their general physical and mental state at the workplace are playing an increasingly important role.

One can find a plenty of occupational stress studies in various sectors mostly in health workers, teachers, police officers and other occupations. Such studies are more popular in the developed world and multi-national competitive organizations but unlikely to find in the third world countries like Ethiopia.

Following the aggressive privatization of giant government organizations and the introduction of multi-national and international organizations in Ethiopia with the possibility of allowing foreign companies investment in the financial sectors in the near future with a sophisticated and advanced technology and remarkable financial and non-financial capability, the competitiveness of the existing national private and government companies and their workforces is becoming questionable. This will result in both organizational and occupational stress that require a well thought out coping strategy to be devised.

With the limited knowledge of the student researcher and limited access of research works of universities in Ethiopia, it is hardly possible to get empirical research works in the area of occupational stress thus far or may not be easily accessible for readers. The limitedness of the subject research works in Ethiopian context has interested the student researcher to conduct the research and at least to contribute some initial works that serve as an input for subsequent research works in many occupational sectors by any interested individual or groups.

Specifically the student researcher targeted to conduct this research on Ethiopia Commodity Exchange as the company has strategic importance to the overall sustainable economic growth of the country through establishing an integrated and modern marketing platform

which is open for all market actors in the value chain. Besides, the student researcher has adequate knowledge of the sector that gives a competitive advantage to sufficiently conduct the study. In addition, the company has multi-interested groups i.e. from government, market actors, the public and very sensitive for any of the actions and decisions made in the operational process that challenge to satisfy every group and has become an area of stressful work environment.

From this short period of service as a modern Exchange business a number of reforms have taken place. Two years before the Ethiopia Commodity Exchange dissected in to two separate independent legal entities where one remains Ethiopia Commodity Exchange focussing only on trading and related services and the other one as Ethiopian Agricultural Commodity Warehousing Service focussing on warehouse and quality operation service.

Due to the influential hand of market actors and the demanding power of the government in relation to foreign currency shortage, the Ethiopia Commodity Exchange has been directed to undertake a number of reforms which include merging of the two independent institutions in one management system since July 1, 2017. In addition, few months ago there was a great pressure both from market actors and the governments that questions the very existence of the Ethiopia Commodity Exchange which finally bring additional reforms.

At the same time, people are one of the most valuable assets in Ethiopia Commodity Exchange, which makes it even more crucial to address the issue. It is very difficult to get a readily labour force from the market which makes it very difficult to replace at ease since there is no Exchange business in the country. All these reforms and the very nature of the business has brought stressful situation on the Ethiopia Commodity Exchange Employees and Management.

In the past 12 years business tenure of Ethiopia Commodity Exchange, while there is two researches about employee satisfaction survey, occupational stress: its causes, consequences and potential moderators were not studied.

Therefore, this research is aiming to address this uncovered employees' level of perceived experiences on the causes, consequences and moderators of occupational stress and come up with strategic recommendations.

1.2. Statement of the Problem

Any organization is working by and through people. People are a life blood of any organization to exist and succeed. Consistently working on people and creating a conducive and enabling environment is a strategic intervention for any organization to maximize productivity and boost employees' motivations. There are a variety of factors; personal, company-based and external factors that affects their performance and adds that identifying these factors can help improve recruitment, retention and organizational results (Allen, 2011). Some of the factors might positively influence people to strive more and commit for the organizational goals and other factors might negatively influence to dysfunction and inhibit people's effort and leads to a distressful situations. Occupational stress or occupational stress is of growing concern as it leads to physical, psychological and behavioural problems for the employees that leads to low productivity. As described by Damle (2012) researchers (like Cooper & Marshall, 1978; Matteson & Ivancevich, 1987) have argued that occupational stress, either as a result of its detrimental effect on the health of the individual or directly led to low productivity, high absenteeism, tiredness, low enthusiasm for work, low creativity, and high dissatisfaction with work.

Allen (2011) as clearly noted from Elovainio et al. (2002) research work that occupational stress has consequences leading to low organizational performance and has belittling impact on any organization and individual's performance even leading to health care problems. Employees in many research reports confirmed that their job is a source of large amount of stress they experience throughout the year, which has a very bad and negative effect on their performance.

Many empirical researches confirmed that most organisations, unfortunately, are doing less to minimize stress at their workplaces and even they are not well aware on how distressful working situations negatively impacts both the individual and the organization performances and one factor that leads employees' dissatisfactions and seeking for other alternatives or miss-behaving and breaching working procedures that leads to customer dissatisfactions.

Stress has becoming a major problem for employers' particularly in developing nations following the liberalization of the economy and entrance of international organisations where the employer doesn't realize the impact of stress on employee performance which ultimately

results in critical managerial dilemmas (Subha and Shakil, 2010) as discussed in the works of Allen, (2011). He also further explained by referring the works of Giga & Hoel (2003) that the very reason behind are ‘high rates of mergers, acquisitions, increasing economic interdependence among countries due to globalization, technological development, and restructuring have changed the organizational work over the last few decades resulting in time pressure, excessive work demand, role conflicts, ergonomic insufficiencies and problematic customer relationship which are causing stress’.

Ethiopia is also experiencing similar situation due to privatization and introduction of international organizations that leads to an accelerated stiff competition in turn leads to stressful situation both for the organizations and individual employees too. This requires an empirical research to identify the causes, possible effects and moderators that reduce distress and boost energy, motivation and excel performance and productivity.

To the best knowledge of the researcher, however, there are no available empirical occupational stress research reports in Ethiopian context or not easily accessible. Particularly, in the company that is under study, there is no prior empirical research thus far as described in the introduction part. One obstacle to understanding how the high pressure and occupational stress impacts the individuals within the Ethiopian Commodity Exchange is the scarcity of empirical research in the area.

Therefore, this thesis will investigate the perceived experiences of the employees regarding the areas of stress levels, work pressure and organizational support, in order to pinpoint the main causes that can have a negative impact on the overall success of the organization and moderators that best address the situation and change it to a positive energy to boost employees motivation and performance excellence.

1.3. Research Questions

The research questions to be addressed in this study are the following:

1. What are the perceived sources of stress among employees of Ethiopia Commodity Exchange?
2. What perceived consequences do stress have on employees of Ethiopia Commodity Exchange?

3. What are the perceived moderators of stress among employees of Ethiopia Commodity Exchange?
4. Are there any statistically significant differences in perceiving the sources and effects of occupational stress with respect to demographic variables?

The fourth research question will be subjected to hypotheses testing.

H_{01:1}. There is no statistically significant difference in perceiving the sources and effects of occupational stress with respect to their demographic variable differences.

1.4. Objective of the Study

The very general objective of this research is to uncover employees' perceived causes, consequences and moderators of occupational stress that creates physical, psychological, motivational and emotional strain or pressure at Ethiopia Commodity Exchange. Furthermore, the study aims to describe common patterns of experiences of people working at the company examined and explore the main issues of concern. Potential changes, improvements, and areas that need to be taken into consideration will be proposed. More specifically this research mainly intended to:

- Identify and analyse perceived causes and levels of occupational stress expressed by the employees.
- Identify and analyse perceived consequences experienced by the Ethiopia Commodity Exchange employees.
- Identify moderators that reduce occupational stress and increase performance and productivity.
- Understand and establish the relationship between employees' demographic factors (such as sex, age, educational level) in relation to their perceptions on the causes of occupational stress, its impact level and moderators that reduce stress.
- Recommend potential changes and improvements to address occupational stress both at organizational and individual employee's level.

1.5. Scope of the Study

The scope of this study is delimited to examine the levels of occupational stress perceived by employees working in the Ethiopian Commodity Exchange and to explore the causes, its consequences and moderators of occupational stress. The study will also examine if there is a possible differences between employees demographic factors and their levels of occupational stress experiencing. All data collection is performed with sampled employees stationed in the head quarter (Addis Ababa) and branch offices throughout the country, Ethiopia.

1.6. Significance of the Study

The student researcher believes that conducting this study will have the following significances for the concerned stakeholders.

- As there is little evidence showing and describing the experiences in terms of occupational stress, work pressure and inadequate support impacting the lives of professionals in the Ethiopian Commodity Exchange, this study will give information on how people experience their work situation and what changes they consider need to be made in order to improve their work-life balance.
- This study will provide information and knowledge on how employees perceive their place of work and how it impacts their stress levels and overall well-being, which can be used to plan for efforts that should be made to promote this area of concern.
- Provides relevant information to the management of Ethiopia Commodity Exchange, Ministry of Trade and Industry and other concerned body so that they could understand how stressful work situations adversely affect employees' performance and take corrective actions that improve an enabling work environment.
- The study could be in use as a lesson learned for similar institutions so that it will create interest to further explore and strengthen the findings and take actions on the moderators that reduces stressful situations that boost employees' motivation and productivity.
- The study may also serve as a springboard for other researchers who intended to carry out in-depth and nationwide study on the problem.

1.7. Operational Definition of Constructs

Occupational stress: can be defined as the distressful situations that may negatively affect the physical, psychological, mental, behavioural and emotional living patterns of an employee. The terms occupational stress, work stress, and job stress will be used interchangeably in the thesis.

Demographic Factors: in this study the demographic factors are limited to gender, age, marital status, educational level, work experience, job position and supervisory responsibility.

Moderators: In these study moderators refer to strategies or interventions used to prevent, manage or cope with stress in the work place. It is synonymously used with the term ‘stress management’/‘coping strategy’/ ‘stress interventions’.

1.8. Structure of the Study

The thesis will have five main chapters begins with the introductory section followed by literature review and methodology to be used, then the core part of data presentation and analysis and finally the findings, conclusion and recommendation section. The introductory section covers the basics of the research in terms its rationale and intention to address the problems that will conceptually frame the research purpose and its delimitation. The second chapter that deals with the literature review & theoretical frame of the research to give more clarity on the background and contemporary level of knowledge and approach about the subject research topics while the third section deals with the methodological part of the study that frame the design, methods and relevant procedure of the research. Further, the fourth section considered as the core part which will be concerned the data presentation, results and analysis of the study. The last part will deal about the critical discussion of the findings of the study and conclusions of the findings of the study. Recommendations for possible considerations by the concerned stakeholders that enable them to reduce stress in the work place and improve employees’ motivation, wellbeing and productivity and for further studies will also be suggested in the final part.

CHAPTER TWO: REVIEW OF THE RELATED LITERATURE

This chapter will concisely uncover literatures and empirical research out puts that deals with occupational stress concepts, the causes, consequences, moderators and commonly applied stress models by scholars.

2.1. Concepts of Occupational Stress

In everyday life, almost everyone is subjected to a wide range of pressures and work place stressors. Occupational stress is described as the strain to which people are subjected when demands and expectations are out of keeping with their capabilities, skills and resources.

Stress is a universal element experienced by people around the globe. It is a demanding situations or conditions people experiences throughout their life. Many scholars defined stress in different ways over the years. Singh (2018) quoted Hans' expression that 'we all undergo the feeling of being over-burdened or pressurized whenever we have lots of stuff to do, have a number of things in mind, there are many responsibilities on our shoulders, other people expect or demand unreasonably from us or when situation is not in our control'. Some scholars defined stress as "physical, mental, or emotional strain or tension" or "a condition or feeling experienced when a person perceives that demands exceed the personal and social resources the individual is able to mobilize". Here the concept of stress has been mainly conceived in a negative light and its positive effects has been ignored. However, average level of stress can be helpful and good when it motivates people to stretch their maximum effort and accomplish more. This peak (average level) differs for each of us, so being aware of our own unique warning signs and symptoms is important to not push yourself over the hump.

Work is a fundamental part of the human life. Pressure at the workplace is inevitable and can be seen as a natural feature of human life particularly in this globalized and competitive business environment. Each individual is exposed to a range of stressors at work which ultimately affect his or her performance and sometimes leads to critical health problems unless timely resolved. Certain level of pressure at work can be positive leading to increased productivity. However, when this pressure becomes excessive it has a negative impact. The individuals perceive themselves as being unable to cope and not to possess the necessary skills and resources to combat their stress. According to Arrman and Bjork (2017) a healthy

and rewarding job is a sufficient and positive part of people's lives and gives them the opportunity to feel satisfied and meaningful in their workplace that leads to high productivity. However, stress will arise when a job does not let the individual to perform to the best of his ability. Kavitha, (2009 in Arrman and Bjork, 2017) stated that stress beyond a particular level can lead to both psychological and physiological issues, which in turn can have a negative impact on the employee's performance in the organization. Occupational stress is the response employees may have when presented with work demands and pressures that are not matched to their abilities, knowledge and resources at hand.

It is, therefore, important to know how occupational stress can be identified its source, consequences and dealt with appropriately in an organizational setup that positively contribute both for the individual staff and the organization which is the central agenda of this mini-research project by the student researcher.

2.2. Causes of Occupational Stress

There are various sources of occupational stress. Different scholars have identified and presented the sources of occupational stress in different ways and with different emphasis depending on the central objective of their research work. However, they commonly agree that the main factors of occupational stress comes from both within the organization and external to the organization environment. The effects of those occupational stress factors depends on the individual perception and attitudes towards those stressors and the equivocal response to the event or the situation.

The causes of occupational stress, in this study, are considered at the macro level dimensional sources of stress common to organizations irrespective of the kind of institutions and sector they work in by selectively reviewing the works of researchers like Ahmed and Dazi, 2008; Singh, 2018; Adjei-Baah, 2011; Cooper & Marshall, 1976 (in Abuke, 2016); Roben, 2012; Edward, (2012); Cope, 2003; by classifying in two three main domain as briefly discussed below.

A. Organizational Factors

Organizational factors are the most influential in the organizational life and have great potential to induce job related stress. There are many factors within organizations that can create stress. Some of the macro level occupational stressors under organizational factors that

are mentioned by most researchers but not limited to are intrinsic to job, role within organization, career development, relationship at work, and organizational climate/system which are briefly described here under.

Intrinsic to job: stress experiences originating from the content of work are often associated with factors intrinsic to the job. In this category, the employee is often found to struggle with job characteristics that cause a structural lack of fit between demands and their individual's capability to cope with such demands. Factors such as workload (either overload or underload or boredom, qualitative or quantitative), excessive work pace (time pressures), lack of job meaningfulness, low work autonomy, external disturbances (such as noise, dust, heat, humidity, lighting, uncomfortable chairs, toxic chemicals, overcrowding and others) and toxic work systems are some examples of stressors.

Role within organisation: One's role in an organization can be a cause of stress. This has to do with behaviour and the demands that are associated with the job an individual must perform. Role theory views an organisation as a set of interlocking roles. The roles within organisations explain what people are to do and what others could expect from them. Individuals identify with specific roles according to the duties and rights associated with the role. Stress arises when there is role ambiguity (lack of clarity about responsibilities, expectations, etc.), role conflicts (conflicting job demands, multiple supervisors or managers etc.), organizational boundary (intra and inter) conflicts, responsibility for people conflicts and others related role mismatches within the organization.

Role ambiguity may arise when individuals are not certain of work objectives, co-workers expectations or the scope and responsibilities of the job and what is expected of them. Unclear or confusing expectations about the scope of work duties, the level of authority and the social expectations and requirements of the job also cause individuals to experience role ambiguity. It may result in lower job satisfaction, high job-related tension and lower self-esteem. Role conflict, on the other hand, may arise when work and non-work demands within an individual's life are incompatible and their expectations are in conflict with each other. This form of conflict has been found to cause lower job satisfaction and higher anxiety levels, and it may also lead to ill health risks. To this effect, role ambiguity and role conflict are the main causes of stress.

Career development: Career development concerns may cause stress in employees if there is over or under promotions, career transitions, career development opportunities, overall career satisfaction, lack of job security due to current and planned future changes within the organisation. Stress may be experienced by employees when positions within the organisation have low status, is poorly rewarded or when there is pressure on employees to perform at very high levels. Career transitions may lead to stress when the change is undesirable and when it involves extensive change, it is unexpected, it is accompanied by other life transitions, it is forced on an individual or requires personal resources like self-esteem and tolerance to deal with transition.

Relationships at Work: Work relationship is one of the major source of stress at work focuses on the nature of relationships in the workplace (with the individual's supervisors, seniors, subordinates and colleagues). It is believed that good relationships between members of a work group both vertically and horizontally are an important factor in individual and organisational health and productivity. The main reason is that a healthy and sound relation at workplace gives birth to understanding, coordination and trust among each other. This is very important for both, the employees and the organization for growth and development.

The presence of weak or poor interpersonal relationships cause job-related stress. Poor interpersonal relationship may be the result of personal differences existing among co-workers or supervisors due to differences in culture, different upbringing and workers' background. It may also be triggered by communication breakdown in the organization.

Bullying and hostile supervisors cause interpersonal difficulties at work that results stress. Stress could also be the results of competitions and office politics that workers become involved in. Competition could breed stereotyping and conflicts among workers of the organization. Interpersonal relationships become so much of a stress when the work demands interdependence. That is, an individual worker can only achieve success in his or her assignment only when co-workers and supervisors do their portion. This can be very stressing when members are not on good terms or have interpersonal problems.

Organisational climate/System: Organisational climate/system is a multi- dimensional concept. The various dimensions of the organisational climate/system are individual autonomy, authority structure, leadership style, pattern of communication, degree of conflicts, cooperation, reward & pay system, performance management system & practices,

policies, procedures, working tools and resources, change management, organizational reforms (downsizing, merger, spinoff, accusation etc), people management orientation, control system, supports, etc. Organizational climate/system which an organization operates is one of the elements that has been associated with the experience of occupational stress when there is perceived mismatch.

B. Individual Factors

There are many various stressors on the individual level that may be generated in the context of personal- or organizational life. Individual stressors are highly dependent on an individual's personality traits and constraints of change. Personal factors that vary the extent of stress experienced by individuals are personality type, tolerance for ambiguity, demographic factors (like gender, age, educational level, marital status etc.), personal characteristics, work experience, self-esteem, self-efficacy, health and exercise, work and sleep patterns, financial trouble, divorce, individual coping strategies and sickness.

C. Extra-Organizational Factors

Organizations are greatly affected by the external environment which can have severe effects on the employees in the organization. Work stress is not limited to events occurring within the organization during working hours, but also by extra organizational stressors such as Social/ technological change, family, economic/financial condition, political uncertainty/instability, race & class, residential & community conditions, work life imbalance, weather condition, health and education and other factors that are directly or indirectly creates tension/strain on individual.

2.3. Consequences of Occupational Stress

Stress produces a range of undesirable, expensive, and debilitating consequences both on the individual and the organization (Ross, 2005; Fisher, Schoenfeldt, & Shaw, 1990; and Brun, 2006, cited in Poloski, and Bogdanić, 2007). In organizational setting, stress is nowadays becoming a major contributor to health and performance problems of individuals, and unwanted occurrences and costs for organizations. Consequences of occupational stress can be grouped into those on individual and those on organizational level.

A. The individual Level:

The effects of stress on the individual is mainly classified in to physiological effects, behavioural effects, and psychological effects which are briefly described here under.

Physiological effects: The effects of physiological stressors are related to feelings like produce a chemical reaction (s) in the body, increased heart and breathing rates, increased blood pressure, changes in metabolism, increased perspiration, increased skin temperature, high blood glucose level, blood clotting, and migraine headache. These will lead to develop heart diseases, hypertension, increased blood cholesterol level, ulcer, allergies, gastrointestinal problems, arthritis, cancer, and skin diseases unless timely treated. These effects are mostly health related.

Behavioural effects: it is related to doing. These include becoming violent, drug and alcohol addicts and accident prone, impulsive behaviour, higher tardiness, absenteeism, decrease in performance, etc. This directly affects how well employees can perform their jobs. This is manifested in inability to make decisions, forgetfulness, hypersensitivity, and passiveness.

Psychological effects: Psychological effects of stress are very common in organizations and take the form of depression, anxiety and nervousness. It will result in poor intellectual functioning, lower self-esteem, irritability, inability to concentrate, inability to decision making, forgetfulness, negativism and apathy (lack of emotions and feelings). Employees that experience stress are likely to get the feeling of low job satisfaction.

B. Organizational

The ripple effects of stress on the employees are multiple and diverse like poor job performance and low productivity, high absenteeism, high turnover, lack of commitment, dissatisfaction/demotivation, conflicts, low morale, diminished efficiency and effectiveness etc. that would directly and indirectly costs the organization performance and productivity. Usually when employees experience serious problems, the organization also suffers. Unhealthy organizations do not get the best from their workers and this may affect not only their performance in the increasingly competitive market but eventually even their survival (Fisher, Schoenfeldt, & Shaw, 1990 and Leka, Griffiths, & Cox, 2003, cited in Agjei-Baah, 2011).

In general, the effect and after effect of occupational stress results in increased absenteeism, decreased productivity and performance, moodiness, isolation, headache, depression, conflicts with others, lack of interest, behavioural changes, inefficiency, anger, frustration, anxiety, boredom, cowardly behaviour, indiscipline, negative attitude, resistant to change or to cooperate with the seniors, no mental peace, etc. All these directly or indirectly impacts the working efficiency of the employee and the environment, growth and development of the organizations (Singh, 2018).

2.4. Moderators of Occupational Stress

Stress researchers have identified a number of moderating factors that can prevent, reduce or eliminate the negative effects of occupational stress. Various primary, secondary, and tertiary stress prevention interventions have been developed and used with the aim of avoiding the physical, psychological, and organizational effects of occupational stress (Cooper & Quick, 2017 and Lenson & Quick, 2013 cited in Arrman, 2017; IHE Report, 2009) which are briefly described below.

Primary interventions (prevention) are attempts to prevent the exposure to stressors in the workplace and the occurrence of occupational stress-related illness among healthy employees by modifying aspects of the work environment. This approach looks at the issue of stress ‘at source’, in order to prevent it occurring. This prevention method is considered to be the true organizational stress prevention, as it changes and shapes the various demands that the organization puts on its employees. It usually involves some form of organisation-wide change in the system of work, be it the design of how things are done, what is done and/or by whom things are done.

Secondary intervention (management) are attempts to prevent the health concern from progressing and causing major symptoms by modifying an affected employee’s response to or perception of workplace stressors and helping the employee better manage or cope with stress. This approach focuses on the employee throughout his or her period with the organisation. It includes training for the job, training in general aspects of health and safety and support offered through the provision of adequate management of the social and technical aspects of an employee’s working life. This good management practice has a role both in preventing stress and helping stressed employees to recover.

Tertiary interventions are aimed at managing or treating the symptoms of existing stress-related problems or diseases. This focuses on the provision of counselling and employee assistance programmes (EAPs) or outsourced support services in order to assist employees who feel a need for extra support other than that contained in, for example, a human resource function. Support can be provided by non-specialists in the form of colleagues being supportive, listening, ensuring that the individual is listened to and that his or her concerns are addressed where possible and recognising the need for some short-term alteration in their work system.

The stress intervention may also be classified from ownership point of view i.e. at individual level, at organizational level (IHE Report, 2009 and Sigh, 2018. IHE, 2009 report also included individual/organization interface level dimension. This classification system is used in this review because of its frequent appearance in the occupational stress literature and the ease with which the reviewers were able to use it to classify interventions.

A. Organizational-level interventions

Organizational-level interventions target policies and practices to prevent employee stress across the entire organization. Generally these interventions, which use primary prevention strategies, have been termed organizational, work-directed, work-environment-directed, work-related, environmental, or environmental management. Organization-focused approaches include the following but not limited to:

Selection and placement: As part of the recruitment process, selection and placement strategies ensure that the employee possesses the right combination of skills to complete work tasks effectively.

Training and education programs: Employee skills and knowledge are updated regularly.

Physical and environmental characteristics: Occupational hazards are identified, and action is taken to reduce their presence in the workplace.

Communication: This involves opening the lines of communication, improvement of communication skills, or both.

Job redesign or restructuring: This includes increasing job autonomy, control, or both by allowing employees to make more decisions around their work; enhancing skill discretion by allowing workers to use their skills, knowledge, and abilities to perform complex tasks; and

redistributing power among all employees to create a more democratic workplace and increase an employee's sense of control.

Maintaining Healthy Work Environment: An organization can maintain healthy work environment by taking corrective and strict actions against wrong doings, unethical behaviour of senior or employee. The organization should do fair treatment with all by motivating the employees to participate in activities of the organization, by taking into consideration their ideas, suggestions and giving them recognition for the same. Establishing better cooperation and coordination among leaders and subordinates, etc.

Workshops on managing Job related Stress: To minimize the level of stress within the employee, the organization should conduct workshops on how the employee can avoid the negative stress, what are the symptoms of stress. How one can cope with stress and how stress can be used positively.

Taking timely Feedback from Employee: The organization should check whether the strategy made and followed by them is acceptable by the employees or not and is it beneficial for the organizational growth or not. Taking timely feedback from employee will make it easier for the organization to know the reason behind the mismatch of plans and real output. And what are the factors that hamper the efficiency and capacity of the employee.

Distribution of Job Responsibility: The distribution of job responsibility should be according to the position and capabilities of the employees. Then only they will be satisfied and their efficiency to work will increase.

Appropriate leadership styles: Democratic leadership creates sense of belonging in employees. Having participation in decision making motivates employees and helps in creating stress less environment. Mostly employees are satisfied and are focused on work. For this purpose training of participatory decision making skills for managers, and increasing employee involvement in decision making is needed for this purpose.

Resolving conflicts by being just in all affairs of the organization life, and directing attention of employees on the goals and objectives of the organization helps in reducing conflicts which ultimately leads in reducing stress.

B. Individual and organizational interface-level interventions

Individual/organization-level interventions “typically target particular issues relating to the interface between individuals and their work and generally tend to concentrate on ensuring

that employees can carry out their work tasks adequately”. They include the following but not limited to:

Co-worker support groups: Co-workers and supervisors are encouraged to support each other.

Person-environment fit: As part of ongoing human resource management, regular appraisals are performed to ensure that there is congruence between the employee’s expectations and the environmental supplies available or the environmental demands placed on an employee and that employee’s abilities to meet those demands.

Role issues: Employees’ roles are clarified, and their job tasks are clearly delineated to reduce role ambiguity and role conflict.

Participation and autonomy: Employees participate in the organization’s problem-solving or decision-making processes, or both.

C. Individual-level interventions

Individual-level interventions are generally aimed at secondary prevention and therefore focus on providing employees with coping skills. These strategies have been called individual, worker-directed, worker-related, person-directed, person-based, or personnel support. Individual-focused approaches include the following:

Relaxation or meditation: Employees learn relaxation or meditation techniques to release tension.

Biofeedback: This is a measurement tool for learning, recognizing, and responding to information such as muscle and skin activity.

Cognitive-behavioural therapy: Employees learn to change their way of thinking and use active coping skills.

Exercise: Cardiovascular training, weight training, or both helps to protect employees from the harmful physical and mental effects of stress.

Time management: Employees are taught various skills aimed at improving their ability to delegate, negotiate, and set goals.

Employee assistance programs: Counselling, advice, or referral services are offered to employees.

Leading a Balanced Life: It’s very important for the employee to maintain work-life balance to lead stress free life or to avoid negative stress as both professional and personal life are inter-related to

each other. If a person is facing trouble or difficulties in coping with personal life problems like family demand, quality family time, etc. then the person will not be able to manage his work properly as he's not focused and vice-versa. Thus, the main aim of any employee should be to balance work and life properly.

Socializing: Now-a-days, socializing has become a habit and without it people are triggered with boredom. So, it's important to socialize for leading a chill out life.

Expanding social support network: It clearly revealed from social psychology research that social support is beneficial to employees. It involves building sympathetic and close associations with others co-workers and colleagues. It helps in confidence building and ultimately reduces symptoms of stress.

Life style changes: Factors like a proper diet, getting adequate sleep, doing daily exercises regularly, avoiding smoking and all illegal drugs is likely to minimize the harmful effects of stress (Lunenburg and Ornstein, 2003).

Visiting mental health professionals: Among them are: psychologists, psychiatrists, social workers, and mental health counsellors. Having special training they are helpful in reducing the level of stress (Lunenburg and Ornstein, 2003).

2.5. Stress Models

There are various established stress models that have gained importance in theory, research and practice. These models vary in popularity and empirical support as to how stress at work impacts employees and organisations. According to Mark, (2013) some of the commonly well-known models included are Person-Environment fit, the Sociotechnical viewpoint, the Job Characteristics Model, the Vitamin Model, the Michigan Model, the Demands-Control Support, Effort-Reward imbalance models, Lazarus and Colleagues' cognitive theory of Psychological Stress and Coping, the Transactional viewpoint of Cox and Colleagues, Semmer's Goal- Oriented theory, Hobfals Conservation of Resources Model, the Demand-Skill-Support model, the Job-Demands-Resources model, and the Demand-induced-Strain-Compensation model. Among the mentioned models above person-environment-fit, Demands-Control-Support (an extension of Demand-Control model), and Effort-Reward-Imbalance Models are the most currently popular and influential work-stress models used by most researchers used either independently or in a combined form (Akanji, 2015; Mark, 2013; IHE report, 2009; and Gillespie, et al., 2001). According to IHE report, (2009) two

popular theories, the demand-control-support model and the effort reward imbalance model, have emerged to explain how a few key psychosocial characteristics may lead to stress and illness. Though all the occupational stress theories have its own imperial contributions from different perspectives with its inherent limitations, in this study Person-Environment-Fit, Demands-Control-Support and Effort-Reward-Imbalance models these two were briefly reviewed as follows.

Person-Environment-Fit Model

This concept was developed into the Person-Environment fit model (French, 1973, cited by Mark, 2013), which suggests that the match between a person and their work environment is key in influencing their health. According to Lazarus & Launier, 1978, cited by Mark, (2013), stress is a result of an imbalance between the person's values, goals or desires and his environment supports the notion of stress at work. For healthy conditions, it is necessary that employees' attitudes, skills, abilities and resources match the demands of their job, and that work environments should meet workers' needs, knowledge, and skills potential. Lack of fit in either of these domains can cause problems, and the greater the gap or misfit between the person and their environment, the greater the strain as demands exceed abilities, and needs exceed supplies (Mark, 2013).

Job Demands-Control-Support Model

Johnson, and Hall's (1988) Job Demand-Control-Support model (an extension of Karasek's (1979) Job Demand-Control model) predicts that employees working in jobs characterized by high demand, low control and low social support/isolation, experience the lowest well-being (Gillepsie, et al., 2001). The IHE report (2009) explained that the demand-control model is based on the premise that a combination of high job demands (workload) and low decision latitude (amount of control or decision-making power) causes mental strain that is detrimental to an employee's health and wellbeing. The balance between a job's demands and the amount of control it allows is an indication of the level of job strain that the employee experiences. Jobs in which employees have low decision latitude and heavy job demands are therefore considered to result in high job strain. Social support was later added to the model such that the combination of high demands, low control, and low social support create the highest level of strain. This model is limited to the three dimensions.

Effort-Reward-Imbalance (ERI)

The effort-reward imbalance model is another occupational stress model that has received attention over the past decade. According to this model, employees who expend high effort but receive little reward (high “cost,” low “gain”) experience high levels of strain, which may lead to various physical and psychological illnesses. The Effort-Reward Imbalance (ERI) model takes a different approach when compared to the earlier two models. In literature, the ERI concept incorporates individual difference components. It means individual perceptions of work outputs and expected returns vary from person to person. The ERI model is based on the notion that perceived intrinsic and extrinsic efforts (e.g. motivation and commitment) put into work should be reciprocated by adequate rewards (i.e. money, esteem, job security and career opportunities) (Siegrist, 1996, cited in Gillespie, et al., 2001). Failure to achieve this social exchange can result into stress and job burnout. However, the model have also been criticised as inconclusive because of the limited components of effort and reward variables it considers.

2.6. Summary

Occupational stress is an inevitable occurrence in every work life of employees and part of life journey. However, the level of stress differs among the type and nature of occupations, and individual employee’s reactions towards a given situations or objects. A moderate stress where the individual employee able to manage or control it within the resources at hand with a positive and can do attitude is considered as eustress that motivate and energize him or her to exert untapped potential to look for betterment and bright future. Whereas under and over pressure leads to distress that adversely affect individual employee’s productivity, motivation and energy in the work place and might lead to physical, mental and psychological disorder.

The main sources of occupational stress are mainly classified as organizational factors, individual factors and extra-organizational factors. As most scholars confirms that organizational factors are the most dominant and influential factors within the organizational set up that will contribute a lot to induce occupational stress if not well managed in time. Occupational stress has consequences both on the individual employee and organization as well. The adverse effect of occupational stress on the individual employee could be physical, behavioural and psychological that affects the productivity, motivation, commitment and energy to perform the assigned roles and responsibilities that might leads to absenteeism, turnover and counter affect the organization’s performance and growth and might lead to

unproductive costs. Considering its adverse effect both on the individual employee and the organization, a timely interventions are required at individual, organization and individual & Organizational interface levels. The intervention could be classified as primary, secondary and tertiary level intervention that enables to address occupational stress effects both on the individual and organization.

Scholars has identified and developed various standard occupational stress models in the field. Among them Person-Environment-Fit (PEI), Demand-Control-Support (DCS) and Effort-Reward-Imbalance (ERI) are some of the commonly used models. This research has also adapted and deployed in combined form in line with governing objective of the research and research questions.

CHAPTER THREE: METHODOLOGY

This chapter deals with the methodology that will be used for exploring relevant data related to the causes, consequences and moderators of occupational stress in the case of Ethiopia Commodity Exchange and test the hypothesis stated in the introduction. The content of this chapter includes the research design and method, population, sampling techniques, data source, instrumentation, methods of data collection and data analysis and the ethical considerations.

3.1. Research Design and Methods

For the purpose of this study both quantitative and qualitative designs were used to explore more data on the perceived sources, consciences and moderators of occupational stress at the target organization. The quantitative method was applied to easily explore and obtain relevant data through availing questionnaire to the targeted respondents. Hughes et al. (2017) discussed from the work of Gall et al. (1996) that descriptive survey enables the researcher to gather information from a cross-section of a given population. It also involves asking the same set of questions often prepared in the form of written questionnaire for a large number of individuals in one go. Besides, the focus of the research is delimited at Ethiopia Commodity Exchange where it is the only organized and modern exchange platform that has unique nature the researcher deployed qualitative technique with flexibility and concurrently analyse in-depth data to augment the quantitative data. Deploying mixed approach was vital for such type of behavioural study as it enabled to ensure information/data quality obtained from different data sources using different data collection instruments. The data obtained both from the quantitative and qualitative design enabled the student researcher to successfully address the research questions stated under the introduction part.

3.2. Population and Sample

Population of the study constituted employees who have been working at Ethiopia Commodity Exchange both at Head Quarter and Branch Offices. Currently the Ethiopia Commodity Exchange has 31 branch offices where 25 of them operating warehouse and quality operation services and the remaining six of them have been engaged in providing trading services at regions. All the employees of the Ethiopia Commodity Exchange were considered as the population of the study. An updated list of employees was collected from

the company i.e. a total of 1055 (HR statistics report as of June 30, 2021) of which 70% (738) of the staff found at upcountry Branch Office and 30% (317) of the staff found at Head Quarter and Addis Ababa Branch Office. Out of the total 30% (317) were female as per the report. Taking all the resources at hand and manageability of the study with in the given resources in to consideration, the sample size was determined using Cochran’s formula used for known population size i.e.:

$$n = \frac{n_0}{1 + \frac{n_0}{N}} \quad \text{where} \quad n_0 = \frac{z^2 p(1-p)}{e^2}$$

No.	Descriptions	Assigned value	Remark
1	N	1055	Population size (as of May 20 HR report)
2	p	.5	Standard
3	z	1.96	Standard
4	e	.05	Standard (error)
5	no	Sample size for unknown population size using Cochran’s formula	
6	n	Sample size for known population size using Cochran’s formula	

Based on the given calculation, the sample size considered for this research was calculated as follows.

$$n_0 = \frac{z^2 p(1-p)}{e^2} = 384 \quad n = \frac{n_0}{1 + \frac{n_0}{N}} = 282$$

Hence, based on the standard formula used for definite population size 282 samples were drawn from the total population. A stratified sampling technique was deployed to classify Upcountry Branch Offices and Head Quarter staffs before drawing the sample size for both groups in order to get all relevant and adequate representative data. Employees were chronologically listed out based on the strata i.e. upcountry and head office. A proportion of sampled employees were drawn from the strata i.e. 60% for Upcountry Branch Offices staffs and 40% for Head Quarter staffs considering the total population proportion i.e. 70% upcountry and 30% head office, homogeneity and heterogeneity of the job functions. Accordingly, 169 sampled staffs from Upcountry Branch Offices and 113 randomly sampled staffs from Head Quarter were drawn from the strata list using random number generator to give equal chance to be selected and took part in filling survey questionnaire designed for the

purpose. For the focus group discussion and interview, respondents were selected using purposive and convenient sampling to get the relevant information. Accordingly, twenty (20) branch managers and ten (10) Quality Supervisors were purposefully included in the focus group discussion considering the convenience time as they were here at Addis Ababa for attending training programs. Ten (10) interview participants were purposefully selected considering their operational engagement and frequent contact with both internal and external stakeholders and their convenient time.

3.3. Source of Data

The study was mainly used primary data source. However, some secondary sources were used as well particularly employee satisfaction survey and corporate performance report of the organization and related literatures and stress models. Primary data were collected from sampled employees of the targeted population. The study mainly relied on the primary source of data as it was hardly possible to find directly relevant research outputs on the subject study in the area and at Commodity Exchange service industry in particular. Besides, the researcher couldn't find any related local study in Ethiopian context. The primary information/data were collected using questionnaire, focus group discussion (FGD) and interview session. In the case of secondary data source, recent employee satisfaction survey and corporate performance reports were collected to get relevant information that supports the study. Besides, related literature on the subject under discussion and stress models were reviewed and used as a guiding framework throughout the study report.

3.4. Data Collection Instruments

In this study, survey questionnaires, semi-structured focus group discussion and interviews were employed as data collection instrument. A combination of different instruments were deployed to obtain adequate and reliable data/information for the subject study.

3.4.1 Survey Questionnaire

In this study required data from the employees were collected with the help of a structured questionnaire designed for getting clean information about employees' views, perceived feelings and experiences regarding occupational stress. More specifically their perceived experiences about the cause, consequence and moderators of occupational stress. Survey

questionnaire was preferred because it enabled to generate and secure adequate quantifiable information at a time and commendable tool for such behavioural survey study.

The survey questionnaire has four parts. The first part of the questionnaire contained the background information of the targeted respondents whereas the second, the third and the fourth parts addressed the causes, consequences and moderators of occupational stress.

Items of the questionnaire were prepared by the student researcher himself by carefully extracting/adapting from standard stress models available at open sources i.e. Person-Environment-Fitness (PEF), Demand-Control-Support (DCS), and Effort-Reward-Imbalance (ERI), Generic Occupational stress Questionnaire (GJSQ) and other current issues relevant for the study. The items of the questionnaire were closed ended and restricted responses so as to exhaust all the possible indicators. The questionnaire was pre-tested on 30 randomly selected employees from the target population who were exempted in the final sampled population to check the reliability and cultural relevance and get necessary corrections, additions and modifications. Adjustments like mandatory fields on optional responses, rearrangements on response choices were made. The modified and corrected questionnaire was administered electronically using a google forms. I used google form because it is time savings, cost effective and gives respondents freedom to express their true feelings anonymously.

3.4.2 Semi-Structured FGD and Interview

To further obtain relevant data and strengthen the data obtained through questionnaire the student researcher conducted semi-structured focus group discussion with 20 Branch and regional trade center managers in two rounds (10 each) considering the total numbers and 10 quality supervisors in one round and interview session with two Deputy Chief Executive Officers, 4 Chief Officers and 4 managers at head office. The planned focus group discussion and interview helped to produce in-depth data even which were not covered through structured survey questionnaire and observed their true feelings and expressions. Same guiding questions were developed and employed for the focus group discussion and interview session. The guiding questions focussed on the causes, consequences and moderators of occupational stress and their recommendation on the intervention areas. The target of the study for focus group were 20 Branch Office and Regional Trade Centre Managers in to two groups (10 each) and 10 Coffee Quality Supervisors in one group considering the advisable

size for the focus group discussion. Interview participants were ten i.e. two Deputy Chief Executive Officers, four Chief Department Officers and four Division Managers. The focus group discussions were conducted in the training room right after concluding their training program at different time for about 1 hour and plus each. The interview session were conducted at their respective office and took from 30 to 40 minutes each.

3.5. Data Collection Procedure

Data were collected by the researcher himself. Prior to data collection researcher contacted the institution to get permission for conducting the study at the institution ahead of time. Once the permission was obtained the researcher then communicated the relevant offices to get relevant data, documents and extend necessary help and co-operation during data collections. The researcher exerted utmost efforts to establish rapport with the target respondents so that they could feel free to timely and anonymously fill the questionnaire and freely express their feelings during focus group discussion and interview session. Accordingly, data were collected from the target sampled staffs as described in the analysis part.

3.6. Data Processing and Analysis

After completion of field survey data from all, question items were coded, compiled, tabulated and analysed in accordance with the objectives of the study. In this process, all the responses in the questionnaire were given numerical coded values. Whereas the qualitative data were transcribed, categorized, presented and discussed and served as a cross-reference with the quantitative data.

The analysis performed using the Statistical Package for Social Sciences (SPSS) computer package version 21. Descriptive analysis such as frequency, percentage, mean, standard deviation, independent T test, and One Way ANOVA used as appropriate. Throughout the study, at least five-percent (0.05) level of probability were used as basis of rejecting a null hypothesis. The qualitative data were transcribed, presented and discussed separately. Finally, discussion of major findings, conclusion and recommendation were presented.

3.7. Ethical Considerations

In this study the following ethical considerations were observed.

- The research were conducted through the permission of the due authority to conduct the study with their employee response.
- Special care was taken to avoid personal biasness and opinion of the researcher to ensure fair consideration.
- The research was conducted under the assumption that the researcher will keep the findings anonymous.
- Result of the research work was accurately represented what is observed based on the actual response of the respondents.
- Reasonable and appropriate samples were selected to obtain reasonable standard of result.
- Appropriate conclusions and recommendations were drawn on the basis of the findings of the research.

CHAPTER FOUR: RESULTS

4.1. Overview

This chapter deals with results based on the data gathered through questionnaire, FGD and interview subjected to the basic questions and objective of the study under discussion. The quantitative data obtained through questionnaire and the qualitative data obtained through FGD, interview and relevant company reports have been organized, presented and discussed accordingly and cross-referenced as relevant in light of answering the basic questions raised in chapter one. Thus, this chapters separately deals questionnaire distribution and collection response rate, reliability test result, respondents' demographic characteristics, quantitative and qualitative data presentation and analysis.

4.2. Questionnaire Distribution and Collection Response Rate

The questionnaire was developed using google forms and electronically distributed for the sampled 282 respondents of which 169 sample respondents were from upcountry branch office staffs and the remaining 113 sample respondents were from head quarter. The questionnaire response rate from head quarter counts 99% whereas 92% from upcountry branch office staffs (see table 4.1 below). In total about 95% response rate obtained with dully filled all question items with no missing/incompleteness.

Table 4.1
Response Rate

No	Description	Questionnaire distributed	Questionnaire Collected in number
1	Head Quarter	113	112 (99%)
2	Upcountry Branch Office	169	155(92%)
3	Total	282	267 (95%)

4.3. Reliability Test Result

The internal consistency of the outcome variables was examined using Cronbach's alpha. The overall test result falls under acceptable level of internal consistence which is above the acceptable standard of 0.7 as demonstrated in table 4.2 below. Besides, there is no missing or incomplete data across all the question items. This data quality assurance secured through administering the questionnaire using google forms and activating the required field button.

Besides, the google form questionnaire administration enhanced respondents confidence to feel free and express their feelings anonymously. In general both the sub variables and aggregate test result confirms the acceptable level of internal consistency that confidently assure the reliability of the outcome measure.

Table 4.2
Reliability Test Result.

Major Variable	Sub Variables	Question Items	No. of Items	Cronbach's Alpha
Source of Stress	Fitness	Q.41, Q.42, Q.43, Q.55, Q.62	5	0.805
	Demand	Q.13, Q.17, Q.20, Q.27, Q.31, Q.32, Q.33, Q.40	8	0.705
	Effort	Q.14, Q.16, Q.18, Q.19	4	0.811
	Over Commitment	Q.21, Q.22, Q.23, Q.24, Q.25, Q.26	6	0.716
	Control	Q.28, Q.29, Q.30, Q.34, Q.35, Q.36, Q.37, Q.38, Q.39	9	0.754
	Support	Q.52, Q.53, Q.54, Q.55, Q.56, Q.58, Q.59, Q.60, Q.63, Q.64	10	0.728
	Reward	Q.44, Q.45, Q.46, Q.47, Q.48, Q.49, Q.50, Q.51, Q.61, Q.65	10	0.775
	Work Life Balance	Q.66, Q.67, Q.68, Q.69	4	0.835
	Others(Covid-19 & Political environment)	Q.69, Q.70	2	0.78
	Personality	Q.72, Q.73, Q.74, Q.75, Q.76, Q.77	6	0.839
Summated Source of Stress			64	0.881
Consequence	Stress effect/symptoms	Q.78, Q.79, Q.80, Q.81, Q.82, Q.83, Q.84, Q.85, Q.86, Q.87, Q.88, Q.89, Q.90	13	0.899

4.4. Respondents' Demographic Characteristics

Respondents were asked to confirm their demographic characteristics that include gender, age, marital status, child care primary responsibility, elderly family care primary responsibility, level of education, current higher educational/professional certification enrolment, work experience (total at current company and at current job position), department, current job position and supervisory responsibility. Most of the demographic characteristics described under table 4.3 have a direct and indirect influence on behavioural survey studies like stress related survey study which is the central objective of this study. Each demographic characteristics are discussed here under.

Table 4.3
Respondent Demographic Characteristics

No.		Description	Frequency	Percent (%)
1	Gender	Male	182	68.16%
		Female	85	31.84%
		Total	267	100.00%
2	Age	Above 18 to 25	18	6.74%
		Above 25 to 35	152	56.93%
		Above 35 to 45	79	29.59%
		Above 45	18	6.74%
		Total	267	100.00%
3	Marital status	Married	168	62.92%
		Single	93	34.83%
		Divorced	6	2.25%
		Total	267	100.00%
4	Primary responsibility for child care	Yes	161	60.30%
		No	106	39.70%
		Total	267	100.00%
6	Level of education	MA/MSc	85	31.84%
		BA/BSc	180	67.42%
		Diploma/Level and below	2	0.75%
		Total	267	100.00%
8	Total work experience	Less than 5 years	28	10.49%
		Between 5-10 years	100	37.45%
		Between 10-15 years	92	34.46%
		Above 15 years	47	17.60%
		Total	267	100.00%
10	Current job position	Chief Officer	12	4.49%
		Division Manager	23	8.61%
		Branch/RTC Manager	19	7.12%
		Warehouse Supervisor	16	5.99%
		Quality Supervisor	14	5.24%
		Professionals	56	20.97%
		Sampling Supervisor	14	5.24%
		Associates/Juniors	15	5.62%
		Cuppers	24	8.99%
		Grain Graders	15	5.62%
		LIC/IC	35	13.11%
		Data Assistants	18	6.74%
		Others	6	2.25%
		Total	267	100.00%
13	Supervisory responsibility	None	119	44.57%
		Less than 5 subordinates	65	24.34%
		Between 5-10 subordinates	35	13.11%
		Between 11-20 subordinates	28	10.49%
		Above 20 subordinates	20	7.49%
		Total	267	100.00%

From the total 267 respondents 68% were male and the remaining 32% were female as can be seen in table 4.3 item. From the recent annual human resource statistical report (as of June 30, 2021) of the company, it has been reported that the ratio of male to female is 70% to 30% respectively. Thus, the participation of male and female seems corresponding the existing actual composition and they could fairly represent the total population.

As referenced from table 4.3 item 2 the age distribution of the respondents found in all categories with a majority of the respondents that counts 86.5% found in the age group of above 25 to 45 and the remaining 13.5% fall under the age group of between 18 to 25 and above 45. In general, the majority of the respondents are young, highly productive and at the same time highly demanding that needs to devise a strategy to systematically and consistently moderate work stressors in order to boost productivity and enhance positive engagement.

The marital status of the respondents constituted 63% and 35% of married and single respectively and the remaining 2% were divorced as could be referred from table 4.3 item 3. Marital status have its own influence on work stress either positively or the reverse depending on various components of the marriage relationships and health conditions of the couples and their children. 60% of the respondents have a primary responsibility in taking care of children whereas the remaining 40% have no primary responsibility. 48% of the respondents are responsible in taking care of elderly family/relatives where about 52% of the respondent have no such primary responsibility (see table 4.3 item 5). This shows, how socially connected and taking the primary responsibility extended family that might strain employees in the work place.

Respondents' last attained level of education showed in table 4.3 item 6 that about 67% and 32% have first degree and 2nd degree respectively and the remaining 1% have diploma & below. In general, 98% of the respondents of the company have first degree and above who could absorb stressful situation to certain level and can easily devise strategies to manage. However, unless the company devises a strategy and systematically manage this workforce it will be very difficult to tap their maximum potential through proactively addressing over and under stressors since both leads to low productivity and dissatisfaction.

45% of the respondents are currently enrolled in attending courses to earn degree//Masters or professional certifications which shows respondents are active in advancing their competence and the remaining 55% respondents have no such commitment currently.

Respondents were asked to indicate the ranges of their aggregate work experience, experience at the current organization and at current job positions as described in table 4.3 item 8, 9 and 12. About 72% of the respondents have a total work experiences that ranges from 5 to 15 years of experience and about 71% of them have worked 2 to 10 years in the current organization. This shows the lion-share of their work experiences counts at the current organization and they are stable. Whereas the remaining respondents with a prevalence rate of 10% and 7% have 5 years and less total work experience and 2 and less at the current organization respectively. On the other hand, respondents who have more than 15 years of total work experience and more than 10 years at current organization with a prevalence rate of 18% and 22%. Besides, the majority of the respondents have served between 2 to 5 years in the current job position with a prevalence rate of 53% and the remaining 25% and 22% have served more than 5 years and less than 2 years in the current job position respectively. In general, the service years of the respondents have a good composition that covers all the ranges and helps to fairly generalize the outcome of the study.

Almost all the job position categories were included with varied percentage of participation as shown in table 4.3 item 10 with a highest prevalence rate of 21% professionals and next 13% of Lead Inventory Controller/Inventory Controller (LIC/IC) from the total respondents. The remaining job position have less than 10% prevalence rate but that does not imply that they are less represented rather the total population of those job positions were relatively low. Besides, a proportion of head office job positions that includes Chief Officers, Division Managers, Professionals, Associates/Juniors and others with a prevalence rate of 42% and branch office job positions includes Branch/Regional Trade Centre Managers, Warehouse Supervisor, Quality Supervisor, Sampling Supervisor, LIC/IC, Cupper, Grain Quality Grader and Data Assistants were represented with a prevalence rate of 58%. This would be a good ground to generalize the study outcome over the total population.

The line reporting relationship of the respondents were indicated under table 4.3 item 11 where majority of the respondents were from warehouse and quality operations with a prevalence rate of 36% and 27% respectively. From the actual HR statistical report more than 70% of the total population were under these two departments so that it seems a wise representation. The remaining departments take a share of less than 6% and below prevalence rate (see table 4.3 item 11 above for the detail). This shows all departments have been represented in the study.

Respondents were asked to report the number of subordinates under their direct supervision if any. From the total respondents 119 (45%) reported that they have no supervisory responsibility and the remaining 55% of the respondents have a supervisory responsibility with a different range of subordinates they have supervision. 24%, 13%, 11% and 8% of the respondents reported that they have supervisory responsibility for less than five, between 5 to 10, between 11 to 20 and above 20 subordinates respectively. This shows the target respondents have varied level of supervisory responsibility including those who didn't have yet so that they could fairly represent.

In general, the demographic characteristics of the respondents have a good composition and adequately represent all the demographic categories of the population under study and confidently serve as a ground for the conclusion of the study outcome.

4.5. Quantitative Data Presentation and Analysis

The quantitative data collected through questionnaire were presented, analysed and interpreted in light of measuring respondents perceived sources, consequences and moderators of stress as per the research questions raised in chapter one. This sub-section covers the perceived sources of stress with diverse stressor dimensions, respondents stress experiences, perceived effects of stress, stress levels, moderators/strategies used to manage their stress and finally cross examined the presence of statistical significant demographic differences in perceiving the sources and effects of occupational stress at work.

4.5.1. Respondents Perceived Source of Stress

Respondents were asked to confirm their agreement or disagreement on the statements designed for the purpose using a five level Likert scale from strong disagreement to strong agreement. The questionnaire designed under diverse dimension of source of stress that the student researcher believed to comprehensively address the scope of the study which were adapted mainly from person-environment-fitness, demand-control-support and effort-reward imbalance models and measure the respondent's perception level. The source of occupational stress dimension included in this study are fitness, demand, effort, over-commitment, control, support, reward, work-life-balance, personality and other factors as demonstrated in the tables below that are discussed hereunder.

4.5.1A: Fitness

As per the Person-Environment-Fitness model occupational stress may arise when there is a mismatch between the employee and the work itself & its environment. Accordingly, respondents were reported on selected person to job fitness related statements as demonstrated under table 4.4A.

42% and 57 % of the respondents reported their disagreement and strong disagreement with a mean of 2.78 and 2.47 for question items Q41 & Q42 as displayed in table 4.4A below respectively and 37% and 24% of them reported their agreement and strong agreement for the same questions items. Whereas the remaining 21% and 20% preferred to be neutral. This shows that 57% and less of the respondents were not interested on their current job which could be a ground for being dissatisfied and could easily develop strain. Similarly, those respondents who preferred to be silent with a prevalence rate of 21% and less might possibly considered in the middle of the road either to march to the disagreement or agreement but still has a tendency to develop confusion and lack of purpose clarity that might fall under stressful situation. However, those respondents who reported their agreement with a prevalence rate of 37% and less have a better ground to successfully manage job strains and get satisfied on their achievements.

Table 4.4A
Fitness

Source of Stress Variables by Dimension		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	St. Disagree & Disagree	Neutral	Agree & St. Agree	Mean	Std. Deviation
		N	N	N	N	N					
Fitness	Q41 Present job fulfilled the attributes that I look for	54	58	55	93	7	42%	21%	37%	2.78	1.198
	Q42 Current job gives me just about everything	64	87	53	53	10	57%	20%	24%	2.47	1.164
	Q43 My personal abilities and education match with the job demands	12	59	62	104	30	27%	23%	50%	3.30	1.073
	Q55 Supervisor's values and beliefs provide a good fit	6	57	100	97	7	24%	37%	39%	3.16	.866
	Q62 Organization's values and culture provide a good fit	4	12	75	152	24	6%	28%	66%	3.67	.762

4.5.1B: Demand

Relevant statements that reflect job demand were presented to the respondents to confirm their agreements and disagreements as shown in table 4.4B below. As discussed in the literature review of this study the presence of a demanding work environment leads to tension and strain if employees perceived they have low decision latitude/control and low social support as theorised by the demand-control-support stress model. From table 4.4B items Q15, Q17, Q20, Q27, Q32, majority of the respondents reported their agreement that they were executing their work under a demanding situation with a prevalence rate of 45%, 46%, 51% and 65% with a mean score of 3.25 and above respectively. Some respondents, on the other hand, were reported to disagree with the same statements discussed above with prevalence rates of 27%, 20%, 24%, 12%, and 20% respectively which might imply they are working under normal conditions. However, certain portions of the respondents preferred to be reserved or not sure to confidently report their agreement or disagreement that ranges with a prevalence rate from at least 17% to a maximum of 37%. As can be referred to in table 4.4B items Q31 & Q33, the physical work environment seems questionable that might count for making the working environment more demanding and leads to a stressful situation. From the findings of the employee survey of the company (2020), it was well noted that upcountry branch offices have physical work environment challenges and the student researcher had the chance to visit and observe the working environment of the various branch offices at different times that need interventions for improvements.

Table 4.4B*Demand as a Source of Stress*

Source of Stress Variables by Dimension		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	St. Disagree & Disagree	Neutral	Agree & St. Agree	Mean	Std. Deviation	
		N	N	N	N	N						
Demand	Q15	Performing various jobs simultaneously	6	66	74	96	25	27%	28%	45%	3.25	1.005
	Q17	Always feel time pressure due to many things to do	2	51	91	100	23	20%	34%	46%	3.34	.909
	Q20	Job requires a lot of physical effort/strength	5	59	66	90	47	24%	25%	51%	3.43	1.075
	Q27	Doing the same tasks over and over again	0	31	63	108	65	12%	24%	65%	3.78	.947
	Q31	Clean and comfortable workplace	10	181	45	28	3	72%	17%	12%	2.37	.767
	Q32	Exposed to dangerous work and possibility of high risk of accidents	10	111	99	41	6	45%	37%	18%	2.71	.852
	Q33	Poor physical work environment	6	47	46	153	15	20%	17%	63%	3.46	.923
	Q40	Asked to do another work before finishing the work I am doing	2	97	79	86	3	37%	30%	33%	2.97	.873

4.5.1C: Effort and Over-Commitment

Table 4.4C constituted respondents perceived level of both intrinsic & extrinsic efforts and commitment exerted to execute their daily operations. As discussed in chapter two, the effort-reward-imbalance stress model states that occupational stress occurs when the employees' perceived that their effort and commitment were not recognized and rewarded as expected.

Respondents were asked to self-report their agreement or disagreement on the selected effort and over-commitment related statements. Accordingly, the majority of the respondents reported their agreement related to their effort and over-commitment exerted with a prevalence rate of 58%, 79%, 49% & 79% and 46%, 58%, 48%, 57%, 40%, & 61% respectively as shown in table 4.4C. Lesser portion of the respondent, on the other hand, reported their disagreement with a prevalence rate that ranges from 3% to 28% and 8% to 20% for the effort and over commitment respectively as can be referred from same table. This infers that majority of the respondents believed that they have exerted their efforts and over committed in their work.

Table 4.4C*Effort and Over-Commitment*

Source of Stress Variables by Dimension		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree				Mean	Std. Deviation	
		Frq	N	N	N	N	St. Disagree & Disagree	Neutral	Agree & St. Agree			
Effort	Q14	Constant time pressure due to a heavy work load	2	31	78	115	41	12%	29%	58%	3.61	.909
	Q16	A lot of responsibility	1	7	49	132	78	3%	18%	79%	4.04	.784
	Q18	Many interruption and disturbances	3	72	62	117	13	28%	23%	49%	3.24	.944
	Q19	Job has become more and more demanding	0	13	43	156	55	5%	16%	79%	3.95	.749
Over-Commitment	Q21	Easily overwhelmed by time pressures at work	2	52	91	111	11	20%	34%	46%	3.29	.851
	Q22	Thinking about work problems every morning	12	47	52	115	41	22%	19%	58%	3.47	1.087
	Q23	Easily relax after work	1	57	81	118	10	22%	30%	48%	3.30	.858
	Q24	Sacrifice too much for my job	4	17	93	136	17	8%	35%	57%	3.54	.771
	Q25	Work still on my mind when I go to bed	9	55	97	95	11	24%	36%	40%	3.16	.915
	Q26	Postpone something has trouble in sleeping at night	5	31	69	140	22	13%	26%	61%	3.54	.872

4.5.1D: Control

As per the demand-control-support model, control is one dimension which is characterized by the decision latitude or amount of power the individual have over resources and work. The lessor the control the individual have and higher the job demand leads to the higher the mental strain. In order to gage respondent's perception level on their decision latitude selected statements were asked to report their agreement or disagreement. As referred from table 4.4D item Q28, Q29, Q30, Q34, Q35, Q36 and Q39, majority of the respondents reported their agreement with a prevalence rate of 60%, 65%, 67%, 74%, 47%, 67%, and 57% respectively. Two of the items i.e. Q36 & Q39 were reversely stated and the respondents agreement implies that there is a concern area that leads to mental strain whereas the remaining positive response have a direct relevance to manage the job demands with having a clarity of job purpose and objectives. Some of the respondents, on the other hand, reported their disagreement with a prevalence rate that ranges from least 9% to the highest 25% as shown in table 4.4E below except item Q37 & Q38. Other respondents were inclined to stand

in the middle of the road with a prevalence rate that ranges from 14% to 36%. This implies respondents preferred to be silent or they lack confidence to swing to neither agreement nor disagreement.

Table 4.4D

Control

Source of Stress Variables by Dimension		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	St. Disagree & Disagree	Neutral	Agree & St. Agree	Mean	Std. Deviation	
		N	N	N	N	N						
Control	Q28	Work requires a high level of skill or knowledge	3	65	38	122	39	25%	14%	60%	3.48	1.049
	Q29	Make own decision in my job and give influence over the work	2	37	54	138	36	15%	20%	65%	3.63	.909
	Q30	Control work place and time schedule	2	23	64	145	33	9%	24%	67%	3.69	.825
	Q34	Clear planned goals and objectives		12	58	197	0	4%	22%	74%	3.69	.551
	Q35	Certain about how much authority I have	10	35	96	126	0	17%	36%	47%	3.27	.827
	Q36	Receive an assignment without the help I need to complete it	9	24	55	179	0	12%	21%	67%	3.51	.796
	Q37	Bend or break a rule or policy in order to carry out an assignment	10	149	78	30	0	60%	29%	11%	2.48	.742
	Q38	Receive incompatible requests from two or more people at a time	7	108	83	69	0	43%	31%	26%	2.80	.855
	Q39	Assignment without adequate resources and materials to execute it	11	51	52	128	25	23%	19%	57%	2.61	1.029

4.5.1E: Support

The presence of adequate social support and systems in the work environment serves as moderator to curb tension/strain resulted from job demand. Demand-Control-Support model, as presented in the literature review part, states that distress occurred when there is high job demand with low decision latitude and low social support. With this view, respondents were asked to self-report their agreement or disagreement on each of the statements as displayed in table 4.4E below. Majority of the respondents reported their agreement on items Q52, Q53, Q54, Q55 and Q56 with a prevalence rate of 52%, 73%, 57%, 69%, and 66% respectively with a mean score of 3.43 and above. This shows, respondents have a positive feeling that enables them to neutralize or creates courage to cope mental strains that might resulted from over demanding work environment as appropriate. About 10% to 15% of respondents, on the

other hand, were reported their disagreement on those statements and the remaining 16% to 35% respondents preferred to be neutral. Besides, on items Q58 was reverse question and 42% of the respondents reported their disagreement that shows they perceived that they feel free to express their ideas or feelings to their supervisors whereas 30% of them reported that they faced difficulties to express their opinion or idea freely and the remaining 30% kept neutral. Items Q59, Q60, Q63 and Q64 were worded positively and the respondents responded dispersedly with a prevalence rate that ranges from 18% to 40% disagreement, 37% to 50% agreement and the remaining 20% to 36% indifferent. This shows that there is concern areas that needs to be fixed proactively since the disagreement has exponential factor to dominate others and create strain at work.

Table 4.4E
Support

Source of Stress Variables by Dimension		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	St. Disagree & Disagree	Neutral	Agree & St. Agree	Mean	Std. Deviation
		N	N	N	N	N					
Support	Q52 Supervisor is helpful in getting the job done	11	23	93	118	22	13%	35%	52%	3.44	.913
	Q53 Co-worker is helpful in getting the job done	3	24	44	177	19	10%	16%	73%	3.69	.778
	Q54 Someone who understands work difficulties	6	31	78	146	6	14%	29%	57%	3.43	.812
	Q55 Co-worker(s) who share problems at work	10	18	54	164	21	10%	20%	69%	3.63	.868
	Q56 Family/relatives who understands difficulties at work	7	32	52	151	25	15%	19%	66%	3.58	.912
	Q58 Difficult to express opinions or feelings to superiors	15	97	75	64	16	42%	28%	30%	3.12	1.029
	Q59 Friendliness among members of the department	16	57	93	85	16	27%	35%	38%	3.10	1.002
	Q60 Harmonious relationship among departments	8	65	95	83	16	27%	36%	37%	3.13	.949
	Q63 Fair and reasonable organizational policy	4	43	87	106	27	18%	33%	50%	3.41	.927
	Q64 Sufficient organizational supports	19	88	54	92	14	40%	20%	40%	2.98	1.083

4.5.1F: Reward

Employees who perceived they exerted high efforts and over-committed but perceived they did not received corresponding intrinsic and extrinsic rewards in return develop high strain as discussed in chapter two in literature review part. Reward could be viewed in different dimension that could be classified as financial and non-financial, intrinsic and extrinsic and current and future prospects. Accordingly, respondents were asked to self-report their agreement or disagreement on the statements presented as shown in table 4.4F below. Respondents were cross checked to what extent they were conscious in addressing the statements like item Q44 and Q47. The former stated negatively and the later worded positively and relatively respondents consistently reported their agreement and disagreement with a prevalence rate of 49% and 48% respectively. This shows how respondents were conscious and carefully attended the statements and expressed their true feelings.

Related to the financial reward as displayed in table 4.4F item Q49, 73% of the respondents reported that their financial reward was below expectation which could be one source of mental strain and best talents might look for outside and intend to leave. On top of this, about 49% of the respondents reported the absence of adequate job promotion prospects as shown in table 4.4C item Q44 & Q47. Besides, 34% of the respondents reported that there is a job security concern as can be seen in the same table item Q46 though 40% of them have no concern.

Concerning the intrinsic reward as displayed in the same table under items Q48, Q61 & Q65, respondents have positive feeling with a prevalence rate of 31%, 47% and 48% respectively and 39%, 25% & 13% reported their disagreement. In general, the reward part seems a concern area. As a result, the presence of perceived high effort and over-commitment with low reward creates high mental strain.

Table 4.4F*Reward*

Source of Stress Variables by Dimension		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	St. Disagree & Disagree	Neutral	Agree & St. Agree	Mean	Std. Deviation	
		N	N	N	N	N						
Reward	Q44	Poor job promotion prospects	26	63	48	86	44	33%	18%	49%	2.78	1.251
	Q45	Experienced or expect to experience an undesirable change in my work situation	11	78	101	69	8	33%	38%	29%	2.94	.914
	Q46	Poor employment security	17	91	69	77	13	40%	26%	34%	3.08	1.037
	Q47	Adequate Job promotion prospects	36	92	64	64	11	48%	24%	28%	2.71	1.099
	Q48	Received the respect and prestige I deserve at work	11	94	79	68	15	39%	30%	31%	2.93	.998
	Q49	Adequate salary/income	107	89	32	32	7	73%	12%	15%	2.04	1.113
	Q50	Work hard results more rewards	32	83	72	50	30	43%	27%	30%	2.86	1.189
	Q51	Adequate capacity development opportunity	19	93	53	86	16	42%	20%	38%	2.95	1.094
	Q61	I receive the respect I deserve	10	56	75	113	13	25%	28%	47%	3.24	.962
	Q65	I acquire respect and confidence	6	30	103	107	21	13%	39%	48%	3.40	.872

4.5.1G: Work-Life-Balance

The presence of a balanced life at work and home creates a conducive environment and increase effectiveness, efficiency and productivity. To measure respondents perceived level of feelings selected statements were presented to self-report their agreement and disagreement. Overall, the majority of the respondents reported that they have running a balanced work life with a prevalence rate of 67% and mean score 3.76 and the remaining 33% preferred to be neutral.

Table 4.4G*Work Life Balance*

Source of Stress Variables by Dimension		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	St. Disagree & Disagree	Neutral	Agree & St. Agree	Mean	Std. Deviation	
		N	N	N	N	N						
Work-Life-Balance	Q66	Could not do well both at work and home	42	167	58		78%	22%	0%	3.94	.610	
	Q67	Able to balance between time at work and personal activities	0	0	93	151	23	0%	35%	65%	3.74	.606
	Q68	Job pressures interfere with my family or personal life	0	0	88	155	24	0%	33%	67%	3.76	.603
	Q69	Overall work and personal activities are balanced	0	0	89	154	24	0%	33%	67%	3.76	.604

4.5.1H: Personality

Personality type is one of the determinant factor in addressing occupational stress. In this section, few statements were raised to oversee how respondents feel and value themselves. Accordingly, the majority of the respondents have a positive feeling and values with a prevalence rate that ranges from 67% to 91% as shown in table 4.4H and 84% disagreement reported for negatively worded statement as can be seen in the same table item Q76. From this it could be concluded that the majority of the respondents have develop positive attitude and valued themselves which could serve as a lubricant to overcome stressful work situation.

Table 4.4H*Personality as a Source of Stress*

Source of Stress Variables by Dimension		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	St. Disagree & Disagree	Neutral	Agree & St. Agree	Mean	Std. Deviation	
		N	N	N	N	N						
Personality	Q72	Have a number of good qualities	1	0	22	178	66	0%	8%	91%	4.15	.584
	Q73	Always take a positive attitude toward myself	1	0	56	137	73	0%	21%	79%	4.05	.718
	Q74	Able to do things as well as most other people	1	1	50	172	43	1%	19%	81%	3.96	.630
	Q75	Satisfied with myself	0	7	81	151	28	3%	30%	67%	3.75	.672
	Q76	Feel that I am a failure	75	149	41	2	0	84%	15%	1%	4.11	.673
	Q77	Wish to have more self-respect	0	7	81	151	28	3%	30%	67%	3.75	.672

4.5.1I: Other Factors

Considering the current national political and social climate and global pandemic health condition that have a direct and indirect influence on the occupational stress within the organization in particular and life outside the organization in general, two statements were asked to get respondents feelings. Majority of the respondents reported their agreement for the interference of the political pressure and the current pandemic (Covid19) on their work and life with a prevalence rate of 68% and 83% respectively as shown in table 4.4I items Q70 and Q71.

Table 4.4I
Other Factors as a Source of Stress

Source of Stress Variables by Dimension		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	St. Disagree & Disagree	Neutral	Agree & St. Agree	Mean	Std. Deviation
		N	N	N	N	N					
Other factors	Q70 Current national political pressure highly interfere with my work and personal life	10	20	56	100	81	11%	21%	68%	3.83	1.061
	Q71 Current pandemic (Covid-19) highly interfere with work and personal life	3	18	25	135	86	8%	9%	83%	4.06	.886

4.5.2. Respondents Perceived Occupational Stress Consequences/Effects

One of the objectives in this study was to measure the employees' perceived consequences or effects of occupational stress resulted from various source. In view of this, certain question items were asked as presented in figure 1, figure 2 and table 4.5 below. Figure 1 and 2 expressed the frequency of stress experience and perceived stress level of respondents. 53% and 32% of the respondents reported their stress experience frequency as moderate and sometimes respectively as shown in fig. 1 below. In relation to perceived stress level, respondents reported that their stress level as moderate and severe with a prevalence rate of 47% and 26% respectively as can be referred from fig 2 below. The remaining 25% and 1% of the respondents reported that their stress level as mild (normal) and extreme respectively.

In general, one can modestly conclude that the majority of them experienced a moderate level of stress.

Figure 1

Perceived Stress Experience

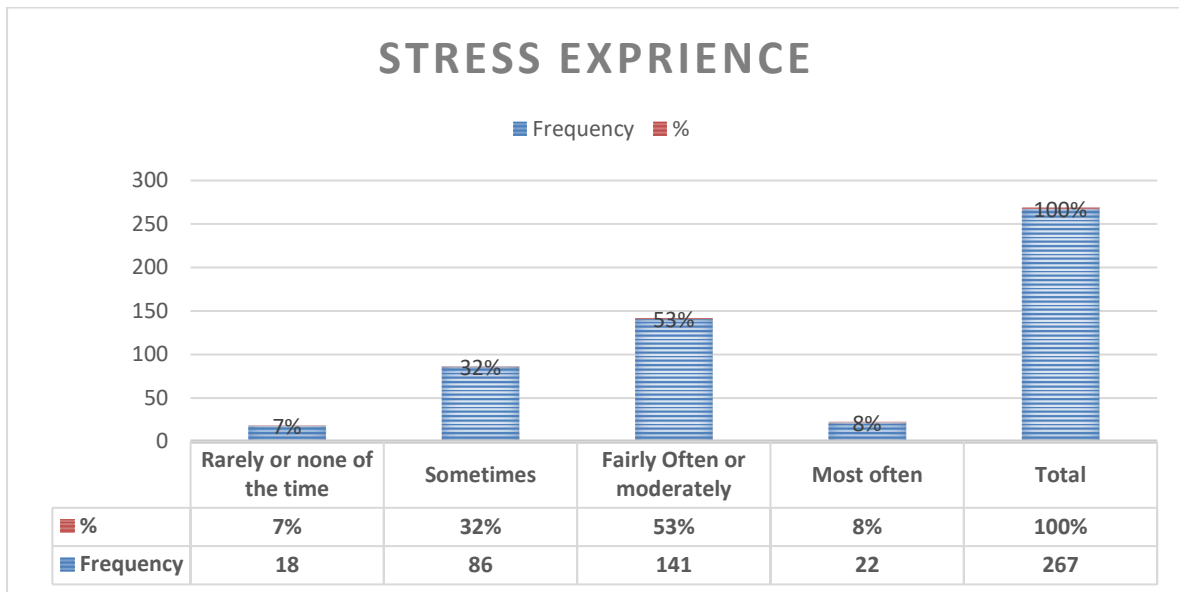
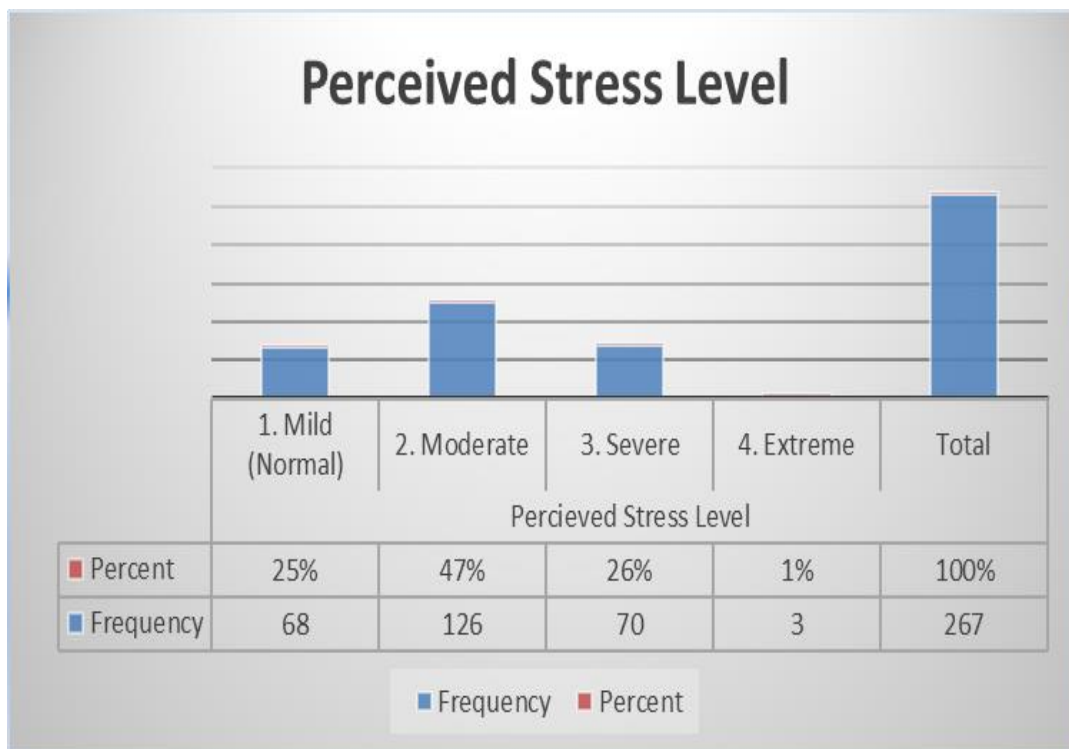


Figure 2

Perceived Stress Level.



In addition to the above stress experience and stress level, respondents were disclosed the frequency of stress effect occurrence from different perspective that comprehend selective physiological, behavioural and psychological variables as shown in the table 4.5 below. Related to item Q80 and Q82 the majority of the respondents reported that it has been rarely

or none of the time occurred with a prevalence rate of 77% and 72% respectively and the remaining 14% & 7% and 16% & 12% reported that they encountered sometimes and occasionally respectively.

Table 4.5
Consequence/Effect of Occupational stress

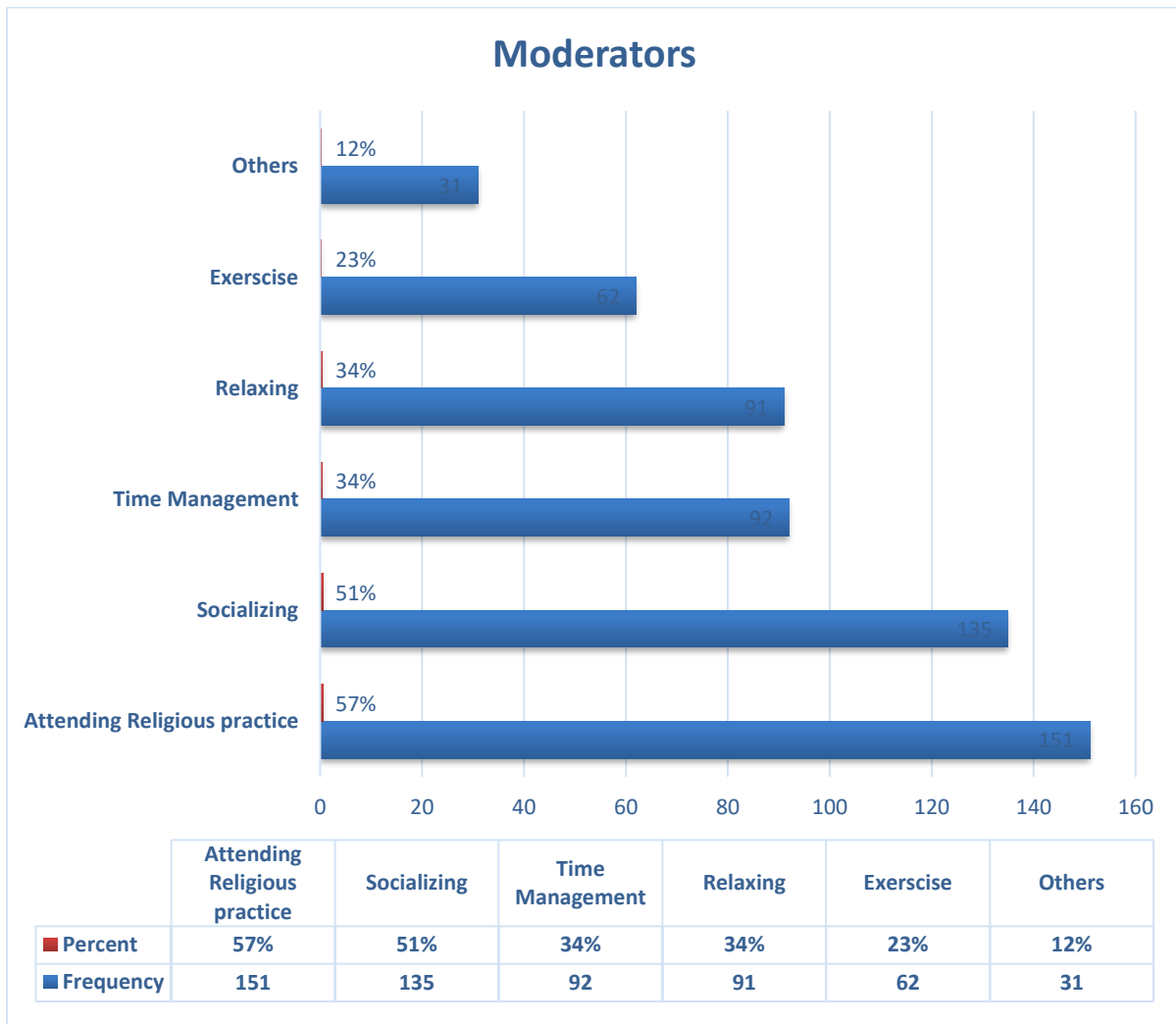
Stress Effect Variables		Rarely or none of the time	Some of the time	Occasionally or moderate	Most or all of the time	Mean	Std. Deviation
Stress Effect	Q79 Increased skin temperature	50	121	89	7	1.42	.767
	Q80 High blood glucose level	206	37	18	6	1.89	.704
	Q81 Frequent headaches	52	137	71	7	1.85	.743
	Q82 Alcohol addicts	191	43	31	2	2.14	.723
	Q83 Higher tardiness	67	78	98	24	1.81	.945
	Q84 Absenteeism/late coming	130	60	75	2	2.10	.874
	Q85 Felt depressed	99	105	56	7	2.07	.822
	Q86 Restless sleep	89	133	40	5	2.20	.734
	Q87 Loss of appetite	96	132	36	3	2.12	.707
	Q88 Prolonged fatigue	83	85	96	3	1.34	.844
Q89 Inability to concentrate	70	99	89	9	2.30	.845	
Q90 Forgetfulness	76	98	82	11	1.80	.859	

4.5.3. Occupational Stress Moderators

In this study the term moderator used to refer strategies used to prevent or manage distresses in the work environment and stay productive. Different strategies could be applied both at individual and organization level to proactively moderate distressful situations. Accordingly, selected common practices were presented for respondents to select any that they regularly practiced to manage their stress. Majority of the respondents reported that attending religious practice were the highest followed by socializing with a prevalence rate of 57% and 51% respectively as shown in figure 3 below. Few respondents reported that they used to practice regular physical exercise and others techniques with a rate of 23% and 12% respectively. 34% of the respondents reported that they apply time management and relaxation. Considering our social settings and practices the popular stress management approaches attached to attending religious practices and socializing.

Figure 3

Respondents' Personal Strategies Regularly Practiced to Manage Work Stress



4.5.4. Hypothesis Testing Result

One of the objective of this study is to undertake a statistical analysis to confirm the presence or absence of a statistically significant difference in perceiving the causes and consequences of occupational stress. It has been hypothesised that there are no significantly differences among respondents following their demographic characteristics in perceiving the causes and consequences of occupational stress. Accordingly, a mean comparison analysis conducted using independent-sample T test for two group independent variable and one-way ANOVA for three and more group independent variable. In case of more than two group factor variable, post hoc analysis conducted following the rejection of an omnibus null hypothesis using Games-Howell test to simultaneously conduct multiple null hypothesis test. Respondents' demographic factors considered in the this test process includes gender, age, marital status, level of education, total years of work experience, current job position held and supervisory responsibility. Those independent demographic factors were analysed against the two dependent variables i.e. source and effects of occupational stress.

4.5.3A. Gender

It has been hypothesized that there is no statistical significant difference between male and female respondents in the perception of the sources and effects of occupational stress. Accordingly, independent Samples T Test was conducted both for dependent variables of sources and effects of stress as can be seen from table 4.6A that confirms the presence of a statistical mean difference between male and female at p (sig.(2-tailed) value of below .05 confidence level and rejected the null hypothesis. This infers gender difference has influence in experiencing stress at the work environment.

Table 4. 6.1

Gender

	Gender	N	Mean	Std. Deviation	df	Sig. (2-tailed)
Sources of Stress	Male	182	3.3990	.29518	155	0.000
	Female	85	3.2403	.31537		
Stress Effect	Male	182	1.8350	.49656	141	0.000
	Female	85	2.1000	.59356		

4.5.3B. Age

Age is an independent variable and one of the respondents' demographic factors considered in this study and being tested the null hypothesis using a One Way-ANOVA test and post-hoc analysis using Games-Howell test conducted following the rejection of the null hypothesis and Games-Howell test result can be referred Table 4.6.2 and 4.6.3 respectively. From the test result there is a statistical significant differences at least between two groups with a confidence level of less than .05 and rejected the null hypothesis. From the multiple comparison test result as presented in Table 4.6.3 the statistically significant difference happened between age group of above 25 to 35 and above 35 to 45 at p value .000 and above 45 with at p value of .019. This infers that age group difference has a statistical significance in sensing the source of stress. However, the age group difference has no-statistical significant difference at least between two groups in relation to the effects of stress with a p value of 0.187 as presented in table 4.6.2 and retain the null hypothesis. This infers that there is no perception differences about the effects of stress among age groups.

Table 4.6.2

Age

		Sum of Squares	df	Mean Square	F	Sig.
Source of Stress	Between Groups	1.868	3	.623	6.907	.000
	Within Groups	23.716	263	.090		
	Total	25.584	266			
Stress Effect	Between Groups	1.414	3	.471	1.612	.187
	Within Groups	76.877	263	.292		
	Total	78.291	266			

Table 4.6.3*Games-Howell Multiple Test Result Among Age Group***Multiple Comparisons**

Dependent Variable: Sources of Stress

Games-Howell

(I) Age		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Below 25	Above 25 to 35	.02889	.07378	.979	-.1760	.2338
	Above 35 to 45	-.13133	.07552	.326	-.3397	.0770
	Above 45	-.20052	.09576	.176	-.4592	.0581
Above 25 to 35	Above 18 to 25	-.02889	.07378	.979	-.2338	.1760
	Above 35 to 45	-.16021*	.03983	.000	-.2635	-.0569
	Above 45	-.22941*	.07109	.019	-.4265	-.0323
Above 35 to 45	Above 18 to 25	.13133	.07552	.326	-.0770	.3397
	Above 25 to 35	.16021*	.03983	.000	.0569	.2635
	Above 45	-.06919	.07289	.779	-.2699	.1315
Above 45	Above 18 to 25	.20052	.09576	.176	-.0581	.4592
	Above 25 to 35	.22941*	.07109	.019	.0323	.4265
	Above 35 to 45	.06919	.07289	.779	-.1315	.2699

*. The mean difference is significant at the 0.05 level.

4.5.3C. Marital Status

Marital status is an independent demographic variable with more than two groups and One Way ANOVA test conducted with the two dependent variables source and effect of stress as presented in Table 4.6.4 below. The test result shows that there is no statistical significant difference at least two groups both on the perceived sources and effects of stress with p value of 0.096 and 0.641 respectively which are greater than .05 and retain the null hypothesis. This infers that there is no significant deference that resulted from marital status of the respondents in perceiving the sources and effects of occupational stress.

Table 4.6.4
Marital Status

		Sum of Squares	df	Mean Square	F	Sig.
Source of Stress	Between Groups	.451	2	.225	2.368	.096
	Within Groups	25.134	264	.095		
	Total	25.584	266			
Stress Effect	Between Groups	.263	2	.132	.445	.641
	Within Groups	78.028	264	.296		
	Total	78.291	266			

4.5.3D. Child Care Primary Responsibility

As Table 4.6.5 portrayed, about 60% of the respondents reported that they have a primary responsibility in taking care of children living at home and the remaining 40% not. Hence, considering the independent variable group using an independent sample T test was conducted. From the test analysis result, there is a statistical significant deference between those respondents who have a primary responsibility for child care and those who didn't have with p value of 0.027 which is less than .05 and rejected the null hypothesis. This infers that child care primary responsibility have statistical significant difference in perceiving the source of occupational stress as compared to with those who did not have child care responsibility. Child care responsibility, on the other hand have no statistical significance difference in perceiving the effects of stress with p value of 0.943 which is greater than 0.05 and retained the null hypothesis. This infers that there is no statistical significant difference in the perception level about the effects of occupational stress.

Table 4.6.5
Child Care Primary Responsibility

Primary responsibility for child care		N	Mean	Std. Deviation	df	Sig. (2-tailed)
Sources of Stress	Yes	161	3.3824	.30861	226	.027
	No	106	3.2969	.30673		
Stress Effect	Yes	161	1.9213	.55004	230	.943
	No	106	1.9165	.53348		

4.5.3E. Level of Education

Level of education is another independent demographic variable that has more than two groups and One Way ANOVA conducted with the two dependent variable i.e. sources and effects of occupational stress to test the null hypothesis as can be seen from table 4.6.7. From

the test result, level of education has a statistical significant difference at least between two groups in the perception of the sources and effects of occupational stress with p values of 0.012 and 0.000 respectively which is below 0.05 and rejected the null hypothesis. From multiple comparison Games-Howell test result the statistical significant difference is between MA/MSc and BA/BSc both in the sources and effects of stress with p value of 0.000 which was far below the standard 0.05 (see table 4.6.8 below). Hence, one can conclude that educational level have an influence in the perception of respondents about the sources and effects of occupational stress.

Table 4.6.6
Level of Education

		Sum of Squares	df	Mean Square	F	Sig.
Source of Stress	Between Groups	.837	2	.419	4.465	.012
	Within Groups	24.747	264	.094		
	Total	25.584	266			
Stress Effect	Between Groups	5.095	2	2.547	9.188	.000
	Within Groups	73.196	264	.277		
	Total	78.291	266			

Table 4.6.7
Level of Education- Games-Howell Multiple Comparison

Dependent Variable:		Multiple Comparisons					
Games-Howell		Sources of Stress and Stress Effect	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
(I) Level of education						Lower Bound	Upper Bound
Source of Stress	MA/MSc	BA/BSc	.12035*	.04111	.011	.0231	.2176
		Diploma/Level and below	.10221	.31440	.946	-5.5464	5.7508
	BA/BSc	MA/MSc	-.12035*	.04111	.011	-.2176	-.0231
		Diploma/Level and below	-.01814	.31330	.998	-5.8449	5.8086
	Diploma/Level and below	MA/MSc	-.10221	.31440	.946	-5.7508	5.5464
		BA/BSc	.01814	.31330	.998	-5.8086	5.8449
Stress Effect	MA/MSc	BA/BSc	-.29697*	.06508	.000	-.4507	-.1433
		Diploma/Level and below	-.24095	.37836	.831	-6.8532	6.3713
	BA/BSc	MA/MSc	.29697*	.06508	.000	.1433	.4507
		Diploma/Level and below	.05602	.37726	.988	-6.7255	6.8376
	Diploma/Level and below	MA/MSc	.24095	.37836	.831	-6.3713	6.8532
		BA/BSc	-.05602	.37726	.988	-6.8376	6.7255

*. The mean difference is significant at the 0.05 level.

4.5.3F. Total Years of Experience

From the ANOVA test result as shown in table 4.6.9 below, total years of experience have a statistical significant difference at least between two groups with a p value of 0.000 and 0.018 for the sources and effects of stress respectively and rejected the null hypothesis. From the post-hoc analysis using the Games-Howell test result, the statistical significant difference found between respondents who have a total years of work experience range of 5 to 10 years with between 10 to 15 years and above 15 years of experience with p value of 0.000 & 0.001 respectively on the dependent variable of sources of stress and same result recorded for the other dependent variable of effects of stress with p value of 0.006 (see Annex 4). In conclusion, respondents' total years of experience have a statistical significant difference in sensing the sources and effects of occupational stress.

Table 4.6.8

Total Years of Experience

		Sum of Squares	df	Mean Square	F	Sig.
Source of Stress	Between Groups	4.217	3	1.406	17.302	.000
	Within Groups	21.367	263	.081		
	Total	25.584	266			
Stress Effect	Between Groups	2.934	3	.978	3.413	.018
	Within Groups	75.357	263	.287		
	Total	78.291	266			

4.5.3G. Current Job Position

With regard to this independent demographic variable, almost all the job group category were fairly represented as can be seen in the respondent's characteristics table 4.3. Accordingly, ANOVA analysis were conducted to test the null hypothesis in relation to respondents' perception about the sources and effects of occupational stress. Statistical significant difference registered at least with two groups having p value of 0.000 both on the sources and effects of occupational stress and the null hypothesis rejected. With further post hoc multiple comparison using Games-Howell test result the specific statistical significant differences traced (see Annex 5 and 6). This infers there are statistical significant differences among respondents in relation to their job position they held about the perception of sources and effects of occupational stress.

Table 4.6.9*Current Job Position*

		Sum of Squares	df	Mean Square	F	Sig.
Source of Stress	Between Groups	10.964	12	.914	15.872	.000
	Within Groups	14.621	254	.058		
	Total	25.584	266			
Stress Effect	Between Groups	23.377	12	1.948	9.011	.000
	Within Groups	54.914	254	.216		
	Total	78.291	266			

4.5.3H. Supervisory Responsibility

Last but not least respondents' supervisory responsibility considered to conduct a hypothesis test using ANOVA and post-hoc analysis following the rejection of omnibus null hypothesis both on the sources and effects of stress as displayed in Table 4.6.11 below. The test result confirmed the presence of statistical significant difference with at least two groups both the perceived sources and effects of occupational stress with p value of 0.000 for both dependent variables. With further post-hoc analysis using Games-Howell test, the statistical significance difference observed between those respondents who have no supervisory responsibility with those respondents who have a subordinates group of 5 to 10 and above 20 subordinates both for the sources and effects of occupational stress (see Annex 4 and 5). This infers supervisory responsibility with a range of subordinates to be lead have a statistical significant difference while measuring the perception level of respondents about the sources and effects of occupational stress.

Table 4.6.10*Supervisory Responsibility*

		Sum of Squares	df	Mean Square	F	Sig.
Source of Stress	Between Groups	4.234	4	1.058	12.988	.000
	Within Groups	21.351	262	.081		
	Total	25.584	266			
Stress Effect	Between Groups	7.764	4	1.941	7.211	.000
	Within Groups	70.526	262	.269		
	Total	78.291	266			

4.6. Qualitative Data Presentation and Analysis.

4.6.1. Overview

Qualitative data obtained through focus group discussion (FGD) and interview were transcribed, presented and discussed by incorporating the findings of customer and staff satisfaction survey, consolidated customer feedback reports, annual corporate performance reports. The qualitative data enabled to further strengthen the findings obtained through quantitative data. The data obtained through FGD and interview enabled to see the true feelings, emotions and individual differences while they expressed the sources and consequences of work stress. The discussion directly focussed on the respondents' perceived stress experience, major sources, consequences and moderators of occupational stresses. The result of the qualitative data were presented using themes and sub themes. These were stress experience, sources of occupational stress (i.e. organizational factors and extra-organizational factors), consequences (on the individual and organizational) and moderators (individual and organizational).

4.6.2. Stress Experience

Informants were asked to express their stress experience while working at Ethiopia Commodity Exchange (ECX). Though the degree of severity vary among informants, all agrees that working at ECX by its nature has become a challenge and stressful due to the diverse nature of the stakeholders with conflicting interest. Both at focus group discussion and interview session, informants confirmed that year to year the Ethiopia Commodity Exchange has passed through a number of reforms and challenges that emanated mainly from the policy makers, regulatory bodies and influential market actors. From the focus group discussion, some informants believed that the current coffee arrival reduction really unexpected and a deliberate act by few politicians both at federal and regional offices in collaboration with few dominant market actors. They further noted that experts from the government organs has been deliberately engaged in blocking coffee arrival to our warehouses by generating false communication to the market actors as if the government has directed coffee trading band from ECX trade platform. As a result coffee arrival has been declined and even those who already deposited their coffee at ECX warehouse were advised and facilitated by Coffee and Tea Authority to collect their coffee and transact through the

vertical trade platform with a better price offer. Informant one described his feeling that by the time when they received one arrival in case all the branch team were celebrated and hope to see back to the normal operation. Employees have been frustrating and stressed out by the time when they see reduction of outsource staff and jobless daily labourers due to work volume reduction. Job security issue has become the main agenda if things are continuing in this way.

The annual corporate performance report (2013EFY) of the Ethiopia Commodity Exchange clearly showed that coffee arrival and sales volume through the Ethiopia Commodity Exchange market platform has been radically slashed in the past one to two months following the implementation of price range ceiling by the order of MOTI with the intention controlling price mismatch with the international reference price. Informants stated that at the same time open market platform outside ECX has been aggressively propagated and even enforcing customers not to transact through ECX platform and collect their coffee which were already deposited at ECX warehouse and lobbying to transact through vertical trade platform. One of the informant during the interview session described his feeling as ‘at this time I have sensed that the stress level passed the normal gage and leading to frustration and health issue’. He noted that fulfilling those diverse and conflicting interests and expectation of stakeholders have become hardly possible. In addition the work burden and engaging in cross-cutting additional roles in addition to the assigned role has become repetitive and overburdened. Besides, observing some of the regulatory body and market actors have an intentional and deliberate action to bring back the marketing system to the traditional system where no control and created an opportune ground to evade government tax. Working with all these diverse stakeholders by itself has become stressful’.

Another informant put his feeling as:

Now a days I am questioned myself that am I the only person who wrongly perceived what is going on the Ethiopia Commodity Exchange operation or everybody has also the same feelings? Because most of them keep silent and moving on the same pace and still they are in the comfort zone as if nothing happen. They still enquires additional resources instead of being cost conscious and cutting unnecessary cost items. This has stressed out me and even wondering to see such mind set at all. In addition, due to media sabotages and image distortion by few dominant market

actors and even government officials, I feel shame to tell people where I am working.

Majority of the informants were noted that there are certain groups both from market actors and government officials who intentionally working to close ECX in one way or another particularly the coffee market. To the extent, they arranged media campaign to destroy the image and goodwill of ECX. Hearing such immoral act have a mental strain on employees.

One the other hand, there are few informants who replied that they feel no strain as such but they were noted that there should be strategic and political intervention to revert the recent decisions and undertake a thoughtful research based process re-engineering and business model reforms.

In general, the stress experience in the Ethiopia Commodity Exchange could be sensed as optimal level and could be capitalized as a good opportunity to transform the Ethiopia Commodity Exchange to a better position and be the chosen market place by all. To this end, all management and staff shall sense the current situation and move towards the same purpose with passion and energy.

4.6.3. Sources of Stress

As a follow up question, respondents were asked to mention some of the major sources of occupational stress. Accordingly, their responses were classified in to two themes i.e. as internal and external factors as presented below.

Internal Factors

The internal factors transcribed and presented based on sub themes as follows.

- **Facing the original value proposition challenge:** one of the respondents has noted that the value proposition of Ethiopia Commodity Exchange is being compromised. As per the logic of the Ethiopia Commodity Exchange system price shall be determined by demand and supply where the competition were both on price and time and quality were rewarded (as informant said). They further noted that the buyers had the right to buy whatever amount as long as he has deposited sufficient fund. However, following the accelerated increase in the demand side while the supply side

remain same (low), inflated price has been registered from day after day which was against the international reference price. Exporters buy with highest price locally and they export with lesser price offer just to earn foreign currency and import complementary or side business items. Following this, Ministry of Trade and Industry (MoTI) interferes and has introduced flat price range for oilseeds (Sesame) through matching with international reference price (informants said). They further noted that after acute supplier's grievance and distressful journey the system seems stabled from supplier side since it was a mandated commodity being transacted only through ECX market platform but the quality gets deteriorated because quality gets no value where buyers started to pay same price for all grades and the competition had become only time. One of the informant badly expressed that:

We are encountered organizational identity crises. We are not pure budgetary government institute or profit oriented development institute to fix our tariffs. Besides, our independency is questioned and any stage based reforms and some branch office expansion were imposed as a direction from the regulatory body. On the other hand, the Ethiopia Commodity Exchange is expected to generate revenue to subsidize itself. All this tied-up work environment tense the staff and the management.

In general, all the interference and market manipulation costed the Ethiopia Commodity Exchange in various forms and the Ethiopia Commodity Exchange failed to maintain its value proposition of being a free market platform (informants said). The regulatory body has still claimed controlling the price range against the international reference prices as if it was a good reform that has to be extended to other commodity and recently introduced for coffee trade platform without any impact assessment on the previous reforms. Almost all informants both from focus group and interviewees reported that at this time the Ethiopia Commodity Exchange has been facing a critical challenge and passing through a stressful situation where its very existence fall under question.

- **Current Coffee Operation Slash:** unlike other time following the introduction of price range for coffee as an extension from sesame trade, the arrival and sales of coffee at ECX platform has been radically reduced to the extent in some branch office arrival has become nil for the past months. It has been reviewed from the annual

corporate performance report (2013EFY) of Ethiopia Commodity Exchange. Respondents claimed that the price range has been invalidly introduced without carefully analysing the nature of the commodity, availability of parallel market platform with loose controlling system outside the Ethiopia Commodity Exchange through vertical integration market which has been aggressively and intentionally propagated by Tea and Coffee Authority, deliberate intention to abuse the market by dominant few market actors and some government organs. The outcome has adversely affected the Ethiopia Commodity Exchange and most suppliers and exporters who are not under the circle of the dominant market actors (noted by the informants). As respondents reported that following the huge arrival reduction, daily labourers gets idle, some outsource staff reduced and staffs at branch office have been stressed out and experienced staffs turnover intention have been sensed.

- **Demand and supply imbalance:** all the messes have been occurring because of the presence of limited supply side with alarmingly increasing demand side from time to time. Most of the reforms like fixing the price range, limiting purchase volume per transaction, and other related reforms have been introduced to control price escalation and fairly address the demand side. However, all the reforms did not bring the expected result rather customers have developed aggressive behaviour, frustration and grievance all the time that pressurized and strained the Ethiopia Commodity Exchange staff. One of the respondents described that ‘we are experiencing mental strain to see stressed out buyers floor representatives every day and their abusive character towards Ethiopia Commodity Exchange’s staff’.

The regulatory body, on the other hand, recurrently interfering by directing to implement various stage driven and one sided reforms that ends the Ethiopia Commodity Exchange to run a vicious operational challenges and stressful work environment.

- **Workload:** some of the informants particularly from branch operations noted that the Ethiopia Commodity Exchange operation is seasonal which has a pick and slack season. During the pick season there are a huge workload that may sometime enquire to work off working hours and weekends. The head office informants further noted that administering the huge operation remotely with high accountability and any

operational gaps in case happened at branch office level have been aggregately reported directly to the regulatory bodies even without having any information at head office. Apart from the huge operational volume challenge administering large and diverse workforce including the permanent staffs, outsourced staff and daily labourers have given another challenges. Hence, working under such situation will have mental strain and tension on the employees.

- **Infrastructure and facility problems:** the Ethiopia Commodity Exchange has been operating mostly at rented warehouses and branch offices where most of them lack to fulfil the minimum standards. As informants noted that in some areas warehouses are dispersedly located which has created difficulties in administration, in some areas there are no adequate office space and furniture, absence of lavatories and other facility problems makes the working environment very tough and stressful. With all these disablement, the presence of aggressive customer behaviour and complaints made even more distressful work environment.
- **Resource limitations and lack of adequate support:** informants badly expressed that let the infrastructure and other operational challenge put aside, the difficulties to timely secure the required daily consumable materials and equipment/tools used to smoothly run operations have become a common phenomenon year to year and experiencing a very challenging situation. They claimed that the support functions were reluctant to respond and sufficiently support the operational demand. Serving customers with limited resources leads to customer dissatisfaction and staff frustration.
- **Inventory management and shortfall:** one of the core operation of the Ethiopia Commodity Exchange is providing warehousing service for customers by ensuring both the quality and quantity of the commodities received until title deed transferred to the buyer. In due course, the Ethiopia Commodity Exchange is liable to compensate any shortfall for the buyer. Those directly assigned staffs (Lead Inventory Controllers & Inventory Controllers) to administer the commodity at the warehouse will be accountable in excess of the standard weight loss adjustment limit. As a result lead inventory controllers and inventory controllers are always stressful unlike other operational staffs (most branch informants said).

- **Job security issues:** most staff recently feeling job insecurity following the operational volume reduction particularly at coffee branch offices and suspect of the extension of similar practice on grain site due to the introduction of out-grower and contract farming scheme and the political instability at the norther part (some of informants said). Hence, staffs intention to seek other better job opportunity were being sensed.
- **Integrity issues and corruptive practices:** in most big stakeholders meetings the integrity and corruptive practices have been a grieved concern areas where no objective evidence at hand to take corrective action in time. As an organization hearing such repetitive and aggravated complaints at big events creates a bad feelings and tensions. Some of the indicated corruptive practices were outside the control of the Ethiopia Commodity Exchange but the Ethiopia Commodity Exchange staffs were always blamed. Besides, in its very nature, corruptive practice occurred silently without any traceable evidence at the back which makes the investigation the worst and full of subjective. Taking corrective measure under such environment will create frustration on others (some informants said).
- **Reactive response:** Most informants claimed that in most of the time the Ethiopia Commodity Exchange management has focused on the daily routines and ensuring recurrent quick fix reform agendas directed by the regulatory body. They further noted that most of the reforms were stage based reforms following the few dominant market actors' individual view without further investigation to see its pros and cons on the entire system. As a result, most Exchange driven reforms sided and overwhelmed by the daily challenges. As informants explained that the Ethiopia Commodity Exchange has planned to undertake an in-depth feasibility study to introduce future and forward market but recently the contract farming and out-growers scheme are being introduced outside the Ethiopia Commodity Exchange platform. Similarly stock market facilitation which was quite suitable for the Ethiopia Commodity Exchange market platform were not properly aligned thus far. Such reactive responses to such big opportunities were costed Ethiopia Commodity Exchange's future growth and development in the country and creates tension on the employees and management.

- **Dependent on few high value commodities:** Concentrating on few high value and political commodity exposed to become very vulnerable to various government decisions and stakeholders attention. Operating under such tight and challenging work environment became stressful.
- **Unable to defend the political dynamism:** most of our operation has been politically influenced at its own cost. For examples opening of new branch offices were the result of political decision but consumed huge capital investment and operating costs. All the regulatory bodies and policy makers are politically assigned. They further noted that certain government officials and few politically affiliated market actors have intentionally destroying ECX in one way or another. Respondents expressed that the Ethiopia Commodity Exchange has been operating under political influence and regulatory bodies' interventions and impositions that creates a revolving operational challenge and mental strain.
- **Location transfer issues:** recently following ethnic based social unrest in different localities and government law enforcement at the norther region has created a massive relocation of staff that has created a challenge both economic, social and mental destruction of staffs. Not only on the victim staffs but its' consequence has created operational burden and administration challenge for Ethiopia Commodity Exchange.

External Factors

From the focus group discussion and interview session it seems external factors have contributed a lot for the operational challenge because of the nature of the operation and the presence of a diverse and incompatible interest of market actors and stakeholders. Major factors were discussed based on the focus group discussion and interview responses of the target informants.

- **Diverse customer base with divergent interest:** the Ethiopia Commodity Exchange has a diversified customer base from farmers to aggregators, suppliers, exporters and intermediaries. All these market actors have their own interest where sometime conflicting interest and difficult to obtain an intersection point. Any change in the Ethiopia Commodity Exchange system did not welcomed by certain groups because they wrongly perceived even within the same group of customers. Besides, the

incompatibility of supply and demand has its own contribution to develop such attitudes and aggressive/abusive behaviours. Working under demanding and diverse customer base results in operating stressful environment.

- **Diverse regulatory and policy makers interest and interference:** informants expressed that there are unstable and conflicting regulatory and policy makers interest. The presence of government over-expectation particularly in securing foreign currency from the export of agricultural commodities mainly from coffee, sesame and other high value cash crops have aggravated for recurrent interference through introducing various reforms in the Ethiopia Commodity Exchange system which bounces with other challenges and customers dissatisfactions. The informants claimed that apart from the over interference by the regulatory organs, government protection is being uplifted and parallel market platforms were being opening in one hand and over controlling the market system in the Ethiopia Commodity Exchange platform on the other hand. As a result, few dominant and affiliated market actors totally diverted to the open market system that have no strict control and freely manipulating the system towards their interest. From its inception of the formation of Ethiopia Commodity Exchange most government organs, policy makers and other stakeholders have negative attitude and wrongly perceived its contribution and impacts on economic, social and political development of the country (informants said). They conclude that though the situations were stressful there are always a way to overcome and realize its purpose. This shows that informants have a courage and commitments to overcome any challenges and stressful situations.
- **Media Campaign and Sabotage:** there are some main stream and social Medias were engaged in intentionally defaming and spoiling the image of Ethiopia Commodity Exchange against the fact on the ground in an unprofessional and unethical manner with wrong and unbalanced way. Respondents badly expressed that hearing such intentional and purposeful sabotage were painful and destructive on the overall system.

In general, both from the focus group discussion and interview session it has been realized that the major internal and external factors have created a disabling work environment that

leads to stressful situation. At the same time it has given a chance to develop an inward and outward looking to overcome those challenges and stressors from time to time.

4.6.4. Consequences of Stress

The informants explained those stressors that affected both the individual staff and the organization in general as transcribed below.

Individual level effect: particularly following the recent operational gaps staff has developed and experiencing the following physical, behavioural and psychological symptoms but not limited to frustration, demotivation/ high dissatisfactions, office manner/discipline deteriorated through time, passionate performance culture reduced through time, gross negligence, breaking rules and engage in corruptive practices, job insecurity and intention to leave the organization, late coming/early departure, exhaust energy /fatigue, lack of responsiveness within and across departments/divisions, health problems and fear of the future.

Organizational Level: the effects happened on individual staffs have a direct impact of the overall organizational performances and effectiveness. Some of the effects mention by the respondents and referred from the annual corporate performance report are listed out but not limited to overall organizational performance decreased for the last two to three months, customer dissatisfaction increased, financial sustainability questioned, turnover increased, government tax collection decreased and its very existence questioned.

Generally, informants expressed that the recent reform has drastically affected the Ethiopia Commodity Exchange in particular and all stakeholders in general and unless the regulatory body uplift the price rage both on coffee and sesame trade the consequence will be adverse and distressful.

4.6.5. Moderators/Strategies

Stress is inevitable in every walk of occupation and in life. What is more important to do is properly moderating towards resulting to maximize the untapped potential, increase innovation and new way of doing things. The intervention shall be both at individual and organization level. With this view respondents both at the focus group discussion and interview session were asked to express their experience in responding to stressful

condition/situation. The common and regularly practiced individual and organizational strategies were listed out as described by the respondents.

Individual Level

- Spending joyful time with family after work and during spare time
- Praying, and attending religious programs and reading Bibles
- Physical exercise (walking, gym exercise, playing football, walking stairs etc)
- Sharing the work burden to colleagues/ subordinates and supervisors
- Empower subordinates to get adequate support and share the workload
- Influence/lobbying stakeholders to change their wrong perception and attitude towards ECX
- Brain storming with teams
- Taking long vacation time
- Being patient/ expand the tolerance limit and looking things from different angles
- Socialization and havening chats with friends
- Overcoming challenges by collaborating with other functional work functions
- Location rotation
- Automating the quality grading system and creating individual accountability for inconsistency.

Organizational Level

- Discussion with relevant regulatory body
- Awareness creation for stakeholders
- Diversifying services like introducing spices, opal and other precious stones etc
- Re-engineering the process
- Sponsoring staff football and gym
- Influence policy circle to get adequate attention and support
- Gym refund for officers
- Sponsoring male staffs football and female group gym
- Consistent performance based bonus and merit increment
- Well-structured annual reward and recognition program

- Starting to comprehensive technology enhancement project that enable to address operational gaps as a result
- Conducting intra and inter calibration programs
- Organizing training programs for staffs
- Defending media campaign and sabotage

In general, the above listed out individual and organizational intervention believed to moderate adverse effect of occupational stress sourced both from the organization itself and external stressors. From the respondents' reflection, the external pressure has adversely affecting the very existence of the Institute that mostly frustrating and distressing most of the staffs unless a timely strategic alternative solutions devised.

The student researcher has observed the respondents reactions, feelings and commonalities in describing the recent phenomena happened in the operation reduction and proposing possible alternative way-out to overcome the critical challenge towards revolutionizing the system and keep staff motivation and commitment.

CHAPTER FIVE: DISCUSSION OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1. Overview

This research was intended to uncover Ethiopia Commodity Exchange employees' perception about the sources, effects and moderators of occupational stress and discover the relationship of demographic factors of the employees on the causes and effects of occupational stress through testing the null hypothesis. More specifically, the research intended to address the following research questions and hypothesising the forth question.

1. What are the perceived sources of stress among employees of Ethiopia Commodity Exchange?
2. What perceived consequences do stress have on employees of Ethiopia Commodity Exchange?
3. What are the perceived moderators of stress among employees of Ethiopia Commodity Exchange?
4. Are there any demographic factors differences on occupational stress among employees? In the null hypothesis form (**H₀**): There is no significant difference on demographic factors among employees' perceptions on the causes and consequences of occupational stress in the Ethiopian Commodity Exchange.

In light of the basic research questions both quantitative and qualitative data were collected using survey questionnaire, focus group discussion and interview. The data collected were transcribed, presented, analysed and interpreted. Hence, this chapter presents the major findings, conclusions drawn and forwards possible recommendations as separately discussed below.

5.2. Discussion of Major Findings

The major findings have been categorized as sources, consequences and moderators of occupational stress experienced in Ethiopia Commodity Exchange and finally the effects of participants' demographic differences with regard to perceiving the causes and consequences of occupational stress.

A. Source Occupational Stress

Based on the objective of the study employees' perceived source of stress examined from person-environment-fitness, demand-control-support, effort-reward imbalance, work-life-balance, personality, national political instability and current pandemic.

Person-Environment-Fitness Dimension: occupational stress is greatly influenced by person fitness to the work environment. From this research it was found out that majority of the respondents (average 49%) believed that their current job attributes did not match with the job attributes they are looking for and about 20% have doubted to express their feelings. About 31% of the respondents, on the other hand, have a positive feeling and interest on their current job attributes and believed it is rewarding. Related to personal ability and education, 50% of the respondent reported they have a good fit but the remaining 50% of them have a disagreement and doubted. Nevertheless, majority of the respondents (66%) positively attached with the organizations values and cultures which is a good sign to boost employees' moral and commitment.

In general, there are average person-environment-fitness concern areas that might lead to job strain mainly on the job attributes and supervisors' values and beliefs.

Demand-Control-Support Dimension: majority of the respondents (65%) perceived that they are operating under demanding work environment. Particularly 73% of the respondents believed that they are operating in a poor physical work environment. From the focus group, and interview, it has been confirmed that there are physical work environment challenge particularly at upcountry branch offices. About 65% of the respondents reported that their work nature by itself a monotonous and tiresome. On the other hand, majority of the respondents reported that they have sufficient decision latitude over their daily work and the obtained adequate support from their co-workers, families and immediate supervisors. However, there are still grey area particularly in getting adequate resources and help to execute the daily operations majority of them confirmed. The focus group discussion and interview response confirmed that timely availing operational resources and equipment has become a common challenge and have no control to mobilize the resources required. The intra and inter department relationships and support has limitation as confirmed by the respondents. Besides, there are external stakeholders over interference and impositions that has adversely affected the Ethiopia Commodity Exchange mandates and its independency

with limited support.

Generally, from the demand-control-support perspective there seems somehow strain both from within the organization where the external over interference and imposition has negatively contributed on the work environment.

Effort-Reward-Imbalance Dimension: The majority of the respondents (66% average) believed that they have exerted high efforts and over committed in undertaking the assigned job roles in the organization. From the Exchange theory perspective exertion of high effort and over commitment derives high level intrinsic and extrinsic return as a result. This research has also examined the respondents' perceptions on the existing financial and non-financial reward system. About 73% of the respondents believed that their effort were not adequately compensated particularly in the form of salary/monetary forms and about 48% (& less) positively influenced by the intrinsic rewards somehow. Besides, about 49% sensed job insecurity which were further confirmed from the focus group discussion and interview. The job insecurity has boldly noted following the recent operation reduction particularly at coffee branch offices. The focus group discussion and interview further confirmed that the overall organizational efforts and contribution were not adequately recognized by regulatory organs, governments and other stakeholders rather they defame its image. All in all, majority of the respondents believed that their efforts and commitment were not adequately compensated particularly in monetary forms and somehow appreciated the intrinsic part. Hence, such imbalance will create mental strain that leads to dissatisfaction, high turnover or intention to seek outside and less productive in the work place.

Work-Life-Balance Dimension: both the work life within the organization and social life outside the organization has interface that needs to be balanced otherwise one affects the other. Accordingly, the majority of the respondents (67%) believed that they were running a balanced life. This is a positive indication and gives energy to overcome both work and life challenges and mental strains.

Personality Dimension: Having healthy self-esteem and positive attitude towards self will produce a positive energy to feel confident and productive in once career endeavour. From the research findings, majority of the respondent (67% and above) have a positive self-esteem.

Other Factors Dimension: under this dimension two factors were considered in the survey questionnaire i.e. the current political and social instability and the pandemic-Covid-19 pressures on the operation and overall life. The current political and social climate pressure has adversely affecting the operation and resulted frequent staff location movements (68% respondents reported). It has also confirmed through focus group discussion and interview. To the extent those staffs who were working in other regions started to developed fear and insecurity. In relation to the pandemic-Covid19, 83% of the respondents reported its adverse consequences on the day to day operation that requires intensive interactions with diverse people to provide services. It has created tension to operate in such work environment. Generally, two of the dimension i.e. the national political and social instability and covid19 pressure have created mental strains in the work place and outside.

Apart from the above factors, market actors over demanding and conflicting interests, aggressive and abusive behaviours, policy circle and regulatory body over expectation, unstable & conflicting interests, and over interference & impositions that adversely affect the existence of the Ethiopia Commodity Exchange have been discussed by the focus group discussion and interview session. Particularly, employees' frustration, demotivation, sensing job insecurity, increasing turnover and intention to leave the organization.

B. Effects of Occupational Stress

Over or under stressor has adverse effect on the individual employees' physiological, behavioural and psychological conditions. The aggregate adverse effect on the individual employee will directly affect the organization performance and productivity unless adequate attention given to identify the sources of over and under stressors and properly administered in time. Both from the statistical report, about 47% of the respondents have perceived a moderate level of stress experience while about 27% of them experiencing sever level and the remaining 25% perceived as mild level. Both from the quantitative and qualitative data findings commonly observed effects on individuals were frustration, higher tiredness, prolonged-fatigue, lack of responsiveness, poor time management, gross negligence and health problem. Organizational effects, on the other hand, indicated as low productivity, high customer dissatisfaction and overall organizational performance is being decline for the past two to three months mainly because of the recent reform imposition that adversely affect the whole system and tensioned most of the staffs.

C. Moderators of Occupational Stress

The adverse effect of occupational distress shall be moderated through various strategies both at individual and organization level. From the quantitative data analysis result the highest personal strategies being used is attending religious programs followed by socialization. Time management, relaxation and exercise were practiced by few of the respondents. From the focus group discussion and interview the following personal and organizational strategies commonly practiced to address those stressors. At individual level, spending joyful time with family, socializing and create fun time, attending religious programs and praying, sharing the work burden to others, empowering subordinates, brainstorming and sharing ideas with team members were the major ones. Whereas at organization level, providing awareness creation for stakeholders and customers, diversifying services and products, influencing the policy circle and regulatory bodies to get the right attentions and supports, sponsoring staff football and gym, providing consistent performance based bonus and merit increment, introduced innovative idea reward and recognition program, introduced individual and team reward and recognition program, providing annual calibration and training program to develop staff capacity and priority has been given to internal staff promotion were some of the common practices recognized by the respondents. However, majority of the respondents confirmed that there are a lot to be done to address occupational stress at the Ethiopia Commodity Exchange particularly the external pressure.

D. The effects of demographic factors differences in perceiving the causes and consequences of occupational stress.

The demographic characteristics of the sampled respondents were well dispersed and represent the population. The demographic characteristics considered for the hypothesis testing were gender, age, marital status, educational level, total work experience, current job position, and supervisory responsibility.

Based on the statistical analysis result using independent sample T-test and one way ANOVA, most of the demographic differences resulted a statistical significance differences among respondent groups in perceiving the sources and effects of the occupational stress. In most research findings demographic factors has a statistical significant differences particularly on gender, work experience, educational level, job position and supervisory responsibility. Similarly, this research also confirmed same result and the null hypothesis

rejected in gender, level of education, total work experience, current job position, and supervisory responsibility with a confidence level at 0.05 both on their perceived sources and effects of occupational stress. However, the test result on marital status confirm that there were no statistical significant difference among respondents and failed to reject the null hypothesis with a confidence level greater than 0.05 both on the perceived sources and effects of occupational stress. In relation to age and child care primary responsibility, on the other hand, the test result has come-up with two outcomes i.e. on the perceived source of occupational stress there was a statistical significance difference with a confidence level at 0.05 and less, whereas on the perceived effects of occupational stress it was found that no statistical significant difference among respondents with a confidence level greater than 0.05 and failed to reject the null hypothesis.

In general, from the total demographic factors considered in this research study, most of the demographic factors have statistical significant differences among respondents which concurs with most of the research findings.

5.3. Conclusions

The central objective of this research was to examine employees' perceptions about the sources, consequences and moderators of occupational stress at Ethiopia Commodity Exchange. The findings of this study demonstrates that occupational stress is experienced by everyone in the organization which was mainly lead to frustration, job insecurity, poor time management, gross negligence and malpractices, increased turnover and intention to leave, health problems, demotivation. As a result customer dissatisfaction increased, customer withdrawal increased, revenue decreased, the financial sustainability questioned, the Ethiopia Commodity Exchange mandates and value proposition compromised and business continuity challenged.

From the findings of the research, it was concluded that the major external sources of occupational stress were: diverse and over demanding market actors with conflicting interest, policy circle and regulatory bodies over interference and unstable & conflicting interest, operating under vicious stage based reforms imposed by policy circle and/or regulatory bodies, intentional media & stage campaign and sabotage that defame the company's image, deliberate and intentional withdrawal of coffee trade from ECX trade platform by few dominant market actors who have invisible hands in the government system and the

imbalance of demand and supply that intensify the competition, political driven unplanned branch office expansions without adequate infrastructure, equipment and resource preparation, political and social instability and the current pandemic-covid19 could be mentioned as the pillar cause of occupational stress.

The study also further identified internal sources of occupational stress that includes seasonal work overload, resource limitations, limited support and cooperation among departments with high role demand, infrastructural problem particularly at branch offices, absence of strong research wing, reactive response/non-response to customers concerns, taking government protection for grant, absence of proactive research based reforms and business process re-engineering initiatives, leadership detachment from political environment that influence the policy circle and regulatory bodies both at federal and regions, limited awareness creation and selling value proposition using diversified media to policy circle, regulatory body, market actors, government offices and public at large, absence of alliance with local and international research institutes, universities and development aid agencies, the presence of monotonous job nature in some functions and absence of career path, the presence of perceived weak financial compensation as compared to the efforts and cover commitment they exerted were mentioned as a major sources.

In general, left other sources aside both the above mention internal and external sources of stress have adversely affected employees' efficiency, moral, commitment and motivation which counter affect the organization's performances, and growth directly and indirectly. Hence, the occupational stress shall be strategically managed to the normal or moderate level that enables employees to perform the maximum that unlock the untapped potentials that contribute for the sustainable growth and development of the organization.

5.4. Recommendations

Ethiopia Commodity Exchange is the first in its kind that comprehensively integrate an end to end value chain process mainly grading and warehousing services, trading and clearing and settlement services and market information services in a fair, transparent, reliable and consistent manner. The presence of modern, efficient and accessible exchange system in any nation has a multiple role and impact in the economic and social growth and development of the country.

Hence, the value adding proposition of the Ethiopia Commodity Exchange system in a given country is indispensable that should be further strategically supported by the federal and regional government, international development agents, market actors and other collaborator to take and play their part in the continuously institutional growth and development. Creating enabling work environment and extending the required support that reduces distressful situations will enable to.

Based on the major findings and conclusions of the study, the student researcher would like to recommend the following short, medium and long term interventions to be done to alleviate the occupational tense and strain:

1. The policy circle and regulatory bodies advised and expected to:

- Uplift the price range imposed both on the coffee and grains to create a fair play ground at Ethiopia Commodity Exchange (ECX) trade platform and the alternative market platform outside ECX and let the market actors determine the price and work on the supply side to improve their productivity and quality through incentivizing and availing the required resources and supports by the respective government office.
- Avoid over interference and imposition of stage driven reforms instead form an independent expert group to identify the root causes in the value chain and come up with research driven reform that covers the entire ecosystem of the different actors in the value chain.
- Provide the right attentions and supports to Ethiopia Commodity Exchange system and create enabling environment

2. Ethiopian Tea and Coffee Authority advised and expected to:

- Avoid rivals with ECX rather create strong partnership and collaborate with Ethiopia Commodity Exchange to advance the Ethiopia Commodity Exchange system in the country and ensure the market integrity, fairness and mutual benefit of market actors and the country as well.
- Play its own parts as per their mandates in the supply chain that consistently improve productivity and quality in the value chain.

3. Ethiopian Commodity Exchange Authority (ECXA) advised and expected to:

- Collaborate and strategically support the Ethiopia Commodity Exchange to successfully execute its mandates instead of over pressurizing and impositions that

results staff frustrations and tensions.

4. Ethiopia Commodity Exchange (ECX) advised and expected to:

- Exert the maximum effort to influence the policy circle and regulatory bodies to get the right attention and override the recently imposed reforms that adversely affects the Ethiopia Commodity Exchange operations which results staff frustration and business continuity challenge.
- Establish strong and vibrant research wing and undertake various empirical researches by its own experts and outsourcing to other national and international independent research institutions.
- Establish a strong and purpose driven smooth relationship with regulatory bodies, other federal and regional government offices and sign a memorandum of understandings to collaborate and exchange support in their respective area of specialization throughout the value chain.
- Proactively and consistently undertake research driven reforms and business process re-engineering,
- Periodically revise and upgrade both financial and non-financial reward systems so as to ensure staff engagement and motivation in comparison to the market.
- Conduct periodic job revision and evaluation that ensures proper job alignment with human and other resource requirements.
- Re-position/re-brand the image and value proposition through public advocacy, policy circle dialogue, and expert circle dialogue or research findings discussion forum/workshops etc.
- Arrange motivational and stress management related sensational and motivational programs along with other learning programs.
- Proactively collect customer and staff feedbacks and strategically intervenes to address the concerns and define their expectations.
- Empower and build trust through creating self-controlling mechanisms and accountability by availing adequate resources to ensure in-time service delivery.
- Have employee day that have a package of recreational, value internalization and sensational learnings programs. To make it more feasible the program could be administered in such a way that Head Quarter and Addis Ababa Branch office Staffs in one group and Upcountry Branch Offices staffs in their respective area or

nearby Branch Offices could celebrate jointly once in a year.

- Defend media campaign and sabotage that defame the company's contribution and its public image.
- Upgrade and strengthen employees' football, gym and sport activity sponsorship.
- Enhance innovation culture and continuous learning system.

5. Individual employees advised to:

- Be aware of the sources, consequences and moderators of occupational stress so that proactively and positively respond to overcome stressful situations.
- Improve physical exercise culture that have mental, spiritual and physical health benefits and reduces stress.
- Improve socializing, spending joyful time with family, balance the work and life, share ideas with supervisors, colleagues, subordinates and families that helps to reduce strains and obtain different views and alternative solutions to overcome the challenges.
- Have vacation time schedule at least twice a year and be out of work and other social engagement that gives a valuable time for self-hearing and recovering.

Limitations and Future Considerations

The study considered sampled participants with limited number using Cochran sample determination formula for known population that might affect the outcome and interested researcher in the area advised to consider the sample size. Besides, the research considered different stress models at the same time that forced to reduce the number of survey question items that has critical importance and contextualized to meet the intended purpose. This might limit to consider all question items of each models. Hence, interested researcher might take consideration while adapting stress models and might independently consider specific stress model and undertake in-depth study.

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Annex: 1:

Survey Questionnaire

ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCES

SCHOOL OF PSYCHOLOGY MASTERS OF ART IN SOCIAL PSYCHOLOGY

A QUESTIONNAIRE TO BE FILLED BY ECX STAFF

The purpose of this questionnaire is to gather data regarding ECX Employees' Perceptions of the Causes, Consequences and Moderators of Occupational Stress for the partial fulfilment of Masters of art in Social Psychology. Your faithful and timely response to each of the question items is very important for the success of the study. The survey is designed in a very simple way and it might take about 20 to 30 minutes of your time to complete all the question items.

In responding to the questions, please note the following:

- All the questions raised here are equally important to attain the objectives of the study. Kindly note that failure to complete any of them will affect the overall study.
- All your responses will be remaining anonymous and used for academic purposes only.
- Please put '√' mark or circle for questions with choices that best describe your view/opinion or write brief answer whenever necessary.
- You are not required to write your name on the questionnaire.

Thank you for participating in this survey

I. DEMOGRAPHIC CHARACTERISTICS

1. What is your Gender?

- Male Female

2. What is your age group?

- Less than 25 Between 25 to 35 Between 35 to 45 Above 45

3. What is your marital status?

- Married Single Divorced Widowed

4. Do you have any children living at home that requires your primary responsibility?

- Yes No

5. Do you have primary responsibility for the care of an elderly family/relatives on a regular basis?

- Yes No

6. What is your highest completed level of education?

- MA/MSc BA/BSc Diploma/Level and below Others

7. Are you taking courses for credit toward a degree (MA/MSc) or professional certifications? Yes No

8. What is your total work experience?

- Less than 5 years Between 5 to 10 years Between 10 to 15 years Above 15 years

9. How long have you worked with your present employer (ECX)?

- Less than 2 years Between 2 to 5 years Between 5 to 10 years Above 10 years

10. What is your current JOB Position?

- Chief Officer Division Manager Branch/RTC Manager Warehouse Supervisor
 Quality Supervisor Sampling Supervisor Professionals Associates/Juniors
 Cuppers Grain Graders LIC/IC Data Assistants Others

11. Under which of the following department do you work?

- Warehouse Operations Quality Operations Market Operations Compliance
 Strategy and Corporate Communication Finance Human Resource
 Internal Audit Facility Management Information Technology CEO Office

12. How long have you worked in your current job position?

- Less than 2 years Between 2 to 5 years Above 5 years

13. If you have supervisory responsibility, please indicate how many people you directly supervise? (If not skip)

- Less than 5 Between 5 to 10 Between 11 to 20 Above 20

II: SOURCES OF OCCUPATIONAL STRESS

- i. Please indicate how strongly you agree or disagree with the following statements by clicking on a circle with choices that best describe your view/opinion at the end of each statement. 1. St. Disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. St. Agree

No.	Dimension	Variable question	1	2	3	4	5
14	Effort	I have constant time pressure due to a heavy work load					
15	Demand	I have to do various jobs simultaneously.					
16	Effort	I have a lot of responsibility in my job					
17	Demand	Due to many things to do, I always feel time pressure.					
18	Effort	I have many interruption and disturbances while performing my job					
19	Effort	Over the past few years, my job has become more and more demanding					
20	Demand	My job requires a lot of physical effort/strength					
21	Over-Commitment	I get easily overwhelmed by time pressures at work					
22	Over-Commitment	As soon as I get up in the morning I start thinking about work problems					
23	Over-Commitment	When I get home, I can easily relax and switch off work					
24	Over-Commitment	People close to me say I sacrifice too much for my job					

25	Over-Commitment	Work rarely lets me go, it is still on my mind when I go to bed						
26	Over-Commitment	If I postpone something that I was supposed to do today, I will have trouble sleeping at night						
27	Demand	My job requires me doing the same tasks over and over again						
28	Control	My work requires a high level of skill or knowledge.						
29	Control	I can make my own decision in my job and give influence over the work.						
30	Control	I can control my workplace and time schedule.						
31	Demand	My workplace is clean and comfortable.						
32	Demand	I am exposed to dangerous work and possibility of high risk of accidents.						
33	Demand	The overall quality of the physical work environment where I work is poor.						
34	Control	There are clear, planned goals and objectives for my job.						
35	Control	I feel certain about how much authority I have.						
36	Control	I receive an assignment without the help I need to complete it.						
37	Control	I have to bend or break a rule or policy in order to carry out an assignment.						
38	Control	I receive incompatible requests from two or more people at a time.						
39	Control	I receive an assignment without adequate resources and materials to execute it.						
40	Demand	I am asked to do another work before finishing the work I am doing.						
41	Fitness	The attributes that I look for in a job are fulfilled very well by my present job.						
42	Fitness	The job that I currently hold gives me just about everything I want from a job.						
43	Fitness	My personal abilities and education provide a good match with the demands that my job require from me						
44	Reward	My job promotion prospects are poor						
45	Reward	I have experienced or I expect to experience an undesirable change in my work situation						
46	Reward	My employment security is poor						

47	Reward	Considering all my efforts and achievements, my job promotion prospects are adequate						
48	Reward	Considering all my efforts and achievements, I received the respect and prestige I deserve at work						
49	Reward	Considering all my efforts and achievements my salary/income is adequate						
50	Reward	I believe that I will be given more rewards from my company if I work hard.						
51	Reward	I am provided with opportunity of developing my capacity.						
52	Support	My supervisor is helpful in getting the job done.						
53	Support	My co-worker is helpful in getting the job done.						
54	Support	I have someone who understands my difficulties at work.						
55	Fitness	I have a co-worker(s) to share my problems at work.						
56	Support	I have a family/relatives who understands my difficulties at work						
57	Support	My supervisor's values and beliefs provide a good fit with the things I value in life						
58	Support	I find it difficult to express my opinions or feelings about my job conditions to my superiors.						
59	Support	There is friendliness among the members of my department/division/branch/centres						
60	Support	The relationship between my department and other departments is harmonious in attaining the overall organizational goals						
61	Reward	I receive the respect I deserve from my supervisor or a respective relevant person						
62	Fitness	My organization's values and culture provide a good fit with the things I value in life.						
63	Support	The organizational policy of my company is fair and reasonable.						
64	Support	My company provides me with sufficient organizational supports.						
65	Reward	I acquire respect and confidence from my company.						
66	Work-Life-Balance	I cannot do well at both work and home.						
67	Work-Life-Balance	I am able to balance between time at work and time at other personal activities.						

68	Work-Life-Balance	I feel that job pressures interfere with my family or personal life.					
69	Work-Life-Balance	Overall, I believe that my work and other personal activities are balanced.					
70	Other factors	I feel that the current national political pressure highly interfere with my work and personal life					
71	Other factors	I feel that the current pandemic (Covid-19) highly interfere with my work and personal life					

ii. Please indicate the degree of your agreement and disagreement of your feelings about yourself. Key: 1. St. Disagree, 2. Disagree, 3. Newtral, 4. Agree, 5. St. Agree

No.	Dimension	Variables	1	2	3	4	5
72	Personality	I feel that I have a number of good qualities.					
73	Personality	I always take a positive attitude toward myself.					
74	Personality	I am able to do things as well as most other people.					
75	Personality	On the whole, I am satisfied with myself.					
76	Personality	All in all, I am inclined to feel that I am a failure.					
77	Personality	I wish I could have more respect for myself.					

III. CONSEQUENCES/EFFECTS OF OCCUPATIONAL STRESS

78. Do you feel stressed at work?

- Rarely or none of the time
- Sometimes
- Fairly often or moderately
- Most often

- iii. How often did you experience the following occupational stress effects/consequences? Key: 1. Rarely or non-of the time, 2. Sometimes, 3. Moderate, 4. Most or all the time.

No.	Variables	1	2	3	4
79	Increased skin temperature				
80	High blood glucose level				
81	Frequent headaches				
82	Alcohol addicts				
83	Higher tardiness				
84	Absenteeism/late coming				
85	Felt depressed				
86	Restless sleep.				
87	Loss of appetite				
88	Prolonged fatigue				
89	Inability to concentrate				
90	Forgetfulness				

91. How would you rate the level of your occupational stress?

- Mild (Normal)
- Moderate
- Severe
- Extreme

92. Which of the following personal strategies do you regularly practice to manage your work stress? (You can select more than one whichever is applicable to you).

- Relaxation
- Regular physical exercise
- Using effective time management
- Socializing
- Attending religious program
- Others (specify)_____

Annex 2:

Focus Group Discussion Guide

ADDIS ABABA UNIVERSITY COLLEGE OF EDUCATION AND BEHAVIOURAL SCIENCES GRADUATE STUDIES SCHOOL OF PSYCHOLOGY MASTERS OF ART IN SOCIAL PSYCHOLOGY.

Guiding FGD questions.

I. Stress Experience

1. Describe your experience of occupational stress working at Ethiopia Commodity Exchange (ECX)

Probes: How would you describe the level of work stress you experience?

II. Sources of Stress

2. In your opinion/perception what contributes to your stress at work? Are there any causes of stress that are unique to your position and/or to ECX/or specific position?

III. Consequences

3. How does the stress at work affect you professionally/personally and your organization in general?

IV. Moderators

4. What helps you to manage your stress at work?

- Probes: What personal strategies did you employ to manage your work stress?
 - What organizational strategies did your company implement to moderate work stress?

Annex 3:

Interview Guide

ADDIS ABABA UNIVERSITY COLLEGE OF EDUCATION AND BEHAVIOURAL SCIENCES GRADUATE STUDIES SCHOOL OF PSYCHOLOGY MASTERS OF ART IN SOCIAL PSYCHOLOGY.

Guiding interview questions.

I. Stress Experience

4. Describe your experience of occupational stress working at Ethiopia Commodity Exchange (ECX)

Probes: How would you describe the level of work stress you experience?

II. Sources of Stress

5. In your opinion/perception what contributes to your stress at work? Are there any causes of stress that are unique to your position and/or to ECX/or specific position?

III. Consequences

6. How does the stress at work affect you professionally/personally and your organization in general?

IV. Moderators

4. What helps you to manage your stress at work?

- Probes: What personal strategies did you employ to manage your work stress?
 - What organizational strategies did your company implement to moderate work stress?

Annex 4

Total Year of Experience Multiple Comparison Games-Howell Test Result

Dependent Variable: Games-Howell	Sources of Stress and Stress Effect	Multiple Comparisons					
		Total work experience	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Source of Stress	Less than 5 years	Between 5-10 years	.15105	.07592	.211	-.0537	.3558
		Between 10-15 years	-.13521	.07546	.295	-.3389	.0685
		Above 15 years	-.07379	.08545	.823	-.3008	.1532
	Between 5-10 years	Less than 5 years	-.15105	.07592	.211	-.3558	.0537
		Between 10-15 years	-.28626*	.03716	.000	-.3826	-.1900
		Above 15 years	-.22484*	.05466	.001	-.3684	-.0813
	Between 10-15 years	Less than 5 years	.13521	.07546	.295	-.0685	.3389
		Between 5-10 years	.28626*	.03716	.000	.1900	.3826
		Above 15 years	.06142	.05402	.668	-.0806	.2034
	Above 15 years	Less than 5 years	.07379	.08545	.823	-.1532	.3008
		Between 5-10 years	.22484*	.05466	.001	.0813	.3684
		Between 10-15 years	-.06142	.05402	.668	-.2034	.0806
Stress Effect	Less than 5 years	Between 5-10 years	-.15608	.11297	.517	-.4572	.1450
		Between 10-15 years	.08579	.10916	.860	-.2066	.3782
		Above 15 years	.01342	.13428	1.000	-.3406	.3674
	Between 5-10 years	Less than 5 years	.15608	.11297	.517	-.1450	.4572
		Between 10-15 years	.24187*	.07345	.006	.0515	.4323
		Above 15 years	.16951	.10728	.396	-.1119	.4509
	Between 10-15 years	Less than 5 years	-.08579	.10916	.860	-.3782	.2066
		Between 5-10 years	-.24187*	.07345	.006	-.4323	-.0515
		Above 15 years	-.07237	.10326	.896	-.3440	.1992
	Above 15 years	Less than 5 years	-.01342	.13428	1.000	-.3674	.3406
		Between 5-10 years	-.16951	.10728	.396	-.4509	.1119
		Between 10-15 years	.07237	.10326	.896	-.1992	.3440

*. The mean difference is significant at the 0.05 level.

Annex 5

Current Job Position Multiple Comparison-Games Hall Test Result with Dependent Variable-Source of Stress

Multiple Comparisons						
Dependent Variable: Games-Howell	Sources of Stress					
(I) Current job position		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Chief Officer	Division Manager	.12115	.07513	.911	-.1498	.3921
	Branch/RTC Manager	.10005	.07971	.985	-.1876	.3878
	Warehouse Supervisor	.06315	.08212	1.000	-.2353	.3616
	Quality Supervisor	.38876*	.06966	.001	.1313	.6462
	Professionals	.25958*	.07080	.043	.0046	.5146
	Sampling Supervisor	.51823*	.06287	.000	.2802	.7563
	Associates/Juniors	.15833	.08542	.805	-.1534	.4700
	Cuppers	.34635*	.07252	.003	.0837	.6090
	Grain Graders	.69792*	.06815	.000	.4456	.9502
	LIC/IC	.42649*	.06132	.000	.1933	.6597
	Data Assistants	.72135*	.06165	.000	.4867	.9560
Others	.49479*	.10101	.022	.0626	.9270	
Division Manager	Chief Officer	-.12115	.07513	.911	-.3921	.1498
	Branch/RTC Manager	-.02110	.07796	1.000	-.2962	.2540
	Warehouse Supervisor	-.05800	.08042	1.000	-.3449	.2289
	Quality Supervisor	.26761*	.06764	.018	.0274	.5078
	Professionals	.13843	.06881	.721	-.0997	.3766
	Sampling Supervisor	.39708*	.06063	.000	.1812	.6129
	Associates/Juniors	.03718	.08378	1.000	-.2640	.3384
	Cuppers	.22520	.07058	.105	-.0217	.4721
	Grain Graders	.57677*	.06608	.000	.3427	.8109
	LIC/IC	.30534*	.05902	.001	.0959	.5148
	Data Assistants	.60020*	.05936	.000	.3889	.8115
Others	.37364	.09963	.102	-.0540	.8013	
Branch/RTC Manager	Chief Officer	-.10005	.07971	.985	-.3878	.1876
	Division Manager	.02110	.07796	1.000	-.2540	.2962
	Warehouse Supervisor	-.03690	.08472	1.000	-.3393	.2655
	Quality Supervisor	.28871*	.07270	.020	.0281	.5493
	Professionals	.15952	.07379	.622	-.0996	.4187
	Sampling Supervisor	.41817*	.06622	.000	.1782	.6581
	Associates/Juniors	.05828	.08792	1.000	-.2572	.3738
	Cuppers	.24630	.07544	.094	-.0204	.5130
Grain Graders	.59786*	.07125	.000	.3425	.8533	

	LIC/IC	.32643*	.06476	.002	.0917	.5612
	Data Assistants	.62130*	.06506	.000	.3851	.8575
	Others	.39474	.10313	.082	-.0364	.8259
Warehouse Supervisor	Chief Officer	-.06315	.08212	1.000	-.3616	.2353
	Division Manager	.05800	.08042	1.000	-.2289	.3449
	Branch/RTC Manager	.03690	.08472	1.000	-.2655	.3393
	Quality Supervisor	.32561*	.07534	.010	.0520	.5992
	Professionals	.19643	.07639	.365	-.0758	.4687
	Sampling Supervisor	.45508*	.06911	.000	.1999	.7102
	Associates/Juniors	.09518	.09011	.997	-.2295	.4198
	Cuppers	.28320*	.07799	.044	.0041	.5623
	Grain Graders	.63477*	.07394	.000	.3659	.9036
	LIC/IC	.36334*	.06771	.001	.1127	.6140
	Data Assistants	.65820*	.06800	.000	.4063	.9101
	Others	.43164	.10501	.052	-.0031	.8664
Quality Supervisor	Chief Officer	-.38876*	.06966	.001	-.6462	-.1313
	Division Manager	-.26761*	.06764	.018	-.5078	-.0274
	Branch/RTC Manager	-.28871*	.07270	.020	-.5493	-.0281
	Warehouse Supervisor	-.32561*	.07534	.010	-.5992	-.0520
	Professionals	-.12919	.06280	.691	-.3489	.0906
	Sampling Supervisor	.12946	.05370	.469	-.0674	.3264
	Associates/Juniors	-.23043	.07892	.216	-.5194	.0586
	Cuppers	-.04241	.06473	1.000	-.2723	.1874
	Grain Graders	.30915*	.05979	.001	.0924	.5259
	LIC/IC	.03772	.05189	1.000	-.1518	.2272
	Data Assistants	.33259*	.05227	.000	.1408	.5243
	Others	.10603	.09558	.988	-.3228	.5348
Professionals	Chief Officer	-.25958*	.07080	.043	-.5146	-.0046
	Division Manager	-.13843	.06881	.721	-.3766	.0997
	Branch/RTC Manager	-.15952	.07379	.622	-.4187	.0996
	Warehouse Supervisor	-.19643	.07639	.365	-.4687	.0758
	Quality Supervisor	.12919	.06280	.691	-.0906	.3489
	Sampling Supervisor	.25865*	.05517	.001	.0684	.4489
	Associates/Juniors	-.10125	.07992	.984	-.3892	.1867
	Cuppers	.08677	.06595	.982	-.1405	.3140
	Grain Graders	.43834*	.06112	.000	.2258	.6509
	LIC/IC	.16691	.05340	.106	-.0151	.3489
	Data Assistants	.46177*	.05377	.000	.2774	.6461
	Others	.23521	.09641	.496	-.1907	.6612
Sampling Supervisor	Chief Officer	-.51823*	.06287	.000	-.7563	-.2802
	Division Manager	-.39708*	.06063	.000	-.6129	-.1812
	Branch/RTC Manager	-.41817*	.06622	.000	-.6581	-.1782
	Warehouse Supervisor	-.45508*	.06911	.000	-.7102	-.1999
	Quality Supervisor	-.12946	.05370	.469	-.3264	.0674
	Professionals	-.25865*	.05517	.001	-.4489	-.0684

	Associates/Juniors	-.35990*	.07299	.004	-.6325	-.0873
	Cuppers	-.17188	.05736	.169	-.3753	.0315
	Grain Graders	.17969	.05172	.071	-.0085	.3678
	LIC/IC	-.09174	.04233	.619	-.2423	.0588
	Data Assistants	.20313*	.04280	.003	.0489	.3574
	Others	-.02344	.09075	1.000	-.4564	.4095
	Chief Officer	-.15833	.08542	.805	-.4700	.1534
	Division Manager	-.03718	.08378	1.000	-.3384	.2640
	Branch/RTC Manager	-.05828	.08792	1.000	-.3738	.2572
	Warehouse Supervisor	-.09518	.09011	.997	-.4198	.2295
	Quality Supervisor	.23043	.07892	.216	-.0586	.5194
Associates/Juniors	Professionals	.10125	.07992	.984	-.1867	.3892
	Sampling Supervisor	.35990*	.07299	.004	.0873	.6325
	Cuppers	.18802	.08145	.529	-.1061	.4821
	Grain Graders	.53958*	.07759	.000	.2548	.8243
	LIC/IC	.26815	.07167	.051	-.0005	.5368
	Data Assistants	.56302*	.07194	.000	.2933	.8328
	Others	.33646	.10761	.203	-.1030	.7759
	Chief Officer	-.34635*	.07252	.003	-.6090	-.0837
	Division Manager	-.22520	.07058	.105	-.4721	.0217
	Branch/RTC Manager	-.24630	.07544	.094	-.5130	.0204
	Warehouse Supervisor	-.28320*	.07799	.044	-.5623	-.0041
	Quality Supervisor	.04241	.06473	1.000	-.1874	.2723
	Professionals	-.08677	.06595	.982	-.3140	.1405
Cuppers	Sampling Supervisor	.17188	.05736	.169	-.0315	.3753
	Associates/Juniors	-.18802	.08145	.529	-.4821	.1061
	Grain Graders	.35156*	.06310	.000	.1283	.5748
	LIC/IC	.08013	.05566	.961	-.1162	.2764
	Data Assistants	.37500*	.05602	.000	.1767	.5733
	Others	.14844	.09768	.917	-.2786	.5755
	Chief Officer	-.69792*	.06815	.000	-.9502	-.4456
	Division Manager	-.57677*	.06608	.000	-.8109	-.3427
	Branch/RTC Manager	-.59786*	.07125	.000	-.8533	-.3425
	Warehouse Supervisor	-.63477*	.07394	.000	-.9036	-.3659
	Quality Supervisor	-.30915*	.05979	.001	-.5259	-.0924
Grain Graders	Professionals	-.43834*	.06112	.000	-.6509	-.2258
	Sampling Supervisor	-.17969	.05172	.071	-.3678	.0085
	Associates/Juniors	-.53958*	.07759	.000	-.8243	-.2548
	Cuppers	-.35156*	.06310	.000	-.5748	-.1283
	LIC/IC	-.27143*	.04984	.001	-.4514	-.0914
	Data Assistants	.02344	.05023	1.000	-.1590	.2059
	Others	-.20313	.09448	.640	-.6321	.2258
	Chief Officer	-.42649*	.06132	.000	-.6597	-.1933
LIC/IC	Division Manager	-.30534*	.05902	.001	-.5148	-.0959
	Branch/RTC Manager	-.32643*	.06476	.002	-.5612	-.0917

	Warehouse Supervisor	-.36334*	.06771	.001	-.6140	-.1127
	Quality Supervisor	-.03772	.05189	1.000	-.2272	.1518
	Professionals	-.16691	.05340	.106	-.3489	.0151
	Sampling Supervisor	.09174	.04233	.619	-.0588	.2423
	Associates/Juniors	-.26815	.07167	.051	-.5368	.0005
	Cuppers	-.08013	.05566	.961	-.2764	.1162
	Grain Graders	.27143*	.04984	.001	.0914	.4514
	Data Assistants	.29487*	.04050	.000	.1532	.4365
	Others	.06830	.08968	.999	-.3661	.5028
	Chief Officer	-.72135*	.06165	.000	-.9560	-.4867
	Division Manager	-.60020*	.05936	.000	-.8115	-.3889
	Branch/RTC Manager	-.62130*	.06506	.000	-.8575	-.3851
	Warehouse Supervisor	-.65820*	.06800	.000	-.9101	-.4063
	Quality Supervisor	-.33259*	.05227	.000	-.5243	-.1408
Data Assistants	Professionals	-.46177*	.05377	.000	-.6461	-.2774
	Sampling Supervisor	-.20313*	.04280	.003	-.3574	-.0489
	Associates/Juniors	-.56302*	.07194	.000	-.8328	-.2933
	Cuppers	-.37500*	.05602	.000	-.5733	-.1767
	Grain Graders	-.02344	.05023	1.000	-.2059	.1590
	LIC/IC	-.29487*	.04050	.000	-.4365	-.1532
	Others	-.22656	.08990	.477	-.6608	.2077
	Chief Officer	-.49479*	.10101	.022	-.9270	-.0626
	Division Manager	-.37364	.09963	.102	-.8013	.0540
	Branch/RTC Manager	-.39474	.10313	.082	-.8259	.0364
	Warehouse Supervisor	-.43164	.10501	.052	-.8664	.0031
	Quality Supervisor	-.10603	.09558	.988	-.5348	.3228
	Professionals	-.23521	.09641	.496	-.6612	.1907
Others	Sampling Supervisor	.02344	.09075	1.000	-.4095	.4564
	Associates/Juniors	-.33646	.10761	.203	-.7759	.1030
	Cuppers	-.14844	.09768	.917	-.5755	.2786
	Grain Graders	.20313	.09448	.640	-.2258	.6321
	LIC/IC	-.06830	.08968	.999	-.5028	.3661
	Data Assistants	.22656	.08990	.477	-.2077	.6608

*. The mean difference is significant at the 0.05 level.

Annex 6

Current Job Position Multiple Comparison-Games Hall Test Result with Dependent Variable-Stress Effect

Dependent Variable: Games-Howell		Multiple Comparisons				
Stress Effect						
(I) Current job position		Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Chief Officer	Division Manager	-.28019	.16256	.866	-.8755	.3151
	Branch/RTC Manager	-.11257	.17604	1.000	-.7514	.5262
	Warehouse Supervisor	-.28472	.19241	.948	-.9841	.4146
	Quality Supervisor	-.61508*	.15455	.031	-1.1930	-.0371
	Professionals	.05348	.14315	1.000	-.4929	.5999
	Sampling Supervisor	-.69246*	.18202	.037	-1.3594	-.0256
	Associates/Juniors	.10000	.18573	1.000	-.5778	.7778
	Cuppers	-.63194*	.16971	.040	-1.2475	-.0164
	Grain Graders	-.69444*	.14397	.007	-1.2453	-.1436
	LIC/IC	-.52937	.15210	.081	-1.0953	.0365
	Data Assistants	-.59722*	.13179	.022	-1.1273	-.0671
	Others	-.08333	.23785	1.000	-1.1007	.9341
Division Manager	Chief Officer	.28019	.16256	.866	-.3151	.8755
	Branch/RTC Manager	.16762	.15658	.996	-.3861	.7214
	Warehouse Supervisor	-.00453	.17478	1.000	-.6346	.6256
	Quality Supervisor	-.33489	.13195	.383	-.8037	.1339
	Professionals	.33367	.11840	.233	-.0825	.7499
	Sampling Supervisor	-.41227	.16327	.398	-1.0028	.1783
	Associates/Juniors	.38019	.16740	.553	-.2237	.9841
	Cuppers	-.35175	.14942	.493	-.8743	.1708
	Grain Graders	-.41425	.11938	.061	-.8381	.0096
	LIC/IC	-.24917	.12908	.770	-.6991	.2008
	Data Assistants	-.31703	.10438	.171	-.6964	.0623
	Others	.19686	.22383	.998	-.8098	1.2035
Branch/RTC Manager	Chief Officer	.11257	.17604	1.000	-.5262	.7514
	Division Manager	-.16762	.15658	.996	-.7214	.3861
	Warehouse Supervisor	-.17215	.18739	.999	-.8434	.4991
	Quality Supervisor	-.50251	.14824	.078	-1.0344	.0294
	Professionals	.16605	.13632	.988	-.3251	.6572
	Sampling Supervisor	-.57989	.17670	.100	-1.2153	.0555
	Associates/Juniors	.21257	.18052	.991	-.4349	.8601
	Cuppers	-.51937	.16399	.115	-1.0971	.0583

	Grain Graders	-.58187*	.13718	.012	-1.0785	-.0853
	LIC/IC	-.41679	.14569	.221	-.9344	.1008
	Data Assistants	-.48465*	.12434	.035	-.9483	-.0210
	Others	.02924	.23380	1.000	-.9787	1.0372
Warehouse Supervisor	Chief Officer	.28472	.19241	.948	-.4146	.9841
	Division Manager	.00453	.17478	1.000	-.6256	.6346
	Branch/RTC Manager	.17215	.18739	.999	-.4991	.8434
	Quality Supervisor	-.33036	.16736	.739	-.9428	.2821
	Professionals	.33820	.15689	.629	-.2437	.9201
	Sampling Supervisor	-.40774	.19302	.655	-1.1047	.2892
	Associates/Juniors	.38472	.19652	.750	-.3228	1.0922
	Cuppers	-.34722	.18145	.776	-.9968	.3024
	Grain Graders	-.40972	.15764	.368	-.9954	.1760
	LIC/IC	-.24464	.16510	.947	-.8465	.3572
	Data Assistants	-.31250	.14660	.644	-.8746	.2496
	Others	.20139	.24637	.999	-.8207	1.2235
Quality Supervisor	Chief Officer	.61508*	.15455	.031	.0371	1.1930
	Division Manager	.33489	.13195	.383	-.1339	.8037
	Branch/RTC Manager	.50251	.14824	.078	-.0294	1.0344
	Warehouse Supervisor	.33036	.16736	.739	-.2821	.9428
	Professionals	.66856*	.10713	.000	.2829	1.0543
	Sampling Supervisor	-.07738	.15530	1.000	-.6494	.4946
	Associates/Juniors	.71508*	.15963	.008	.1296	1.3006
	Cuppers	-.01687	.14067	1.000	-.5152	.4815
	Grain Graders	-.07937	.10822	1.000	-.4746	.3158
	LIC/IC	.08571	.11883	1.000	-.3354	.5068
	Data Assistants	.01786	.09140	1.000	-.3330	.3687
	Others	.53175	.21808	.505	-.4814	1.5449
Professionals	Chief Officer	-.05348	.14315	1.000	-.5999	.4929
	Division Manager	-.33367	.11840	.233	-.7499	.0825
	Branch/RTC Manager	-.16605	.13632	.988	-.6572	.3251
	Warehouse Supervisor	-.33820	.15689	.629	-.9201	.2437
	Quality Supervisor	-.66856*	.10713	.000	-1.0543	-.2829
	Sampling Supervisor	-.74594*	.14396	.002	-1.2843	-.2076
	Associates/Juniors	.04652	.14862	1.000	-.5063	.5993
	Cuppers	-.68543*	.12804	.000	-1.1369	-.2340
	Grain Graders	-.74793*	.09121	.000	-1.0675	-.4283
	LIC/IC	-.58285*	.10357	.000	-.9378	-.2279
	Data Assistants	-.65070*	.07043	.000	-.8922	-.4093
	Others	-.13681	.21016	1.000	-1.1613	.8877
Sampling Supervisor	Chief Officer	.69246*	.18202	.037	.0256	1.3594
	Division Manager	.41227	.16327	.398	-.1783	1.0028
	Branch/RTC Manager	.57989	.17670	.100	-.0555	1.2153
	Warehouse Supervisor	.40774	.19302	.655	-.2892	1.1047
	Quality Supervisor	.07738	.15530	1.000	-.4946	.6494

	Professionals	.74594*	.14396	.002	.2076	1.2843
	Associates/Juniors	.79246*	.18636	.011	.1175	1.4674
	Cuppers	.06052	.17039	1.000	-.5511	.6721
	Grain Graders	-.00198	.14477	1.000	-.5448	.5409
	LIC/IC	.16310	.15286	.996	-.3966	.7228
	Data Assistants	.09524	.13267	1.000	-.4231	.6136
	Others	.60913	.23834	.433	-.4060	1.6242
	Chief Officer	-.10000	.18573	1.000	-.7778	.5778
	Division Manager	-.38019	.16740	.553	-.9841	.2237
	Branch/RTC Manager	-.21257	.18052	.991	-.8601	.4349
	Warehouse Supervisor	-.38472	.19652	.750	-1.0922	.3228
	Quality Supervisor	-.71508*	.15963	.008	-1.3006	-.1296
Associates/Juniors	Professionals	-.04652	.14862	1.000	-.5993	.5063
	Sampling Supervisor	-.79246*	.18636	.011	-1.4674	-.1175
	Cuppers	-.73194*	.17435	.011	-1.3564	-.1075
	Grain Graders	-.79444*	.14941	.002	-1.3515	-.2374
	LIC/IC	-.62937*	.15726	.023	-1.2032	-.0555
	Data Assistants	-.69722*	.13772	.006	-1.2297	-.1647
	Others	-.18333	.24118	1.000	-1.2002	.8335
	Chief Officer	.63194*	.16971	.040	.0164	1.2475
	Division Manager	.35175	.14942	.493	-.1708	.8743
	Branch/RTC Manager	.51937	.16399	.115	-.0583	1.0971
	Warehouse Supervisor	.34722	.18145	.776	-.3024	.9968
	Quality Supervisor	.01687	.14067	1.000	-.4815	.5152
Cuppers	Professionals	.68543*	.12804	.000	.2340	1.1369
	Sampling Supervisor	-.06052	.17039	1.000	-.6721	.5511
	Associates/Juniors	.73194*	.17435	.011	.1075	1.3564
	Grain Graders	-.06250	.12895	1.000	-.5204	.3954
	LIC/IC	.10258	.13797	1.000	-.3794	.5846
	Data Assistants	.03472	.11520	1.000	-.3834	.4529
	Others	.54861	.22908	.516	-.4565	1.5537
	Chief Officer	.69444*	.14397	.007	.1436	1.2453
	Division Manager	.41425	.11938	.061	-.0096	.8381
	Branch/RTC Manager	.58187*	.13718	.012	.0853	1.0785
	Warehouse Supervisor	.40972	.15764	.368	-.1760	.9954
	Quality Supervisor	.07937	.10822	1.000	-.3158	.4746
Grain Graders	Professionals	.74793*	.09121	.000	.4283	1.0675
	Sampling Supervisor	.00198	.14477	1.000	-.5409	.5448
	Associates/Juniors	.79444*	.14941	.002	.2374	1.3515
	Cuppers	.06250	.12895	1.000	-.3954	.5204
	LIC/IC	.16508	.10470	.928	-.2006	.5307
	Data Assistants	.09722	.07208	.971	-.1721	.3666
	Others	.61111	.21071	.337	-.4132	1.6354
LIC/IC	Chief Officer	.52937	.15210	.081	-.0365	1.0953
	Division Manager	.24917	.12908	.770	-.2008	.6991

	Branch/RTC Manager	.41679	.14569	.221	-.1008	.9344
	Warehouse Supervisor	.24464	.16510	.947	-.3572	.8465
	Quality Supervisor	-.08571	.11883	1.000	-.5068	.3354
	Professionals	.58285*	.10357	.000	.2279	.9378
	Sampling Supervisor	-.16310	.15286	.996	-.7228	.3966
	Associates/Juniors	.62937*	.15726	.023	.0555	1.2032
	Cuppers	-.10258	.13797	1.000	-.5846	.3794
	Grain Graders	-.16508	.10470	.928	-.5307	.2006
	Data Assistants	-.06786	.08720	1.000	-.3737	.2380
	Others	.44603	.21635	.685	-.5668	1.4589
	Chief Officer	.59722*	.13179	.022	.0671	1.1273
	Division Manager	.31703	.10438	.171	-.0623	.6964
	Branch/RTC Manager	.48465*	.12434	.035	.0210	.9483
	Warehouse Supervisor	.31250	.14660	.644	-.2496	.8746
	Quality Supervisor	-.01786	.09140	1.000	-.3687	.3330
Data Assistants	Professionals	.65070*	.07043	.000	.4093	.8922
	Sampling Supervisor	-.09524	.13267	1.000	-.6136	.4231
	Associates/Juniors	.69722*	.13772	.006	.1647	1.2297
	Cuppers	-.03472	.11520	1.000	-.4529	.3834
	Grain Graders	-.09722	.07208	.971	-.3666	.1721
	LIC/IC	.06786	.08720	1.000	-.2380	.3737
	Others	.51389	.20259	.482	-.5342	1.5619
	Chief Officer	.08333	.23785	1.000	-.9341	1.1007
	Division Manager	-.19686	.22383	.998	-1.2035	.8098
	Branch/RTC Manager	-.02924	.23380	1.000	-1.0372	.9787
	Warehouse Supervisor	-.20139	.24637	.999	-1.2235	.8207
	Quality Supervisor	-.53175	.21808	.505	-1.5449	.4814
Others	Professionals	.13681	.21016	1.000	-.8877	1.1613
	Sampling Supervisor	-.60913	.23834	.433	-1.6242	.4060
	Associates/Juniors	.18333	.24118	1.000	-.8335	1.2002
	Cuppers	-.54861	.22908	.516	-1.5537	.4565
	Grain Graders	-.61111	.21071	.337	-1.6354	.4132
	LIC/IC	-.44603	.21635	.685	-1.4589	.5668
	Data Assistants	-.51389	.20259	.482	-1.5619	.5342

*. The mean difference is significant at the 0.05 level.

Annex 7

Supervisory Responsibility Multiple Comparison

Multiple Comparisons

Dependent Variable:		Sources of Stress and Stress Effect					
Games-Howell							
		Mean Difference	Std. Error	Sig.	95% Confidence Interval		
					Lower Bound	Upper Bound	
(I) Supervisory responsibility							
None	Less than 5 subordinates	-.04296	.04110	.834	-.1563	.0703	
	Between 5-10 subordinates	-.28627*	.05050	.000	-.4273	-.1452	
	Between 11-20 subordinates	-.23247*	.05514	.001	-.3881	-.0768	
	Above 20 subordinates	-.33749*	.07206	.001	-.5475	-.1275	
Less than 5 subordinates	None	.04296	.04110	.834	-.0703	.1563	
	Between 5-10 subordinates	-.24330*	.04881	.000	-.3802	-.1064	
	Between 11-20 subordinates	-.18951*	.05359	.008	-.3415	-.0375	
	Above 20 subordinates	-.29453*	.07088	.003	-.5020	-.0870	
Between 5-10 subordinates	None	.28627*	.05050	.000	.1452	.4273	
	Less than 5 subordinates	.24330*	.04881	.000	.1064	.3802	
	Between 11-20 subordinates	.05379	.06110	.903	-.1183	.2259	
	Above 20 subordinates	-.05123	.07672	.962	-.2723	.1699	
Between 11-20 subordinates	None	.23247*	.05514	.001	.0768	.3881	
	Less than 5 subordinates	.18951*	.05359	.008	.0375	.3415	
	Between 5-10 subordinates	-.05379	.06110	.903	-.2259	.1183	
	Above 20 subordinates	-.10502	.07984	.684	-.3342	.1241	
Above 20 subordinates	None	.33749*	.07206	.001	.1275	.5475	
	Less than 5 subordinates	.29453*	.07088	.003	.0870	.5020	
	Between 5-10 subordinates	.05123	.07672	.962	-.1699	.2723	
	Between 11-20 subordinates	.10502	.07984	.684	-.1241	.3342	
Stress Effect	None	Less than 5 subordinates	-.12916	.08335	.532	-.3596	.1013
		Between 5-10 subordinates	.31480*	.09003	.007	.0626	.5670
		Between 11-20 subordinates	-.06794	.11139	.973	-.3852	.2494
		Above 20 subordinates	.41122*	.08972	.000	.1549	.6675
	Less than 5 subordinates	None	.12916	.08335	.532	-.1013	.3596
		Between 5-10 subordinates	.44396*	.09941	.000	.1667	.7213
		Between 11-20 subordinates	.06122	.11910	.986	-.2753	.3978
		Above 20 subordinates	.54038*	.09913	.000	.2602	.8206
Between 5-10	None	-.31480*	.09003	.007	-.5670	-.0626	

subordinates	Less than 5 subordinates	-.44396*	.09941	.000	-.7213	-.1667
	Between 11-20 subordinates	-.38274*	.12386	.025	-.7326	-.0329
	Above 20 subordinates	.09643	.10480	.888	-.2004	.3933
Between 11-20 subordinates	None	.06794	.11139	.973	-.2494	.3852
	Less than 5 subordinates	-.06122	.11910	.986	-.3978	.2753
	Between 5-10 subordinates	.38274*	.12386	.025	.0329	.7326
	Above 20 subordinates	.47917*	.12364	.003	.1280	.8303
Above 20 subordinates	None	-.41122*	.08972	.000	-.6675	-.1549
	Less than 5 subordinates	-.54038*	.09913	.000	-.8206	-.2602
	Between 5-10 subordinates	-.09643	.10480	.888	-.3933	.2004
	Between 11-20 subordinates	-.47917*	.12364	.003	-.8303	-.1280

*. The mean difference is significant at the 0.05 level.