

**EXPLORING PERCEPTIONS AND EXPERIENCES OF OCCUPATIONAL STRESS
STIMULI PRESENT IN A GAUTENG BASED, SMALL MANUFACTURER**

by

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ABSTRACT

This case study explored the occupational stress stimuli perceived and / or experienced by employees in a small Gauteng based manufacturing Company. The research was aimed at assisting the Company's management to devise and implement strategies to prevent and/or reduce stress and its consequences. The key theoretical concept is that employees who are frequently exposed to stress stimuli within a work environment can incur stress. In turn, the consequences of stress (i.e. stress related illnesses) can be harmful to employees as well as to the organisations at which they work. The starting point for preventing the debilitating consequences of stress is to explore whether stress stimuli are prevailing within a workplace and also to discover the types of stress stimuli that may exist. Once this is known the Company's management team can implement stress reduction and prevention interventions to mitigate undesirable consequences of stress stimuli in the working environment. This research was done by means of a qualitative case study using one organisation and a number of sources of data. The Researcher made use of secondary data which were qualitatively analysed. As a result of the research the Researcher was able to discover a broad range of workplace stress stimuli in the workplace. This will assist the participating Company's management team to devise and implement plans/strategies to prevent and/or reduce stress and its consequences. This study also lays a foundation for future research to take place, specifically regarding the development and implementation of stress reduction and prevention measures within an occupational environment.

DECLARATION

I, Lizelle De Villiers, declare that this research report is my own work, except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Magister Technologiae at the University of South Africa, Pretoria. It has not been submitted for any degree or examination to this or any other university.

L. De Villiers

Lizelle De Villiers

Signed at: Pretoria

On the 3rd day of November 2014

DEDICATION

This Dissertation is dedicated to my beloved husband, Jonathan.

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TABLE OF CONTENTS

ABSTRACT	i
Declaration	ii
Dedication	iii
Acknowledgements	iv
List of Tables	viii
List of Figures	viii
CHAPTER 1: INTRODUCTION	1
1.1. Purpose of the study	2
1.2. Context of the study	2
1.3. Research Objectives	5
1.4. Research question	6
1.5. Significance of the study	6
1.6. Delimitations of the study	6
1.7. Definition of terms	7
1.8. Assumptions	14
CHAPTER 2: LITERATURE REVIEW	16
2.1. Introduction	16
2.2. Background discussion	17
2.2.1. Overview of stress	17
2.2.2. The mechanics of stress	18
2.2.3. The consequences of occupational stress	20
2.2.4. Physiological and psychological influences of stress	21
2.3. Work related impacts of stress	23
2.4. Causes of work related stress	24
2.5. Stress research and models	27
2.6. Stress assessment tools and measuring instruments	29
2.7. Stress assessment data	34
2.8. Conclusion of literature review	34
CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY	38
3.1. Introduction	38

3.2.	Research Philosophy	38
3.3.	Research Method	40
3.4.	Population	41
3.5.	Data analysis	42
3.6.	Research design	43
3.7.	The Research Instrument used to collect data	45
3.8.	Procedure for data collection	46
3.9.	Data analysis and interpretation	46
3.10.	Limitations of the study	48
3.11.	Validity and reliability	49
3.11.1.	External validity	49
3.11.2.	Internal validity	49
3.11.3.	Reliability	49
3.12.	Ethical considerations	50
CHAPTER 4: FINDINGS OF THE STUDY		51
4.1.	Introduction	51
4.2.	Demographic profile of respondents	51
4.2.1.	Participants/respondents (i.e. Employees that were invited to answer a stress questionnaire and the number of persons that actually responded)	51
4.2.2.	Age group	52
4.2.3.	Gender analysis	52
4.2.4.	Work area analysis	53
4.2.5.	Job level analysis	53
4.2.6.	Education level analysis	54
4.2.7.	Analysis of work experience	54
4.2.8.	Analysis of the period that the respondents have been employed at the participating Company	55
4.2.9.	Analysis of the period that respondents have been employed in current position	55
4.2.10.	Analysis of ethnic groups	56
4.2.11.	Findings pertaining to the stress survey questionnaire	57
4.2.12.	Analysis of sick leave, absenteeism, staff turnover as well as disciplinary records ..	62
4.3.	Results of analysis of manufacturing and sales records	65
4.4.	Conclusions	67
CHAPTER 5: DISCUSSION ON THE FINDINGS		69
5.1.	Introduction	69

5.2.	Aspects regarding the demographic findings	69
5.3.	Aspects pertaining to the findings of the stress survey questionnaire.....	74
5.4.	Aspects regarding sick leave, absence without leave, staff turnover and disciplinary incidents	77
5.5.	Aspects regarding findings arising from the company’s vehicle manufacturing and sales data	78
5.6.	Conclusions.....	79
CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS		80
6.1.	Introduction.....	80
6.2.	Conclusions of the study	80
6.3.	Recommendations	81
6.4.	Suggestions for further research	81
References.....		82
ANNEXURE A: RESEARCH INSTRUMENT		89
ANNEXURE B: STRESS SURVEY: DATA FROM CONSULTANT SPREADSHEET.....		95
ANNEXURE C: COMPANY CONSENT TO CONDUCT STUDY.....		106
ANNEXURE D: INFORMED CONSENT AND CONFIDENTIALITY UNDERTAKING.....		106
ANNEXURE E: ETHICS COMMITTEE CLEARANCE CERTIFICATE		108
ANNEXURE F: LANGUAGE EDITING CERTIFICATE		108

LIST OF TABLES

Table 1.1: Definition of Terms	14
Table 2.1: Leading theories of organisational stress	28
Table 2.2: Stress Assessment Tools	32
Table 4.1: Participants/respondants	51
Table 4.2: Age group	52
Table 4.3: Gender	52
Table 4.4: Work area	53
Table 4.5: Job level	53
Table 4.6: Education level	54
Table 4.7: Work experience	54
Table 4.8: Period that the respondents have been employed at the participating Company ...	55
Table 4.9: Period that respondents have been employed in current position	56
Table 4.10: Ethnic groups	56
Table 4.11: Stress Survey Questionnaire Significant Findings	59
Table 4.12: Respondents Comments in Response to Open Questions in Survey Questionnaire	60
Table 4.13: Sick leave and absentee data	63
Table 4.14: Staff turnover and disciplinary data	64
Table 4.15: Manufacturing and sales data	66
Table 5.1: Aspects regarding the demographic findings	69
Table 5.2: Significant findings arising from the stress survey questionnaire	74
Table 5.3: Findings arising from the company’s sick leave, absence without leave, staff turnover and disciplinary records	77
Table 5.4: Findings arising from the company’s vehicle manufacturing and sales data	78

LIST OF FIGURES

Figure 2.1 Basic Stress Impact and Consequence Model	35
Figure 4.1: Collective responses to the stress survey questions.	58

CHAPTER 1: INTRODUCTION

The work environment can have a major effect on employee well-being and occupational diseases, such as depression and burnout are on the increase despite previous research findings providing warnings in this regard (Tims, Bakker and Derks, 2013:230). Richardson and Rothstein (2008:69) state that employee stress has increasingly become a concern for many organisations. To paraphrase the father of stress, Hans Selye, stress is an unavoidable consequence of life, and therefore an unavoidable consequence of organisations (Richardson and Rothstein, 2008:69). Richardson and Rothstein (2008:69) further mention that organisations provide a major portion of the total stress experienced by a person as a result of the amount of time spent on the job, the demands for performance, and the interaction with others in the workplace. Various studies have revealed that workers suffering from stress exhibit decreased productivity, absenteeism, higher number of accidents, lower morale and greater interpersonal conflict with colleagues and superiors and that prolonged or intense stress could have a negative impact on an individual's mental and physical health (Kayastha, Murthy and Adhikary, 2013:136). Kayastha, *et al.*, (2013:135,149) mention that occupational stress signifies a foremost problem for both individuals and organisations, that stress at work has become an integral part of everyday life and is referred to as a 'worldwide epidemic' by the World Health Organisation. They further claim that occupational related stress among working people is drastically increasing worldwide and is a growing concern in many workplaces today. One way to prevent and surpass its negative consequences is to design and implement stress management interventions. Without having a greater clarity about the effectiveness of different types of job stress interventions, the efforts to minimise the human and economic costs of stress will be limited by a lack of sound evidence on the effectiveness of stress management strategies (De Jesus, Rus and Tobal, 2013:143,144). Salanova, Del Líbano, Llorens and Schaufeli (2013:1) mention that employee well-being is a traditional core issue for job stress and occupational health research. Also, Lingard (2012:144) mentions an "endemic un-wellness" that is affecting employee's behavior within organisations, suggesting that a large number of employees and, by logical inference, organisational cultures are unwell. However, all is not doom and gloom because Jain, Giga and Cooper (2013:4908) mention that although, stress is an inevitable part of organisational life, effort can be made to reduce its negative effect on health and well-being. In support hereof, Mazzola, Schonfeld and Spector (2011:106) state that organisations have the ability to prevent the occurrence of many of these common stressors and/or mitigate their effects by incorporating certain

prevention interventions when possible. Blanchflower and Andrew (2011:6, 19) mention that politicians and policy makers must understand and measure the happiness and mental health of their country's citizens, because it is overall human well-being that is of interest. Human well-being is of intellectual and personal interest to individuals, social scientists and policy makers. Le Fevre, Matheny and Kolt (2003:726) state that at a personal level for employees, the cost of unmanaged stress is nothing less than an increased risk of morbidity and mortality and that occupational stress represents a real threat to the quality of life for employees. Moreover, stress in the workplace represents a potential loss of talent for organisations, as top performers disengage from work where occupational stress, its causes and symptoms are prevalent.

1.1. Purpose of the study

Since humans are the most important resource of any company it stands to reason that if they are not performing optimally, management has a responsibility to investigate the reasons for this. The purpose of this case study was to explore the perceptions and experiences of employees, in a Gauteng based small manufacturer, of stress stimuli in the workplace. The information arising from this study will enable the participating company's management, who are charged with the overall responsibility of ensuring optimum organisational performance, to devise and implement strategies to reduce stress. This also supports a recommendation made by Bhui, Dinos, Stansfield and White (2012:1), stating that more research is needed in smaller companies in the private sector to identify and manage occupational stress to ensure effective health promotion and employee wellness.

1.2. Context of the study

The topic of this study was selected because occupational related stress has been identified as having one of the most debilitating effects on the health of employees. According to Bhui *et al.*, (2012:9), The National Institute of Occupational Safety and Health in the US (NIOSH) estimate that 40% of American workers reported their job was very stressful, 25% view their jobs as the number one stressor in their lives and 75% of employees believe that workers have more on-the-job stress than a generation ago. Bhui *et al.*, (2012:1,2) previously indicated that although work provides a range of benefits such as increased income, social

contact and sense of purpose, it can also have negative effects on mental health, particularly in the form of stress. Rosenthal and Alter (2012:3) also mention that large portions of the workforce in modern economies are exposed to mental and emotional demands and threats at work, and as a result psychosocial stressors are becoming more frequent. These viewpoints support the link that stress has with declining employee engagement as well as that stress is a pre-cursor to staff turnover.

Deterioration in employee wellness caused by frequent and prolonged exposure to occupational stressors can decrease employee performance and productivity, adversely affecting the competitive advantage of the organisation. In this regard, Hargrove, Nelson, Quick and Quick (2011:9) state that unhealthy organisations fail to create the conditions for high individual performance, which results in suboptimal organisational performance. A decrease in performance and productivity can detrimentally influence the profitability and future economic viability of an organisation. In view hereof, Hargrove *et al.* (2011:9) mention that organisational stressors can generate individual distress, and individual distress can cause organisational dysfunction. This implies that people who are frequently exposed to occupational stress will find it difficult to experience tolerable job satisfaction levels and, in turn, unhappy employees can cause harm to the economic well-being of the company. In this regard Lingard (2012:144) states that the health of a workforce is essential to productivity, performance and efficiency and that there is a growing recognition that health and wellbeing are influenced by a complex interaction of factors in work domains. In particular, employees whose physical and psychological wellness has been compromised after being frequently exposed to occupational stressors, have a tendency to be absent from work, unenthusiastic in their approach towards completing tasks, have a low morale, and are generally more susceptible to being over-sensitive and easily upset. Such low morale and frequent absenteeism can negatively impact on productivity levels. According to Bhui *et al.*, (2012:5) absenteeism is an important organisational outcome as this has an economic cost to the employer. In view hereof, it is evident that employee wellness and productivity levels are both negatively influenced by stress in the workplace. To further elaborate on the negative impact of occupational stress on the employee, Rosenthal and Alter (2012:14) state that if a person is exposed to an occupational stressor (i.e. the stimulus), then stress may occur, and if the person is exposed to these stressors frequently and over a prolonged period of time the person can incur many different types of adverse psychological and/or physiological responses (i.e. poor health/illness). Thus, looked at from an occupational perspective,

workers' perceptions regarding the level of control they have over their exposure to certain stressful job related factors (stressors), the length of time and frequency that they are exposed to these stressors, as well as their capacity to resist the psychological and/or physiological impact of these stressors will eventually determine whether or not they will continue functioning normally (Richardson & Rothstein, 2008:70). Hargrove *et al.*, (2011:3) furthermore state that the stress response leads to a range of outcomes. The outcomes are either positive, such as heightened alertness and enhanced performance, or negative, such as medical, psychological and behavioural distress.

Business leaders should be genuinely concerned about the enduring wellness of their employees in order to prevent employee trauma and organisational distress. Hargrove *et al.*, (2011:9) mention that leaders have a duty to create healthy organisations in which their employees can thrive and produce. This implies that managers should be responsible for acquiring relevant stress related information so as to be able to identify the presence of debilitating stressors, the causes of such stressors in their workplaces and, based thereon, implement stress reduction as well as employee wellness interventions.

In view hereof, a Director from a small Gauteng based manufacturing company (i.e. the participating Company in this study) expressed concern about the possible prevalence of stress within his Company. In comparison to the previous year's statistics, it was apparent that the Company was experiencing a higher absenteeism and turnover rate; they furthermore identified that their worker productivity levels had decreased, relationships between their employees had deteriorated and staff had low morale and lacked enthusiasm. The company's management was concerned that if the undesirable unproductive situation remained unmanaged, it could result in their business suffering significant financial losses which could ultimately result in job losses and even closure. It was considered essential to explore and discover the range of occupational stress stimuli experienced by this Company's employees. It was suspected that the underlying cause for poor employee morale, high absenteeism and staff turnover as well as decreasing productivity was due to stress caused by stressors which may have numerous underlying causes (Hargrove *et al.*, 2011:4).

Up until three years ago the Company did not have noticeable instances of heightened stress levels impacting upon its employees, no unusual stressors were previously detected and the company's manufacturing and sales targets had always been achieved, even though at that

stage there were more staff employed and there was more funding and resources available. However, over the past 3 years a variety of factors, including economic pressure, had resulted in the company reducing its staff and discontinuing the recruitment of staff for vacant posts. This supports comments made in the Chartered Institute of Personnel Development Spring Report (2013:4) which mentions an increase in the number of organisations either causing redundancies or increasing the number of hours people work. The CIPD also mention that organisations in the voluntary sector appear to have frozen recruitment. With a smaller staff compliment having to cope with reduced resources and challenging manufacturing targets this has resulted in greater workplace demands within the participating Company. It was assumed that these demands caused undesirable stress to be incurred which in turn purportedly resulted in employees incurring stress related illnesses, causing deterioration in worker relationships, increasing absenteeism and staff turnover, lowering staff morale and decreasing productivity levels. The Company's management was concerned that this undesirable and unproductive situation, if left unmanaged, may cause their business to suffer significant financial losses that may ultimately result in closure and job losses. In view hereof, this case study explores the perceived occupational stress related stimuli experienced by employees in the participating Company. In turn, this information could assist the Company's management team to determine the underlying reasons for such stressors and enable them to implement suitable stress mitigation measures and wellness enhancement programs. Consequently, this could contribute towards improving worker-relationships, job satisfaction and employee wellness, reduce absenteeism and staff turnover and possibly also improve productivity levels. Although this study focuses on a smaller company in the private sector, the adverse impacts of stress and the benefits of this study are also applicable to the public sector as well as to larger corporations. While the participating Company has provided authority for this study to take place and for the results of the study to be published it has nevertheless requested anonymity.

1.3. Research Objectives

- i. To explore occupational stress related stimuli perceived and / or experienced by employees at the participating Company.
- ii. To assist management to devise and implement plans /strategies to prevent and /or reduce stress and its consequences.

1.4. Research question

The research question was: What stress stimuli do employees of the participating Company perceive and/or experience to be present in the workplace?

1.5. Significance of the study

This study supports the proposal made by Bhui *et al.*, that more research is needed in smaller companies in the private sector to identify and manage occupational stress to ensure effective health promotion and employee wellness (Bhui *et al.*, 2012:1). It also provides the participating Company's management with relevant and beneficial information to manage stress (and the consequences thereof). This study furthermore fills a gap, in that this particular research has not been conducted before and its contribution will also add to the existing body of knowledge regarding occupational related stress as well as generate knowledge creation in the stress research domain. It will furthermore give a voice to employees at the participating company to express their perceptions and experiences of stress. In addition, the study will assist other businesses to follow a similar methodology to explore and determine stress stimuli that may be prevalent in their occupational environment.

1.6. Delimitations of the study

The delimitations associated with this study are:

- **The focus is on exploring occupational stress stimuli within a specific workplace** – This research is confined to exploring occupational stress related stimuli that may be perceived and / or experienced by employees at the participating Company. This study does not deal with stress in general but relates specifically to 'occupational' stress.
- **This study does not deal with stress mitigation measures** – The purpose of this study is not to address the aspects which will manage or treat stress but rather to explore the stressors that are influencing employee wellness and productivity. Since the stress management interventions to be implemented by the participating Company's management do not form part of this study, this aspect could be the subject for further research in the future as suggested in Chapter 6, section 6.4.

- **Delimitations regarding the measure used to collect the data** – Due to time and cost considerations, information for this study was provided by the participating Company who had acquired the information from a consultant who had recently conducted a survey on their behalf amongst their Company’s employees as explained in Chapter 3, section 3.2.
- **Delimitations regarding demographics** - According to Mazzola, *et al.*, (2011:1) results of previous research indicated that the nature of the stressors experienced varied by occupation, seniority and gender. While this study does take into account certain demographical factors such as: employee’s job level / level of seniority, location of work area as well as the gender and age of the participants it, however, does not take into consideration other demographic factors such as home language, religion, detailed job descriptions, individual skills/competencies or income level. It is anticipated that these other factors will not contribute significant additional value to this study and should rather be considered for inclusion in other future studies if considered necessary to do so.

1.7. Definition of terms

Terms	Definition
Absenteeism	The habitual non-presence of an employee at his or her job. Possible causes include job dissatisfaction, ongoing personal issues, work or chronic medical problems. www.investopedia.com/terms/a/absenteeism.asp Downloaded on 20 October 2014.
Burnout	Maslach and Jackson (1981:99) state that burnout is a syndrome of emotional exhaustion and is potentially very serious for staff. They mention that as their emotional resources are depleted, workers feel they are no longer able to give of themselves at a psychological level and workers feel unhappy about themselves and dissatisfied with their accomplishments on the job. Maslach and Jackson (1981:99) further state that burnout appears to be a factor in job turnover, absenteeism, and low morale and seems to be correlated with various self-reported indices of personal distress, including physical exhaustion, insomnia,

	<p>increased use of alcohol and drugs, and marital and family problems. Hobfoll and Gorgievski (2008:2) mention that Freudenberger (1974) first conceptualized burnout as a process by which excessive involvement at work leads to excessive depletion of energetic and social resources. This often manifested itself by physical signs, such as exhaustion and fatigue; behavioural signs such as an inability to hold in emotions and social withdrawal; cognitive signs, such as cognitive tunnelling; and diminished competence, expressed in working excessively long hours, doing less and less in more and more time. Lingard (2012:142) mentions that the number of hours worked each week is a significant predictor of worker burnout and that burnout, itself a form of diminished psychological wellbeing, has also been associated with the experience of distress, anxiety, depression, reduced self-esteem and substance abuse. Gil-Monte, Peiro and Valcarcel (1998:165) state that according to the Maslach Burnout Inventory, burnout is a syndrome of emotional exhaustion, depersonalisation and reduced sense of personal accomplishment. Maslach and Johnson (1981/1986) defined burnout as a syndrome of emotional exhaustion, depersonalisation and reduced sense of personal accomplishment that may occur among individuals. These three variables are measured by the Maslach Burnout Inventory as dimensions of burnout syndrome.</p>
CIPD	<p>Chartered Institute of Personnel and Development. An association for human resources professionals with its headquarters in London. It conducts workplace research and also publishes seasonal and annual reports which provide a range of productivity and efficiency related indexes.</p>
Conservation of Resources Theory (COR)	<p>According to Hobfoll and Gorgievski, (2008:1,2,4) the Conservation of Resources (COR) theory is used to understand the process of burnout and stress in organisational settings. The basic principle of COR theory is that people have an innate as well as a learned drive to create, foster, conserve, and protect the quality and quantity of their resources. The COR theory relates to those resources that are key to survival and well-being (e.g., shelter, attachment to significant others, self-esteem), or</p>

	<p>that are linked to the process of creating and maintaining key resources (e.g., money, credit). Stress ensues when people experience or anticipate resource loss, or fail to gain resources after significant resource investment. According to COR theory, stress occurs under three conditions: (i) when individuals' key resources are threatened with loss, (ii) when resources are lost, or (iii) when individuals fail to gain resources following significant resource investment. Burnout is one such stress outcome. The COR theory furthermore emphasizes that changes in resource levels are the principle axis by which burnout and work engagement processes are activated and sustained, or inhibited and curtailed (Hobfoll and Gorgievski, 2008:13).</p>
Coping	<p>Jacobs (2012:16) mentions that coping is defined as the cognitive and behavioural attempts to master, reduce or tolerate the internal and external negative demands created by stressful transactions of individuals with their immediate environment.</p>
Employee Outlook Engagement Index	<p>Employee Outlook Engagement Index comprises a set of measures which are important to understanding the level of engagement an employee feels towards their organisation. The Index consists of 16 items, weighted and aggregated together to give an overall score. The index is published in the CIPD Report.</p>
Exhaustion	<p>Tims, Bakker and Derks (2013:232) define exhaustion as work-related fatigue resulting from prolonged exposure to certain job demands.</p>
Job satisfaction	<p>Jacobs (2012:17) defines job satisfaction as an attitude or perception that individuals have about their job, it entails the degree to which there is a good fit between the individual and the organisation.</p>
Occupational Stressors/ Stress Stimuli	<p>According to Le Fevre, <i>et al.</i>, (2003:728) a stressor will denote the external force or situation acting on the individual, and stress will denote the deformation or changes produced in the individual as a result of those forces. Abbas, Farah and Apkinar-Sposito (2013:484) state that stressors are the environmental conditions or exposures which seem to impact on the wellbeing of the individual. Strains involve the individual's physiological and psychological reactions to such stressors and health outcomes are the negative health conditions of the</p>

individuals who are exposed to stressors. Thus to assess stress, researchers design instruments to measure stressors, strains and the ultimate health outcomes. Stressors, also known as stress stimuli, can come from multiple sources within the work environment and are the physical and psychological demands that initiate the stress response within individuals (Hargrove *et al.*, 2011:4). Prolonged exposure to occupational stressors can result in numerous negative outcomes which impact on the wellness of employees as well as on the organisations at which they are employed. Amongst others, stressors could include: factors associated with the daily challenges of an employee's roles and responsibilities within the organisation, poor interpersonal relationships, poor career developmental opportunities, environment stress, insufficient availability of workspace, unreliable equipment, insufficient resources, not enough employees to complete work on time, excessive job demands as well as unsafe conditions and risk factors. When exposed to these stress stimuli, occupational stress can occur which can influence the wellness of employees through the manifestation of psychological and physiological outcomes. According to Rosenthal and Alter (2012:14), if a person is exposed to an occupational stressor (i.e. the stimulus), stress may occur, and if the person is exposed to these stressors frequently and over a prolonged period of time then the person can incur many different types of adverse psychological and/or physiological responses (i.e. poor health/illness). Kayastha, Murthy and Adhikary (2013:136) state that stressors are defined as the external events such as difficult relationships in the workplace or a heavy workload that contribute to the experience of stress while stress is considered to be an individual's internal response to stressors and is characterized by arousal and displeasure. Mazzola, *et al.*, (2011:93) define stressors as environmental conditions or situations that elicit an emotional response such as anger or anxiety. Mazzola, *et al.*, (2011:93) further mention that organisational constraints, work overload and interpersonal conflict are relatively universal stressors and that researchers hope that by identifying stressors they can recommend

	steps to prevent or limit the strains that stressors elicit.
Organisational performance	This refers to an analysis of a company's performance as compared to its goals and objectives. www.businessdictionary.com/definition/organisational-performance.html Downloaded on 20 October 2014.
Sick leave	The time off from work, paid or unpaid, on account of an employee's temporary inability to perform duties. www.duhaime.org > Legal Dictionary Downloaded on 20 October 2014.
Strain	Kayastha, <i>et al.</i> , (2013:136) state that strain describes the long-term effect of stress and includes psychological outcomes such as anxiety and depression. Mazzola, <i>et al.</i> , (2011:93) defines strains as being individuals' responses to stressors and can be physical (e.g. increased blood pressure), psychological (e.g. anger) or behavioural (e.g. smoking).
Stress	According to Le Fevre, <i>et al.</i> , (2003:727), Selye (1964) was the first to use the term "stress" to describe a set of physical and psychological responses to adverse conditions or influences. According to Le Fevre, <i>et al.</i> , (2003:728), Selye defined stress as the non-specific response of the body to any demand placed upon it. Jacobs (2012:81) mentions that the concept of stress has been defined as early as the 1950s by Selye (1956), as an arousal in response to something that needs to be warded off or avoided. It also points to not knowing whether an event will occur, thereby inducing a state involving uncertainty about something important. Iliceto, Pompili, Spencer-Thomas, Ferracuti, Erbuto, Lester, Candilera and Girardi (2012:2) define occupational stress as the emotional, cognitive, behavioral, and physiological reaction to aversive and noxious aspects of work, work environments, and work organisations and contribute to negative psychological and physiological outcomes. Borkakoty, Baruah and Nath (2013:64) state that stress is the psychological or physiological reaction that occurs when an individual perceives an imbalance between the level of demand placed upon him and his capability for meeting that demand. Bhui <i>et al.</i> , (2012:2) state that stress is a manifestation of the poor fit

between a person and their environment and also that stress is seen to arise due to a discrepancy between the inputs and outputs and the mediating appraisal of stress, personal skills to manage it, and environmental demands and rewards and is something that unfolds over time within a series of transactions between the person and the environment. According to Richardson and Rothstein (2008:70), job stress is a situation wherein job related factors interact with the worker to change his/her psychological and/or physiological condition such that the person is forced to deviate from normal functioning. Robbins, Judge, Odendaal and Roodt (2009:500), furthermore state that stress has been referred to as an individual's response to challenging events, as an event that places demands on the individual, as an environmental characteristic which poses a threat to the individual and as a realisation by the individual that he/she is unable to deal adequately with the demands placed on him/her. Kayastha, *et al.*, (2013:135) define occupational stress as the adverse reaction on people by excessive pressures or other types of demands placed on them. Abbas, Farah and Apkinar-Sposito (2013:481) define stress as an adaptive response, mediated by individual characteristics, that is a consequence of any external action or event that placed special demands upon a person. They further state that many scholars agree that stress is a quality transaction which arises between environmental demands and the individual and in this context they define stress as a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being. Iliceto, *et al.*, (2012:2) mention that occupational stress cannot be expressed as a single variable but as a multivariate process linked to personality characteristics, coping processes, and positive and negative work experiences.

Based hereon, an all-encompassing definition of stress could comprise of a combination of the rudiments mentioned in the above definitions and be expressed as a multi-dimensional phenomenon in which a person is exposed to something that causes a physical and/or mental

	<p>arousal of which the intensity and effect will be dependent on:</p> <ul style="list-style-type: none"> - that person's perceived personal significance and consequence of such exposure, - that person's personality characteristics, learned coping ability and support system, - whether it is one specific aspect or multiple aspects causing such an arousal, and - the regularity at which such exposure is being experienced (Richardson and Rothstein, 2008:70, Robbins, <i>et al.</i>, 2009:500 and Iliceto, <i>et al.</i>, 2012:2).
Stress Impacts	<p>According to Bhui <i>et al.</i>, (2012:5) studies have identified many negative outcomes associated with occupational stress impacting on employee wellness and these ranged from physical health factors (e.g., cardiovascular problems and a decrease in general wellness) to psychological and psychiatric factors (e.g., reduced well-being, psychological distress, burnout, anxiety, depression, stress, psychiatric symptoms, and psychosomatic symptoms) to organisational factors (e.g., employee dissatisfaction, low productivity, low staff morale, poor work relationships, demotivation and absenteeism). Nel, Van Dyk, Haasbroek, Schultz, Sono and Werner (2004:291) also state that organisation consequences of stress include reduction in the quality and quantity of job performance, increased absenteeism and turn-over, increased disciplinary offences, and grievances.</p>
Stress Response	<p>Hargrove <i>et al.</i>, (2011:5) state that stress response is the generalized, patterned, unconscious mobilization of the body's natural resources when confronted with a demand or stressor. Hargrove <i>et al.</i>, (2011:6) further state that stress responses have the potential to be both positive (eustress) and negative (distress). Eustress is the positive, healthy response that leads to motivation and challenge while distress is the physiological, behavioural and/or psychological deviation from healthy functioning resulting from a stress response.</p>
Turnover (staff)	<p>This is defined as the rate at which employees permanently leave an organisation. en.wikipedia.org/wiki/Turnover_(employment)</p>

	Downloaded on 20 October 2014.
Well-being	According to nwia.idwellness.org/2011/02/28/definitions-of-wellbeing-quality-of-life-and-wellness/ , well-being is defined as a global assessment of a person's quality of life according to his own chosen criteria but usually taking the following factors into consideration: welfare, happiness, quality of life, creating a balance of pursuits, life satisfaction, personal optimisation, positive levels of pleasant emotions and experiencing relatively low levels of negative moods.
Wellness	According to https://chcs.ucdavis.edu/topics/wellness.html , wellness is an active process of becoming aware of and making choices toward a healthy and fulfilling life. Also, according to the World Health Organisation, wellness is defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Lingard (2012:145) mentions that preventative occupational health promotion focuses on changing behaviours before adverse health conditions occur. These promote behaviours that will improve employees' fitness, health and general wellness (i.e. nutrition, smoking cessation, exercise and health education and awareness).

Table 1.1: Definition of Terms

1.8. Assumptions

The following assumptions are applicable to this study:

- **Staff and planning related assumptions**
 - It was assumed that the company and all participants would realise the benefits associated with participating in the study and that this realisation would make them willing to contribute towards the study in an enthusiastic and meaningful manner.
 - It was assumed that the relevant records and documentation at the participating Company would be accurate and accessible and be made available to the Researcher when required.

- It was further assumed that access to the participating Company's site and to its administrative support structure and facilities would be available to the Researcher.
- It was assumed that the participating Company's management would undertake to provide the Researcher with the necessary assistance to carry out the study according to the research plan.
- **Communication assumptions**
 - It was assumed that communication channels between the Researcher and the participating Company's management team would be established.
- **Quality assumptions**
 - It was assumed that the results of this study would be meaningful and relevant to the stakeholders.
- **Environment assumptions**
 - It was assumed that no industrial action would take place during the research period which could negatively impact on the study being carried out in accordance with the research plan.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

Stress in the workplace is a common phenomenon and has been studied from various perspectives. Though stress and depression, as occupational diseases, are receiving increased attention, it is apparent that the current level of attention attributed to workplace related stress still remains a point of concern (Lingard, 2012:144). Workplace related stress is usually caused when employees are exposed to occupational related stress stimuli or stressors. In substantiation hereof, Hargrove *et al.*, (2011:4) claim that stressors arise from a variety of sources within organisations. Prolonged exposure to these stressors can result in numerous negative outcomes which impact on the wellness of employees as well as on the organisations at which they are employed.

Iliceto, *et al.*, (2012:2) mention that occupational stress may be considered as a lack of fit between subjects and the work environment, and that the relationship between stressors and disease is affected by the nature and persistence of the stressors as well as by an individual's biological factors, psychosocial resources, and learned patterns of coping. Deterioration in employee wellness caused by frequent and prolonged exposure to occupational stressors can decrease employee performance and productivity thus adversely affecting the competitive advantage and viability of the organisation (Lingard, 2012:147). In this regard, Hargrove *et al.*, (2011:9) state that unhealthy organisations fail to create the conditions for high individual performance, which results in suboptimal organisational performance. A decrease in performance and productivity can detrimentally influence the profitability and future economic viability of an organisation. This is corroborated by Hargrove *et al.*, (2011:9) who further mention that organisational stressors can generate individual distress, and individual distress can cause organisational dysfunction. In particular, employees whose physical and psychological wellness has been negatively compromised after being frequently exposed to occupational stressors, have a tendency to be absent from work. Such absenteeism can negatively impact on productivity levels and contribute towards organisational deterioration. According to Bhui *et al.*, (2012:5), absenteeism is an important organisational outcome as it has an economic cost to the employer. In view hereof, if employees are demotivated or absent from work due to being exposed to occupational stress related stimuli, then such decrease in employee wellness and/or absence caused by workplace stress can have a detrimental impact on the organisation's productivity levels. Business leaders should have an incessant interest

in establishing the enduring wellness of their employees in order to prevent employee trauma and organisational distress. Hargrove *et al.*, (2011:9) mention that leaders have a duty to create healthy organisations in which their employees can thrive and produce. This implies that managers should be responsible for acquiring relevant stress related information so as to be able to identify the causes of stress in their workplaces and, based thereon, implement stress reduction as well as employee wellness interventions.

2.2. Background discussion

2.2.1. Overview of stress

Mazzola *et al.*, (2011:105) mention that the overall frequency of stressful events suggests that workplace stress can be an almost daily occurrence. According to Rosenthal and Alter (2012:14), if a person is exposed to an occupational stressor (i.e. the stimulus), stress may occur, and if the person is exposed to these stressors frequently and over a prolonged period of time, the person can incur many different types of adverse psychological and/or physiological responses. Adverse responses could include employees becoming ill, being absent from work and resulting in poor performance which, in turn, could lead to poor productivity levels thus having a negative influence on the sustainability of the business. In view hereof, it is important that employers are able to identify stressors in their workplaces so as to minimise the negative consequences thereof to the greatest extent reasonably possible. It is reasoned that if employers cannot identify workplace stressors prevailing within their organisations it is unlikely that they will be able to determine the causes thereof and neither will they be able to implement stress intervention programs to prevent such stress, to the detriment of organisational performance. Managers need to have a method of identifying occupational stress factors that may be impacting upon their employees as well as being educated on the causes and consequences of stress. It is considered important that organisations should be made more aware of the negative consequences associated with workplace stress as well as the many benefits of implementing stress reduction interventions. In this regard, Bhui *et al.*, (2012:8) state that more and more interest has been generated towards health promotion in the workplace (e.g. exercise) and encouraging individuals to take ownership of health risk behaviours and decisions about health, well-being, and family outside of work. Managers need to understand the negative consequences of occupational stress as well as the significant benefits of implementing workplace employee wellness

programs. Managers often have the means by which to meaningfully address undesirable unhealthy consequences of stress by implementing suitable measures that will eliminate stressful situations and which will create healthy workplaces (Mazzola *et al.*, 2011:106). To this end, Hargrove *et al.*, (2011:9) mention that one of the principal visions in the field of occupational health psychology is to create healthy workplaces - places in which individuals are valued as they produce, serve and develop. Yet, despite the continuing negative influence of occupational related stress, it is disturbing to note that the current South African legislation which relates to the health, safety and well-being of employees at workplaces presently does not provide sufficient mention of occupational stress or how it should be prevented and/or managed. The legislation reviewed in this regard included:

- The Occupational Health and Safety Act, Act 85 of 1993 (OHS Act),
- The Compensation for Occupational Injuries and Diseases Act, Act 130 of 1993 (COIDA Act), and
- The National Environmental Management Act, Act 107 of 1998 (NEMA).

South African legislation regulating workplace health and safety also does not specifically obligate employers to implement stress intervention programs in the workplace. This is regarded as a serious shortcoming especially since occupational stress could not only have negative health and safety related effects on employees and the organisations which employ them, but over time, and if left unattended to, can also have an accumulative negative impact upon the economy of the country. In this regard, Rosenthal and Alter (2012:18) encourage the promulgation of National and international regulations that ensure and enhance healthy work, fair employment contracts, and welfare measures. Also, Blanchflower and Andrew (2011:7) state that politicians and policy makers must understand, and measure, the happiness and mental health of their country's citizens, because it is overall human well-being that is of interest.

2.2.2. The mechanics of stress

Abbas, *et al.*, (2013:480) state that various stress models and theories concluded stress as a process which includes the psychological and physiological attributes of the individual and the work environment around him/her and according to them this process is triggered by a stressor, where the individual's perceptions matter the most and if he/she perceives it as a threat, it will further trigger to produce negative emotional responses. Furthermore, this

process involves behavioural and physiological responses which ultimately lead to psychosomatic health problems. It is apparent from the literature study that although the level of stress that may be experienced may vary from person to person (even if they are exposed to exactly the same stress stimuli), however, the instinctive mechanism that triggers the sequence of events that give rise to the occurrence of stress, and the way that the mind and body react to it, are generally the same from person to person.

According to Rosenthal and Alter (2012:14) the magnitude of the stress response is determined by the interaction of three factors namely, (i) the degree of arousal in the central nervous system engendered by the stimulus, (ii) the individual's ability to cope with the stressor, and (iii) the physiological susceptibility of the individual. Karas (2009:135), explains the mechanism when a person is faced with real or perceived danger as follows:

- The human body has adrenal glands which produce adrenaline and cortisol to deal with the danger,
- The adrenaline and cortisol move through the blood stream and cause physical reactions to stress by triggering an increase in blood pressure, heart rate and respiration,
- When people are exposed to stress for a prolonged period of time the adrenal gland may fail causing anaphylactic shock and even heart failure.

Hargrove *et al.*, (2011:5,6), add that when a person is exposed to a stressful event, the sympathetic nervous system and the endocrine system redirects the blood to the brain and to large muscle groups which allows the body to prepare physiologically for a legitimate emergency. The reticular activating system in the brain stem is then activated, resulting in a heightened sense of alertness and increased sensory awareness. Glucose and fatty acids are then released as fuel to sustain the individual during the response. The digestive, restorative and immune systems are then shut down in order to make more resources available for the emergency response. The end result is that this places strain on a human being's physiological and psychological systems and stress is then experienced. Stress can have detrimental physical as well as psychological consequences which are explained in section

2.2.3. The consequences of occupational stress

In exploring the consequences of occupational stress, and as defined under ‘Stress Impacts’ in Chapter 1, section 1.6, it is apparent that exposure to occupational stressors (stimulus) can result in physiological, psychological as well as workplace consequences that negatively influence employee wellness, has the potential to cause a broad range of illnesses and can thereby also cause employee work performance and company productivity to decline. Jaramillo, Mulki and Boles (2011:341) state that there is increased recognition that stress can affect an individual’s physical and mental health as well as performance however, Pasca and Wagner (2011:703) mention that not all stressors affect all individuals in the same manner. In this regard, Johnson, Cooper, Cartwright, Donald, Taylor and Millet (2005:180) claim that people working in the same occupation will experience different levels of stress due to the interplay of many other factors, for example, their personality type and the support mechanisms they have available to them. It is not possible therefore, to say that all people working in a certain occupation will experience the same amount of stress. It is however, reasonable to state that employees working in high-risk occupations will have an increased likelihood of experiencing negative stress outcomes. Semmer, Grebner and Elfering (2003:211) mention that the ‘objective’ environment cannot, and should not, be the major focus of organisational stress research, because, in the end, it is the interpretation of the situation by the individual that decides whether or not there is stress.

According to Bhui *et al.*, (2012:5) studies have identified many negative outcomes associated with occupational stress impacting on employee wellness and these ranged from physical health factors (e.g., cardiovascular problems and a decrease in general wellness) to psychological and psychiatric factors (e.g., reduced well-being, psychological distress, anxiety, depression, stress, psychiatric symptoms, and psychosomatic symptoms) to organisational factors (e.g., employee dissatisfaction, low productivity, low staff morale, poor work relationships, demotivation and absenteeism). Another consequence of stress is burnout. Hobfoll and Gorgievski (2008:3,5) mention that burnout can occur across all kinds of work settings, that exhaustion is generally accepted as the major component of burnout and that burnout is thought to be characterized by feelings of medium to high displeasure.

2.2.4. Physiological and psychological influences of stress

Johnson, *et al.*, (2005:179) state that the amount of stress a person experiences at work is likely to be a result of the interaction of a number of factors such as the type of work they are doing (their occupation), the presence of work stressors, the amount of support they receive both at work and at home and the coping mechanisms they use to deal with stress. According to Robbins *et al.*, (2009:505) work-related stress can have a wide ranging negative impact on the individual. Persistent exposure to occupational stressors can cause employees to experience various undesirable physiological and psychological illnesses thus detrimentally influencing their wellness. Jain, *et al.*, (2013:4908) mention that work related stress has a negative impact on employee job performance and their physical and psychological well-being. This accentuates the claims made by Attwell (2010:51) who mentions that studies clarify the inseparability of the mind from the body. The physiological and psychological illnesses that can negatively influence the wellness of employees are addressed next.

i) Illnesses influencing physiological wellness

Semmer, *et al.*, (2003:238) mention that physiological measures can be a valuable source of information in research on occupational stress. In this regard, it is apparent that detrimental physiological consequences such as ill health can result if stress is prolonged or intense, with the negative effects including heart disease, back pain, gastrointestinal disturbances, anxiety and depression. (Johnson, Cooper, Cartwright, Donald, Taylor and Millet, 2005:179). Amongst others, the following occupational stress related illnesses can influence people's physiological wellness:

- **Cardio vascular disease** - Rosenthal and Alter (2012:2,17) state that job strain might cause long-term structural changes in the heart and that cardio vascular disease and hypertension is a major cause of morbidity and mortality in modern society. Stress or strain is believed to be a prime culprit. Stress is a known significant contributor to heart disease (Hargrove *et al.*, 2011:9).
- **High blood pressure and stroke** - Semmer, *et al.*, (2003:226) mention that physiological stress responses such as increases in blood pressure are necessary for the mobilization of energy in demanding situations however, according to Rosenthal and Alter (2012:2) occupational stress is linked with elevated blood

pressure. The medical consequences of stress and high blood pressure include the occurrence of stroke (Hargrove *et al.*, 2011:9).

- **Headache, nausea and muscular aches** - According to Robbins *et al.*, (2009:504) a South African study with insurance workers revealed that work overload and unmanageable time pressure contributed to the physical ill-health of individuals and that physical health symptoms such as headaches, feeling sick and muscular aches might have a detrimental impact on job performance.
- **Viral and cold infections** - Robbins *et al.*, (2009:505) state that research has shown that higher levels of psychological strain and lower levels of job satisfaction were significantly associated with incidents of health symptoms such as viral and cold infections.

ii) Illnesses influencing psychological wellness

According to Pfeffer (2010:40) organisational effects on psychological well-being frequently manifest themselves in people's health status. The following occupational stress related illnesses can influence people's psychological wellness:

- **Sleeping difficulties** - Kompier, Taris and Veldhoven (2012:1) mention that a stress related study indicated strong relations between sleep quality, occupational stress, fatigue, and work motivation and that there is strong evidence for a relation between sleep quality and adverse work characteristics.
- **Irritability and anger** - According to Robbins *et al.*, (2009:505) research indicates that factors such as irritability, avoiding contact with other people, feeling unable to cope and feeling angry with others too easily, contributed to increased levels of psychological ill-health.
- **Depression and anxiety**: Bhui *et al.*, (2012:1) state that psychosocial stressors in the workplace are a cause of anxiety and depressive illnesses, suicide and family disruption. Hargrove *et al.*, (2011:9) also mention that stressors can serve as triggers of depressive episodes and that depression aggravated by distress can result in suicide. Borkakoty, *et al.*, (2013:65,66) state that stress produces various psychological consequences and that these could include various forms of emotional disorders in the form of anxiety, depression, helplessness, hopelessness and anger.

- **Hypertension:** Rosenthal and Alter (2012:18) state that there is an enormous amount of evidence pointing to a relationship between job stress and hypertension and that attention should now be focused on the practical health implications of the evidence. Rosenthal and Alter (2012:16) further state that chronic exposure to stress is believed to be one of the most prominent environmental causes of hypertension.
- **Burnout:** Borkakoty, *et al.*, (2013:66) state that Maslach (1982) described burnout as the process of emotional exhaustion, depersonalization and reduced personal accomplishment resulting from prolonged exposure to stress. Lasalvia and Tansella (2011:279) state that two underlying processes mediate the development of burnout. These are: energy depletion, driven by high job demands, as well as erosion of motivation, which is driven by a lack of job resources and they further mention that burnout is considered to be the final stage in a breakdown and results from prolonged occupational stress. Tims, *et al.*, (2013:230) claim that prolonged exposure to high job demands, work overload, time pressure, and emotional demands often coincides with reduced well-being and have been observed to have a positive relationship with burnout. According to Tims, *et al.*, (2013:236) employees who experienced heavier workloads also experienced higher levels of burnout.

2.3. Work related impacts of stress

As a result of employees experiencing occupational stress there are numerous undesirable workplace effects that can occur. Fairbrother and Warn (2003:9) mention that stress is associated with impaired individual functioning in the workplace. Negative effects include reduced efficiency, decreased capacity to perform and reduced interest in working. Other negative effects include:

- **High absenteeism, high staff turnover and conflict** - Blomkvist and Skoglund (2008:7) state that examples of reactions to stress in organisation include: high absenteeism, high staff-turnover and recurring conflicts. Jacobs (2012:166) mentions that interpersonal conflict may increase depressive symptoms and emotional exhaustion. Conflicts are potential stressors plausibly related to negative outcomes. In turn, high absenteeism can have an undesirable effect on organisational performance

and productivity which in turn can harm the profitability of a business. According to Nel *et al.*, (2004:156,548) employers should find out what are the underlying causes of absenteeism as well as poor employee relationships because if these issues are not managed effectively then they could eventually have a detrimental influence on the financial sustainability of a company. Surprisingly, the CIPD Annual Survey Report (2013:5) indicates that just two fifths of organisations report that they monitor the cost of employee absence.

- **Accidents, injury and illnesses** - Hargrove *et al.*, (2011:10) mention that stress is associated with both on-site and off-site accidents and costs incurred by organisations as a result of stress include greater frequency of accidents and increased health-care costs. Nel *et al.*, (2004:301) claim that a lack of concentration caused by stress inducing factors can detract employees from giving attention to specific aspects of their jobs resulting in serious accidents occurring during which employees are severely injured. Jain, *et al.*, (2013:4908) mention that stressors can also adversely affect operational efficiency by increasing accidents and reducing employee motivation and satisfaction, all of which may impact on the overall functioning and profitability of organisations.
- **Financial loss** - Hargrove *et al.*, (2011:10) state that consequences of workplace stress include poor job performance and expensive legal judgments. Poor job performance could contribute towards financial loss sustained by businesses.

In synthesising the physiological, psychological and work related effects of stress it is apparent that all of the aforementioned impacts are interrelated and part of a vicious circle.

2.4. Causes of work related stress

Reasons for stress in the workplace are varied and could include changes in working conditions (e.g. increased workloads), interfering with an individual's well-being and wellness, poor relationships and lack of trust (CIPD Autumn Report, 2013:1,8). According to the information arising from the literature study, the following aspects are deemed to be the most significant causes of occupational stress:

- i. Job demands and workload** - Mark and Smith (2011:1) investigated the relationships between job characteristics and coping in predicting levels of anxiety and depression. They found that excessive job demands and work load were associated with higher levels of anxiety and depression. Jacobs (2012:3) mentions that the resultant restructuring and subsequent reducing of the work force and jobs imply that additional tasks, higher job demands in general and shorter completion times are inflicted on employees, which lead to increased experiences of stress. Also, Pfeffer (2010:37) states that high job demands which people cannot control, because they have little or no discretion over the pace and content of their work, coupled with work that is socially isolating, produce job stress.
- ii. Work schedules, workload, job demands, time pressures and physical conditions** - Rosenthal and Alter (2012:2) observed that job-related variables include work schedules (shift-work or irregular hours, rotating schedules), time pressures, and physical conditions (such as heat, noise, lighting, sedentary or active tasks). These add to the stress that is experienced by workers. The CIPD Spring Report (2013:3) mentions that employees who are reporting excessive pressure at work every day or once or twice a week is increasing and that only 22% of those experiencing excessive pressure at work every day were able to manage an effective balance between their work and home lives. Unsurprisingly, there is a link between the levels of satisfaction with work–life balance and exposure to excessive pressure at work (CIPD, 2013:11). The CIPD Annual Survey Report (2013:6) claims that workload was ranked the most common cause of stress. According to Jaramillo, *et al.*, (2011:349) employee perceptions of excessive workload can also cause anger and irritation.
- iii. Strained relationships** - Rosenthal and Alter (2012:2) state that stress may also stem from problematic relationships with co-workers or superiors, such as conflicts or unfair treatment which supports the observation made by Mazzola *et al.*, (2011:1) that interpersonal conflict is a relatively universal stressor. Jaramillo, *et al.*, (2011:343,349) state that research indicates that interpersonal conflict results in negative emotions, feelings of frustration and may also lead to engagement in subversive acts and workplace aggression. Mazzola, *et al.*, (2011:97,100) claim that interpersonal conflict appeared to be one of the most prevalent stressors across all occupations.

- iv. Ambiguous or contradictory work and under-stimulation** - Rosenthal and Alter (2012:2) state that stress may also stem from ambiguous or contradictory work and under-stimulation.
- v. Poor job satisfaction, lack of job security, poor flexibility, no recognition, no reward and few promotional opportunities** - Human variables that impact on stress are job satisfaction, the organisation of the work, and whether the job offers security and flexibility, recognition and reward, as well as possibilities for advancement (Rosenthal and Alter, 2012:2). Also, Robbins *et al.*, (2009:505) mention that the most consistent measurement of psychological strain appears to be job dissatisfaction. Jacobs (2012:4) mentions that job insecurity has been identified as a stressor and has repeatedly shown to induce work-related and personal-related reactions to stress. The CIPD Autumn Report (2013:11) mentions that there is also clear evidence of rising job insecurity and that job insecurity is associated with distrust. The CIPD Autumn Report (2013:15,18) further states that communication is necessary for trust and that employees who feel left in the dark or without the opportunity to make their views known or who feel their views are not taken seriously, are much less likely to trust their employer. Employees who lack trust in their leaders are usually disengaged and dissatisfied with their job. According to Johnson, *et al.*, (2005:185) the finding that physical health, psychological well-being and job satisfaction are linked was expected and supports existing research in this area. It is therefore, not surprising that many of the occupations that are reporting high stress levels are also reporting low levels of job satisfaction.
- vi. Psycho-social and physical stress factors** - Robbins *et al.*, (2009:500) state that stressors in the work cause individual strain and include psycho-social (e.g. poor job content, poor work organisation, poor social relationships, social conditions at work) and physical stresses (e.g. lack of safety, ergonomics shortcomings, and stress-full ambient factors).
- vii. Ambiguity** (Lack of clarity regarding roles, authority and responsibilities as well as ambiguous or contradictory work) - Robbins *et al.*, (2009:502,505) mention that further causes of occupational stress include lack of clarity about roles, authority and responsibilities.

It is apparent that the abovementioned causes of stress can decrease the level of personal engagement of employees at work and thus it is considered important that employers are able

to identify these stressors in the workplace. This can assist them to understand what areas of their business activities are causing stress as well as enable them to implement meaningful stress reduction strategies.

2.5. Stress research and models

Judge and Kammeyer-Mueller (2011:30,31) state that the Chinese philosophical systems of Confucianism and Taoism embraced various methods by which individuals and social leaders might create transcendent happiness for themselves and others. The medieval scholar St. Thomas Aquinas proposed that happiness was man's 'last end' and the ultimate goal of the rational being while Pascal (1669) noted that all men seek happiness. The 18th-century utilitarian philosopher Jeremy Bentham identified happiness as the greatest good (1823). These are just a few examples of the enduring importance scholars have attached to happiness through the ages and across cultures. Judge and Kammeyer-Mueller (2011:31) further mention that there is a significant correlation between job satisfaction and performance at work. They further claim that individuals in positive moods generate more associations among constructs and think about problems in more flexible ways while individuals in negative moods report lower motivation, lower levels of performance and are more likely to engage in deviant work behaviors and in work withdrawal behaviors. Abbas, *et al.*, (2013:480) claim that Claude Bernard (1878), the renowned 19th century French physiologist was one of the most important researchers who studied stress as an adaptive response to external stimuli and introduced the principle of homeostasis, which is the process by which the normal balance of internal body environment is maintained. Stress studies originated in 1914 involving employee fatigue in the munitions industry and, since then, many theories have attempted to explain occupational stress by assessing both the characteristics of the person, the job and the organisational characteristics of the workplace (Antoniou & Cooper, 2005:31,49). Abbas, *et al.*, (2013:480) mention that the concept of stress was first introduced by Hans Selye who studied the strains which arise when people struggle to adapt and cope because of changing environments. Selye (1956) originally presented stress as a general, nonspecific physiological response to any stressor. Later, he drew attention to the difference between eustress, or good stress, and distress, or bad stress. Abbas, *et al.*, (2013:482,484) state that the concept of occupational stress has gained popularity and that during the last 50 years a number of efforts have been made by researchers to design and develop stress measuring instruments. These researchers attempted to assess stressful environments in

different ways. For example some focused on subjective and direct measures which included dimensions related to a job, while others focused on general measures which do not link sources of stress to jobs. According to Pasca and Wagner (2011:698), since the 1980's, the leading work stress model in occupational health psychology has arguably been the demand/control model proposed by Karasek. Essentially, the model posits that the combination of low control and high demand leads to negative health outcomes. In other words, employees who face high demands in the workplace and have little control over their work are considered to be exposed to stressors that may negatively influence their health. In addition hereto, Robbins *et al.*, (2009:503) also refer to previous stress research that has been conducted concerning 'individual differences' and 'perceptions' of stress and mention that research over the years has placed considerable emphasis on understanding individual differences between people and their perception of, and reaction to, stress. Furthermore, Hargrove *et al.*, (2011:2) state that in conducting stress related research, Cooper identified the following leading theories of organisational stress:

Year	Name	Theory of organisational stress
1974	Freudenberger	Theory of Burnout
1982	Edwards, Caplan, and Van Harrison	Person–Environment Fit Theory
1989	Hobfoll	Conservation of Resources Theory
1990	Theorell	Job Demand–Control Model
1996	Siegrist	Effort–Reward Imbalance Theory
1998	Quick, Quick, and Nelson	Theory of Preventive Stress Management

Table 2.1: Leading theories of organisational stress

Further to the above theories, Lasalvia and Tansella (2011:279) also address 'Positive Psychology' which is a new research and application field that describes aspects of the human condition that lead to happiness and fulfilment by determining the factors that better one's life (rather than trying to prevent negative situations). These more recent research endeavours are positively aimed at beneficial interaction and they focus on implementing constructive lifestyle improvement interventions by determining factors that can improve the health and wellness of employees. More recently, Hargrove *et al.*, (2011:16) mention that there are several new, productive lines of research that may be brought more squarely into organisational contexts. These include intervention techniques to create healthy organisational cultures. The emphasis on ensuring on-going employee wellness by creating

healthy organisational cultures is considered to be an exciting development which is in line with the objectives and purpose of this study.

From the aforementioned it is apparent that there have been numerous stress related studies conducted during which researchers have used various measuring instruments to measure many different stress related aspects. This has resulted in a diverse range of views and perspectives being provided regarding how workplace stress should be identified as well as managed and how the research data should be collected and interpreted. But despite the aforementioned stress theories as well as new perspectives to stress research, it is apparent that without the identification of the actual stressors prevailing in a workplace it will be difficult to determine whether any organisational or job factors require attention or whether lifestyle improvement factors are necessary to enhance employee wellness and productivity. As a result, the point of departure in addressing stress in the workplace would be to identify whether stress exists and to explore the contributing stressors. In order to do this it is necessary to carry out a stress survey. Cooper, Dewe and O'Driscoll (2001:205) mention that there is a need to identify relevant stressors in the workplace using what is sometimes referred to as a stress survey and that stress assessments should be carried out using questionnaires to ascertain levels of strain among employees. According to William and Cooper (1998:320) the information arising from a stress survey enables individuals and organisations to design and implement appropriate interventions and subsequently monitor the effectiveness of these interventions by combining investigation with intervention.

2.6. Stress assessment tools and measuring instruments

In order to identify the factors causing occupational stress in the workplace as well as to determine the influence that these may have on employees, it is necessary to apply a purpose directed stress assessment tool. Cooper *et al.*, (2001:407) state that stress assessment tools are used to measure different aspects of the stress process ranging from perceived sources of stress to stress reactions. Cooper *et al.*, (2001:409) further indicate that there are many occupation-specific measuring tools peppering the stress literature and that the choice of measure depends largely on the purpose of the assessment as well as the preferred theoretical perspective. Table 2.2 provides a summary of various stress assessment tools that have been developed and implemented since 1964 (Cooper *et al.*, 2001:407,408 and Abbas, *et al.*, 2013:480-486).

Year	Stress Assessment Tool	Researcher(s)
1964	Job Related Tension Index: A fifteen item questionnaire was used to measure job stressors and it served as a starting point. It portrayed acceptable levels of reliability and validity.	Kahn, Wolfe, Quinn, Snoek & Rosenthal
1972	Anxiety-Stress Questionnaire: Internal consistency reliability levels as well as discriminating validity levels are reported as acceptable for this scale.	House & Rizzo
1974	Work Environment Scale (WES): It was guided by PE-Fit theory and contained true/false items.	Insel & Moos
1975	Job Diagnostic Survey (JDS): One of the first organized efforts which was intended to diagnose motivation and productivity.	Hackman & Oldham
1976	Job Characteristic Inventory (JCI)	Sims, Hackman & Lawler
1978	General Health Questionnaire	Goldberg
1979	Demand–Control Model	Karasek
1980	Stress Diagnostic Survey (SDS): It surveyed personal stressors (non-work version of SDS) and job related stressors (work version of SDS). Role stress and PE-Fit theory contributed in the development of SDS. It was validated on a wide range of occupational samples.	Ivancevich and Matteson
1983	Organisational Role Stress (ORS) Scale: Pareek expanded the framework of role stress developed the ‘Your Feelings About Your Role’ (YFAYR) scale and later on developed ORS scale. Srivatav (2009) designed an updated version of it named as ‘New Organisational Role Stress’ (NORS).	Pareek
1983	Perceived Stress Scale (PSS): To determine the degree to which subjects find their lives unpredictable, overloaded and uncontrollable. A global measure of perceived stress with questions indicating low perceived stress and high perceived stress.	Cohen, Kamarck and Mermelstein
1983	Job Stress Scale: Focused on organisational and job-related	Parker and De Cotiis

	stress (Feelings of discomfort, i.e. Stress and job anxiety).	
1984	Ways of Coping Checklist	Lazarus & Folkman
1988	Occupational Stress Indicator (OSI): The PE-Fit, Demand Control and Transactional Process models, guided the development and validation of the OSI.	Cooper, Sloan & Williams
1988	Occupational Stress Inventory: Provides a stress inventory to evaluate the major categories of PE-Fit variables	Osipow & Davis
1988	Work Stress Inventory (WSI): Measures the stress frequency and intensity of organisational stress and job risk in a different range of job settings.	Barone
1988	Generic Job Stress Questionnaire (GJSQ): Influenced by PE-Fit and Demand–Control theory and developed at the National Institute for Occupational Safety and Health (NIOSH).	Hurrell and McLaney
1990	Job Content Questionnaire (JCQ): The JCQ was based on Karasek’s Demand–Control Model. It has been considered as the most widely used job stress assessment tool and has been extensively validated in a cross-cultural context.	Karasek & Theorell
1994	Psychological Work Stressors Observation Method: This validated observation method was intended for non-practitioner use and comprises a thirteen dimension checklist for the observer.	Elo
1993	Job Demand & Control Measure: It covered job characteristics which were prominent to employee well-being (i.e. timing control, method control, monitoring demand, production responsibility and problem solving) but for which there were no sufficient assessment measures.	Jackson
1995	General Well-Being Questionnaire	Cox & Griffiths
1998	Job Stress Survey (JSS): Used to assess generic job related stressors commonly experienced by a variety of occupations. It was based on a Police Stress Survey (PSS) and Spielberger’s STP model and later on adapted for high school teachers and refined as JSS.	Vagg & Spielberger

1998	Pressure Management Indicator (PMI): PMI is a revised version of the Occupational Stress Indicator (OSI) by Cooper, Sloan and Williams and covers major dimensions of occupational stress in different domains.	Williams and Cooper
1999	Perceived Work Characteristics Survey: Based on a large scale cross-sectional survey and the instruments contain items mostly based on previously developed scales.	Haynes
2000	The General Nordic Questionnaire: It can be used as a research method or as a survey feedback tool in organisation development and change management.	Lindstrom
2001	Stress in General (SIG) Scale: A self-report measure to measure perceived job stress caused by job threat stress and job pressure stress e.g. Anxiety and feeling nervous. It was based on Lazarus and Folkman's definition of stress.	Stanton
2004	HSE (Health and Safety Executive) Indicator Tool: Based on research regarding "Management Standards' on work-related stress in the UK".	Cousins
2005	Swedish Demand-Control- Support Questionnaire (DCSQ): The DCSQ is a shorter and modified version of Karasek's Job Content Questionnaire (JCQ).	Sanne
2010	Copenhagen Psychosocial Questionnaire (COPSOQ II): Revised version of the COPSOQ I as tested on Danish employees. It is used to assess the strain factors as psychosomatic health problems, depression, anxiety and burnout.	Pejtersen
2011	Stress in General Scale Revised Version: A self-report to measure perceived job stress. This is an update of the 2001 version by Stanton.	Yankelevich

*Reference source: Cooper *et al.* (2001:407,408) and Abbas, *et al.* (2013:480-486).

Table 2.2: Stress Assessment Tools

As indicated in Table 2.2, numerous assessment tools have been developed over the past 50 years. According to William and Cooper (1998:319), in previous stress research that was

conducted prior to 1998 it became apparent while using the available stress measuring instruments that:

- Data were being collected using inconsistent methodologies,
- Results were often interpreted in idiosyncratic ways,
- Lack of standardization made it difficult for researchers to gain any consensus on the nature of stress at work,
- Research instruments focused on relatively few variables,
- There was a lack of consistency in the measurement tools,
- There was an absence of a reliable, valid, and usable measuring instrument, and
- There was a clear need for a comprehensive, broad-based, integrated measure of occupational stress.

Based on the aforementioned shortfalls, William and Cooper (1998:308) concluded that in order to address weaknesses in stress measurement it was necessary to produce an instrument that would provide a relevant and accurate measure of occupational stress which was also appropriate for the current rate of social and economic change. They further believed that such an instrument would need to be worded carefully, it would need to balance positive, negative, and neutrally worded items, it would need to incorporate the temporal nature of the experience, and also be able to estimate intensity and frequency. William and Cooper (1998:306) determined that the solution was to develop a standardised measure covering all aspects of the stress-strain relationship. As a result, the Pressure Management Indicator (PMI) was created as a standardised self-report diagnostic tool that provided an integrated measure of the major dimensions of occupational stress that can be used by all employees within and across all organisations globally. The PMI has been used for stress research in workplaces since 1998 and according to William and Cooper (1998:320) since its implementation the PMI has demonstrated its effectiveness as a diagnostic tool that enables individuals and organisations to receive a comprehensive, integrated, understandable assessment of occupational stress. On the basis of this assessment, individuals and organisations design and implement appropriate interventions and subsequently monitor the effectiveness of these interventions by combining investigation with intervention. According to William and Cooper (1998:306,319), the beneficial factors arising from the use of the PMI include the following:

- It is comprehensive, reliable, unambiguous and valid.

- It integrates simplification and user friendliness.
- It enables the identification of stressors with improved validity.
- It enables organisations to identify problems in the workplace.
- It can be appropriately modified or adapted to focus on the aspects being researched.

Notwithstanding the credibility and benefits of using the PMI, Abbas, *et al.*, (2013:484) state that one of the problems identified with most of the self-reported measures of stress is that most of the job-stress measuring instruments focus on the global picture and seek to measure stress based on the criteria which can be considered quite general rather than specific. In view hereof, Abbas, *et al.*, (2013:486) suggested that more customized instruments should be designed and / or existing instruments should be adapted based on the demands of the job and the organisation and to revise the stress measuring instruments according to the challenging job requirements of the 21st century. In view hereof, the PMI, modified in the form of a Stress Stimuli Questionnaire, was used by an independent consultant in order to acquire the data that was used in this study and is included as Annexure A.

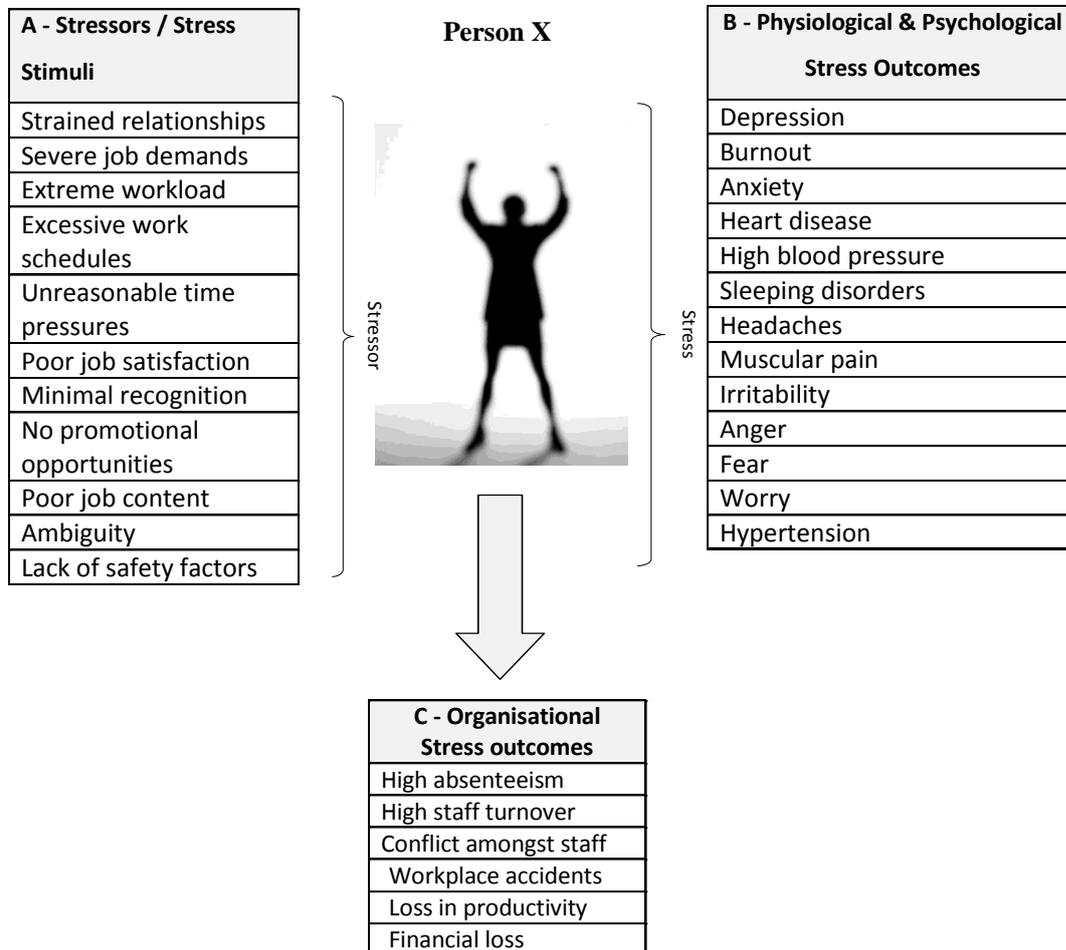
2.7. Stress assessment data

In order to explore the stressors causing the perceived occupational stress in the participating Company's workplace as well as to determine the influence that these may have on the employees, the participating Company indicated that previously acquired data were available for this purpose. It was mentioned that this data was forthcoming from a previously conducted survey that had been carried out by an independent consultant using the aforementioned adapted PMI Stress Stimuli Questionnaire (but which was used at the participating Company for a different purpose other than for this study). This secondary data, as well as information acquired from scrutinising certain company records, such as absenteeism, disciplinary as well as manufacturing and sales records provided the data that forms the basis for this study.

2.8. Conclusion of literature review

It is apparent from the literature review that various stressors could exist in workplaces and exposure to these stressors could in turn manifest in a variety of physiological, psychological and organisational outcomes. Based on the information contained in sections 2.2 to 2.4 a

simple diagrammatic depiction hereof is provided in a Basic Stress Impact and Consequence Model as indicated in Figure 2.1.



Reference source: Researcher's interpretation of sections 2.2 to 2.4

Figure 2.1 Basic Stress Impact and Consequence Model

In the above diagram Person X is exposed to a variety of different stressors (as mentioned in list A) which has stress related outcomes (as per the stress related consequences which are indicated in list B) and which may further manifest as organisational stress outcomes (as indicated in list C).

The literature reviewed in this chapter comprised contemporary textbook references, contemporary journal references as well as information from selected internet based websites. The literature review made provision for: definitions of key aspects, an overview of stress, the mechanics of stress, the consequences of occupational stress, physiological and psychological influences of stress, work related impacts of stress, causes of work related

stress, stress research and models as well as an overview of the stress assessment tools that have been developed and implemented over the past 50 years. The literature review culminated in providing a thorough understanding of how stress stimuli in an occupational context can contribute towards adverse psychological and physiological consequences as well as lead to poor performance and a lack of productivity in the workplace.

Arising from the literature review, it is evident that employee harm, organisational deterioration as well as adverse economic consequences are likely to continue as a result of occupational stress-related illnesses unless suitable preventative and reduction interventions are implemented which can assist employers to reduce occupational stress as well as curtail the negative traumatic and undesirable economical outcomes thereof. The starting point is identifying the prevailing work stressors and determining their likely causes. Only once the stressors have been identified can the probable causes be determined thus enabling organisations to implement credible prevention and reduction strategies to improve employee wellness. Meaningful stress reduction interventions can improve the psychological and physiological wellness of employees as well as minimise the negative economic influence that work related stress can have on the sustainability of organisations.

Gaps and shortcomings that were found during the literature review included:

- There is not one particular stress measurement methodology that could be applied at all the various types and sizes of organisations. In particular, there was minimal available literature addressing a specific approach to conducting a stress survey and the management thereof in small organisations.
- Definitions of stress are not universal. There were numerous dissimilar definitions as well as models of stress each requiring a different stress assessment tool and measuring instrument as well as different approaches to conducting stress surveys.
- Most of the stress assessment tools and measuring instruments discussed in the literature required further adaptation and customisation according to the unique circumstances of the organisation being surveyed as well as the type of study being conducted.

It was considered important that this research should be conducted because stress and especially the harmful consequences thereof are significant to businesses of all types and

sizes. Also, the study will meaningfully contribute towards enhancing the existing body of knowledge regarding stress related research, and in particular, it will assist the participating Company to beneficially manage stress in their workplace. The next chapter will address the research design and methodology to study the problem.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

The main purpose of this study is to explore what occupational stress stimuli employees at the participating Company perceive and/or experience to be present in their workplace. In order to do this it is necessary to take into consideration the problem being investigated, the purpose of the study, what needs to be studied and what methods are to be used to acquire the information that will ultimately answer the research question. This chapter explains the research methodology that will be used to acquire the information and to conduct the research.

3.2. Research Philosophy

The problem being investigated determines the research philosophy regulating the inquiry (Fisher, 2010:23 and Richards & Morse, 2013:65). Hence, for ease of reference, the research question is restated here. The research question was phrased: “What stress stimuli do employees of the company in question perceive and/or experience to be present in the workplace?”. The primary and secondary objectives of the inquiry were, respectively, to establish what stress stimuli employees experience or perceive to be in the workplace and to make recommendations to management of the company in question to assist them to support employees and to make a contribution to the body of knowledge pertaining to stress in the workplace. The purpose of this study was to explore the perceptions and experiences of employees regarding stress stimuli in the workplace and thus to understand the world in which they worked and lived by exploring and describing the stress stimuli perceived and experienced in the workplace. “Understand” denotes an interpretive research philosophy, which holds that reality (knowledge) is socially constructed. This means that our understanding of reality is not a simple account of what is, but rather something that people in societies and groups form from, among others, their interpretation of reality. Hence, reality is thus not objective, but how people make sense of the reality. Consequently a researcher studies the different accounts people give of a subject. Interpretive research does not accept the existence of a standard interpretation of any particular topic. It in fact emphasises plurality and relativism. (Fisher, 2010:22-23). “Understanding” falls in the ambit of qualitative research (Richards & Morse, 2013: 27).

The research was conducted by means of a qualitative case study and the method of data analysis is a qualitative analysis approach involving one organisation and primarily using secondary data which was obtained by means of a structured questionnaire together with supplementary information such as sick leave and absenteeism records, statistics regarding staff turnover as well as manufacturing and sales records. Mazzola, *et al.*, (2011:106,934) mention that qualitative research can play a role in the discovery of stressors, strains and coping behaviours that were not originally thought of by researchers using structured instruments in quantitatively oriented research. Also, qualitative findings can add depth to quantitative findings by detailing the personal experiences of the participants. Being able to examine job stressors from different perspectives can provide a deeper understanding of the stress process and qualitative methods can be particularly informative when researchers set out to understand the nature of stressors in occupations previously not included in job stress research. According to Richards and Morse (2013:34), qualitative research presents a specific way of thinking about data and using techniques as tools to manipulate data to achieve a goal. In this research the problem was studied by means of a case study, which was deemed appropriate to this inquiry because it explored a contemporary phenomenon (i.e. stress) in its real life context (at a small manufacturing firm in Gauteng). A case is seen as a study of a particular social unit or system (in this instance a manufacturing firm in Gauteng), which is 'bounded' and studied in its natural setting as a whole, like a geographical area/ institution/ unit (Richards & Morse, 2013:76,78); data are collected from a small number of cases selected to inform a particular issue that is thoroughly described; coding and summarising data are focussed by prior questions or theory to inform detailed understanding and comparison by contextual analysis of factors, events or conditions of interest (Richards & Morse, 2013:33).

The case study uses different sources of data e.g. company records/documents, observations and data collected via interviews/surveys (Richards & Morse, 2013:78). In-depth data are gathered, focussing on the particular problem (in this instance stress stimuli perceived and/or experienced by employees of a manufacturing firm in Gauteng) and analysing all data obtained from that particular case in context, within the identified boundaries (Richards & Morse, 2013:78). The presentation of the results offers detailed descriptions of the case (Richards & Morse, 2013:78). Richards and Morse (2013:79) furthermore point out that investigation using case study methods are highly diverse.

The most appropriate way to collect data in this instance was by means of a questionnaire. The use of a questionnaire to collect data for a qualitative study is not uncommon (Fisher, 2010:27). The questionnaire contained a number of open-ended questions (Fisher, 2010:28) which allowed the participants to express their views and opinions freely, assisting in creating understanding. The questionnaire comprised of two sections, namely; (i) Demographics (in which a range of demographic information was requested from the respondents), and (ii) Closed questions based on statements about the respondents' level of exposure to occupational stress stimuli, as well as open-ended questions offering respondents an opportunity to provide additional substantiating comments.

The participating Company was purposefully selected for this case study as a result of feedback provided by members of their executive management team in which they expressed an assumption that the negative influence of occupational stress experienced by their staff may be causing absenteeism, staff turnover, high levels of employee conflict and low productivity levels. It was assumed that the results of this study would be able to assist the management team to devise plans to prevent stress. The client organisation (i.e. the participating Company) has consented that the Researcher uses the available secondary data, which they collected via the use of questionnaires that were previously distributed and collected by a consultant on behalf of the participating Company, and which was collected for a different purpose. The participating Company assured the Researcher that in collecting the data the consultant as well as the participating Company complied with all ethical requirements. The participating Company indicated that their employees were informed about the purpose for which the data was collected. It was based on voluntary participation, information was provided by participants on an anonymous and confidential basis and they were informed that the data may be made available to a third party / student for the purposes of post-graduate studies/ research. In view hereof, no employee from the participating Company is identifiable through the research that was conducted and neither through the content of this case study.

3.3. Research Method

Qualitative research presents a specific way of thinking about data and using techniques as tools to manipulate data to achieve a goal (Richards & Morse, 2013:34). In this instance the problem was studied by means of a case study, which was deemed appropriate to this inquiry

because it explored a contemporary phenomenon (i.e. stress stimuli in the workplace) in its real life context (Gauteng based manufacturer). A case is seen as a study of a particular social unit or system (in this instance perceptions and experiences of stress stimuli in the workplace i.e. small manufacturer based in Gauteng), which is “bounded” and studied in its natural setting as a whole, like a geographical area/institution/unit (Richards & Morse, 2013:76,78); data are collected from a small number of cases selected to inform a particular issue that is thoroughly described; coding and summarising data are focussed by prior questions or theory to inform detailed understanding and comparison by contextual analysis of factors, events or conditions of interest (Richards & Morse, 2013:33). The case study uses different sources of data e.g. company records/documents, observation and data collected via interview/survey (Richards & Morse, 2013:78). In-depth data are gathered, focussing on the particular problem (perceptions and experiences of stress stimuli in the workplace, in a Gauteng based, small, manufacturer) and analysing all data obtained from that particular case in context, within the identified boundaries (Richards & Morse, 2013:78). The presentation of the results offer intensive, detailed descriptions of the case and a sense that the case is thoroughly understood (Richards & Morse, 2013:78). Richards and Morse (2013:79) point out that investigations using case study methods are highly diverse.

3.4. Population

The views of staff, employed by the small, Gauteng based manufacturer, were necessary to study the phenomenon in question, hence, all 118 employees across all sections of the company were invited to participate. The population was approached (census) and a sample is not applicable. Generally qualitative studies use small samples (Fisher, 2010:27 Richards & Morse, 2013:47). Although no ideal sample size for studies using a qualitative approach has been established, guidelines are available for case studies. Myers (2009) proposes that one case is sufficient, Eisenhardt (1989) recommends between four and ten cases, while Morse (in Denzin and Lincoln 1994) advises six cases and Creswell (2002 in Onwuegbuzie & Leech 2007) suggests three to five cases. The guideline for case studies can thus be seen as varying between one and 10 cases. Thus the one organisation selected for this inquiry falls within the norm proposed in the literature. The accuracy of the data can only be judged in terms of the accuracy of the participants’ recall of how they felt or experienced or perceived the event at the time (Richards & Morse, 2013:134), in this instance the perceptions/experience of stress stimuli in the workplace. Hence, the data must be collected at the required level to answer the

questions (Richards & Morse, 2013:135), in this instance all staff of the company in question (employees, supervisors and managers).

The participating Company employed 118 persons at the time of the survey and all 118 employees were invited to answer a stress questionnaire administered by a consultant. The Company proposed that this information should be made available to the Researcher as it would suit the purposes of identifying stress stimuli in their workplace. In analysing the provided data it became apparent to the Researcher that the responses summarised in the secondary data were forthcoming from 82 employees (69% of all persons employed at the time of the survey).

3.5. Data analysis

Data collected were descriptively analysed. Descriptive analyses included numeric descriptions (Richards & Morse, 2013:34). Text was analysed using qualitative coding (Saldaña, 2013). A code in qualitative research is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing and/or evocative attribute for a portion of language based data (Saldaña, 2013:3). Coding is the critical link between data collection and their explanation of meaning (Saldaña, 2013:3). In qualitative research a code is a researcher-generated construct that symbolises and thus attributes interpreted meaning to each individual datum for later purposes of pattern detection, categorisation, theory building and other processes (Saldaña, 2013:4). The code serves the same purpose as the title of a book, poem, film and represents and captures a datum's primary content and essence (Saldaña, 2013:4). Coding is essentially an interpretive act, summarising, distilling and condensing data (Saldaña, 2013:4). Several to many of the same codes will be used repeatedly throughout larger data sets, indicating repetitive patterns, consistent with human affairs. The goal of coding is to uncover these repetitive patterns (Saldaña, 2013:5). A pattern can be characterised by similarity, difference, frequency, sequence, correspondence, causation (Saldaña, 2013:7). When codes are clustered together according to a pattern they actively facilitate the development of categories and thus analysis of their connections (Saldaña, 2013:8). Coding thus organises and groups similarly coded data into categories because they share some characteristic (Saldaña, 2013:9). Classification reasoning used together with the researcher's tacit knowledge as well as intuitive senses determine categories (Lincoln & Guba, 1985 in Saldaña, 2013:9). When categories are compared to each other and

consolidated, the researcher transcends reality of the data and progresses toward the thematic, conceptual and theoretical (Saldaña, 2013:12). Showing how these themes and concepts systematically interrelate leads towards theory development (Corbin & Strauss, 2008 in Saldaña, 2013:13). However, it is acknowledged that pre-existing theories may drive the research enterprise whether or not the researcher is aware of them or not (Mason, 2002 in Saldaña, 2013:13). Different coding, in this instance structural coding, applies (Saldaña, 2013:84) which is appropriate particularly in studies employing multiple participants using semi-structured data gathering protocols (Saldaña, 2013:84). Analysis - quantitative applications are also possible e.g. determining frequencies on the basis of the number of individual participants who mentioned a particular theme, rather than the number of times that the theme appears in text (Saldaña, 2013:86).

In this study the researcher was provided with a spreadsheet on which the acquired data (secondary data) was made available (as per annexure B). The information on the spreadsheet was obtained by a consultant that had previously carried out a survey using an adapted PMI questionnaire (as per annexure A). The researcher divided the information into various categories and subcategories starting with the section that dealt with demographics. As an example, the category 'demographics' was further subdivided into each of the information elements for which the demographic section made provision, such as the age of the respondent, gender, work experience, work area and job level. Thereafter the researcher recorded the provided information that was applicable to each subcategory and to each respondent, and entered this data into a statistical computer program. Calculations were then done using the computer program to assist the researcher to derive meaningful conclusions.

3.6. Research design

This research was done by means of a case study using one organisation and a number of sources of data to identify and determine the prevalence of workplace stressors. The secondary data was provided by the case organisation (participating Company) which was acquired by a consultant, using a structured PMI survey questionnaire. The document containing secondary data was made available to the Researcher by the participating Company and the following information was included:

- A collective summary of responses to 39 closed questions (with the responses indicated in a Likert scale format as per Annexure B).

- The data also contained collective responses to 15 open-ended questions in which the respondents provided supplementary information in their own words.
- Demographical information (i.e. age, position, gender, work area, job level, level of seniority, education, work experience, period employed with the company, period in current position and ethnic group).

The research design furthermore incorporated the following components:

- A preliminary meeting was held with the participating Company's management team to agree on the scope, objectives and timeline of the proposed research plan.
- A participating Company representative was assigned as the focal point, to make the necessary Company documentation available and to arrange meetings with the management team.
- The case organisation (referred to as the participating Company throughout this study) provided the secondary data for purposes of this study. As referred to in an earlier section, this data was collected by a consultant on behalf of the participating Company which was acquired for a different purpose than for this research. The secondary data that was made available to the Researcher was in the form of a summary of all responses that were received from the respondents (as per Annexure B).
- The company's sick leave, staff turnover and disciplinary records were made available to the Researcher to make inferences associated with the research problem.
- Based on the provided data, the population was divided into different homogeneous subgroups or strata. This enabled the researcher to represent the overall population as well as subgroups of the population (i.e. age groups, work areas, job levels and genders).
- The responses to the open-ended questions were used to verify the responses that were provided for the closed questions as well as to contextualise the responses.
- Textual analysis was used to analyse the data and the reporting of the analysed information was done in narrative, table as well as graphical format.
- The analysed data was extracted, analysed, organised and depicted using narrative, tables and graphs, thereby reducing the data to a manageable form from which conclusions were derived.

- Feedback on the outcome of the research (findings, conclusions and recommendations) were presented to the participating Company's management team during a scheduled feedback session.
- The participating Company indicated that they wanted their Company's name to be kept confidential and thus reference is made to 'participating Company' throughout this study.
- Further to the identification of stress stimuli in their workplace, the participating company's management team will decide on the methodology that they will follow to manage the identified stress factors and will decide on the initiatives that will be implemented to reduce the identified stress stimuli as experienced by their employees.

3.7. The research instrument used to collect data

Because of the sensitivity of the inquiry it was ethically justified to obtain relevant data for the study by using a questionnaire, rather than by interviewing employees. The most appropriate way to collect data in this instance was a descriptive survey, utilising a questionnaire. The use of a questionnaire to collect data for a qualitative study is not uncommon (Fisher, 2010:12). The survey contained a number of open-ended questions (Fisher, 2010:17) which allowed the participants to express their views and opinions freely. These views and opinions assisted in creating understanding. The research instrument yielded relevant information for the purposes of this study. It is a PMI based stress questionnaire (as per Annexure A) comprising of 39 short questions (using a 5 point Likert scale) and 15 open-ended questions. It also contains demographic information which includes: age, gender, work area location, job level, education, work experience, period in current position and ethnic group. The Researcher was told by managers at the participating Company that the consultant who acquired the information had used this structured questionnaire to obtain the data from employees and an adapted version of this questionnaire with a summary of the collective data received from all respondents is provided as per Annexure B. The Researcher then analysed the data contained in Annexure B taking into consideration that it contained a summary of the responses that had been received from 82 of the company's 118 employees. Thus, this secondary data that was made available to the Researcher was the main source of information that was used for this case study.

3.8. Procedure for data collection

The procedure for the collection of the secondary data in this particular case study was straightforward especially since the summarised data was already available to the participating Company and which they in turn made available to the Researcher. Since this data was originally acquired by means of a survey questionnaire previously administered by a consultant and because of the relevance of the information derived therefrom to this case study, the management of the participating Company made this information available to the Researcher. The participating Company assured the Researcher that the survey met ethical requirements (i.e. purpose, anonymity of participants, assurance of confidentiality, voluntary participation) and provided written consent for the Researcher to continue with the study.

The collection of other data pertaining to this case study regarding employee absenteeism, staff turnover and disciplinary records as well as manufacturing and sales related information were obtained directly from the participating Company. In this regard the Researcher visited the participating Company where such records were made available for scrutinising and summarising.

3.9. Data analysis and interpretation

The data used in this case study was from two main sources, namely;

i). Secondary data acquired by a consultant on behalf of the participating Company and which was acquired for a different purpose than for this case study (i.e. Responses to a questionnaire which were acquired and summarised by a consultant). The acquired information was eventually forthcoming from 82 of the 118 employees (See Annexure B).

ii). Relevant company records were scrutinised by the Researcher to check; types and frequency of absenteeism, staff turnover, disciplinary records as well as manufacturing and sales records over a preceding three year period. This provided the Researcher with an opportunity to explore whether absenteeism rates and staff turnover had increased or decreased, the reason for absenteeism and staff turnover, whether disciplinary incidents had increased or decreased, as well as to explore whether productivity levels had increased or decreased annually over the past three years.

In relation to the research objectives, the available data was summarised and categorised according to those aspects which had similar characteristics and patterns and any associations between the variables were identified. Data was extracted, analysed, organised and depicted using tables and graphs thereby reducing the data to a manageable form and conclusions were derived by the Researcher. The aspects that were calculated during data processing and analysis included: the diversity and frequency of the various stressors that were reported, the age of the respondents in relation to the frequency of the reported stressors as well as the frequency of each stressor that was reported in relation to the respondent's gender, job levels as well as the work areas of the participants. The demographic variables provided further information regarding the participants which assisted the Researcher to make deductions and inferences. The analysis and interpretation of the data also involved calculating the frequency, as well as the significance, by which each response in the questionnaire was selected and then calculating which of the factors were more frequently indicated as a significant concern by all the respondents. The Researcher determined what data were required for each research objective, and conducted data screening, data verification as well as the careful editing of responses where considered necessary in order to achieve consistency. While sorting the data, the quality of the information was checked by the Researcher to address any errors and to carry out data cleaning. The Researcher purposefully looked for and established associations for all variables that led to an outcome, and listed data that belonged together as well as sorted, arranged, ordered, classified and summarised the information to ensure that descriptive information was generated that would make the information easier to understand as well as to interpret while building a logical chain of evidence. In analysing the provided collective summary of responses to the closed questions the Researcher calculated the frequency and degree of severity of the responses to each stress factor. The responses to the open-ended questions were summarised in accordance with the Researcher's deductions and the information derived from it was used to verify the responses provided for the shorter closed questions as well as to contextualise the responses. In analysing the provided collective summary of responses to the open-ended questions these were considered with the purpose of contextualising and verifying the responses that were provided for the closed questions. The observations made of any significant findings arising from scrutinising the participating Company's leave and sick leave records, reports regarding employee disciplinary incidents, staff turnover records as well as productivity reports were also sorted and analysed by the Researcher and inferences and conclusions in this regard were made by the Researcher. After the responses (as well as other relevant information) were

analysed, the data values were sorted into useful subsets and reports were produced, displaying the summarised data in summary tables, performance graphs and narrative text. Summarising and displaying the data and results in graphic and table format assisted the Researcher in visualising the relationship between the variables. Where practically possible the Researcher used the conventional MS Office software to analyse the data as well as to indicate the summarised data in graphical and table format. Arising from the analysis, relevant conclusions were derived and these were summarised after which the report was written and recommendations were made.

3.10. Limitations of the study

This case study was aimed specifically at exploring stress stimuli within an occupational environment (i.e. stress stimuli in the workplace) at a small manufacturing company in the private sector located in Gauteng. The study was not aimed at determining the stress mitigation measures. Other limitations associated with this case study included:

- (i) **Access limitations** – Due to restrictions relating to manufacturing, work schedules, confidentiality as well as safety and security concerns there were limitations regarding gaining unrestricted access to the participating Company’s documentation. In this regard, site access was understandably limited and controlled. The management team expressed the importance of this study and ensured that it received the necessary support and assistance. In view hereof, the afore-mentioned access limitations did not prevent this case study from achieving its objectives or from arriving at valid conclusions.
- (ii) **Limitations regarding the scope of the study** - The study focused on identifying ‘occupational’ stress stimuli’ within a specific workplace and was confined to identifying occupational stress related stimuli that may be experienced by employees at the participating Company. This study did not deal with stress in general but rather related specifically to ‘occupational’ stress.
- (iii) **Limitations regarding the purpose of the study** - This study did not deal with stress mitigation measures. The purpose of this study was not to address the aspects which will manage, reduce, eliminate or treat stress but rather to explore and identify the stressors that were influencing employee wellness and productivity at the participating Company. Since the stress management interventions to be implemented by the

participating Company's management do not form part of this study, this aspect could be the subject for further research in the future.

3.11. Validity and reliability

3.11.1. External validity

According to the consultant who had acquired the data that was used in this case study (Annexure B), the survey questionnaire that was used as the measuring instrument (Annexure A) was a validated PMI stress research instrument that has been extensively used by researchers to conduct occupational stress research (William & Cooper, 1998:311,316). Since it is a validated measuring instrument, it is expected that the summarised results made available to the Researcher accurately represent the situation in the workplace and it is expected that the responses reflect each respondent's perception of the prevailing situation regarding stress stimuli exposure at the participating Company. It was mentioned to the Researcher that each respondent wrote down their own answers in response to the questions in the questionnaires and this reduced the likelihood of prejudicing the integrity of the information through bias or misrepresentation.

3.11.2. Internal validity

To enhance the internal validity of the data used in this research the information provided to the Researcher by means of the summarised results forthcoming from the structured questionnaires, were cross-checked, compared and verified through available supporting evidence by also checking the Company's absenteeism records, staff turnover records as well as disciplinary records. Also, as a further means to enhance the validity of the data used in this research, basic production related records were perused to determine whether productivity levels had increased or decreased.

3.11.3. Reliability

The reliability of the data collection techniques used in this case study can be categorised as being transferable since the research process that was followed will

allow for stressors to be identified in any industry, even if using different population samples or conducting the research at any time. It is presumed that the findings of this research are credible and reliable and that the evidence and conclusions will stand up to close scrutiny. In view hereof, it is plausible that the findings will be repeated if someone else were to replicate this research using the same methodology.

3.12. Ethical considerations

- **Informed consent, voluntary participation and confidentiality**

Participants were informed about the survey so that they were able to determine if they wished to participate (Rogelberg, 2004:39). This notice was given to every respondent to ensure that, from an ethical perspective, all employees had an option to participate on a voluntary basis as well as the right to withdraw from participating at any stage. All respondents were informed that their names and answers would be kept confidential and that they could respond anonymously (See Annexure D).

- **Company consent and request to remain anonymous**

The participating Company requested that their company name not be divulged in the actual research report. Written permission from the participating Company to conduct the case study and to use the information was obtained (See Annexure C).

CHAPTER 4: FINDINGS OF THE STUDY

4.1. Introduction

This chapter presents the findings of the study and closes with conclusions.

4.2. Demographic profile of respondents

This section provides the demographics of the participants in terms of the number of participants; age, gender, work area, job level, education, work experience, period employed by company, period in current position and ethnic group.

4.2.1. Participants/respondents (i.e. Employees that were invited to answer a stress questionnaire and the number of persons that actually responded)

The information in Table 4.1 below indicates the number of persons that were approached by the consultant to answer a questionnaire so as to provide information regarding the prevalence of occupational related stress stimuli. Table 4.1 also indicates the number of employees that actually participated by completing the consultant's questionnaire as well as the percentage of respondents in relation to the number of employees that were invited to participate.

Criteria	Number	Percentage of respondents in relation to the number of employees invited to participate
Number of employees approached by consultant to answer the stress questions	118 Census	100%
Number of respondents	82	69.5%

Table 4.1: Participants/respondents

Not all employees accepted the invitation to respond. It is apparent that 36 employees did not participate in the survey hence it can be concluded that participation was voluntary. Managers from the participating Company indicated that the reasons for non-participation included some people being on leave and sick leave at the time that the survey was conducted while

certain other employees decided not to participate despite reassurances that their responses would be kept confidential and that participant details would remain anonymous.

4.2.2. Age group

The number and percentages of respondents in terms of the various age groups that participated in the survey as well as the percentage of employees that experienced stress, are indicated in Table 4.2. The Researcher attempted hereby to discover whether there are any significant findings that may indicate that a correlation existed between the age groups of the respondents and the stress being experienced by them.

Criteria	18 – 22	23 – 27	28 – 32	33 – 37	38 - 42	43 – 47	48 – 52	53 – 57	58 - 62	63+
Number of respondents per age group	4	7	11	12	9	8	12	9	8	2
Number of persons experiencing stress in each age group	3	5	7	10	8	7	9	9	8	2

Table 4.2: Age group

The majority of participants, irrespective of age group, indicated that they perceived / experienced stress at work. The older persons all experienced stress.

4.2.3. Gender analysis

The gender analysis of respondents is as per Table 4.3. The Researcher attempted hereby to discover whether any correlation existed between the gender of the respondents and the extent of stress being experienced by each gender.

Criteria	Males	Females
Respondent gender breakdown (Number of respondent's genders in relation to total number of respondents)	62	20
Number of respondents per gender that are experiencing stress	58	11

Table 4.3: Gender

More males (93%) are experiencing stress than females (55%). It is not known why males are experiencing more stress than their female colleagues however based on information provided by the Company's management it is assumed that this may be so due to the majority of males who occupy jobs which require strenuous physical involvement and where it is

expected that they will experience more physical stress related to physical workloads than their female colleagues.

4.2.4. Work area analysis

The work areas in which the respondents are employed are indicated as per Table 4.4. The Researcher attempted hereby to discover whether a correlation existed between the respondent’s work areas and the extent of stress being experienced by the respondents in each area.

Criteria	Office	Workshop/Manufacturing	Stores	Other
Number of respondents in relation to each category of workplace	18	60	3	1
Number of respondents experiencing stress in relation to each category of workplace	14	51	3	1

Table 4.4: Work area

All participants are experiencing stress. There are 3 employees working in the stores and they are all experiencing stress. It is unknown why this is so however based on information provided by the Company’s management, this is likely due to the challenges involved in tight work schedules and procuring the necessary components on time. 51 employees in the workshop and manufacturing sections are also experiencing stress.

4.2.5. Job level analysis

The job levels of respondents are indicated as per Table 4.5. The Researcher attempted hereby to discover the breakdown of job levels of the respondents and whether any correlation existed between each job level category and the stress being experienced by the respondents in each category.

Criteria	Managers	Supervisors	Employees
Number of respondents per job level	6	7	69
Number of respondents per job level experiencing stress	4	3	62

Table 4.5: Job level

All participants are experiencing stress. Proportionately, there are fewer supervisors experiencing less than managers and employees and more employees experience stress than managers and supervisors.

4.2.6. Education level analysis

The education level of respondents is indicated as per Table 4. 6. The Researcher attempted hereby to discover the breakdown of education levels of the respondents and whether any correlation existed between each education level category and the extent of stress being experienced by the respondents in each category.

Criteria	Gr. 8	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Post Matric Certificate / Diploma	Trade/ Technical	University Degree
Number of respondents	3	3	17	6	17	9	24	3
Number of respondents experiencing stress	3	2	14	5	15	8	20	2

Table 4.6: Education level

All participants are experiencing stress. There does not appear to be any significant trends or patterns.

4.2.7. Analysis of work experience

The number of years of work experience of respondents is indicated as per Table 4.7. The Researcher attempted hereby to discover the breakdown of work experience of the respondents and whether any correlation existed between each work experience category and the extent of stress being experienced by the respondents in each category.

Criteria	0 – 5 Years	6 – 10 Years	11 – 15 Years	16 – 20 Years	21 – 25 Years	26+ Years
Number of respondents per work experience level	12	17	19	14	11	9
Number of respondents experiencing stress	11	15	16	12	9	6

Table 4.7: Work experience

All participants are experiencing stress. Although it is not a significant margin however respondents with less experience are experiencing more stress than employees with more experience.

4.2.8. Analysis of the period that the respondents have been employed at the participating Company

The number of years the respondents have been employed at the participating Company is indicated in Table 4.8. The Researcher attempted hereby to discover the period that the respondents have been employed at the participating Company and whether any correlation existed between each employment period category and the extent of stress being experienced by the respondents in each category.

Criteria	0 – 5 Years	6 – 10 Years	11 – 15 Years	16 – 20 Years	21 – 25 Years	26+ Years
Number of respondents per period employed with the company	26	16	22	12	5	1
Number of respondents experiencing stress	23	14	19	10	3	0

Table 4.8: Period that the respondents have been employed at the participating Company

Only the respondent who had been employed at the company for over 26 years indicated that he/she did not experience any stress. All other respondents in all the other categories experienced stress. More persons who have been employed for a shorter period by the Company experience more stress than persons who have been employed by the Company for longer periods.

4.2.9. Analysis of the period that respondents have been employed in current position

The number of years that respondents have been employed in their current position is indicated in Table 4.9. The Researcher attempted hereby to discover the employment period that the respondents have been employed in their current position and whether any correlation existed between each category and the extent of stress being experienced by the respondents in each category.

Criteria	0 – 5 Years	6 – 10 Years	11 – 15 Years	16 – 20 Years	21 – 25 Years
Number of respondents per period in current position	32	23	17	8	2
Number of respondents experiencing stress per period	28	20	15	6	0

Table 4.9: Period that respondents have been employed in current position

Two respondents who had been employed at the Company in their current positions for between 21 and 25 years indicated that they did not experience any stress. The respondents in the other categories all experienced stress. More persons who have been employed for a shorter period in their current positions experience stress than persons who have been employed in their current positions for longer periods. Although the exact reason for this is not known based on information received from the Company’s management it is assumed that this is possibly because they are still becoming familiar with their roles and have less experience than their colleagues who had occupied their positions for longer periods of time.

4.2.10. Analysis of ethnic groups

The various respondent ethnic groups are indicated in Table 4.10. This information enables the Researcher to determine the breakdown of the respondents’ ethnic groups and if any correlation exists between each ethnic group category and the extent of stress experienced by the respondents in each category.

Criteria	Black	White	Indian
Number of respondents per ethnic group	54	27	1
Number of respondents experiencing stress	45	23	1

Table 4.10: Ethnic groups

Proportionately Indian respondents are experiencing more stress than Black and White and persons. White respondents are experiencing more stress than Black persons.

4.2.11. Findings pertaining to the stress survey questionnaire

This section is directly associated with the research question as it pertains to the survey responses. The data that were used to identify the perceived and / or experienced stressors as well as the significance of each stressor in terms of the frequency that it was rated by the respondents was obtained from the responses to the stress questionnaire. The Researcher examined the collective responses that were provided for each question in the stress questionnaire as indicated in Annexure B. The questionnaire's response ratings was configured according to a Lickert Scale where respondents could indicate their answer according to a scale of 1 to 5 with 1 indicating that the respondent strongly disagrees, 2 indicating that the respondent disagrees, 3 indicating that the respondent neither agrees nor disagrees, 4 indicating that the respondent agrees and 5 indicating that the respondent strongly agrees (See rating classification as depicted in Annexure A). This information provided the Researcher with an indication of the range of stress stimuli that was perceived and / or experienced by the respondents and the level or rating that the respondents indicated for each question. In particular, the stressors which had a high collective response where the respondents had indicated that they 'agreed' or 'strongly agreed' that a particular stressor was applicable to his/her situation, and the extent to which it applied, were identified as being those stressors which the participating Company should be made more aware of and for which further follow-up was required.

In order to estimate the stress stimuli experienced and / or perceived by employees, the information in Annexure B was analysed. Annexure B makes provision for the different range of stress stimuli factors being measured in the left column and the response / rating is indicated in the right column. In the right column the red numbers in each row indicate the actual number of responses that were received from each of the respondents. The colour coding depicts blue being neutral whereby the respondents neither agreed nor disagreed while the yellow column under the "4" rating indicates that the respondents "agreed" that this stressor was applicable and the "orange" column under the "5" rating indicates that the respondents "strongly agreed" that this stressor was applicable. In view hereof, it was accepted that where respondents had indicated their answer in the yellow or the orange columns, this was a strong indicator of a particular stress stimuli being applicable in the workplace. Although stress was experienced in every category by respondents, the responses in the columns under the "1", "2" and "3" ratings were not considered for the purpose of the analysis especially since the purpose of the study was to identify significant workplace stress

stimuli and the responses indicated in these three columns contributed no meaningful value towards the outcome. The consultant from whom the information in Annexure B was forthcoming had already calculated all the collective responses from each of the respondents and had indicated the totals of all such responses in red numerals in the respective columns/rows. The information indicated in the yellow and orange columns were then entered into a graphical format (a bar chart) as indicated in Figure 4.1 hereunder so as to illustrate how the collective responses to each question compared with one another (i.e. by means of the size of each of the bars shown in the bar graph it indicates which responses were more significant to the respondents than others). Figure 4.1 indicates the number of stress stimuli questions that were asked as well as the percentage of respondents that gave each question a 4 and 5 response rating (as this indicated that the respondents were experiencing a higher level of stress). The responses in Figure 4.1 relate directly to the range of questions indicated in Annexure B and the frequency that the respondents indicated that each stressor was applicable to him/her. Based hereupon, the Researcher then analysed this information and made deductions which are provided hereunder.

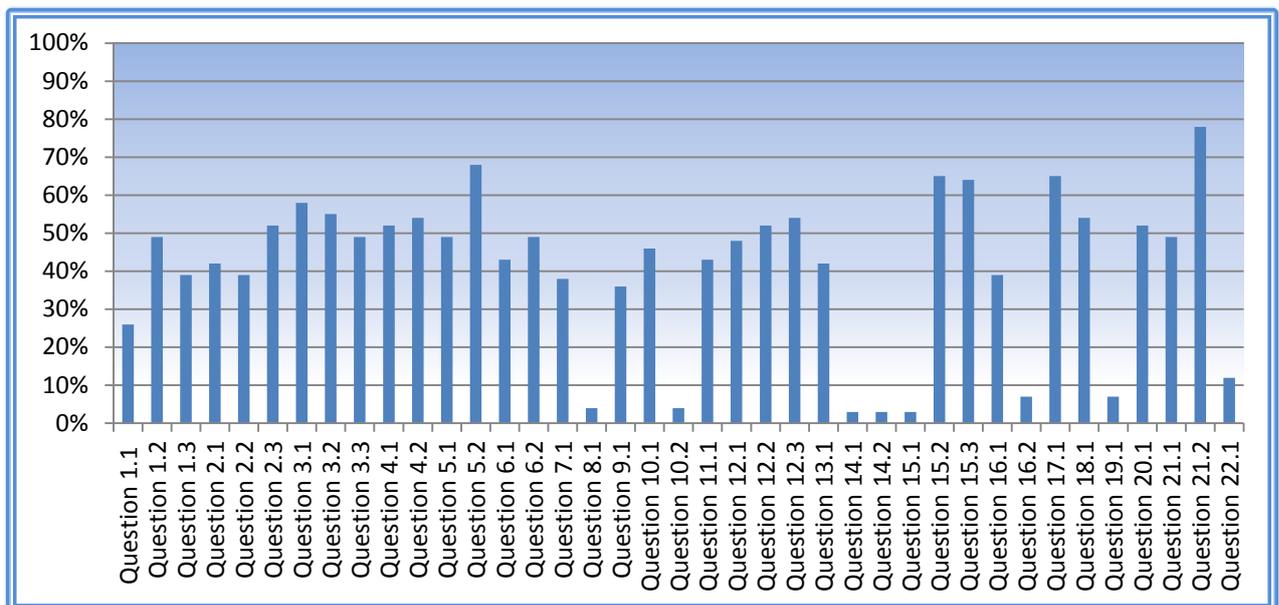


Figure 4.1: Collective responses to the stress survey questions.

Arising from Figure 4.1 the stressors which respondents most frequently indicated were pointedly applicable to them are shown in Table 4.11 hereunder in descending order of significance.

Stressors	Respondents Description of Stressors
Lack of empowerment	Respondents did not feel involved in decision making
Fear	Respondents were worried and fearful of losing their jobs
Job insecurity	Respondents did not feel sure about their job security
Financial insecurity	Respondents did not feel secure about the financial stability of their employer
Workplace hassles and aggravations	Respondents experienced daily hassles, irritants and/or aggravations in the workplace
Incompetent and non-supporting supervisors	Respondents did not consider their supervisors to be competent to perform their tasks and felt that their supervisors were not supportive.
No promotion prospects	Respondents felt that promotion prospects did not exist
Type A Characteristics	Respondents felt that they had to do everything as quickly as possible
Inconsiderate / non-caring management	Respondents did not believe that their employer was committed to looking after their best interests
Objectionable management style	Respondents felt their employer had adopted a management style that negatively influenced the loyalty they had towards their employer
Incompatible / misaligned values.	Respondents felt their values were not aligned with those of their employer
Dissatisfaction with remuneration and benefits.	Respondents were not satisfied with their remuneration and/or benefits
Inadequate equipment and tools	Respondents were not provided with the required equipment and tools to do their job properly
Health and safety deficiencies	Respondents felt that their workplace was not safe or hygienic
No recognition	Respondents felt that they are not recognised by their employer
Extensive daily workload	Respondents were not able to cope with their daily workload
Conflict and poor workplace relationships	Respondents did not get along with the people at work or the people did not get along with them

Table 4.11: Significant Findings Arising From the Stress Survey Questionnaire

While all the mentioned stressors are deemed to be important, based on the frequency of the responses provided by the respondents, it is apparent that the top 4 aspects which the respondents felt most concerned about were:

- Lack of empowerment: Respondents did not feel involved in decision-making.

- Fear: Respondents were worried and fearful of losing their job.
- Job insecurity: Respondents did not feel sure about their job security.
- Financial insecurity: Respondents did not feel secure about the financial stability of their employer.

The comments that were provided by the respondents in response to the open questions in the survey questionnaire were then divided into the categories mentioned in Table 4.12 below.

A	Job characteristics	<ul style="list-style-type: none"> - Unauthorised to make decisions - Employees are not empowered to make decisions
B	Work environment	<ul style="list-style-type: none"> - No personal protective equipment is provided - Too much risk taking (working unsafely) - Supervisory conflict - Jobs are rushed (i.e. Employees try to finish jobs quickly so that they can attend to the numerous other waiting jobs) - Unnecessary delays - Disrespect towards subordinates - No personal protective equipment provided - Insecurity - Untimely payment - Disagreement conflict between staff and employer - Projects are becoming less and less - Threats from colleagues - Lack of parts places unnecessary pressure on people - Poor service rendered to clients - Uncertain of future prospects - Stagnated working environment - Financial restraints - Targets not met - No trust in employees - Employees treated as if they cannot think for themselves - Supervisory intimidation - Self-image broken down by supervisor - Supervisors lack motivational skills - Poor credit rating - Poor company image - Lack of power to change things - Lack of unity of effort amongst staff - Poor planning - Lack of financial funding - Excessive work load

		<ul style="list-style-type: none"> - Excessive meetings - Shortage of resources - Slow IT system - Too many demands from colleagues - Shortage of manpower - Pressing dead-lines - No team effort - Small group coalitions exist - Some people feel victimised - Gossiping - Laziness amongst employees - Employees telling lies to management - Excessive work load - Excessive meetings - Shortage of resources (manpower/finances) - Pressing dead-lines - Unable to perform due to lack of funds - Employees not following the formally approved chain of command - Lack of planning - Frequent disturbances and interruptions during the day
C	Organisational structure	<ul style="list-style-type: none"> - Lack of clarity of duties/responsibilities (employees are unsure of what to do) - Poor public relations - Uncertainty as to what is expected of people - Confusion regarding extent of authority - Lack of involvement in planning/production/cash-flow meetings - Lack of internal formal structures to ensure effective coordination of services - Lack of information provided
D	Work climate	<ul style="list-style-type: none"> - No unified effort to achieve desired results - Taking advantage of people - Lack of respect amongst colleagues - Excessive use of foul language
E	Management policies	<ul style="list-style-type: none"> - Financial restraints to obtain parts (i.e. Difficult to obtain spares) - Unprofessional/poor management - Poor career development opportunities - Self-taught to do job through trial and error - No learning or growth opportunities - Uncaring environment - Unprofessional management

		<ul style="list-style-type: none"> - Retrenching without notice - More suitable CEO needs to be appointed - No turn-around strategy - Poor management - Poor management - No pension - Nepotism - Poor management - Misuse of human resources
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Table 4.12: Respondents Comments in Response to Open Questions in Survey Questionnaire

It is apparent from the categorisation of the respondent’s comments that the most frequently targeted category which respondents commented on related to the Work Environment. It is aspects within this group which seemingly require the Company management’s urgent attention. Management Policies was the next most frequent category addressed in the respondent’s comments followed by Organisational Structure. It is apparent that the factors addressed in these three categories in particular are contributing towards much of the stress that is being experienced by the respondents.

4.2.12. Analysis of sick leave, absenteeism, staff turnover as well as disciplinary records

As discussed in Chapter 1, section 1.2, Hargrove *et al.*, (2011:9) pointed out that employees whose physical and psychological wellness has been negatively compromised after being frequently exposed to occupational stressors, have a tendency to be absent from work. Such frequent absenteeism can negatively impact on productivity levels and contribute towards organisational deterioration. Absenteeism is a precursor to turnover and a high turnover of staff could indicate that employees may be unhappy about their work environment, which may include excessive stress being experienced and may also contribute towards frequent instances of conflict amongst employees as discussed previously in Chapter 2, sections 2.3 and 2.4. In view hereof, absenteeism, staff turnover and disciplinary records were examined to observe patterns as to whether there may be a link between the prevalence of stressors and absenteeism, staff turnover and disciplinary incidents.

The findings arising from the scrutinising of the participating Company’s absenteeism, staff turnover and disciplinary records is indicated as per Table 4.13 and 4.14. The Researcher attempted hereby to observe whether patterns exist with regard to:

- The number of employees and / or days employees were away from work each year while on sick leave as well as absent without leave during the period 2011 to 2013.
- The extent of employee turnover that occurred at the participating Company each year in the period 2011 to 2013.
- The number of disciplinary incidents that occurred at the participating Company each year during the period 2011 to 2013.

Year	Sick Leave		Reasons	Absent without Leave		Reasons
2011	12 staff	42 days	5 Dental 4 IOD 3 Flu	9 staff	21 days	5 Unknown 2 Alcohol 2 Narcotics
2012	34 staff	64 days	12 Flu 10 IOD 9 Dental 2 Migraines 1 MVA	17 staff	49 days	11 Unknown 4 Narcotics 2 Alcohol
2013	42 staff	93 days	16 Flu 13 IOD 10 Dental 2 Pink eye 1 Back operation	23 staff	75 days	13 Unknown 5 Alcohol 3 Divorce 2 Narcotics

Reference source: Company records

Table 4.13: Sick leave and absentee data

The information in Table 4.13 shows that the number of employees on sick leave as well as absent without leave increased each year. The number of days absent for both sick leave as well as absent without leave increased each year. A total of 88 employees were on sick leave during the three year period resulting in them collectively being off duty for a total of 199 days. 27 of the sick leave incidents were as a result of employees being injured while on duty while 31 such incidents were as a result of employees suffering flu. On closer scrutiny it is apparent that the absent without leave days per employee increased while the sick leave days per employee decreased. 49 employees were absent without leave during the three year period resulting in them collectively being away from work for 145 days. 17 of the absent without leave incidents were related to the consumption of drugs and alcohol while the reason for 29 absent without leave incidents were recorded as being unknown. While it is possible that stress can lead to absenteeism and sick leave (Blomkvist and Skoglund, 2008:7),

however, based on the Company information that was examined there is no conclusive evidence to suggest that any of the sick leave or absent without leave incidents were as a result of stress being perceived and / or experienced in the workplace. In order to determine the possible involvement of stress with each of the sick leave and absent without leave incidents, it would have been necessary to interview each of these employees so as to obtain additional information from them which could possibly have linked stress with such sick leave or absence. Since this is no longer possible in this particular study this is something that will need to be considered for future studies. The next aspect requiring consideration was to check the reasons for staff turnover as well as disciplinary incidents and to explore whether these were stress related. The number of incidents and reasons are recorded in Table 4.14.

Year	Staff Turnover	Reasons	Male / Female	Disciplinary Cases	Reasons	Male / Female
2011	6 resignations	4 Better salary & perks 2 Unhappy with company	5 males 1 female	8 disciplinary incidents	6 Absent without leave 2 Theft	8 males
2012	17 resignations	8 Better salary & perks 7 Unhappy with company 2 Relocated to another area	15 males 2 female	23 disciplinary incidents	11 Absent without leave 6 Alcohol while on duty 4 Fighting / conflict at work 2 Theft	22 males & 1 female
2013	25 resignations (13 Retrenchments)	11 Better salary & perks 9 Unhappy with company 3 Relocated to another area 2 Unknown	23 males 2 female	49 disciplinary incidents	16 Absent without leave 13 Alcohol while on duty 9 Fighting / conflict at work 8 Theft 3 Late for work	47 male 2 female

Source: Company records

Table 4.14: Staff turnover and disciplinary data

It is apparent from Table 4.14 that 48 resignations took place in three years. During this period there were significantly more males resigning as well as undergoing disciplinary measures than females. 23 employees resigned because they indicated that they could get a better salary and benefits elsewhere while 18 resigned because they were unhappy with the Company. It is not known exactly why these employees were unhappy with the Company as this information was not recorded. Out of the 80 disciplinary incidents that occurred during the 3 year period, 33 were as a result of being absent without leave, 19 were as a result of consuming alcohol while on duty, 13 were as a result of fighting/ workplace conflict and 12 were as a result of theft in the workplace. While it is so that stress can lead to staff turnover and disciplinary incidents (Jain, *et al.*, 2013:4908), however based on the Company information that was examined there was no conclusive evidence to suggest that the staff turnover and disciplinary incidents at the participating Company was as a result of stress being perceived and / or experienced in the workplace. In order to determine the possible involvement of stress with staff turnover and disciplinary incidents, it would have been necessary to interview each of the involved employees so as to obtain additional information from them which could possibly have linked stress with these incidents. Since this is no longer possible in this particular study this is something that will need to be considered for future studies.

4.3. Results of analysis of manufacturing and sales records

The manufacturing and sales records were considered important in view of the statements made in Chapter 1, section 1.2 as well as in Chapter 2, section 2.1, in particular where Bhui *et al.*, (2012:5) claim that studies have identified many negative outcomes associated with occupational stress impacting on employee wellness and these include organisational factors such as a decrease in performance and productivity which can detrimentally influence the profitability and future economic viability of an organisation. Amongst others, the participating Company manufactures, assembles and sells specialised emergency fire-fighting and rescue response vehicles. The selling price of the larger models of these specialised fire-fighting and rescue response vehicles is in excess of R6 000 000 per vehicle. Usually these vehicles are manufactured according to request and in accordance with particular specifications however, a number of upgraded proto-type models are manufactured annually to demonstrate to the market the latest available technology and to promote their improved emergency response capability. These proto-type vehicles are also sold in due course after

servicing their purpose as demonstration models. The Researcher wanted to check whether the manufacturing and sales of these vehicles had declined during the past three years and was able to compare statistics and observe trends associated therewith. The findings arising from the scrutinisation of the participating Company’s manufacturing and sales data are indicated in Table 4.15. This information enables the Researcher to discover:

- How many specialised emergency fire-fighting and rescue vehicles were manufactured each year between the period 2011 and 2013 and to determine if there was an increase or decrease in the number of vehicle units manufactured during this period.
- How many manufactured vehicles were sold each year between the period 2011 and 2013 and to determine if there was an increase or decrease in the number of vehicles that were sold during this period.

Criteria	2011	2012	2013
Vehicles manufactured	26	23	19
Vehicles sold	24	18	13

Source: Company records

Table 4.15: Manufacturing and sales data

The manufacturing and sales of these vehicles have progressively decreased over the past 3 years in comparison to previous demand which is not surprising especially since there has been a global economic recession during this period. It is evident that both the manufacturing as well as the sale of fire-fighting vehicles declined during the three year period. 68 vehicles were manufactured during the 3 year period while only 55 were sold. Translated into monetary terms, if one such vehicle sells at approximately R6 000 000 then the value of the 13 unsold fire vehicles amounts to R78 000 000. In discussions with the management team they indicated that the decline in vehicle manufacturing was directly based on a decline in the demand from year to year.

While it is possible that stress can lead to staff being unproductive (Fairbrother and Warn, 2003:9), such as procurement staff not fully contributing in purchasing the required parts on time, financial staff not making the necessary payments to suppliers on time, manufacturing staff not contributing optimally to the assembly of the vehicles, marketing and sales staff not being actively involved in the marketing, promotion and sales of the manufactured vehicles, however based on the Company information that was examined there is no conclusive

evidence to suggest that the annual decline in manufacturing and sales was as a result of stress being perceived and / or experienced by staff in the workplace. In order to determine the possible involvement of stress with such decline in manufacturing and sales, it would have been necessary to conduct more intense studies regarding employee performance and productivity so as to obtain additional information which could possibly have linked stress with the decline. Since this is no longer possible in this particular study, this aspect is something that will need to be considered for future studies. It must however be mentioned that previous research has identified many negative outcomes associated with occupational stress impacting on employee wellness and these include organisational factors such as a decrease in performance and productivity which can detrimentally influence the profitability and future economic viability of an organisation (Bhui *et al.*, 2012:5) and while there is no evidence to substantiate that the decrease in manufacturing and sales of these specific fire vehicles is due to stress in the workplace it is plausible to suggest that the amount of time that employees at the participating Company have been off work due to sick leave and being absent without leave (i.e. 344 days) as well as the 48 resignations that took place during the three year period may have had some negative influence in the manufacturing and sales of these vehicles.

4.4. Conclusions

The following conclusions are apparent arising from the findings:

- The findings show that all staff to a greater or lesser degree indicated that they experienced stressors in the workplace. The most noteworthy stressors in terms of responses to the questions in the Stress Survey Questionnaire were that employees did not feel involved in decision-making, that they were worried and fearful of losing their jobs, that they did not feel sure about their job security and that they did not feel secure about the financial stability of their employer.
- The most frequently targeted category which respondents commented on in the Stress Survey Questionnaire related to the Work Environment. It is aspects within this group which seemingly require the Company management's priority attention. Management Policies was the next most frequent category addressed in the respondent's comments followed by Organisational Structure. Most of the stressors being experienced are related to these three categories. It is contended that this information is important to

the participating Company's management especially insofar as future decision-making, development of management policies, design of work environments as well as adaptation and development of leadership styles are concerned. Those companies taking these factors into consideration in the future could possibly gain a competitive advantage by doing so.

- While the extent of sick leave and absence without leave was considered to be significant, there was no evidence to substantiate that it was due to stress in the workplace.
- While the extent of staff turnover and disciplinary incidents was considered to be significant, there was no evidence to substantiate that it was due to stress in the workplace.
- While the decrease in the sales of fire engines was considered to be significant, there was no evidence to substantiate that it was due to stress in the workplace.

The next chapter discusses the findings.

CHAPTER 5: DISCUSSION ON THE FINDINGS

5.1. Introduction

This chapter discusses the findings that were presented in Chapter 4. It specifically addresses aspects pertaining to:

- The findings of the demographic information,
- The findings of the stress survey (as per the responses to the stress survey questionnaire) to explore which stress stimuli are present in the participating Company's workplace,
- The findings pertaining to sick leave and absence without leave records, as well as disciplinary and staff turnover records,
- The findings pertaining to the manufacturing and sales of vehicles.

5.2. Aspects regarding the demographic findings

Table 5.1 hereunder discusses the demographic findings.

FINDING	COMMENT / REASON
Not all employees accepted the invitation to respond. It is apparent that 36 employees did not participate in the survey.	It can be concluded that participation was voluntary. The reasons for not participating varied between people being absent on the day that the survey was conducted and others who opted not to participate.
The vast majority of participants, irrespective of age group, indicated that they perceived / experienced stress at work. Only the respondent who had been employed at the company for over 26 years indicated that he/she did not experience any stress. Also, two respondents who had been employed at the Company in their current positions for between 21 and 25	There was insufficient information available to be able to determine the reasons for this. When Company management were asked about this they could not provide any rational explanation.

years indicated that they did not experience any stress.	
There are many more male employees than female employees employed in the Company. More males (93%) in the Company are experiencing stress than females (55%).	There was insufficient information available to be able to determine the reasons for this. During discussions with the Company management in this regard they indicated that the majority of males occupy jobs which require strenuous physical involvement and where it is expected that they will experience more strenuous physical work than their female colleagues.
The respondents that were experiencing the highest percentage of stress in relation to the total number of respondents were in the age group 33 to 37 years of age.	There was insufficient information available to be able to determine the reasons for this. When the Company's management team were asked about this they could not provide any rational explanation.
The age groups that had the lowest number of respondents experiencing stress in relation to the total number of respondents were in the age groups 28 to 32 years of age as well as 48 to 52 years of age.	There was insufficient information available to be able to determine the reasons for this. When the Company's management team were asked about this they could not provide any rational explanation.
There are only 3 employees working in the stores and they are all experiencing stress.	During discussions with the Company's management team in this regard they indicated that this is most likely due to the challenges involved in them having to keep to tight work schedules in endeavouring to procure the necessary components on time however, this is not considered to be a significant issue taking into consideration that 51 employees in the workshop and manufacturing sections are also experiencing stress.
Although stress is being experienced by staff on all levels, it is apparent that the respondents	In discussions with the Company's management team in this regard they indicated that they perceived this to be caused by a number of contributing factors, namely; i).

<p>on employee level are experiencing more stress than the respondents on manager and supervisor level.</p>	<p>There has been a high staff turnover over the past several years resulting in experienced employees leaving the Company. Not all the positions of staff that have resigned have been filled. This drain of experience has placed the responsibility of fulfilling the roles of those that have left the Company in the hands of less experienced employees, ii). After the employees had resigned the remaining employees had to assume additional tasks (especially since the positions of those that had resigned remained vacant). This may have been further aggravated by the increasing number of people being on sick leave and being absent without leave, iii). The number of employees within the organisation has decreased thus placing a higher workload on a lesser number of employees.</p>
<p>Respondents with less work experience are experiencing more stress than employees with more work experience.</p>	<p>There was insufficient information available to be able to determine the reasons for this. The Company managers with whom this finding was discussed are under the impression that this is because the more experienced employees are familiar with the work surroundings and circumstances while the less experienced employees are still unsure and even apprehensive to innovate and to take calculated risks.</p>
<p>More persons who have been employed for a shorter period at the Company experience more stress than persons who have been employed at the Company for longer periods.</p>	<p>There was insufficient information available to be able to determine the reasons for this. The Company managers with whom this finding was discussed are under the impression that this is because the more experienced employees are familiar with the work surroundings and circumstances while the less experienced employees are still unsure and even apprehensive to innovate and to take calculated risks.</p>
<p>More persons who have been employed for a shorter period in</p>	<p>There was insufficient information available to be able to determine the reasons for this. The Company managers</p>

<p>their current positions experience more stress than persons who have been employed in their current positions for longer periods.</p>	<p>with whom this finding was discussed are under the impression that this is likely because these employees are still becoming familiar with their roles and have less experience than their colleagues who had occupied their positions for longer periods.</p>
<p>Respondents with 0 to 5 years work experience indicated that they are experiencing stress.</p>	<p>There was insufficient information available to be able to determine the reasons for this. The Company managers with whom this finding was discussed are under the impression that this is because new employees with little previous work experience are usually unfamiliar with their working environment and as a result lack the confidence and know-how that is usually portrayed by their more experienced colleagues. As a result they consider it reasonable to expect that in a workplace such as this, that the group of inexperienced employees who have not been with the company for a long period of time and who are not very familiar with the company's methods, management style and procedures, will experience a larger degree of stress than those in the other work experience categories.</p>
<p>Proportionately the Indian respondents are experiencing more stress than Black and White and persons. White respondents are experiencing more stress than Black persons.</p>	<p>There was insufficient information available to be able to determine the reasons for this. In discussions with Company management they were not aware of any particular reason for this other than to postulate that it may be because there are only a few Indians employed in the Company and that they may be feeling in the minority and even perhaps marginalised.</p>
<p>Most respondents are employed in the workshops / manufacturing area and the findings indicate that this is the area in which the most stress stimuli are being experienced.</p>	<p>In checking the stress survey findings and in particular the comments provided by the respondents it is apparent that employees felt that:</p> <ul style="list-style-type: none"> - Insufficient information was available for them to conduct their tasks effectively ; - They experienced supervisory intimidation;

	<ul style="list-style-type: none">- They felt that there was a lack of respect amongst colleagues;- They were concerned about the excessive use of foul language in the workplace;- They felt that there was no team effort;- They were concerned that no personal protective equipment is provided;- They felt that it was difficult to obtain spares/parts due to financial restraints;- They felt that there was a lack of clarity of their duties/responsibilities;- They were concerned about targets not being met;- They experienced a lack of planning and were concerned that they were not involved in planning, production and cash-flow meetings, and- They experienced a lack of formal internal structures to ensure effective coordination of services. <p>The management team indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed.</p>
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It is apparent that stress is being experienced in all workplaces at the participating Company and from the findings it appears as if stress stimuli within this Company are widespread and not isolated to a specific work area.	The management team indicated that they were not previously aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed.
All respondents with a grade 8 qualification indicated that they are experiencing stress.	In exploring this matter it is apparent that the education grading does not seem to have anything to do with these employees experiencing stress however, all of the respondents with a grade 8 qualification are employed in the workshops / manufacturing section of the participating Company and it is in this area of the company where the highest percentage of employees are experiencing stress.

Table 5.1: Aspects regarding the demographic findings

5.3. Aspects pertaining to the findings of the stress survey questionnaire

It was apparent that all respondents experienced stress relating to all the stressor categories however the stressors which respondents most frequently indicated were applicable to them via their responses on the stress survey questionnaire are shown in Table 5.2 hereunder.

PERCEPTION / EXPERIENCE	COMMENT / REASON
No empowerment strategy was implemented for employees to participate in decision-making - Respondents did not feel involved in decision making.	When the matter was discussed with the management team they indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed.
Job insecurity - Respondents did not feel sure about their job security and were worried and fearful about losing their jobs.	The management team indicated that this was possibly due to severe financial constraints under which the company had been operating.
Financial insecurity - Respondents did not feel secure about the financial stability of their employer.	The management team indicated that they were aware that this was a concern and that the matter was receiving ongoing attention.

Daily workplace hassles and aggravations - Respondents experienced daily hassles, irritants and/or aggravations in the workplace.	The management team indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed. It appeared as if the communication between themselves and employees via the supervisors required attention.
Incompetent and non-supporting supervisors - Respondents did not consider their supervisors to be competent to perform their tasks and felt that their supervisors were not supportive.	The management team indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed.
No future promotion prospects - Respondents felt that promotion prospects did not exist.	The management team indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed.
Type 'A' Characteristics - Respondents felt that they had to do everything as quickly as possible.	The management team indicated that they were not aware that this was a concern however they realised that in some instances there were pressing deadlines which required employees to conduct their tasks according to the prevailing work schedules.
Inconsiderate / non-caring management - Respondents did not believe that their employer was committed to looking after their best interests	The management team indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed.
Objectionable management style - Respondents felt their employer had adopted a management style that negatively influenced the loyalty they had towards their employer.	The management team indicated that they were surprised by this perception and that they were not aware that this was a concern but that the matter would receive the necessary attention to determine how it can be addressed.
Incompatible / misaligned values - Respondents felt their values were not aligned with those of their employer.	The management team indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to

	determine how it can be addressed.
Dissatisfaction with remuneration and benefits - Respondents were not satisfied with their remuneration and/or benefits.	The management team indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed.
Inadequate equipment and tools - Respondents were not provided with the required equipment and tools to do their job properly.	The management team indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed.
Health and safety deficiencies - Respondents felt that their workplace was not safe or hygienic.	The management team indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed.
No recognition - Respondents felt that they are not recognized by their employer.	The management team indicated that they were not aware that this was a concern and that the matter would receive the necessary attention to determine how it can be addressed.
Extensive daily workload - Respondents were not able to cope with their daily workload.	The management team indicated that they were aware that that this was a concern and that the matter was currently receiving the necessary attention to determine how it can be addressed.
Conflict and poor workplace relationships - Respondents did not get along with the people at work or the people did not get along with them.	The management team indicated that they were aware of conflict in the workplace as well as poor working relationships amongst staff and that the matter was currently receiving the necessary attention to determine how it can be addressed.

Table 5.2: Significant findings arising from the stress survey questionnaire

It is evident from Table 5.2 that there are numerous stressors prevailing in the workplace requiring intervention strategies from the participating Company's management team. The concerns mentioned in response to the open questions in the stress survey questionnaire corroborated the responses that were provided in the closed questions.

From their retort it was apparent that the management team were not aware of many of the concerns that had been raised by the respondents however, they expressed a genuine undertaking to formulate a strategy through which their concerns could be addressed.

5.4. Aspects regarding sick leave, absence without leave, staff turnover and disciplinary incidents

Table 5.3 hereunder discusses the findings arising from the company’s sick leave, absence without leave, staff turnover and disciplinary records.

FINDING	COMMENT / REASON
<p>The number of employees on sick leave as well as absent without leave increased each year for the past 3 years. The number of days absent for both sick leave as well as absent without leave also increased each year.</p>	<p>A total of 88 employees were on sick leave during the three year period resulting in them collectively being off duty for a total of 199 days. 27 of the sick leave incidents were as a result of employees being injured while on duty while 31 such incidents were as a result of employees suffering flu. On closer scrutiny it became apparent that the absent without leave days per employee increased while the sick leave days per employee decreased. 49 employees were absent without leave during the three year period resulting in them collectively being away from work for 145 days. 17 of the absent without leave incidents were related to the consumption of drugs and alcohol while the reason for 29 absent without leave incidents were recorded as being unknown. Based on the Company information that was examined there is no conclusive evidence to suggest that any of the sick leave or absent without leave incidents were as a result of stress being perceived and / or experienced in the workplace. Another research intervention will need to be implemented in the future to explore whether sick leave and absences</p>

	without leave at this Company are stress related.
48 resignations occurred in three years. During the three years there were significantly more males resigning as well as undergoing disciplinary measures than females.	There is no information available to substantiate why more males had resigned than females. The range of reasons provided by the Company for these resignations also does not indicate that the resignations are stress related. Another research intervention will need to be implemented to explore whether resignations at this Company are stress related.
Exploring the 80 disciplinary incidents that occurred during the 3 year period, 33 were as a result of being absent without leave, 19 were as a result of consuming alcohol while on duty, 13 were as a result of fighting/workplace conflict and 12 were as a result of theft in the workplace.	Based on the Company information that was examined there is no conclusive evidence to suggest that the disciplinary incidents at the participating Company was as a result of stress being perceived and / or experienced by employees in the workplace. Another research intervention will need to be implemented to explore whether disciplinary incidents at this Company are stress related.

Table 5.3: Findings arising from the company’s sick leave, absence without leave, staff turnover and disciplinary records

5.5. Aspects regarding findings arising from the company’s vehicle manufacturing and sales data

FINDING	COMMENT / REASON
The manufacture and sale of fire vehicles declined during the three year period.	Based on the Company information that was examined in this regard there is no conclusive evidence to suggest that the decline in manufacturing and sales were as a result of stress being perceived and / or experienced by staff in the workplace. Based on Company management feedback it is thought that this is largely as a result of the economic recession causing the demand for

	these specialised vehicles to stagnate.
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Table 5.4: Aspects regarding findings arising from the company's vehicle manufacturing and sales data

5.6. Conclusions

- All respondents to a greater or lesser degree indicated that they experienced stress in the workplace. Stressors are impacting on employees of all ages, races and genders irrespective of the duration that employees have been working for this particular company. This is in line with the information provided in the literature where mention is made that stress is an unavoidable consequence of organisations (Richardson and Rothstein, 2008:69).
- The stressors prevailing in this workplace are as a result of a wide range of possible causes and are also not confined to one particular level of employee or to one particular work area.
- Based on the information made available to the Researcher, there is no evidence to substantiate that sick leave, absence without leave, staff turnover and disciplinary incidents at the participating Company is due to stress in the workplace.
- Based on the information made available to the Researcher, there is no evidence to substantiate that the decrease in manufacturing and sales of fire engines is due to stress in the workplace.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1. Introduction

This chapter discusses the conclusions of this study and provides recommendations based on these conclusions as well as suggestions for further research in this field.

6.2. Conclusions of the study

- The research purpose was to explore occupational stress related stimuli perceived and / or experienced by employees at the participating Company so to assist management to devise and implement plans/strategies to prevent and/or reduce stress and its consequences. In view hereof, occupational stress related stimuli as perceived and / or experienced by employees at the participating Company was explored and a broad range of stress stimuli was identified and found to be prevailing in the workplace (as indicated in Chapters 4 and 5). This information will assist the participating Company's management team to devise and implement strategies to prevent and / or reduce stress and its consequences.
- The research question is 'what stress stimuli do employees of the participating Company perceive and/or experience to be present in the workplace?' The information contained in Chapters 4 and 5 sufficiently answer this question. The availability of the secondary data made it possible for the Researcher to recognise a broad range of workplace stress stimuli in the workplace.
- In selecting this topic it created an opportunity to explore stress in a work context, to become better acquainted with it. The knowledge derived from the outcomes may be utilised to assist both employer as well as employee to prevent and / or reduce workplace stress and its consequences.
- It is envisaged that other researchers using the same methodology and data will come to similar conclusions insofar as the interpretation, trustworthiness, accuracy and meaning of the information is concerned.
- It is envisaged that the research process that was followed will allow for stressors to be identified in most industries, even if using different population samples or conducting the research at any time.
- The findings can also be transferred to other groups. For example, it is likely that if the same study is done on a company in the public sector using the same methodology, it will probably produce similar findings. In view hereof, it is plausible

that the findings will be repeated if someone else were to replicate this research using the same methodology.

6.3. Recommendations

The results of this study should be studied by the participating Company's managers in order for them to make themselves aware of the range of occupational related stress stimuli being experienced by their employees. The participating Company's management should develop and implement stress reduction and prevention strategies based hereon. Being aware of the stressors will enable the participating Company's management to implement suitable stress reduction measures and wellness enhancement programs that can mitigate the negative consequences of stress stimuli in their working environment. Consequently, this could lead to reducing stress. It is recommended that they start addressing the most significant stressors, as indicated in Chapter 5, which in turn will enable them to identify meaningful and effective mitigating measures that, if implemented, could eradicate or reduce these stress stimuli and consequently reduce the level of stress being experienced by their employees.

6.4. Suggestions for further research

- Whereas much previous research on stress appears to be centred around stress in general, the demarcation of this research focused specifically on identifying stress stimuli within an occupational environment (i.e. within a small Gauteng based manufacturing company). Since this case study explores stressors within a smaller company in the private sector it is suggested that further research could be conducted in other types and sizes of organisations (i.e. Companies within the public sector).
- The Researcher did not seek to research the methods that should be implemented to prevent or manage the identified stress stimuli. In view hereof, it is suggested that further research could involve determining, designing and implementing effective stress mitigation methods in order to eradicate and / or effectively manage the identified stress stimuli.
- Also, as mentioned in sections 5.5 to 5.6, since there is no evidence to substantiate that sick leave, absences without leave, staff turnover, disciplinary incidents as well as a decline in sales and manufacturing is due to stress in the participating Company, it is suggested that pertinent research interventions should be implemented to explore whether stress is linked hereto.

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ANNEXURE A: RESEARCH INSTRUMENT

Stress Stimuli Questionnaire

The questionnaire consists of two sections – A: Demographics, and B: Specific statements about stress stimuli

A : DEMOGRAPHICS

Age: _____

Gender (Male or Female): _____

Work Area / Location (Office or Workshop): _____

Job Level / Level of Seniority (Manager/Supervisor/Employee): _____

Education: _____

Work experience in years: _____

Period employed with company: _____

Period in current position: _____

Ethnic Group: _____

B: SPECIFIC STATEMENTS ABOUT OCCUPATIONAL STRESS STIMULI AND STRESS

Occupational Stress Stimuli and Stress: Occupational stress stimuli refers to a variety of factors within your work environment that may cause you to feel pressure, anxiety or strain and could include: the daily challenges of your roles and responsibilities, poor interpersonal relationships, poor career developmental opportunities, insufficient availability of workspace, unreliable machinery, insufficient resources as well as unsafe conditions and risk factors. When exposed to these stress stimuli (usually over a prolonged period) then occupational stress could occur which has the potential to negatively influence your psychological and physiological wellness.

Please read the 39 statements below and make a cross in the response column. Please provide a response that most accurately indicates your perception of each statement according to the following classification:

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

There are also 15 open-ended questions and where required, please answer these as thoroughly as possible in the space provided. Please answer on a separate page if additional space is required.

No	Main Stress Criteria	Stress Stimuli Factors Being Measured	Response				
1	Job Satisfaction	6.4 - I experience stress because my work is not fulfilling in terms of my tasks and functions	1	2	3	4	5
		6.5 - I experience stress because I am not provided with the required equipment and tools to do my job properly	1	2	3	4	5
		6.6 - I experience stress because my work space is not suitable to perform my tasks	1	2	3	4	5
		6.7 - Mention any other factors that are preventing you from experiencing job satisfaction					
2	Organisational Satisfaction	2.1 - I experience stress because I am not satisfied with my employer	1	2	3	4	5
		2.2 - I experience stress because my employer does not have a good reputation	1	2	3	4	5
		2.3 - I experience stress because my values are not aligned	1	2	3	4	5

		with those of my employer							
		2.4 – Mention any other factors that are causing you to be dissatisfied with your employer							
3	Organisational Security	3.1 - I experience stress because I do not feel secure about the financial stability of my employer	1	2	3	4	5		
		3.2 – I experience stress because I do not feel sure about my job security	1	2	3	4	5		
		3.3 – I experience stress because my workplace is not safe or hygienic	1	2	3	4	5		
		3.4 - Mention any other factors that are making you feel insecure about your employer							
4	Organisational Commitment	4.1 - I experience stress because my employer has adopted a management style that negatively influences the loyalty I have towards my employer	1	2	3	4	5		
		4.2 - I experience stress because I do not believe that my employer is committed to looking after my best interests	1	2	3	4	5		
		4.3 - Mention any other factors that are negatively influencing your level of organisational commitment							
5	State of Mind	5.1 – I experience stress because my present attitude and frame of mind is not positive	1	2	3	4	5		
		5.2 – I experience stress because I am worried and fearful of losing my job	1	2	3	4	5		
		5.3 If you are suffering from a negative attitude and/or worry and/or fear then mention how the circumstances at work are contributing towards your current state of mind							
6	Resilience	6.1 - I experience stress because I find it difficult to ‘bounce back’ from work-related setbacks or problems	1	2	3	4	5		
		6.2 - I experience stress because I am not able to adapt to my employer’s demands and/or expectations	1	2	3	4	5		

		6.3 If you do not have resilience/flexibility to persevere and overcome when faced with difficult situations at work then what is making you feel this way?							
7	Confidence Level	7.1 - I experience stress because I am fearful about making mistakes	1	2	3	4	5		
		7.2 If you have a low confidence level then mention the factors that are causing you to feel this way?							
8	Physical Symptoms	8.1 – I experience stress because I have a prevailing illness/condition which negatively influences my work performance (i.e. illness condition can be classified as; High blood pressure; cardiovascular disease; diabetes, etc.)	1	2	3	4	5		
9	Energy levels	9.1 - I experience stress because I frequently feel tired and worn out at work	1	2	3	4	5		
		9.2 – If your energy levels are low what is contributing towards you feeling this way?							
10	Workload	10.1 - I experience stress because I am not able to cope with my daily workload	1	2	3	4	5		
		10.2 - I experience stress because my working hours are not in accordance with my conditions of employment	1	2	3	4	5		
		10.3 What other workload factors are causing you to experience stress, (i.e. shortage of resources / shortage of manpower, pressing deadlines)?							
11	Relationships	11.1 - I experience stress because I do not get along with the people at work or the people do not get along with me?	1	2	3	4	5		
		11.2 - Mention any other factors that are negatively influencing relationships between people at work							
12	Recognition	12.1 - I experience stress because my achievements are not recognized by my employer	1	2	3	4	5		
		12.2 - I experience stress because I am not satisfied with my remuneration and/or benefits	1	2	3	4	5		

		12.3 - I experience stress because promotion prospects do not exist	1	2	3	4	5
13	Organisation Climate	13.1 - I experience stress because I am generally not satisfied with the working environment	1	2	3	4	5
		13.2 If you experience stress because you are not satisfied with the working environment then please provide reasons as to why this is so?					
14	Personal Responsibility	14.1 - I experience stress because I am not sufficiently competent to perform my tasks	1	2	3	4	5
		14.2 - I experience stress because I am not willing to take responsibility for my work performance	1	2	3	4	5
		14.3 - If you do not accept personal responsibility for your (or your team's) level of productivity, then mention the factors that are causing you to feel this way					
15	Managerial Role	15.1 - I experience stress because I do not consider myself to be sufficiently competent to supervise employees	1	2	3	4	5
		15.2 - I experience stress because I do not consider my supervisor to be competent to perform his/her tasks	1	2	3	4	5
		15.3 - I experience stress because my supervisor is not supportive	1	2	3	4	5
		15.4 – What other managerial role factors are causing you to experience stress?					
16	Home-Work Balance	16.1 - I experience stress because I am not able to "switch off" from the pressure of work when I am at home	1	2	3	4	5
		1. 16.2 - I experience stress because work activities place unreasonable demands on my private and social life	1	2	3	4	5
17	Daily Hassles	17.1 - I experience stress because daily hassles, irritants and/or aggravations in the workplace are frustrating and/or take up a lot of my time every day	1	2	3	4	5
		17.2 – If you are experiencing stress because of daily hassles, irritants and/or aggravations in the workplace then please provide examples of such hassles, irritants and/or aggravations					

18	Type A Drive	18.1 - I experience stress because I have an urge to do everything as quickly as possible	1	2	3	4	5		
19	Patience / Impatience	19.1 - I experience stress because I am impatient and do not have tolerance for other peoples errors/mistakes	1	2	3	4	5		
20	Control	20.1 - I experience stress because I feel as if I am not in control	1	2	3	4	5		
21	Personal Influence	21.1 - I experience stress because I do not have the necessary authority to ensure that my work objectives are being achieved	1	2	3	4	5		
		21.2 - I experience stress because I do not participate in decision making and do not feel sufficiently empowered to carry out my job satisfactorily	1	2	3	4	5		
22	Social Support	22.1 - I experience stress because I feel that my level of social support is insufficient	1	2	3	4	5		
		22.2 – Mention any other factors regarding your means of social support that is causing you stress.							

ANNEXURE B: STRESS SURVEY: DATA FROM CONSULTANT SPREADSHEET

Demographical Information

1 Total number of employees that were invited to participate in the survey: 118

2 Respondents that provided completed/usable questionnaires: 82 (69.4%)

3 Age of respondents:

Age Groups:	18 – 22	23 – 27	28 – 32	33 - 37	38 - 42	43 – 47	48 – 52	53 – 57	58 - 62	63+	Total
Total No. Respondents	4	7	11	12	9	8	12	9	8	2	82
Experiencing Stress	3	5	7	10	8	7	9	9	8	2	69
Not Experiencing Stress	1	2	3	2	1	1	3	-	-	-	13

4 Gender of respondents:

Gender:	Males	Females
	62	20
Experiencing Stress	58 (93%)	11 (55%)
Not Experiencing Stress	4	9

5 Work area of respondents:

Work Area:	Office	Workshop/Manufacturing	Stores	Other
	18	60	3	1
Experiencing Stress	14 (77%)	51 (85%)	3 (100%)	1 (100%)
Not Experiencing Stress	4	9	0	0

6 Job levels of respondents:

Job Level:	Managers	Supervisors	Employees
	6	7	69

Experiencing Stress	4 (66%)	3 (43%)	62 (90%)
Not Experiencing Stress	2	4	7

7 Education levels of respondents:

Highest Education:	Gr. 8	Gr. 9	Gr. 10	Gr. 11	Gr. 12	Post Matric Certificate / Diploma	Trade/ Technical	University Degree
	3	3	17	6	17	9	24	3
Experiencing Stress	3	2	14	5	15	8	20	2
Not Experiencing Stress	0	1	3	1	2	1	4	1

8 Number of year's work experience of respondents:

Work Experience:	0 – 5 Years	6 – 10 Years	11 – 15 Years	16 – 20 Years	21 – 25 Years	26+ Years
	12	17	19	14	11	9
Experiencing Stress	11 (91%)	15 (88%)	16 (84%)	12 (85%)	9 (81%)	6 (66%)
Not Experiencing Stress	1	2	3	2	2	3

9 Number of year's respondents have been employed in current position:

Period in Current Position:	0 – 5 Years	6 – 10 Years	11 – 15 Years	16 – 20 Years	21 – 25 Years
	32	23	17	8	2
Experiencing Stress	28 (82%)	20 (86%)	15 (88%)	6 (75%)	0 (0%)
Not Experiencing Stress	4	3	2	2	2

10 Ethnic group of respondents:

Ethnic Group:	Black	White	Indian	Coloured
		54	27	1
Experiencing Stress	45 (85%)	23 (85%)	1 ()	0
Not Experiencing Stress	9	4	0	0

Summary of responses to stress survey as provided by company:

Classification of rating to be used for interpreting which response selection to be provided:

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

No	Main Stress Criteria	Stress Stimuli Factors Being Measured	Response/Rating & Frequency					
			1	2	3	4	5	
1	Job Satisfaction	1.1 - I experience stress because my work is not fulfilling in terms of my tasks and functions	34	10	7	13	5	
				44			18	
		Analysis/Comment: 18 respondents indicated that they are experiencing stress because their work is not fulfilling in terms of their tasks and functions.						
		1.2 - I experience stress because I am not provided with the required equipment and tools to do my job properly	16	10	9	17	17	
				26			34	
		Analysis/Comment: 34 respondents indicated that they are experiencing stress because they are not provided with the required equipment and tools to do their job properly.						
		1.3 - I experience stress because my work space is not suitable to perform my tasks	21	14	7	15	12	
				35			27	
Analysis/Comment: 27 respondents indicated that they are experiencing stress because their work space is not suitable to perform my tasks.								
		6.8 - Other factors that are preventing employees from experiencing job satisfaction						
		<ul style="list-style-type: none"> • Lack of clarity of duties/responsibilities (employees are unsure of what to do) – Organisational structure 						

		<ul style="list-style-type: none"> No personal protective equipment is provided – Work environment Financial restraints to obtain parts (i.e. Difficult to obtain spares) - Management policies Unprofessional/poor management - Management policies Too much risk taking (working unsafely) - Work environment Poor career development opportunities - Management policies Self-taught to do job through trial and error - Management policies Supervisory conflict - Work environment No learning or growth opportunities – Management policies 									
2	Organisational Satisfaction	2.1 - I experience stress because I am not satisfied with my employer <table border="1" style="float: right;"> <tr> <td>19</td> <td>15</td> <td rowspan="2" style="background-color: #0070C0; color: white; text-align: center;">6</td> <td>16</td> <td>13</td> </tr> <tr> <td colspan="2" style="text-align: center;">34</td> <td colspan="2" style="text-align: center;">29</td> </tr> </table>	19	15	6	16	13	34		29	
		19	15	6		16	13				
		34			29						
		Analysis/Comment: 29 respondents indicated that they are experiencing stress because they are not satisfied with their employer.									
		2.2 - I experience stress because my employer does not have a good reputation <table border="1" style="float: right;"> <tr> <td>20</td> <td>11</td> <td rowspan="2" style="background-color: #0070C0; color: white; text-align: center;">1</td> <td>13</td> <td>14</td> </tr> <tr> <td colspan="2" style="text-align: center;">31</td> <td colspan="2" style="text-align: center;">27</td> </tr> </table>	20	11	1	13	14	31		27	
20	11	1	13	14							
31			27								
Analysis/Comment: 27 respondents indicated that they are experiencing stress because their employer does not have a good reputation.											
2.3 - I experience stress because my values are not aligned with those of my employer <table border="1" style="float: right;"> <tr> <td>18</td> <td>15</td> <td rowspan="2" style="background-color: #0070C0; color: white; text-align: center;">0</td> <td>17</td> <td>19</td> </tr> <tr> <td colspan="2" style="text-align: center;">33</td> <td colspan="2" style="text-align: center;">36</td> </tr> </table>	18	15	0	17	19	33		36			
18	15	0		17	19						
33			36								
Analysis/Comment: 36 respondents indicated that they are experiencing stress because their values are not aligned with those of their employer.											
		2.4 – Other factors causing employees to be dissatisfied with their employer: <ul style="list-style-type: none"> Jobs are rushed (i.e. Employees try to finish jobs quickly so that they can attend to the numerous other awaiting jobs) – Work environment Unnecessary delays - Work environment Disrespect towards subordinates - Work environment Uncaring environment – Management policies Targets not met - Work environment Unprofessional management - Management policies No personal protective equipment provided - Work environment Insecurity - Work environment 									
3	Organisational Security	3.1 - I experience stress because I do not feel secure about the financial stability of my employer <table border="1" style="float: right;"> <tr> <td>14</td> <td>12</td> <td rowspan="2" style="background-color: #0070C0; color: white; text-align: center;">3</td> <td>19</td> <td>21</td> </tr> <tr> <td colspan="2" style="text-align: center;">26</td> <td colspan="2" style="text-align: center;">40</td> </tr> </table>	14	12	3	19	21	26		40	
		14	12	3		19	21				
		26			40						
Analysis/Comment: 40 respondents indicated that they are experiencing stress because they do not feel secure about the financial stability of their employer.											
		3.2 – I experience stress because I do not feel sure about my job security <table border="1" style="float: right;"> <tr> <td>15</td> <td>12</td> <td rowspan="2" style="background-color: #0070C0; color: white; text-align: center;">4</td> <td>17</td> <td>21</td> </tr> <tr> <td colspan="2" style="text-align: center;">27</td> <td colspan="2" style="text-align: center;">38</td> </tr> </table>	15	12	4	17	21	27		38	
15	12	4	17	21							
27			38								
Analysis/Comment: 38 respondents indicated that they are experiencing stress because they do not feel											

		sure about their security.						
		3.3 – I experience stress because my workplace is not safe or hygienic	20	15	1	15	19	
			35			34		
		Analysis/Comment: 34 respondents indicated that they are experiencing stress because their workplace is not safe or hygienic.						
		3.4 - Mention any other factors that are making you feel insecure about your employer						
		<ul style="list-style-type: none"> • Untimely payment – Work environment • Disagreement conflict between staff and employer – Work environment • More suitable CEO needs to be appointed - Management policies • Poor management - Management policies • Financial restraints – Work environment • Retrenching without notice - Management policies • Projects are becoming less and less - Work environment • Threats from colleagues - Work environment 						
4	Organisational Commitment	4.1 - I experience stress because my employer has adopted a management style that negatively influences the loyalty I have towards my employer	18	13	2	15	21	
			31			36		
		Analysis/Comment: 36 respondents indicated that they are experiencing stress because their employer has adopted a management style that negatively influences the loyalty they have towards their employer.						
		4.2 - I experience stress because I do not believe that my employer is committed to looking after my best interests	16	14	2	15	22	
			30			37		
		Analysis/Comment: 37 respondents indicated that they are experiencing stress because they do not believe that their employer is committed to looking after their best interests.						
		4.3 -Other factors that are negatively influencing employees' level of organisational commitment						
		<ul style="list-style-type: none"> • Lack of parts places unnecessary pressure on people Work environment • Poor service rendered to clients Work environment • No pension – Management policies • Poor public relations – Organisational structure • Nepotism – Management policies 						
5	State of Mind	5.1 – I experience stress because my present attitude and frame of mind is not positive	20	13	2	17	17	
			33			34		
		Analysis/Comment: 34 respondents indicated that they are experiencing stress because their present attitude and frame of mind is not positive.						
		5.2 – I experience stress because I am worried and	14	5	3	23	24	

		fearful of losing my job	19		47		
		Analysis/Comment: 47 respondents indicated that they are experiencing stress because they are worried and fearful of losing their job.					
		<p>5.3 If you are suffering from a negative attitude and/or worry and/or fear then mention how the circumstances at work are contributing towards your current state of mind</p> <ul style="list-style-type: none"> • Uncertain of future prospects – Work environment • Stagnated working environment – Work environment 					
6	Resilience	6.1 - I experience stress because I find it difficult to 'bounce back' from work-related setbacks or problems	21	14	4	14	16
			35			30	
		Analysis/Comment: 30 respondents indicated that they are experiencing stress because they find it difficult to 'bounce back' from work-related setbacks or problems.					
		6.2 - I experience stress because I am not able to adapt to my employer's demands and/or expectations	20	16	1	15	19
			36			34	
Analysis/Comment: 34 respondents indicated that they are experiencing stress because they are not able to adapt to their employer's demands and/or expectations.							
		<p>6.3 If employees do not have resilience/flexibility to persevere and overcome when faced with difficult situations at work what is making them feel this way?</p> <ul style="list-style-type: none"> • No trust in employees – Work environment • Employees treated as if they cannot think for themselves – Work environment • No turn-around strategy – Management policies • Poor management – Management policies 					
7	Confidence Level	7.1 - I experience stress because I am fearful about making mistakes	18	12	3	15	21
			30			36	
		Analysis/Comment: 36 respondents indicated that they are experiencing stress because they are fearful about making mistakes.					
		<p>7.2 If employees have a low confidence level, mention the factors that are causing them to feel this way?</p> <ul style="list-style-type: none"> • Unauthorised to make decisions – Job characteristics • Uncertainty as to what is expected of people – Organisational Structure • Lack of information provided – Organisational structure • Supervisory intimidation – Work environment • Self-image broken down by supervisor – Work environment • Supervisors lack motivational skills – Work environment • Poor credit rating – Work environment 					

		<ul style="list-style-type: none"> Poor company image – Work environment 					
8	Physical Symptoms	8.1 – I experience stress because I have a prevailing illness/condition which negatively influences my work performance (i.e. illness condition can be classified as; High blood pressure; cardiovascular disease; diabetes, etc.)	49	17	0	1	2
			66			3	
		Analysis/Comment: 3 respondents indicated that they are experiencing stress because they have a prevailing illness/condition which negatively influences their work performance.					
9	Energy levels	9.1 - I experience stress because I frequently feel tired and worn out at work	29	15	0	12	13
			44			25	
		Analysis/Comment: 25 respondents indicated that they are experiencing stress because they frequently feel tired and worn out at work.					
		9.2 – If energy levels are low amongst staff what is contributing towards them feeling this way?					
		<ul style="list-style-type: none"> Lack of sleep - Lack of power to change things - Work environment Lack of unity of effort amongst staff - Work environment Poor planning – Work environment No unified effort to achieve desired results – Work climate Poor management – Management policies 					
10	Workload	10.1 - I experience stress because I am not able to cope with my daily workload	21	13	3	13	19
			34			32	
		Analysis/Comment: 32 respondents indicated that they are experiencing stress because they are not able to cope with their daily workload.					
		10.2 - I experience stress because my working hours are not in accordance with my conditions of employment	37	27	2	0	3
			64			3	
		Analysis/Comment: 3 respondents indicated that they are experiencing stress because their working hours are not in accordance with their conditions of employment.					
		10.3 Other workload factors are causing employees to experience stress, (i.e. shortage of resources / shortage of manpower, pressing deadlines)?					
		<ul style="list-style-type: none"> Lack of financial funding – Work environment Excessive work load – Work environment Excessive meetings – Work environment Shortage of resources – Work environment Slow IT system – Work environment Too many demands from colleagues – Work environment Shortage of manpower – Work environment 					

		<ul style="list-style-type: none"> Pressing dead-lines – Work environment 						
11	Relationships	11.1 - I experience stress because I do not get along with the people at work or the people do not get along with me?	23	13	3	11	19	
			36			30		
		Analysis/Comment: 30 respondents indicated that they are experiencing stress because they do not get along with the people at work or the people do not get along with them.						
		11.2 - Other factors that are negatively influencing relationships between people at work						
		<ul style="list-style-type: none"> Misuse of human resources – Management policies Taking advantage of people- Work climate Lack of respect amongst colleagues – Work climate Excessive use of foul language – Work climate No team effort – Work environment Small group coalitions exist – Work environment Some people feel victimised – Work environment Gossiping – Work environment Laziness amongst employees – Work environment Employees telling lies to management – Work environment 						
12	Recognition	12.1 - I experience stress because my achievements are not recognized by my employer	16	14	6	14	19	
			30			33		
		Analysis/Comment: 33 respondents indicated that they are experiencing stress because their achievements are not recognized by their employer.						
		12.2 - I experience stress because I am not satisfied with my remuneration and/or benefits	16	12	5	15	21	
		28			36			
		Analysis/Comment: 36 respondents indicated that they are experiencing stress because they are not satisfied with their remuneration and/or benefits.						
		12.3 - I experience stress because promotion prospects do not exist	17	13	2	17	20	
			30			37		
		Analysis/Comment: 37 respondents indicated that they are experiencing stress because promotion prospects do not exist.						
13	Organisation Climate	13.1 - I experience stress because I am generally not satisfied with the working environment	21	14	5	10	19	
			35			29		
		Analysis/Comment: 29 respondents indicated that they are experiencing stress because they are generally not satisfied with the working environment.						
		13.2 If you experience stress because you are not satisfied with the working environment please provide reasons as to why this is so?						
		<ul style="list-style-type: none"> Employees are not empowered to make decisions – Job characteristics 						

		<ul style="list-style-type: none"> Excessive work load – Work environment Excessive meetings – Work environment Shortage of resources (manpower/finances) – Work environment Pressing dead-lines – Work environment 							
14	Personal Responsibility	14.1 - I experience stress because I am not sufficiently competent to perform my tasks	42	23	2	0	2		
			65			2			
		Analysis/Comment: 2 respondents indicated that they are experiencing stress because they are not sufficiently competent to perform my tasks.							
		14.2 - I experience stress because I am not willing to take responsibility for my work performance	48	18	1	1	1		
			66			2			
Analysis/Comment: 2 respondents indicated that they are experiencing stress because they are not willing to take responsibility for their performance.									
14.3 - If employees do not accept personal responsibility for their (or their teams) level of productivity, what other factors are causing employees to feel this way.									
<ul style="list-style-type: none"> Unable to perform due to lack of funds – Work environment Confusion regarding extent of authority – Organisational structure 									
15	Managerial Role	15.1 - I experience stress because I do not consider myself to be sufficiently competent to supervise employees	52	13	2	1	1		
			65			2			
		Analysis/Comment: 2 respondents indicated that they are experiencing stress because they do not consider themselves to be sufficiently competent to supervise employees.							
		15.2 - I experience stress because I do not consider my supervisor to be competent to perform his/her tasks	14	9	1	23	22		
			23			45			
		Analysis/Comment: 45 respondents indicated that they are experiencing stress because they do not consider their supervisor to be competent to perform his/her tasks.							
		15.3 - I experience stress because my supervisor is not supportive	12	8	5	21	23		
			20			44			
Analysis/Comment: 44 respondents indicated that they are experiencing stress because their supervisor is not supportive.									
15.4 – What other managerial role factors are causing you to experience stress?									
<ul style="list-style-type: none"> Employees not following the formally approved chain of command – Work environment 									
16	Home-Work Balance	16.1 - I experience stress because I am not able to "switch off" from the pressure of work when I am at home	36	14	2	15	12		
			50			27			

		Analysis/Comment: 27 respondents indicated that they are experiencing stress because they are not able to "switch off" from the pressure of work when they are at home.						
		16.2 - I experience stress because work activities place unreasonable demands on my private and social life	48	13	3	2	3	
			61			5		
		Analysis/Comment: 5 respondents indicated that they are experiencing stress because work activities place unreasonable demands on their private and social life.						
17	Daily Hassles	17.1 - I experience stress because daily hassles, irritants and/or aggravations in the workplace are frustrating and/or take up a lot of my time every day	13	8	3	19	26	
			21			45		
		Analysis/Comment: 45 respondents indicated that they are experiencing stress because daily hassles, irritants and/or aggravations in the workplace are frustrating and/or take up a lot of their time every day.						
		17.2 – If employees are experiencing stress because of daily hassles, irritants and/or aggravations in the workplace, provide examples of such hassles, irritants and/or aggravations						
		<ul style="list-style-type: none"> Lack of planning – Work environment Frequent disturbances and interruptions during the day – Work environment 						
18	Type A Drive	18.1 - I experience stress because I have an urge to do everything as quickly as possible	14	12	6	18	19	
			26			37		
		Analysis/Comment: 37 respondents indicated that they are experiencing stress because they have an urge to do everything as quickly as possible.						
19	Patience / Impatience	19.1- I experience stress because I am impatient and do not have tolerance for other peoples errors/mistakes	47	15	2	2	3	
			62			5		
		Analysis/Comment: 5 respondents indicated that they are experiencing stress because they are impatient and do not have tolerance for other people's errors/mistakes.						
20	Control	20.1 - I experience stress because I feel as if I am not in control	18	13	2	17	19	
			31			36		
		Analysis/Comment: 36 respondents indicated that they are experiencing stress because they feel as if I they are not in control.						
21	Personal Influence	21.1- I experience stress because I do not have the necessary authority to ensure that my work objectives are being achieved	14	6	5	15	29	
			20			44		
		Analysis/Comment: 44 respondents indicated that they are experiencing stress because they do not have the necessary authority to ensure that their work objectives are being achieved.						
		21.2 - I experience stress because I do not participate in decision making and do not feel sufficiently empowered to carry out my job satisfactorily	7	4	3	26	29	
			11			55		

		Analysis/Comment: 55 respondents indicated that they are experiencing stress because they do not participate in decision making and do not feel sufficiently empowered to carry out their job satisfactorily.				
22	Social Support	22.1 - I experience stress because I feel that my level of social support is insufficient	45	12	4	4
			57		8	
		Analysis/Comment: 8 respondents indicated that they are experiencing stress because they feel that their level of social support is insufficient.				
		22.2 – Other factors that are causing employees stress.				
		<ul style="list-style-type: none"> • Lack of involvement in planning/production/cash-flow meetings – Organisational structure • Lack of internal formal structures to ensure effective coordination of services – Organisational structure 				

ANNEXURE C – COMPANY CONSENT TO CONDUCT STUDY

The Programme Supervisor
University of South Africa

17th September 2011

TO WHOM IT MAY CONCERN

CONSENT TO CONDUCT RESEARCH AND TO USE INFORMATION ARISING THERE-FROM

I, _____, in my capacity as _____ hereby acknowledge that _____ will participate in a stress related study/research project and also hereby provide Lizelle De Villiers (who is a Masters level student at The University of South Africa) with permission to conduct this Stress related Research Project at _____. Consent is thus hereby granted for Lizelle De Villiers to conduct this study and to carry out the agreed research as well as for her to appropriately use the information arising there-from for her dissertation to complete her M Tech BA.

This authorisation is subject to the following conditions:

- That the company's name and contact details will not be divulged in the research report/thesis,
- That names of the individual participants/employees will not be divulged in the research report/thesis,
- That all employees will be permitted to participate with informed consent on a voluntarily basis as well as on an anonymous basis and that they be permitted to withdraw from participating in this study at any time,
- That _____ be provided with the outcome of the research as well as a copy of the research report, and that
- This research is conducted at no cost to _____

Yours faithfully

ANNEXURE D: INFORMED CONSENT AND CONFIDENTIALITY UNDERTAKING

I, Lizelle De Villiers, a student at the University of South Africa (hereafter referred to as the 'researcher'), will be conducting a case study in support of completing my dissertation for an M Tech BA degree. This case study is considered to be important as it can significantly benefit employees and employers by assisting to identify stressors/stress stimuli that may be present in the workplace. In turn, this will provide valuable information to the company's management team enabling them to minimise the negative influences and consequences of occupational stress by implementing stress reduction interventions. The implications of not conducting this case study could result in on-going occupational stressors having a harmful psychological and/or physiological influence on employees as well as causing a reduction in productivity levels thus harming the profitability of the Company.

The Management of the participating Company (the client organisation) has consented that the researcher uses "secondary data", which they collected via the use of a consultant. They have assured the researcher that in collecting the data they have complied with ethical requirements, that the purpose was stated to employees, that it was based on voluntary participation, on an anonymous and confidential basis and that the respondents were informed that the data may be made available to a third party/ student for purposes of post-graduate studies/research.

The data will indicate the stressors to which the Company's employees may be exposed, and to analyse such data. The expectation is that the results of the case study will assist the Company's management team to estimate the prevalence of stress stimuli in their workplace. The data will be anonymously and voluntarily acquired by means of employees answering a range of questions in a Stress Stimuli questionnaire. The privacy and confidentiality of information pertaining to employees will not be compromised in the content of the published dissertation and employees will not be compelled nor obligated to contribute to this study as it is entirely subject to their own voluntary willingness to participate. In view hereof, employees have the right to decline participation or withdraw from the research at any time without incurring any negative consequences. No reimbursement, compensation or incentives will be provided to any participant for completing the questionnaire and neither will participants incur any costs for completing / not completing this questionnaire.

The name of the Company will also not be divulged in the published dissertation of limited scope.

The Company management will provide feedback regarding the outcome of this study to its employees in due course. Participants may e-mail any questions about this research to the undersigned at: Lizelle@iucs.co.za or my supervisors Mr Frans van Loggerenberg at FVLogger@unisa.ac.za or Professor Hester Nienaber at nienah@unisa.ac.za

Also, should any participant feel concerned about ethical aspects associated with this study then they are encouraged to forward such concerns to the Research Ethics Office at the University of South Africa at: (012) 429 4166 or uysm@unisa.ac.za

Researcher: *Lizelle De Villiers*

Date: 15/11/2013



Authorised Participating Company Representative:

Date: 15/11/2013

ANNEXURE E - ETHICS COMMITTEE CLEARANCE CERTIFICATE

17 March 2014



Ref #: 2014_CEMS_BM_003

DEPARTMENT OF BUSINESS MANAGEMENT RESEARCH ETHICS REVIEW COMMITTEE

To: Prof H Nienaber – Postgraduate Supervisor (012 429 2994) for Mrs Lizelle de Villiers – Student number: 43883664

From: Prof Watson Ladzani – Chairperson of the Departmental Research Ethics Committee – Department of Business Management

Subject: FEEDBACK ON YOUR STUDENT'S APPLICATION

This is to certify that the application for ethics clearance submitted by you on behalf of your student, Mrs Lizelle de Villiers – Student number: 43883664 for the study

Determining and Exploring Occupational Stress Stimuli in a Gauteng Based Manufacturing Organisation

has received ethical approval.

Decision: Application approved

The application for ethics clearance for the above mentioned research was reviewed by the Department of Business management Research Ethics Committee on 17 March 2014 in compliance with the Unisa Policy on Research Ethics. **Ethical clearance has been granted.**



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www.unisa.ac.za

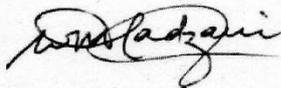
This certificate is valid for a year from the date of issue. Please be advised that the committee needs to be informed should any part of the research methodology as outlined in the ethics application change in any way or in case of adverse events attributable to participation in the study.

Disclaimer:

The student's application complies with ethical requirements. The output of the research is however, the student's own work and does not necessarily reflect the opinion of the University.

The Research Ethics Review Committee wishes you and your student all the best with this research undertaking.

Kind regards,



Prof Watson Ladzani

Chairperson of the Departmental Research Ethics Review Committee

Department of Business Management

Email: wladzani@unisa.ac.za

Tel. 012 429 3777

ANNEXURE F – LANGUAGE EDITING CERTIFICATE

MAURINE FISCHER TRANSLATION AND EDITING SERVICES

P O Box 989

Somerset West

7129

TEL: 082 569 7457

mfporcelain@gmail.com

Fax: 0866 381 543

2014-11-15

TO WHOM IT MAY CONCERN

This serves to certify that I have performed the editing services described hereunder, as the editor, on the terms and conditions set out below:

Client: Mrs Lizelle de Villiers

Nature of editing done: Layout of document, correct sentence construction
format and spelling.

Title of dissertation edited: Exploring Perceptions and Experiences of Occupational
Stress Stimuli present in a Gauteng Based,
Small Manufacturer

Academic Institution: University of South Africa

Supervisor: Professor Hester Nienaber

Parameters of editing intervention: The layout of the document, correct sentence
construction and spelling, page numbering,
Table of Contents, List of References and
Appendices.

Formatting style used: Times New Roman 12

Referencing style used: Harvard Referencing Style

I hereby declare that I have proof read and edited the above Research Report.



Maurine Fischer