

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY  
COLLEGE OF ART AND SOCIAL SCIENCES  
SCHOOL OF BUSINESS  
DEPARTMENT OF MANAGERIAL SCIENCE**



**MASTER OF BUSINESS ADMINISTRATION (MBA)**

***THE IMPACT OF STRESS ON EMPLOYEE PERFORMANCE. A CASE  
STUDY OF MOOLMAN MINING GHANA LIMITED***

**A THESIS PRESENTED TO THE KNUST SCHOOL OF BUSINESS IN PARTIAL  
FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF  
BUSINESS ADMINISTRATION**

**BY  
RICHARD AKOMANIN BLANKSON  
(MBA HUMAN RESOURCE MANAGEMENT OPTION)**

**June, 2014**

## DECLARATION

I hereby declare that this submission is my own work towards the award of a Master of Business Administration and that, to the best of my knowledge, it contains no material previously published by another person or material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in text.

# KNUST

Richard Akomanin Blankson .....

(PG7633412)

Student's Name and ID

Signature

Date

Certified by:

Mrs. Rosemary Boateng Coffie .....

Supervisor

Signature

Date

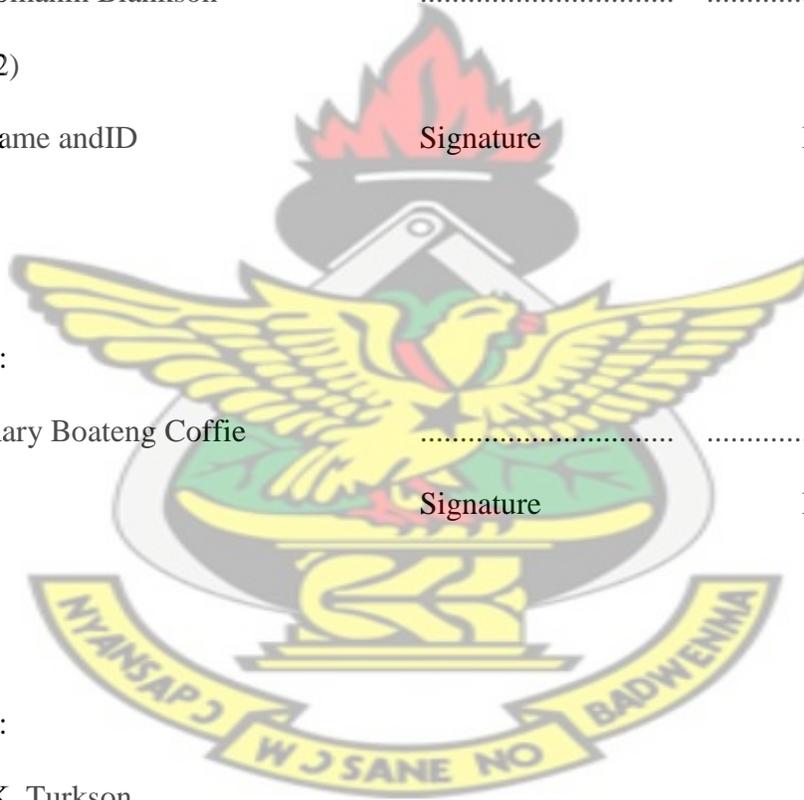
Certified by:

Mr. James K. Turkson .....

(Head of Department)

Signature

Date



## ABSTRACT

Stress is a universal element and persons from nearly every walk of life experience it in one way or the other. In their quest to achieve high productivity in a safe environment, employers today are critically analysing stress management issues that contribute to lower job performance of employees. The main aim of this research was to assess the impact of stress on the performance of employees of Moolman Mining Ghana Limited. The researcher employed Quantitative data analysis and descriptive study in assessing the research. Purposive non - random sampling and simple random sampling techniques were used in selecting a sample size of 100 out of which 15 were of managerial positions. Microsoft excel was used to analyse the data and from the results obtained; four types of stresses was identified namely; acute, chronic, traumatic and episodic acute stress. It was evident that most of the causes of these stresses were managerial related and few were personal related. It was also evident that there were many stress factors that the respondents endured, and the enquiry proved that stress had an effect on performance either positively or negatively. Based on the findings, it was recommended that stress management should be incorporated into Moolmans induction and orientation programmes. It was also suggested that Special stress identification and management programmes should be organise for managerial staff, front line supervisors and shift supervisors.

## ACKNOWLEDGEMENTS

Now to him who is able to do immeasurably more than all we ask or imagine according to his power that works within us, I have come this far by the grace and mercies of God.

Also render honor to whom honor is due (Rom. 13:7); I wish to express my profound gratitude to my supervisor Mrs. Rosemary Boateng Coffie for her help, guidance, suggestions and constructive criticism during the entire duration of this project. My heartfelt gratitude goes to also Mr. James K. Turkson my secret mentor and father in KNUST; I say a big thank you for affecting my human relations positively. To my bosses Mr. Dave Atherstone and Mr. Flanie Maiga and the entire Moolman Mining Ghana Limited employees, whose contribution to this work has been enormous, I say God bless you all abundantly.

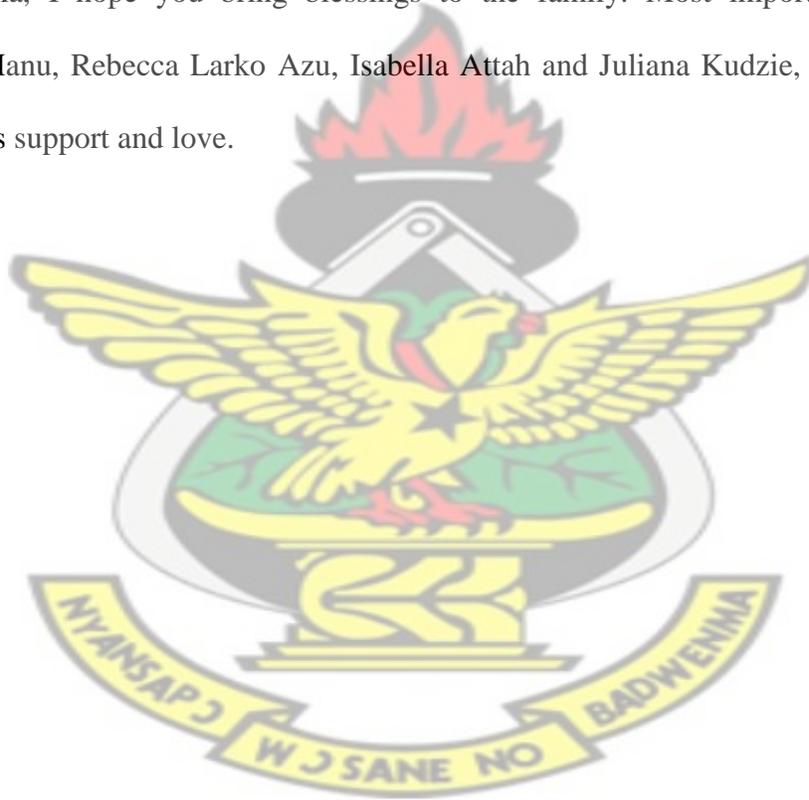
To the most important woman in my life, my dear wife, Mrs. Cecilia Blankson and awesome daughter, Godfreda Olivia Blankson whose contribution, advice and encouragement relentlessly propelled this project to finish the crossing line without which I would not have been able to. May God richly bless and give you guidance in all you do.

To my family for their unflinching support shown towards me throughout my master's journey through prayers, advice and financial support; God bless you all.

This project would have been far from completion had it not been for the selfless effort put in by my lovely work mates and love ones, Francis Kwabena Manu, Rebecca Larko Azu, Juliana Kudzie, Rita Yanyimanya, Francisca Boakye and Kofi Taylor. I am forever grateful and I say a big thanks to you all.

## DEDICATION

To the love of my life, Cecilia Blankson and my awesome daughter Godfreda Olivia Blankson, for your companionship, friendship, kindness and selfless support, I love you so much. This is also dedicated to my loving parents Godfred Oliver Blankson and Gifty Eshun, my siblings Kofi Abakah Blankson, Felicity Arthur and Ayishatu salifu for their sacrifices and love shown towards me right from my infancy to this stage of my life, I love you all. Finally to my nephew Nana Kofi and nieces Rubyna, Pearl and Maame Acheampoma, I hope you bring blessings to the family. Most importantly to Francis Kwabena Manu, Rebecca Larko Azu, Isabella Attah and Juliana Kudzie, I am grateful for your selfless support and love.



## TABLE OF CONTENT

Title page-----	i
Declaration-----	ii
Abstract-----	iii
Acknowledgements-----	iv
Dedication-----	v
Table of content-----	vi
List of tables-----	x
List of figures-----	xi
<b>CHAPTER ONE - INTRODUCTION-----</b>	<b>1</b>
1.0 Background of the study-----	1
1.1 Problem statement-----	5
1.2 Objectives of the study-----	6
1.2.1 General objective-----	6
1.2.2 Specific objectives-----	6
1.3 Research questions-----	6
1.4 Significance of the study-----	7
1.5 Brief methodology-----	7
1.6 Scope of the study-----	8
1.7 Limitations of the study-----	9
1.8 Organization of the study-----	9
<b>CHAPTER TWO - LITERATURE REVIEW-----</b>	<b>11</b>
2.0 Introduction-----	11
2.1 Origin, terminology and definition of stress-----	11
2.2 Nature of stress-----	13
2.3 Stress process or response stages-----	16
2.4 Types of stress-----	18
2.5 Causes or sources of stress at work-----	21
2.5.1 Factors intrinsic to the job-----	21

2.5.2 Role in the organization	23
2.5.3 Relationship at work	26
2.5.4 Career development	27
2.5.5 Organization structure and climate	27
2.6 Impact of stress on Performance	29
2.7 Performance Measurement	30
2.8 The effect of stress on employees' performance	32
2.8.1 Overload	35
2.8.2 Time pressure	35
2.9 Symptoms and effects of stress on employees' performance	36
2.9.1 Psychological symptoms and effects	37
2.9.2 Behavioural symptoms and effects	37
2.9.3 Physiological symptoms and effects	38
2.10 Managing stress	38
2.11 Theoretical Frame Work	40
2.11.1 Social cognitive learning theory	40
2.12 Summary	40
<b>CHAPTER THREE – METHODOLOGY AND ORGANISATIONAL PROFILE</b>	<b>42</b>
3.0 Introduction	42
3.1 Research Design	42
3.2 Population of the study	43
3.3 Sample and sampling technique	44
3.4 Sources of data	45
3.4.1 Primary Data	45
3.4.2 Secondary Data	46
3.5 Data collection technique	46
3.6 Data Analysis	47
3.7 Organisational profile	47

<b>CHAPTER FOUR - DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS</b>	<b>49</b>
4.0 Introduction	49
4.1: Biographic data of Respondents	49
4.1.1 Gender of respondents	49
4.1.2 Age distribution of respondents	50
4.1.3 Academic qualification of respondents	51
4.1.4 Marital status of respondents	51
4.2 Identifying the various types of stress employees go through at Moolman Mining	52
4.2.1 Determining whether employees are in their desired field or job	52
4.2.2 Determining whether employees have problems with the task given them.	53
4.2.3 Determining supervisors demand of task from employees	54
4.2.4 Determining employees' reaction to situations	55
4.2.5 Determining the feel of depression among employees	56
4.2.6 Determining the feel of anxiety among employees	57
4.2.7 Determining how easily employees become provoked	57
4.2.8 Determining employees' involvement in accidents	58
4.2.9 Determining employees' involvement in sexual harassment	59
4.2.10 Determining the number of task employees takes on at a time	60
4.3 Identifying the causes of stresses on employees of Moolman Mining Ghana Limited	61
4.3.1 Determining premium placed on safety by Moolman Mining	61
4.3.2 Determining safety of Moolman Mining environment	62
4.3.3 Determining the effect of shift work on employees sleep pattern	63
4.3.4 Determining threat posed by vibration and sound of blast	64
4.3.5 Determining the adoption of new methods of work by Moolman Mining	65
4.3.6 Determining the comfortability of these new methods of work to the employees	66
4.3.7 Determining the trainings given on new methods of work to the employees	66
4.3.8 Determining how difficult employees see their job	67
4.3.9 Determining demand of task from supervisors	68
4.3.10 Determining task in conflict with employees responsibility	69
4.3.11 Determining clarity of task to employees	70

4.3.12 Determining rate of receiving different task from different supervisors -----	71
4.3.13 Determining feel of abuse at work -----	72
4.3.14 Determining rate of reports on migraine by employees -----	73
4.4 Identifying the effect stress on performance of employees of Moolman Mining Ghana	74
4.4.1 Determining link between desired field and output -----	74
4.4.2 Determining link between shift work and output -----	75
4.4.3 Determining link between training on new methods of work and output -----	76
4.4.4 Determining link between instructions and output -----	77
4.4.5 Determining link between role conflict and output -----	78
4.4.6 Determining link between sound and vibration from blast and output -----	79
4.4.7 Determining link between new methods of work and output -----	80
4.4.8 Determining link between working under pressure and output -----	81
4.4.9 Determining link between clarity of task and output -----	82

<b>CHAPTER FIVE - SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS -----</b>	<b>83</b>
5.0 Introduction -----	83
5.1 Summary of findings -----	83
5.1.1 Identification of the presence of stress in employees -----	83
5.1.2 Causative factors of stress in employees -----	83
5.1.3 Impact of stress on performance of employees -----	83
5.2 Conclusion -----	87
5.3 Recommendations -----	89
5.3.1 Stress Management -----	89
5.3.2 Improve interpersonal relationships -----	89
5.3.3 Systematic Training -----	90
5.3.4 Improvement on safety -----	90
5.3.5 Attitudinal change -----	91
<b>REFERENCES -----</b>	<b>92</b>
<b>APPENDIX -----</b>	<b>98</b>

## LIST OF TABLES

Table 4.0 Determining rate of reports on migraine by employees-----73

# KNUST



## LIST OF FIGURES

Figure 2.1 Impact of stress on Performance -----	29
Figure 4.0 Gender of respondents -----	49
Figure 4.1 Age distribution of respondents -----	50
Figure 4.2 Academic qualification of respondents -----	51
Figure 4.3 Marital status of respondents-----	51
Figure 4.4 Determining whether employees are in their desired field or job -----	52
Figure 4.5 Determining whether employees have problems with the task given them -----	53
Figure 4.6 Determining supervisors demand of task from employees -----	54
Figure 4.7 Determining employees' reaction to situations-----	55
Figure 4.8 Determining the feel of depression among employees -----	56
Figure 4.9 Determining the feel of anxiety among employees -----	57
Figure 4.10 Determining how easily employees become provoked -----	57
Figure 4.11 Determining employees' involvement in accidents -----	58
Figure 4.12 Determining employees' involvement in sexual harassment -----	59
Figure 4.13 Determining the number of task employees takes on at a time -----	60
Figure 4.14 Determining premium placed on safety by Moolman Mining-----	61
Figure 4.15 Determining safety of Moolman Mining environment -----	62
Figure 4.16 Determining the effect of shift work on employees sleep pattern-----	63
Figure 4.17 Determining threat posed by vibration and sound of blast -----	64
Figure 4.18 Determining the adoption of new methods of work by Moolman Mining-----	65
Figure 4.19 Determining the comfortability of these new methods of work to the employees -----	66
Figure 4.20 Determining the trainings given on new methods of work to the employees ---	66
Figure 4.21 Determining how difficult employees see their job -----	67
Figure 4.22 Determining demand of task from supervisors -----	68
Figure 4.23 Determining task in conflict with employees responsibility -----	69
Figure 4.24 Determining clarity of task to employees-----	70
Figure 4.25 Determining rate of receiving different task from different supervisors -----	71
Figure 4.26 Determining feel of abuse at work-----	72
Figure 4.27 Determining link between desired field and output -----	74

Figure 4.28 Determining link between shift work and output-----	75
Figure 4.29 Determining link between training on new methods of work and output-----	76
Figure 4.30 Determining link between instructions and output -----	77
Figure 4.31 Determining link between role conflict and output -----	78
Figure 4.32 Determining link between sound and vibration from blast and output -----	79
Figure 4.33 Determining link between new methods of work and output-----	80
Figure 4.34 Determining link between working under pressure and output -----	81
Figure 4.35 Determining link between clarity of task and output -----	82

KNUST



## CHAPTER ONE

### INTRODUCTION

#### 1.0 Background of the study

The strength of every organization depends on its human resource. The productivity of an organization thrives on the emotional, physical and psychological well-being of its employees. Stress is both a major setback as well as a promoter in organizational productivity and performance being bad or good stress respectively. Many organizations of which Moolman Mining Ghana Limited is of no exception and its employees are experiencing the effects of stress on work performance.

Stress is the reaction people have to excessive pressures or other types of demand placed upon them. Stress arises when they worry that they can't cope with a task to be performed. It is the "wear and tear" our minds and bodies experience as we attempt to cope with our continually changing environment. Stress occurs when the pressure is greater than the resource worry (i.e.  $S = P > R$ ). The feeling of stress can be observed in many ways; this can be in the form of tense, tiredness, frightens, elated depression, anxiousness, anger etc. Stress is affected by stressors which are chemicals or biological agents, environmental conditions, external stimulus or an event that causes stress to an organism (Omolar, 2008).

The effects of stress can either be positive or negative. What is perceived as positive stress by one person may be perceived as negative to another, since everyone perceives situations differently. According to Barden (2001), negative stress is becoming a major illness in the work environment, and it can be costly to employers. Employers need to identify those

suffering from negative stress and implement programs as a defense against stress. These programs may reduce the impact stress has on employees' work performance.

The purpose of this research is to determine the impact of stress on performance of employees of and its effect on the productivity and the methods Moolman Mining Ghana Limited will have to use to manage its employees' stress and eradicate or reduce them drastically to improve its employee's performance.

KNUST

A survey conducted by Statistics Canada (2002), respondents were asked to indicate their level of stress at work, the survey showed that 38.8% of Canadians between the ages of 15 and 75 are slightly stressed at work, 25% are relatively stressed at work, while 5.4% are extremely stressed at work (Statistics Canada, 2002 – updated in September 2004). A survey conducted at provincial level by Santé Québec between 1987 and 1998 on Quebecers' health and well-being shows that the inability to work due to mental health problems almost doubled, increasing from 7 to 13%. These surveys also show that the average number of missed work days per person for mental health reasons more than tripled between 1992 and 1998, jumping from 7.4 to 24.6 days per 100 people, a 200% increase (Vézina and Bourbonnais, 2001). While work stress is a health problem, it has also become an economic problem for many people and organizations of which Moolman Mining Ghana Limited is no exception, and for society in general.

The results of a Watson Wyatt survey conducted in 2002-2003 (which surveyed 180 organizations, representing more than 500,000 full-time Canadian employees) show how widespread this phenomenon is among Canadian organizations (Davey, De Bortoli, Parker,

and Smolkin, 2003). According to this survey, entitled Staying@ Work, psychological disorders are the main cause of short-term and long-term disability claims (for 79% and 73% of respondents, respectively). Moreover, the average length of stress-related absences in the United States is four times higher than for absences resulting from workplace accidents and occupational diseases (Webster and Bergman, 1999). As a result, we can assume that the cost of absenteeism due to stress is correspondingly higher.

Another study (Anderson et al., 2000) shows that stress accounts for the highest percentage of health insurance costs (\$6.2 billion and 7.9% of health costs) among 46,026 survey respondents from six large American companies. Although absences related to mental health problems are, for the most part, addressed in group wage-loss indemnity plans, the financial and human impacts of this type of problem can also be reflected in the number of claims that workers submit to the Workers' Compensation Commission. For example, between 1990 and 1997, the number of claims accepted by the Commission de la santé et de la sécurité du travail du Québec (CSST) as workplace injuries related to stress, burnout or other psychological factors almost doubled, jumping from 530 to 994 cases. The amount of payouts also increased from \$1.5 million to \$5.1 million annually (Centre patronal de santé et sécurité du travail du Québec, 1999).

The data referred to up to this point clearly demonstrates the impact of stress on organizations. Whether because of disability-related costs or expenses resulting from worker claims, companies must pay close attention. It is difficult to estimate the extent of these costs to the business community to date, since little scientific information is available

(Ramaciotti and Perriard, 2001); (Levi and Lunde-Jensen, 1996). On the other hand, stress is becoming increasingly recognized as a phenomenon that has a negative effect on a growing number of people in the workplace (Hoel, Sparks, and Cooper, 2001). Many managers, employees and specialized stakeholders (human resources advisors, occupational health physicians, occupational health and safety specialists, etc.) are seeking tools and accurate data on the scope of corporate stress-related costs. This is why it is important to provide companies with tools that will allow them to measure the economic impact of work stress. A more comprehensive assessment of these costs would almost certainly have a major impact on management decisions that could affect stress levels in an organization.

Moolman Mining Ghana Limited is an open cast surface mining that operate at Iduapriem-Tarkwa. The company belongs to AVENG group in South Africa, hence it name AVENG Moolmans. Its vision and mission statements are surface contract mine of choice and safe cubic meter to plan respectively. The company has safety, honesty and accountability as it core values. Moolmans puts premium on the safety of its employees and therefore the company upholds that if it cannot mine safely it will not mine. And this is seen in the company's slogan "Home without harm, everyone everyday". Moolman Mining Ghana Limited is a duly registered mining contractor under the companies' code, 1963(Act 179) with registration number CA-52,210 started its operational activities in Ghana from January 2009 and has a total workforce of 564 including 17 Expatriates and 127 sub-contractors.

## 1.1 Problem statement

In the quest of achieving higher productivity most companies end up stressing their employees with great deal of work or work overload. Though most mining companies as Moolman Mining Ghana limited have safety as their primary core value in ensuring productivity such aim has become a bit difficult due to the attitude of its employees. Even the few that pay more attention to the consequence of the trauma their employees go through due to additional task or as a result of more working time still need improvement. Work load on Moolmans employees in recent time has increased due to the demand from our clients AngloGold Ashanti and the recent Exodus of Mining expertise and equipment's operators to other African countries especially the war torn areas such as sierra Leone due the bigger salary they receive vis avis the salary in Ghana.

To cope up with these pressures from our clients coupled with the Exodus of these employees there is continuous change in the strategies of management to make up with the short fall and this has increased stress in the employees. This is evidently showed in the number of stress related incidents and accidents the company has recorded in the past year. Most of the employees also engage in other income generating ventures after their normal shift work and off days due to the perceived economic hardship in the country as well as their maintenance of their perceived status in society. Employees therefore reports to work already tired and stressed up. It is in view of this that the research is being done to determine the impacts of stress on performance of the employees of Moolman Mining Ghana Limited, Tarkwa.

## **1.2 Objectives of the study**

### **1.2.1 General objective**

To determine the impact of stress on the performance of employees of Moolman Mining Ghana Limited.

### **1.2.2 Specific objectives**

- i. To identify the various types of stress employees go through at Moolman Mining Ghana Limited.
- ii. To determine the causes of these stresses on employees of Moolman Mining Ghana Limited
- iii. To determine the effect of these stresses on performance of employees of Moolman Mining Ghana Limited

## **1.3 Research questions**

In the writing of this thesis the following question will guide the researcher in determining the impact of stress on employee's performance of Moolman Mining Ghana

- i. What are the various types of stress employees go through at Moolman Mining Ghana Limited?
- ii. What are the causes of stress on employees of Moolman Mining Ghana Limited?
- iii. What effects do stress have on the performance of employees of Moolman Mining Ghana Limited?

#### **1.4 Significance of the study**

The purpose of this research is to find out the impacts of stress on Moolman mining Ghana Limited employees performance. This research has become imperative due to stress related cases in the company of study and other mining companies as a whole. The researcher believes this research will go a long way to serve as a guide to Moolman mining Ghana Limited and other mining companies having similar problems to ensure effective stress management to improve in their employees' performance.

Also employers in the industry who may gain insight as to how stress is actually negatively impacting on employee's performance and structures they can put in place to salvage the situation. Finally, educational institution can use these findings as a valuable guide to incorporate into their curriculum by emphasizing to students the importance of developing programs to deal with stress which will also enable students to transfer this knowledge to their various workplaces, thereby improving the quality of the work environment.

#### **1.5 Brief methodology**

##### *Source of Data*

Data for this study was collected using a closed ended questions questionnaire which was developed by the researcher. The questionnaire was divided into two parts. Section "A" was designed to collect personal data or independent questions about the socio-economic characteristic of the respondents, including marital status, employee classification and age group. Section "B" dealt with the questions for the study. This consisted of a list of departmental work performance areas that may be negatively affected by a person's level of

stress. Respondents were asked to indicate the various types of stress they go through at the work place through the symptoms of the four types of stresses the researcher will be dealing with. They were also asked to indicate the causes of these stresses they go through and whether stress increased, decreased, or had not changed their work performance in each area as well as the impact on the general performance of the entire organisation.

#### *Sample Selection*

The respondents involved in this survey was only employees of Moolman mining Ghana limited.

#### *Statistical Methods*

Simple statistical techniques was used to tabulate the results of this study. The primary data will be analysed using Microsoft Excel.

### **1.6 Scope of the study**

Stress is a very broad area, therefore this study will concentrate on the types of stress, the causes of stress and the effects of stress on the performance of employees of Moolman Mining Ghana Limited, Iduapriem site Tarkwa. The scope of this research was therefore focused on all the employees of Moolman Mining Ghana Limited, Iduapriem site Tarkwa, specifically the production, drill and blast, plant, administration and all sub-contractors of the company only. Also the scope covers 15 managerial and supervisory staff and 85 junior and contractor staffs.

The research was done to get an in depth and comprehensive knowledge in the operations of the company and its organizational procedures that enhance safe mining and make the research more meaningful to minimize stress related incidents.

### **1.7 Limitations of the study**

The research was limited in scope due to a number of resource limitation as well as practical or field research limitation and notable among them that the researcher encountered included:

Time constraint; this resulted since the time allocated for the research was very short to enable adequate data to be collected coupled with regular lectures and examination as well as official work duties of the researcher.

Secondly, information sourcing was a problem since management and the safety department were reluctant in giving confidential reports on stress related cases to the researcher.

Also, respondents were a bit reluctant to answer questionnaire or give vital information in the collection of data needed to make the necessary inputs for fear of victimization while most employees also saw it as witch hunting considering the position the researcher occupies in the Company.

### **1.8 Organization of the study**

The research is organized into five chapters. Chapter one introduces the study by giving the background information on the research problem, general and specific objectives of the research, research questions, significance of the study, brief methodology, scope of the study, limitations of the study and organisation of the study. Chapter two deals with the review of relevant literatures on the research problems and concept with specific references to its application in Moolman Mining Ghana and other companies in the industry as a whole. It also looks at the various forms of stress and its effects on employees. Chapter three discusses the research methodology adopted for the research and its relevant justification as

well as the profile of Moolman mining Ghana Limited .Chapter four presents the data analysis and discusses the findings on the impacts of stress on Moolman Mining Ghana Limited employees' performance. Chapter five also presents the conclusions drawn from the research findings and the recommendations to ensure good management strategies to manage employees stress effectively.

# KNUST



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter of the research or study will provide adequate or in - depth knowledge or insight on the nature of stress and its impacts on performance of employees. This chapter will seek to throw more light on opinions from different authors and various researches on stress related cases and this will provide more theoretical understanding of the nature of stress, types, causes and the impact it will have on employees' performance.

#### 2.1 Origin, terminology and definition of stress

Research or studies conducted in countries around the world demonstrate that people can actually work themselves to death. Factors such as workplace stress and long hours contribute to the risk of death from overwork. The secret of achievement is not letting what you are doing get to you before you get to it as many employees of Moolmans think because there were many in their positions who have wanted to live with honour but end up digging riches they never got to enjoy. The term stress was borrowed from the field of physics by one of the fathers of stress research Hans Selye an Endocrinologist in the 1930s. In physics, stress describes the force that produces strain on a physical body (i.e. bending a piece of metal until it snaps because of the force, or pressure exerted on it).

Selye (1930) began using the term stress after completing his medical training at the University of Montreal in the 1920's. He noticed that no matter what his hospitalized patients suffered from, they all had one thing in common, they all looked sick. In his view,

all were under physical stress. He proposed that stress was a non-specific strain on the body caused by irregularities in normal body functions. This stress resulted in the release of stress hormones. He called this the “General Adaptation Syndrome” (our body's short-term and long-term reactions to stress). He later broadened and popularized the concept to include inappropriate physiological response to any demand. (Wikipedia)

According to Robbins (2004), stress is a dynamic condition in which an individual is confronted with opportunity, constraint or demand related to what he desires and for which the outcome is perceived to be both uncertain and important. From this definition it could be inferred that stress is not necessarily bad, it also has a positive value when it offers potential gain. Moorhead and Griffen (1998) also defined stress as a person’s adaptive response to a stimulus that places physical and psychological demands on a person. Similarly, Sherman, et. al (1996), similarly defined stress as any adjustive demand on an individual caused by physical, emotional or mental factors that requires coping behaviour. Taylor (1995) also describes stress as a negative emotional experience accompanied by predictable biochemical, physiological, cognitive and behavioural changes that are directed either towards altering the events or accommodating its effects.

Again, Bennett (1994) defines stress as a wide collection of physical and psychological symptoms that results from difficulties experienced by an individual while attempting to adapt to an environment. This shows that the potential for stress exists when an environmental situation presents a demand threatening to exceed a person’s capabilities and resources.

However, Mandler (1993), argues that a definition focusing on the physiological aspects of stress is too narrow. He suggests that “stress” refers most appropriately to the convergence of the physiological and psychological effects of stressors. He maintains that only when stressors and their physiological responses affect behaviour, thought or action do they become relevant to the stress concept. Like Selye in the 1920’s, he notes that all types of stressors, ranging from extreme temperature to the death of a friend, affect the nervous system in the same way but may differ in their psychological or emotional effects. For the purpose of this project work, we consider Mandler’s (1993) psychological results of stress as part of the performance effects of stress and use the term stress to refer only to the physiological response.

From the various definitions and description stress can be seen as excessive demands that affect a person physically and psychologically. Thus the mental or physical that results from perceived threat or danger and the pressure to remove it.

## **2.2 Nature of stress**

It is believed that stress is a complex phenomenon because it is not tangible and cannot be touched. Bowing and Harvey (2001), stated that stress occurs with the interaction between an individual and the environment, which produces emotional strain affecting a person’s physical and mental conditions. Stress is caused by stressors, which are events that create a state of disequilibrium within an individual; also they are things that cause you to feel stressed and anxious. Stressors go beyond the natural pressures necessary to motivate and stretch you as they trigger the release of 'stress hormones' that take you into an unproductive

state. Thus affecting your decisions, mental clarity, memory, energy, attitude, communication, creativity, tension, health, happiness and goal achievement. They also state the effect of stress on individuals, organizations and the entire society is very high. They asserted that many employees may suffer from anxiety disorders or stress related illness. Research shows that it is estimated that employees who suffers from stress and its related diseases loses about 16 working days a year, in terms of days lost on the job.

According to Ritchie and Martin (1999), for years stress was described and defined in terms of external, usually physical, forces acting on an individual. They later suggested that the individuals perception of, and response to, stimuli or events was a very important factor in determining how that individual might react, and whether or not an event will be considered stressful. They again contended that most research on stress acknowledged that both external and internal factors affect stress. They viewed stress as a response to external or internal process, which reach levels that strain physical and psychological capacities beyond their limit.

Blumenthal (2003) therefore viewed stress as anything that upsets people's ability to maintain critical variables (i.e psychological, social, spiritual or biological in nature) within acceptable limits. The experience of stress involves an event that is demanding or resources as well as the subjective feeling of distress experienced in its face. He said an activity could be termed as stressful if people appraised it as distressing. Whether an event is experienced as stressful depends on a person's psychosocial or psychological orientation with things like culture, spirituality, values, beliefs and past experiences influencing the appraisal. Events

that are appraised as being overwhelming, threatening, unsatisfying or confliction are more likely to be experienced as stressful.

Blumenthal (2003) differentiated the different effects of stress as follows:

- i. Subjective effects: stress leads to anxiety, aggression, apathy, boredom, depression, frustration, fatigue, guilt, shame, irritability, bad temper, moodiness, threat, tension, nervousness and low self-esteem.
- ii. Behavioral effects: stress leads to accident proneness, drug taking, emotional outburst, excessive eating, loss of appetite, excessive drinking, smoking, excitability, impulsive behaviour, nervous laughter, substance abuse, trembling, impaired speech, restlessness and forgetfulness.
- iii. Cognitive effects: stress affects our thought process, leading to a difficulty or fear of making decisions and concentrate, frequent forgetfulness, hypersensitivity to criticism, mental blocks and difficulty concentrating or thinking clearly. This may be intensified by substance abuse.
- iv. Physiological responses: This begins in the brain and spread to organs throughout the body. Catecholamine from the adrenaline medulla causes the kidneys to raise blood pressure and the liver to release sugar or glucose into the blood stream and also increases heart rate and blood pressure, dryness of mouth, sweating, dilation of pupils, difficulty in breathing, hot and cold spells, numbness and tingling. The pituitary gland stimulates the release of corticosteroids, which helps to resist stress but, if in the system for a prolonged period of time, suppresses the immune system. These responses are adaptive for dealing with stress in the form of ‘fight or flight’

but this response is rarely useful in urban work, instead the accumulation of stress products in the body is immune-suppressive playing a part in degenerative processes and disease.

- v. Health effects: prolonged exposure to stress has profound and detrimental effects on health. Among possible complications stress play a role in causing ailments like asthma, secondary amenorrhoea, chronic heart disease (CHD), chest and back pains, diarrhoea, frequent urination, faintness and dizziness, dyspepsia, headaches and migraines, neuroses, nightmares, insomnia, psychoses, psychosomatic disorder, diabetes mellitus, skin rashes, ulcers and decreased libido or loss of sexual drives. In a world where AIDS is frighteningly, prevalent people need to be aware that stress is immunosuppressive. HIV breaks down a person's immune system, which leaves them vulnerable to potentially fatal infections and diseases.
- vi. Organization effects: This results in absenteeism, poor industrial relations, poor productivity, high accidents and employee turnover rates, poor Organisational climate, antagonism at work and job dissatisfaction.

### **2.3 Stress process or response stages**

Arnold, et al (1993), categorized stress it into three stages which they called the general adaption syndrome which were; Alarm, resistance and exhaustion

- i. Alarm stage: This is the first stage of stress response where organism meets face to face with stressor and thereby mobilizing energy. Organism therefore ought to protect itself from stressors and initiate alarm reaction. During this stage adrenaline will be produced in order to bring about the "fight-or-flight response". There is also

some activation of the HPA axis, producing cortisol. This reaction can provoke both good and bad events and only in that phase we can talk about eustress. In this stage stress response helps organism to protect itself, giving the organism extra strength to defend itself.

- ii. The Resistance stage: This is the second stage where an organism attempt to resist the stressor or defend itself and make balance again or it is the stage where the body has to decide to 'fight or flight'. This is a phase with maximum activity, and the body of the organism spends the stored energy (sugars and fats). At this stage the organism feel too much tension, reactions are overreacted and overdone. During this stage one will smoke too much, drink more coffee, drink more alcohol, or think too much, Usually reaction is anxiety, memory, loss and depression. Organism is very vulnerable and can get sickness very easy i.e weak immune system. The body will try to add resources to help it cope through maximum adaption and hopefully, successful return to equilibrium for the individual. If however, the defense mechanism does not work, or fails to cope, it will lead to the third stage which is Exhaustion.
- iii. Exhaustion stage is the third and final stage. At this point, all of the body's resources are eventually depleted and the body is unable to maintain normal function. This is also referred to as a "burnout" or overload phase. The sequence may happen in response to either a physical threat, such as being in a car accident or an emotional one such as being made redundant in your job. Facing multiple long- term stressors piles extra strain on your system and can quickly lead to exhaustion. The initial autonomic nervous system symptoms may reappear (sweating, raised heart rate, etc).

If stage three is extended, long term damage may result as the body, and the immune system is exhausted and the function is impaired resulting in decomposition. The result can manifest itself in obvious illnesses such as ulcers, depression, diabetes or even cardiovascular problems, along with other mental illnesses.

## 2.4 Types of stress

According to Taylor (1995), there are four major types of stress and she explains them as follows:

- i. Chronic stress

She describes this type of stress as unrelenting demands and pressures for seemingly interminable periods of time. Chronic stress is the type that wears the individual down day after day and year after year with no visible escape. It grinds away at both emotional and health of the individual leading to breakdown and even death. While acute stress can be thrilling and exciting, chronic stress is not. This is the grinding stress that wears people away day after day and year after year. It's the stress of poverty, of dysfunctional families, of being trapped in an unhappy marriage or in a despised job or career. It comes when a person never sees a way out of a miserable situation. It's the stress of unrelenting demands and pressures for seemingly interminable periods of time. With no hope, the individual gives up searching for solutions. Some chronic stresses stem from traumatic, early childhood experiences that become internalized and remain forever painful and present. Some experiences profoundly affect personality. The worst aspect of chronic stress is that people get used to it. Chronic stress kills through suicide, violence, heart attack, stroke and perhaps; even cancer. People wear down to a final, fatal breakdown. Because physical and mental

resources are depleted through long-term attrition, the symptoms of chronic stress are difficult to treat and may require extended medical as well as behavioral treatment and stress management.

ii. Acute stress

This type of stress is the most common and most recognizable form of stress. It is the kind of stress which the individual knows exactly why he is stressed; he was just in a car accident; the school nurse just called him, armed robbers just ambled onto his house. It can also be something scary but thrilling, such as a parachute jump. Normally, the body rests when these stressful events cease and life gets back to normal because the effects are short-term. Acute stress usually does not cause severe or permanent damage to the body. It also comes from demands and pressures of the recent past and anticipated demands and pressures of the near future. Acute stress is thrilling and exciting in small doses, but too much is exhausting.

Because it is short term, acute stress doesn't have enough time to do the extensive damage associated with long-term stress. The most common symptoms are: Emotional distress — some combination of anger or irritability, anxiety and depression, the three stress emotions. Acute stress can crop up in anyone's life, and it is highly treatable and manageable.

iii. Traumatic stress

It is a severe stress reaction that results from a catastrophic event or intense experience such as a natural disaster, sexual assault, life-threatening accident, or participation in a combat. Here, after the initial shock and emotional fallout, many trauma victims gradually begin to recover. But for some people, the psychological and physical symptoms triggered by the trauma do not go away, the body does not return to equilibrium, and life does not return to

normal. This condition is known as post trauma stress disorder. Common symptoms of this type of stress are flashbacks or nightmares about the trauma, avoidance of places and things associated with the trauma, hyper vigilance for signs of danger and irritability and tension.

iv. Episodic acute stress

She went further to explain episodic acute stress as where the individual experiencing this type of stress lives are very chaotic, out of control and they always seem to be facing multiple stressful situation. They are always in a rush, always late, always taking on too many projects, handling too many demands. Those who are prone to this type of stress include “Type A” personality types. If an individual is prone to episodic acute stress, he may not know it or admit it. He may be wedded to a life style that promotes stress. Unfortunately, people with episodic acute stress may find it so habitual that they resist changing their lifestyles until they experience severe physical symptoms.

Another form of episodic acute stress comes from ceaseless worry. "Worry warts" see disaster around every corner and pessimistically forecast catastrophe in every situation. The symptoms of episodic acute stress are the symptoms of extended over arousal: persistent tension headaches, migraines, hypertension, chest pain and heart disease. Treating episodic acute stress requires intervention on a number of levels, generally requiring professional help, which may take many months. Often, lifestyle and personality issues are so ingrained and habitual with these individuals that they see nothing wrong with the way they conduct their lives. They blame their woes on other people and external events. Frequently, they see their lifestyle, their patterns of interacting with others, and their ways of perceiving the world as part and parcel of who and what they are. Sufferers can be fiercely resistant to

change. Only the promise of relief from pain and discomfort of their symptoms can keep them in treatment and on track in their recovery program.

## **2.5 Causes or sources of stress at work**

Repetti (1990), McGronogle and Kessler (1990), Pervin (1992), agree with Arnold, et al (1993) in talking about the causes or sources of stress. Arnold, et al (1993), identified five major causes of work stress as: factors intrinsic to the job, role in the organisation, relationships at work, career development and organizational structure and climate.

### **2.5.1 Factors intrinsic to the job**

Arnold, et al (1993), explained the factors intrinsic to the job to include:

- i. Poor working conditions

This talks about the physical surrounding or the environmental conditions of the job which include but not limited to high level of noise, high or low lighting, fumes, heat, poor ventilation systems, smells and all the stimuli which bombard a worker's senses and can affect his moods and overall mental state and thereby affecting his performance at work. Also, the physical design of the workplace comes under poor working condition. If an office is poorly designed, with personnel who require frequent contact spread throughout, it creates poor communication networks and develops in poor working relationships which can cause stress to employees, thereby affecting their performance.

- ii. Shift work

This is where workers have jobs which require them to work in shifts: that is day and night; some of which involves working staggered hours, which affects a worker's blood

temperature, metabolic rate, blood sugar levels, mental efficiency, and sleep patterns, resulting in hypertension, mild diabetes and peptic ulcers. These conditions or symptoms are normally seen in workers who work at night.

iii. Long hours

The long working hours required by many jobs appear to take a toll on employees' health and also making them suffer a high rate of stress. Most workers, especially in the mining industries which Moolmans is inclusive have a 12 hour shift. This means many individual workers as some medics who may have no sleep for thirty-six (36) hours or more may find that both their quality of work and they themselves suffer. Especially workers who normally go on night shift continually for six (6) days or more.

iv. Risk and danger

A job which involves more risk and danger such as blasting in the mining industry put employees in higher stress level. This is because when an employee is constantly aware of potential danger and he is prepared to react immediately, this results in rush, respiration changes and muscles tension which are all seen as potentially threatening on long-term health.

v. New technology

The introduction of new technology into the work environment has required workers to adapt continually to new equipment, systems, and ways of working. Thus leading to a great source of pressure at work on the worker. For instance, a boss trained in the latest methods or the use of a new machine or equipment may be extra burden for an employee trained in the old ways and this may increase his stress level. And the pressure the boss will also give

to the subordinate will increase his stress level, since he or she will be under pressure to learn the new technology to secure his job

vi. Work under-load

This occurs when work related demands are too low so that they do not sufficiently challenge the individual, e.g. monotonous work situation. It can also be describe as the problem of employees not being sufficiently challenged by their jobs. Job under-load is associated with repetitive routine, boring and under-stimulating work which causes a lot of stress for employees who find themselves in such situations. This means when employees are not given work which challenges their abilities and capabilities they suffer high level of stress. Work under load is the extreme opposite of burnout.

If it is left unchecked, apathy sets in and employee performance slows down. In worst case scenario's workers may even resort to minor acts of sabotage that can negatively affect others.

vii. Work overload

This is where the employee has too much work to do because of imposition of datelines which often causes stress in employees. This can lead to physical and emotional exhaustion that leads to symptoms such as headaches, stomach upsets and sleeping difficulties. These signs can be seen in people when they become flexible, irritable and when they deny having a problem.

### **2.5.2 Role in the organization**

When a person's role in an organization is clearly defined and understood, and expectations placed upon are clear, stress can be kept to a minimum. However, this is not the case in

many work sites. Arnold, et al (1993) continued to explain Role in the organization to include:

i. Role ambiguity

This arises when employees do not know what is expected of them at the workplace and how their work performances are evaluated or when people are unclear or uncertain about their expectations within a certain role. It arises when the definition of the person job is vague or ill defined. That is, employees do not know how and where they fit into the organization and they are not sure of any reward no matter how well they may perform. According to Johns (1996) there is substantial evidence that role ambiguity can provoke stress. Lack of direction can prove stressful, especially for people who are low in their tolerance for such ambiguity. These unclear roles may involve expectations for behaviour or performance level.

ii. Role conflict

This is among the roles corresponding to two or more statuses. Role conflict is experience when we find ourselves pulled in various directions as we try to respond to the many statuses we hold. This can either be for a short period of time or a long period of time, and this can also be connected to situational experiences. Employees experience a high rate of stress when two superiors are demanding conflicting things and in attending to one will mean they are disobeying the other superior. This makes employees confused and frustrated. For example, workers may often feel themselves torn between two groups of superiors who demand different types of behaviour and roles or who believe the job entails different functions.

Luthans (2002) differentiates three major types of role conflict. One type is the conflict between the person and the role. For example, a production worker who happened to be an executive of a union is appointed to head up a new production team. This new team leader may not really believe in keeping close control over the workers and it would go against this individual's personality to be hardnosed but that is what the head of production would expect. A second type of intra role conflict creates contradictory expectations about how a given role should be played. Finally, inter role conflict results from differing requirements of two or more roles that must be played at the same time. For example, work roles and non-work roles are often in such conflict.

Luthans (2002) is of the opinion that although all the roles that men and women bring into the organizations are relevant to their behaviour, in the study of organizational behaviour the organizational role is the most important. Roles such as digital equipment operator, clerk team leader, sales person engineer, systems analyst, departmental head, vice president and chairperson of the board often carry conflicting demands and expectations.

This author further stated that recent research evidence showed that such conflict could have a negative impact on performance and also be affected by cultural differences.

### iii. Responsibility

In an organization, there are basically two types of responsibility: Responsibility for people and responsibility for things such as budgets, equipment etc. Every company thrives in its human resource capacity and therefore responsibility for people causes a lot of stress on the superiors, bosses and colleagues themselves to be each ones keeper. Being responsible for people usually requires spending more time interacting with them, attending meetings and

attempting to meet their needs, resolving conflicts and disputes between them and making unpleasant interpersonal decisions. This when done efficiently reduce stress and increase work performance of employees.

### **2.5.3 Relationship at work**

Workplace relationships are unique interpersonal relationships with important implications for the individuals or employees in those relationships, and the organizations in which the relationship exist and develop. Dealing with bosses, peers and subordinates can dramatically affect the way an employee feels. A good relationship between workers and their bosses, colleagues and subordinates may have significant contribution in their work performance. People, high on the need for relationships, work best in stable work teams where they can get to know each other well. It might be stretching the measure too far to suggest that someone high on this factor would suffer stress if they were working with a large number of others in circumstances, which did not allow relationships to form, but it is probable that they will not work as well as they might.

On the contrary, when an employee experiences poor working relationship with superiors, colleagues and subordinates his stress level increases. This is because most employees spend so much time at the workplace; it is estimated that workers averagely spends about 50 hours a week in their workplace and this long hours results in the formation of workplace friendship and therefore poor working relationship can affect them adversely. It is more likely that they would avoid the problem of enforced intimacy by engaging in as few interactions as possible with others and by distancing themselves mentally, it is not

physically by various means. There are many people who do not like the idea that those relationships at work should be anything other than formal and strictly work related, even to the point of outside life not being discussed.

#### **2.5.4 Career development**

Organizations have become flatter, meaning that power and responsibility now radiates throughout the organization. The work force has become more diversified, Jobs and careers get scarcer. For the person who had been determined to rise through an organization, the challenge had recently become greater. Opportunities to learn new skills are now becoming requirements. Career development causes a lot of stress to employees through their working lives. Staying the same is quickly becoming an inadequate approach to work. Lack of job security, fear of redundancy, obsolescence and numerous performance appraisals can cause pressure and strain. In addition the frustration of having reached one's career ceiling, or having been over promoted can result in stress.

#### **2.5.5 Organization structure and climate**

When employees do not have sense of belonging in the organization, they lack adequate opportunities to participate. This mostly happens when an employee thinks his service or skills is no longer needed in the organization. These make them feel unimportant which could lead to strain and job-related stress.

However, Betts (1994) argued that the causes of work stress vary among individuals since they come from different backgrounds. That is to say, one form and level of stress may affect one person more than another. The two divisions are physical and psychological

causes. He went further to state that, the physical causes include physical workload and physical environment – temperature, humidity, vibration etc. The psychological causes include mental workload and mental environment.

On the other hand, Robbins (2004) identified the following as causes of stress at work:

i. Economic uncertainties

When the economy is contracting, people become increasingly anxious about their job security and this could lead to an increase on their stress level. E.g. When the price of Gold falls and company decides to cut down the size of its employees, this increases the stress level of employees and affects their performance.

ii. Technological uncertainties

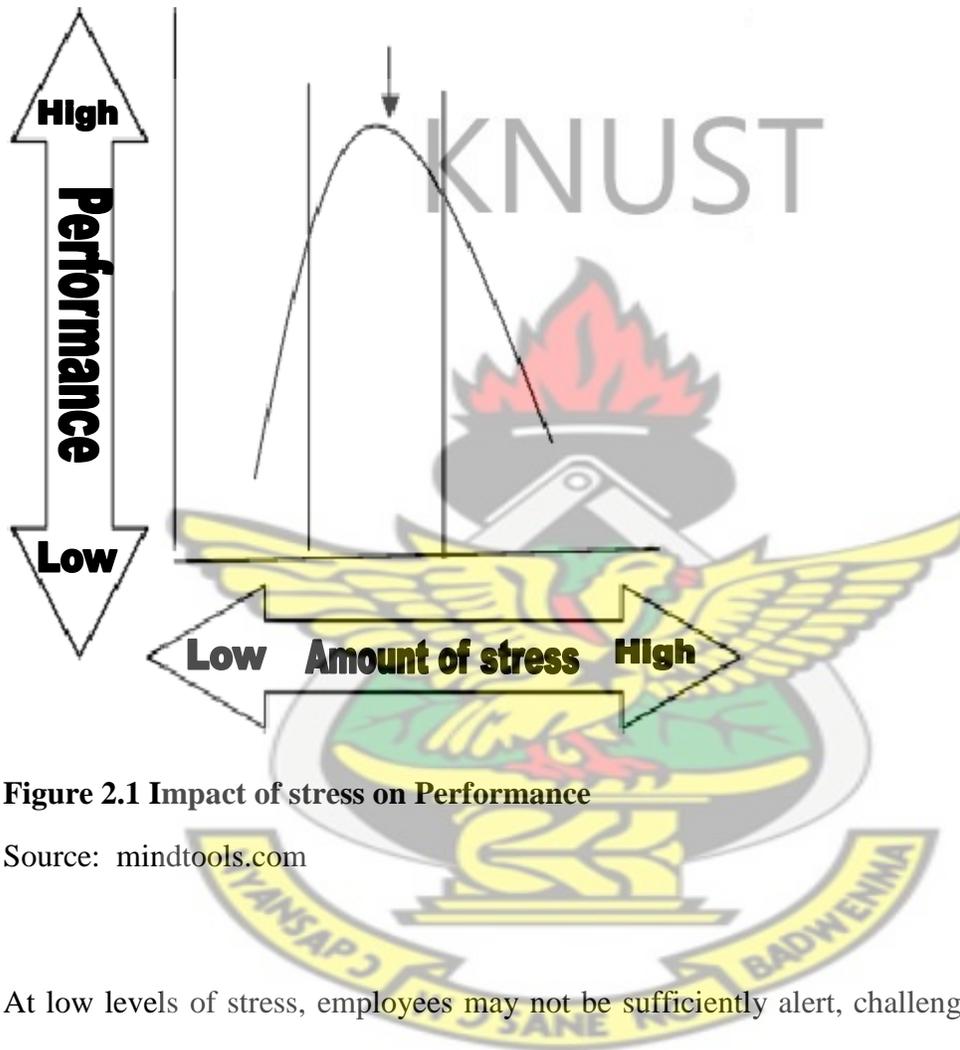
Innovations can make an employee's skills and experience obsolete in a very short time. Computers, robotics, automation and similar forms of technological innovation are a threat to many employees and therefore could cause stress. This will normally create boredom in employees, thereby creating tension and leads to stress.

iii. Organizational leadership

This represents the managerial style of the organizations senior executives. Many senior executives create a culture characterized by tension, fear and anxiety. They establish unrealistic pressures to perform in the short run impose excessively tight controls and routinely dismiss employees who do not measure up to standard. Also the bureaucratic and autocratic style of leadership exhibited by most organizational executives increases stress in employees.

## 2.6 Impact of stress on Performance

The positive and negative effects of stress are apparent in the relationship between stress and performance. And this depicted in the figure below (fig. 2.1) the general stress - performance relationship in the shape of an arc.



**Figure 2.1 Impact of stress on Performance**

Source: mindtools.com

At low levels of stress, employees may not be sufficiently alert, challenged or involved to perform at their best in a given task. As the curve indicates, increasing a low amount of stress may improve performance but only up to a certain point. At optimal or most favourable level of stress probably exists for most tasks, but performance begins to deteriorate beyond that level. Defrank et. al (1998) asserts that at excessive levels of stress, employees are too agitated, aroused, or threatened to perform well.

Robins, (2007), stated that the most widely studied pattern in the stress performance relationship is the inverse relationship (fig.2.1) this is typical relationship between performance and stress. It is well established fact that employee's job satisfaction and job stress are related to one another (Kahn et al. 1964). The impact of stress on satisfaction is far more straightforward. Shakil Ahmad (2001), also asserted that when stress is channelled in a positive way, however, it creates interest, motivation, a common goal or group values, an eagerness to learn and progress, and the want to deliver their best individual and combined efforts. By arranging staff stress management programmes (which can be in varying degrees), operating an open door policy, and encouraging employee forums and 360 degree communication on all levels, negative stress in the workplace will be lessened.

## **2.7 Performance Measurement**

This is a management system that provides a balanced/systematic attempt to assess the effectiveness of an organization's operations from multiple points of view: financial; business performance; the client and the employee. It is used to provide the feedback at all levels - strategic, tactical or operational - on how well strategies and initiatives are being carried out. This performance information provides the essential feedback to improve decision making within the organization by enabling proactive problem solving and by institutionalizing continuous improvement (Zhu et al 2004).

In measuring the performance of the impacts of stress in employees a number of factors were considered; namely finances, quality of service, client satisfaction and employee satisfaction. Marginal financial profit or loss is an indicator of a company's growth or

decline in its productivity. The negative effects of stress leads to a low performance by employees, hence leads to low productivity. Stress which has resultant effects of low concentration on employees results in accident thereby causing injury and damage to company's properties. The damage equipment are thereby replace at a higher cost and also leads to high cost of medical bills and workmen compensation.

Client satisfaction is a major concern to every company or organization. Every company seeks to establish and maintain productive partnerships with clients by gaining their trust and respect. Also companies always strive to meet timeline for delivery of products or services to clients as well as safety of its human resources. In a situation whereby employees performance decline as a result of stress also impacts on productivity and thereby unable to attain the targets set by the clients. Moolmans as a contracts surface miner has lost it. This is seen in the numerous accidents and incident that occurs in our companies or organizations. Moolmans annual report on safety for 2013 as indicated showed that most of the accidents that occurred on its site were as a result of employees stress. This culminated into Moolmans loosing most of their sites in West Africa with Moolman Mining Ghana inclusive. Quality of service which is the benchmark of every company could be compromise when a series of incidents occurs and this affect the on time delivery of products. Quality of service always goes with employee's safety and health. Employers and management always look forward in achieving incident free production. When production are bedeviled with safety problems the quality of the products are compromised.

## **2.8 The effect of stress on employees' performance**

Many employees assert that one of the most common problems in the workplace today is stress. Stress causes loss of productivity, loss of efficiency, increased employee absenteeism, and many other problems. Stress comes from several aspects of an employee's life: the workplace, social factors, and personal factors. It is always stressful for an individual when the person starts a new job, if the person felt inexperienced, unable to cope with workload, uncomfortable around their bosses or colleagues and unstimulated by their work. On the other hand, a person entering an area of work where they felt competent, supported by their colleagues and stimulated, would be more likely to experience the change as challenging than stressful.

Performance consists of the observable behaviours that people do in their jobs that are relevant to the goals of the organization (Campbell, et. al 1990). Performance is of interest to organizations because of the importance of high productivity in the workplace (Hunter and Hunter, 1984). Performance definitions should focus on behaviours rather than outcomes (Murphy, 1989), because a focus on outcomes could lead employees to find the easiest way to achieve the desired results, which is likely to be detrimental to the organization because other important behaviours will not be performed.

Mathis and Jackson (2000) suggested that; to measure organizational human resource performance one has to consider unit labour cost, or the total labour cost per unit of output.

The authors further stated that an individual performance depends on three factors which are; ability to do the work, level of effort and support given to that person. The relationship

of these factors, widely acknowledged in management literature, is that Performance (P) is the result of Ability (A) times Effort (E) times Support (S), that is:  $(P = A \times E \times S)$ . Performance is diminished if any of these factors are reduced or absent. They further emphasize that quality of production must also be considered as part of performance because one alternative might be to produce more but a lower quality.

Simply put by Chase and Aquilano (1995), performance is measured in terms of outputs per labour hour. However this measurement does not ensure that the firm will make money (for example when extra output is not sold but accumulates as inventory). To test whether performance has increased, the following questions should be asked: 'has the action taken increased output or has it decreased inventory?' 'Has the action taken decreased operational expense?' This would then lead to a new definition which is: Performance is the accomplishment of a given task measured against present known standard of accuracy, completeness, cost and speed. All these actions bring a company closer to its goals. Thompson and Mc Hugh (1995) are of the opinion that when specifically regarding stress in the workplace, contemporary accounts of the stress 'process' often follow the notion of stress as resulting from a misfit between an individual and their particular environment, where internal or external factors push the individuals adaptive capacities beyond his or her limit.

However, no two people react to the same job in the very same way, because personal factors also influence stress. For example, "type A" personalities; people who are workaholics and who feel driven to be always on time and meet deadlines, normally place

themselves under greater stress than others do (Dessler 2000). This is further reiterated by Bowin and Harvey (2001) who emphasized that people cannot completely separate their work and personal lives; the way people react and handle stress at work is a complex issue. According to Blumenthal (2003), an inverted U-type curve has been used to depict the effect stress has on performance. It can be shown that, as stress increases, so does the performance. However if stress continues to increase beyond an optimal point, performance will peak and start to decline. This shows that stress is necessary to enhance performance but once it reaches a level of acute discomfort, it is harmful and counterproductive.

Blumenthal (2003) went on to argue that excess stress is harmful, destructive and detrimental to human well-being and performance. Stress can have an impact on an individual's well-being by causing dysfunction or disruption in multiple areas. This dysfunction extends into the organizational world and leads to decreased performance and productivity. According to Garrison and Bly (1997), corporations have become acutely aware of the problems caused by stress. The illnesses associated with stress are costly, and they can hamper a valuable worker. When stress is not handled well, absenteeism, turnover, and medical compensation increase and productivity decreases. They further stated that the workplace is special only because so much of our time is spent at work. To achieve a peak of performance, stress should be managed effectively, with the negative effects of stress minimized. Garrison and Bly (1997) viewed more prominent cases of stress in the workplace being the following:

### 2.8.1 Overload

Overload has two forms; an excessive amount of work and work for which an individual is ill prepared. One way of interpreting the challenge of increasing productivity is to understand that it means each individual will accomplish more than before. On an assembly line, the goal of increased productivity means that the total time to complete a product is reduced and overload is experienced in the form of the endless flow of work. French and Caplan in Anderson and Kyprianou (1994) differentiated between quantitative (too much) and qualitative (too difficult) overload. They suggested that both qualitative and quantitative overload may produce at least nine different symptoms of psychological and physical strain such as:

- i. Job dissatisfaction;
- ii. Job tension;
- iii. Lower self-esteem;
- iv. Feelings of being under threat;
- v. Embarrassment;
- vi. High cholesterol levels;
- vii. Increased heart rate;
- viii. Skin complaints; and
- ix. More smoking.

### 2.8.2 Time pressure

Garrison and Bly (1997) suggested that, the productivity demand comes with the time pressure of getting the product completed or the service delivered in an ever-shorter time

frame. These authors also stated that customers demand speed and quality and competitive organizations must deliver on both. As employees become more involved, they too will recognize the priority that time has in the workplace. According to Thompson and Mc Hugh (1990), costs are examined socially in terms of rates of heart disease, mental disorder and social dysfunction and in workplace through effects on job satisfaction, performance and absenteeism rates, and more recently in the costs of compensation claims and health insurance. These authors are also of the opinion that sources of stressors and the forms of pathological end-state to be encountered, account for much of the modern stress literature. This tends to emphasize the amount of productivity lost as a result of poor performance of employees due to stress, its inevitability and the benefits for the enterprise of managing stress. In conclusion, Frost (2003) believed that when employers recognize emotional pain on their employees when it occurs and act to intervene, potentially lethal situations in the workplace could be reversed and employees' performance at the work place will be greatly enhanced.

## **2.9 Symptoms and effects of stress on employees' performance**

Modern life is full of hassles, deadlines, frustrations and demands and this causes stress and hence affects job performance. Blackwell (1998) stated that stress shows itself in a number of ways. For instance an individual who is experiencing a high level of stress may develop high blood pressure, ulcers and the like. These can be grouped under three general categories; Psychological, Behavioural and Physiological symptoms.

### **2.9.1 Psychological symptoms and effects**

These are the major consequences of stress .It is mostly difficult to identify unless the affected individuals tells us what they are experiencing; the mental health of employees is threatened by high levels of stress and poor mental health. Unlike the Physical symptoms, Psychological symptoms such as anger, anxiety, insecurity, depression, tension, nervousness, irritability, aggressiveness, meaninglessness, powerlessness, disengagement, isolation and boredom results in low employee performance, declines in self-esteem, resentment of supervision, inability to concentrate, trouble in making decision and job dissatisfaction could also cause employees work performance to deteriorate. Also these psychological symptoms of stress can lead to burnout. Job burnout is a prolonged withdrawal from work which makes the sufferer devalue his work and sees it as a source of dissatisfaction.

### **2.9.2 Behavioural symptoms and effects**

The behavioural signs of stress include eating more or less, cigarette smoking, use of alcohol and drugs, rapid speech pattern, nervous fidgeting which leads to absenteeism from work, lack of punctuality withdrawal, exhaustion, addictive, unhealthy eating habits, risk- taking behaviour, accidents, suicidal-talk or behaviour, hopping from job to job and causes performance to deteriorate. It is therefore essential for employees to familiarize themselves with the symptoms of behavioural stress so that they will be able to identify what they are going through so that a suitable help may be found.

### **2.9.3 Physiological symptoms and effects**

These are changes in the metabolism that accompany stressors. The symptoms include increased heart rate, blood pressure etc. With this, the wear and tear on the body becomes noticeable and problematic. The effects of this are back pains, sex drive, hypersomnia, muscle tightening, tight stomach, nausea, migraine headaches, insomnia, heart disease, hypertension, diabetes and even cancer which affect employees' performance.

KNUST

### **2.10 Managing stress**

According to Robbins (2004), stress can be managed in two approaches; the individual and organizational approaches. He said the individual approach include exercise. That is the employees can manage stress by walking, riding bicycles, attending aerobic classes, practicing yoga, jogging, swimming, playing tennis and swatting squash balls. Most runners and fitness addicts admit that, it is very hard to focus on job stress when one is trying to complete vigorous workout. Again, he said individuals can manage stress through relaxation. This is because, when employees relax the response for stress will be reserved in the human mind-body system. Individuals can reduce tension through relaxation techniques such as meditation, hypnosis and biofeedback. The objective is to reach a state of deep relaxation in which the employee feels physically relaxed, somewhat detached from the immediate environment and detached from body sensations. Relaxation exercises reduce employee's heart rates, blood pressure and other physiological indicators of stress. Another way to reduce stress individually is opening up. A healthy response to this moments or periods of personal crisis is to confide in others. Employees may not find it easy to discuss difficult personal traumas with others, but self-disclosure can reduce the level of stress and

give them more positive outlook on life. Also honest entries on a regular basis in a diary may accomplish the same thing. He also went further to explain the organization approach to stress management which include training programmes for employees, ensuring effective upward and downward communication in the organization, improvement in personnel policies such as (good welfare packages, incentives, pension schemes), good job design, improvement in the physical work environment, and also management should provide technical support to employees. In the same view, Lucey (1994) said stress can be managed in an organization through increasing employees autonomy in their job, increase or decrease personal responsibility, allow more flexible working hours – by the used of flexi – time, job rotation and transfers, provide better working conditions, including social/fitness clubs etc, and institute a counselling service.

Also Claude and Cole (1992) suggested that in order to manage work stress effectively, management should consider doing the following:

- i. Provide work which allows some personal choice in the way it is carried out and the sequence in which it is carried out.
- ii. Encourage employees' participation in decisions which affect them.
- iii. Set clear goals and targets and provide adequate feedback on employees' performance.
- iv. Induct new recruits thoroughly and let them know the in- depth knowledge of the work they will be doing.
- v. Provide training as an on-going updating process.

- vi. Provide consistent rewards for effective output and good job performance as an extrinsic motivation.
- vii. Review performance gaps at the time of occurrence.
- viii. Provide opportunities for employees to try new duties and different tasks.
- ix. Design job to have even work pressures.
- x. Encourage group working procedures and friendly work relations.
- xi. Provide secure and fair personnel practices.
- xii. Ensure work environment is free of hazards.

This implies that if these approaches and measures outlined above are carefully implemented it could go a long way to minimize the level of stress on employees. From the beginning to the end of this chapter, we found the existence of work stress, it causes and effects. The evidence indicates that stress can have either a positive or a negative influence on employees output. For many people, low to moderate amount of stress enable them to perform their jobs better by increasing the work intensity, alertness and ability to react. However, a high level of stress, or even a moderate amount sustained over a long period, eventually takes its toll on employees and pressure tends to decrease general performance and job satisfaction.

### **2.11 Theoretical framework**

Theories are constructed in order to explain, predict and master phenomena. Chinn and Kramer (1999:258) define a theory as an “expression of knowledge...a creative and rigorous structuring of ideas that project a tentative, purposeful, and systematic view of phenomena”. In other words what Chinn and Kramer(1999), mean is that, a theory makes generalizations about observations and consists of an interrelated, coherent set of ideas and

models. The theoretical framework of the study is a structure that can hold or support a theory of a research work. It presents the theory which explains why the problem under study exists. Thus, the theoretical framework is but a theory that serves as a basis for conducting research. It also directs and positions the study. This study will be positioned within the social cognitive learning theory.

### **2.11.1 Social cognitive learning theory**

According to the social learning theory, all behaviour except for a few reflexes, is acquired through learning. Social learning theorists acknowledge three forms of learning, namely learning through direct experience (which includes conditioning), observational learning and learning through self-regulation (Luthans and Stadjkovic, 1998). Luthans and Stadjkovic (1998) define learning in social cognitive learning theory, as knowledge acquisition through the cognitive processing of information.

### **2.12 Summary**

From the review it could be seen that majority of authors in the review of literature reflected stress as posing threat to employees performance and there by bringing cost to various companies and organizations immensely. However some also acknowledge that some of the employees perform very well when they are under pressure and that individuals react uniquely to similar stressors.

## CHAPTER THREE

### METHODOLOGY AND ORGANIZATIONAL PROFILE

#### 3.0 Introduction

This chapter elaborates the research design that was used for the study or research; the various procedures and processes that was employed to collect and analyse the data. That is, the instruments used for the study and the method of analysis of the data obtained.

#### 3.1 Research Design

The researcher employed a descriptive study and used quantitative data analysis in assessing the impact of stress on employee's performance in Moolman Mining Ghana Limited, Iduapriem – Tarkwa. According to Babbie (2007:405) quantitative data analysis is the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect. It is also defined as a type of educational research in which the researcher decides what to study, asks specific, narrow questions, collect quantifiable data from participants, analyses these numbers using statistics and conducts the inquiry in an unbiased, objective manner (Edmond and Kennedy, 2010).

According to Pilot and Hurgler (1995), descriptive survey on the other hand aims predominantly at observing, describing and documenting aspects of a situation as it naturally occurs rather than explaining them. Such design can produce good amount of responses from a wide range of people. This can also provide a more accurate picture of events at a point in time.

Fraenkel and Wallen (1993) also asserts that one advantage of the descriptive survey design is that it has the potential to provide us with a lot of information obtained from quite a large sample of individuals. Creswell (2003) is however of the view that a descriptive study is more than just a collection of data. It involves measurement, classification, analysis, comparison and interpretation of data. Again he asserted that a descriptive study identifies and defines the problem, selects tools for collecting data, describes, analyzes and interprets the data.

The researcher combined qualitative and descriptive research in analysing the data to assess the impact of stress on employees' performance, and assess the various procedures available for employees or employers to adapt in managing stress in their work places since both research methods exhibits the same characteristics. This research also adopts a case study approach. According to Yin (2003) a case study is one of five different research strategies (the survey, experiment, the archival analysis, the history, case study) that a researcher can adopt when conducting a study. For this thesis, exploratory laced with explanatory single-case study has been employed. The primary reason for choosing this research strategy is because the researcher is sure that this chosen case could provide enough opportunity to investigate, explore, analyze and explain research questions of the study concerning the impact of stress on the performance of employees at Moolman Mining Ghana Limited.

### **3.2 Population of the study**

Agyedu, et al (1999), states that population of a study refers to a complete set of individuals (subjects), objects or events having common observable characteristics in which a researcher

is interested. They further stressed that population constitute the target of a study and therefore must be clearly defined and identified. The target population for this research was all employees of Moolmans with a sample of 100 employees from all the four (4) departments of Moolmans i.e. Administration, Drill and Blast, Production and Plant.

### **3.3 Sample and sampling technique**

Probability and non-probability sampling technique was used to select a portion of the population to represent the entire population. Sarantakos (2005), emphasized the need for a researcher to select a sample from a population which he/she wishes to seek information, using appropriate sampling techniques. These techniques were selected for the study based the fact that some of the employees might have relevant previous knowledge on stress. The two main methods that the researcher used in selecting the sample from the population were purposive and simple random sampling techniques.

Purposive non-random sampling technique was used to select 15 respondents from the four various departments of Moolmans. Those respondents were employees in managerial level, front level supervisors, superintendents and other supervisors in the various units of each department. These people were selected because of the training they have had on stress and other fatigue management courses and therefore had requisite information about the issues involved in the research. Simple random sampling technique was also employed in selecting 85 employees out of the operational level population from the various departments of Moolman Mining using a set of five yellow balls and a white ball. Employees who drew the white ball were given a questionnaire to fill. In all, a total of one hundred (100) respondents

were selected from these departments to ensure equity and balance in the choice of the respondents. A total of Twenty-five (25) employees (respondents) were selected from each of the departmental units.

### **3.4 Sources of data**

The data used were from both primary and secondary sources and were obtained by using varied techniques.

#### **3.4.1 Primary Data**

Primary source of data were obtained through questionnaire and a couple of interviews. The questionnaire contained various interrogative techniques that were used to elicit primary data from interviewees.

The questionnaire was prepared to measure the employees' general knowledge on stress and its impacts on their various job performances. The questionnaire also sought to solicit their views on how they handled stress in their own orthodox conventions. The questionnaires were administered to the employees during their "chop break" (lunch time).

Those who could fill the questionnaire by themselves were given the questionnaire to fill and those who were not able to fill were assisted through discussions and explanations. Questions that were used in the research were closed-ended questions only due to the limited time respondents had to complete the questionnaire i.e. within their thirty (30) minutes "chop time". The closed ended questions were intended to restrict respondents' answers; this provided an objective based for comparative analysis and to make the analysis easier. The questions were in two parts – Sections "A" and section "B" and were provided with

alternatives and clear instructions to respondents. Section “A” dealt with personal data or independent questions about the socio-economic characteristic of the respondents which included Age, Marital status and Educational level while the section “B” dealt with questions for the study. To compliment the questionnaire, some employees were interviewed to find out whether they were experiencing stress and whether it had any negative effects on their performance. This helped the researcher to seek verification on some of the answers provided in the questionnaire. Majority of the respondents were males with only twenty (20) female respondents including the company’s catering staff since the company has a male dominated employee.

### **3.4.2 Secondary Data**

Secondary data are information or data already collected by other researchers or institutions, usually for different purposes (Blumberg et al., 2008). This data enables the researcher to place the research in the context of existing knowledge as well as broadens the researcher’s understanding to the research topic (Blumberg et al., 2008). Secondary data sources were information obtained from Sam Jonah Clinic – Iduapriem Tarkwa, Moolmans Safety, Health and Environment department, newspapers and manuals on stress and fatigue management on the subject matter. The internet as well as other relevant publications was also consulted. And all these gave the researcher information about the impact of stress on employees’ performance in general and in Moolman Mining Ghana Limited, Iduapriem -Tarkwa.

### **3.5 Data collection technique**

The technique used in gathering the data was based on questionnaire and discussions and explanations to those who were not able to fill the questionnaire on their own. The

researcher is the Human Resource Manager of Moolman Mining Ghana Limited and therefore sought permission from Management and the company's head office in South Africa to use the company as a case study for the research. The researcher then engaged the services of five other employees in administering the questionnaires after taking them through the questionnaire thoroughly. The questionnaires were administered on departmental bases during their afternoon "chop time". The questionnaires were administered to all respondents in a total of two weeks, due to the day and night shift system of the company. Respondents were briefed on the importance of the study and were therefore entreated to give candid and honest responses to every item on the questionnaires. The one-on-one interview provided the platform for the researcher to clarify any possible ambiguity and also created the opportunity to interact with the respondents. After this process, the data obtained was analyzed using the proposed data analysis methods i.e. Microsoft Excel and the findings and recommendations were made by the researcher.

### **3.6 Data Analysis**

The data obtained was then coded and entered in Microsoft Excel. The research is quantitative in nature and therefore the findings were presented in simple descriptive statistics involving some tables, pie charts and bar charts. These statistics present a simple way of showing the relationship of the measured quantities of interest of the questionnaire.

### **3.7 Organisational profile**

This research was carried out at Moolman Mining Ghana Limited – Iduapriem Site, Tarkwa a subsidiary of the AVENG Group of South Africa. Moolmans is one of the largest opencast mining contractors in Africa, moving over fifteen million tonnes of material each month.

Moolman Mining Ghana Limited was registered in November 2008 following the award of a contract by AngloGold Ashanti Iduapriem Limited at their Iduapriem Mine for an initial period of five years. The mine is situated approximately 300 km North West of Accra close to the town of Tarkwa. Mining commenced in Ghana on 1<sup>st</sup> of January 2009 and operates 365 days per annum. The scope of works includes drilling, blasting, loading and hauling of waste and ore, as well as ancillary works. The challenges faced on the project are having to deal with extremely hard rock in some areas and massive underground cavities in the softer areas created by the local artisanal miners (“Galamsey Operators”) who were operational in the area prior to AngloGoldAshanti. The company has a total workforce of 563, made up of: Expatriate staff (18), Senior and Managerial staff (67), Junior staff (350) and Contractors (129). The company has a well-structured four departments which includes Administration, Load and Haul, Drill and Blast and the Plant departments. With the exception of the administrative departments which works on a straight six days morning the rest of the departments runs the shift system, which is three days day; three days night and three days off, which is popularly called 6:3 shift system. The operational working hours requirement of every employee is 12 hours i.e. 7am – 7pm and employees are made to stay for additional hours when the need be.

## CHAPTER FOUR

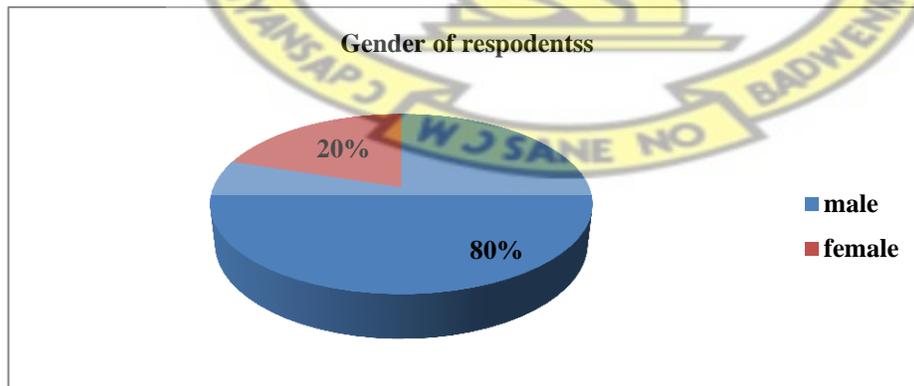
### DATA PRESENTATION ANALYSIS AND DISCUSSION OF FINDINGS

#### 4.0 Introduction

The process of data analysis involves making sense out of text and image data. This requires preparation of the data for analysis, moving deeper and deeper into understanding the data and making an interpretation of the larger meaning of the data (Creswell, 2003). This chapter offers a presentation of the information gathered from the field. It contains descriptive information of the biographic data of respondents, identification of types, causes and the impact of stress on performance of employees of Moolman Mining Ghana Limited. The findings were presented in figures and graph with discussion. Of the one hundred (100) respondents selected for the study, all 100 employees successfully completed the questionnaires, given a response rate of 100%.

#### 4.1: Biographic data of Respondents

##### 4.1.1 Gender of respondents

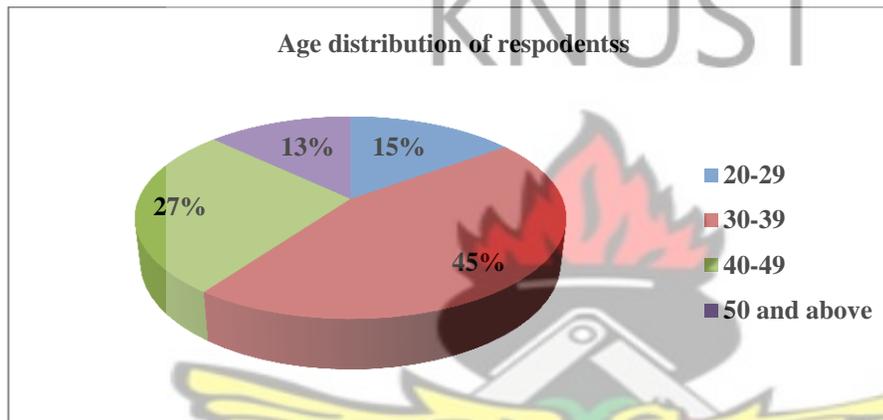


**Fig 4.0: Gender of respondents**

Source; Field work. (2014)

From figure 4.0 above; it can be seen that out of the one hundred (100) respondents selected for this research, 80% were males and 20% were females. This goes a long way to suggest that the mining fields in Ghana of which Moolman mining Ghana is of no exception have a male dominance over females.

#### 4.1.2 Age distribution of respondents

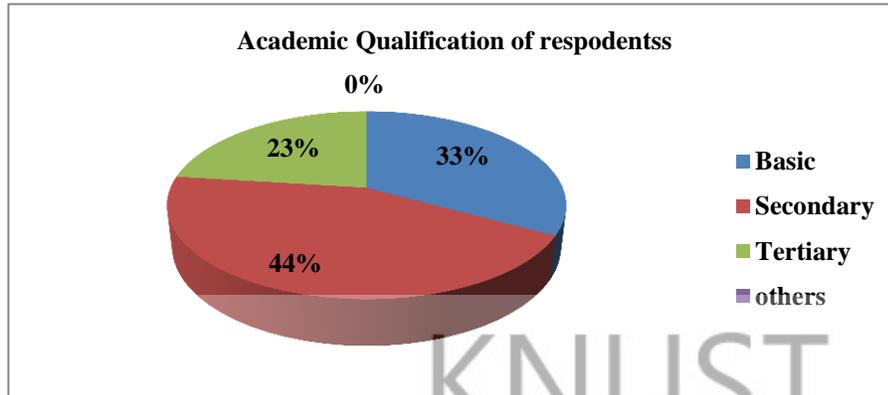


**Fig 4.1: Age distribution of respondents**

Source; Field work. (2014)

Figure 4.1 above indicates that 45% of the respondents were between the ages of (30 to 39) years, while 27% of the respondents were between the ages of (40 to 49) years, followed by 15% of the respondents between the ages of (20 to 29) and 13% were 50 years and above. This depicts that majority of the staff of Moolman mining are in the active employment zone (87%) with those within the retiring age forming the minority (13%).

### 4.1.3 Academic qualification of respondents

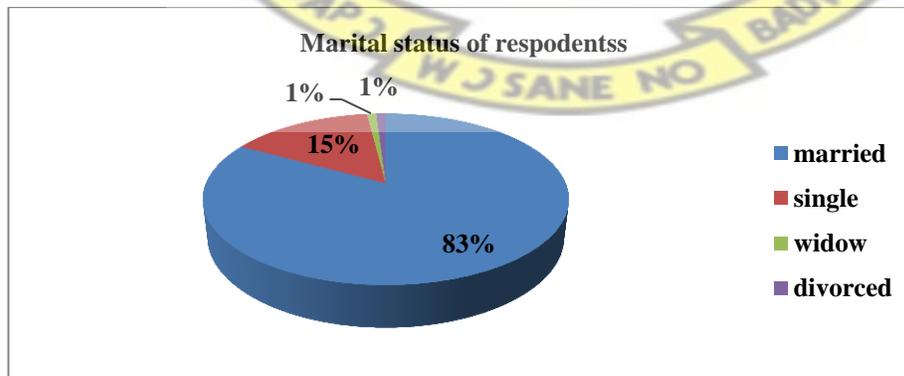


**Fig 4.2: Academic qualification of respondents**

Source; Field work. (2014)

Of the one hundred (100) respondents that were selected by the researcher for this research; figure 4.2 shows that 44% of the respondents were senior secondary school certificate holders, 33% were basic education certificate holders followed by 23% were of a tertiary background. None of the respondents had a certificate different from the categories stated above.

### 4.1.4 Marital status of respondents



**Fig 4.3: Marital status of respondents**

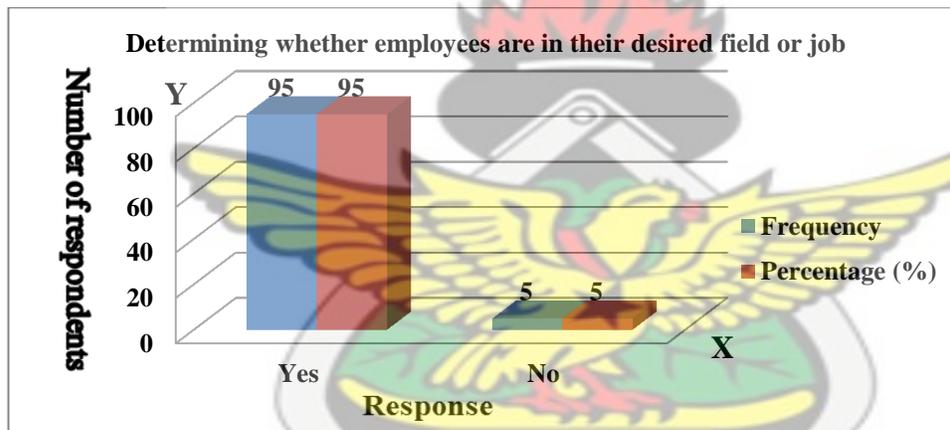
Source; Field work. (2014)

Figure 4.3 above depicts that 83% of the respondents are married, 15% of the respondents are single with 1% representing respondents who are divorced and widowed respectively.

This depicts that majority of the staff of Moolman mining are married (83%) with single (15%) showing how much employees can respond to stress.

## 4.2 Identifying the various types of stress employees go through at MoolmanMining Ghana Limited

### 4.2.1 Determining whether employees are in their desired field or job

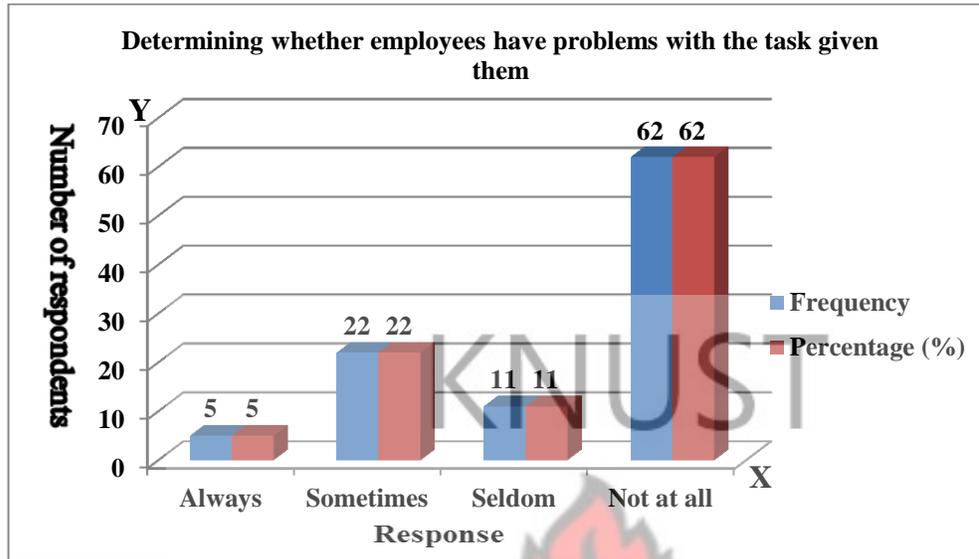


**Fig 4.4: Determining whether employees are in their desired field or job**

Source; Field work. (2014)

The above graph shows that majority of the respondents (95%) are in their desired field of job with just (5%) depicting the minority caught in a despise field or job. According to Taylor (1995), chronic stress can be caused by people caught up in a despised field, job or career. From the data minority of the respondents might suffering from chronic stress with the majority suffering from the other types of stresses.

#### 4.2.2 Determining whether employees have problems with the task given them.



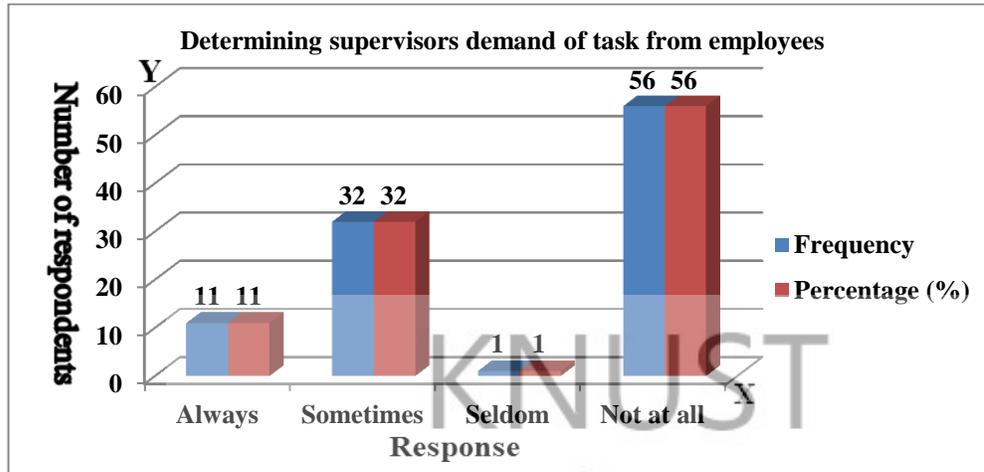
**Fig 4.5: Determining whether employees have problems with the task given them**

Source; Field work. (2014)

From the figure 62% respondents were satisfied with the task given them to perform, with 33% of the respondents sometimes and seldomly having problems with the task given them. However 5% of the respondents always had a problem with the kind of task given them.

Taylor (1995), describes another cause of chronic stress as unrelenting demands and pressures for seemingly interminable periods of time. There could be a correlation between the response above on figure 4.4 and 4.5 that 5% of the respondents are suffering from chronic stress.

### 4.2.3 Determining supervisors demand of task from employees



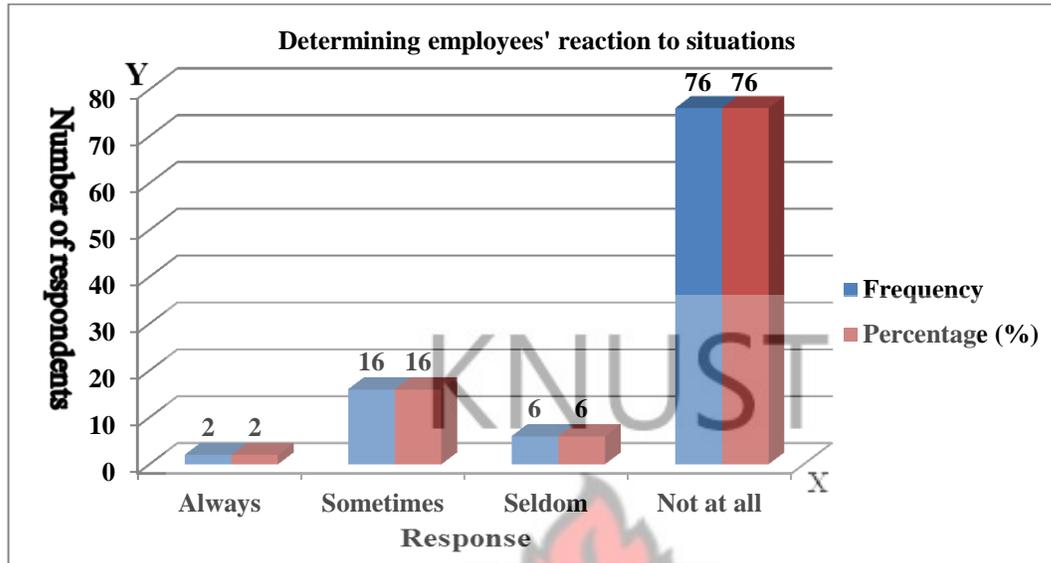
**Fig 4.6:** *Determining supervisors demand of task from employees*

Source; Field work. (2014)

Of the one hundred (100) respondents, figure 4.6 shows 56% of the respondents accepting that the task demanded by their supervisor is normal to them, 32% and 1% of the respondents asserted to the fact that their supervisors demanded more task from them sometimes and seldomly respectively. However, 5% claimed that their supervisors always demanded more tasks from them always.

Taylor (1995), asserted that acute stress comes from demands and pressures of the recent past and anticipated demands and pressures of the near future. From the data quite a number of the respondents might suffer from acute stress with the majority suffering from the other types of stresses.

#### 4.2.4 Determining employees' reaction to situations



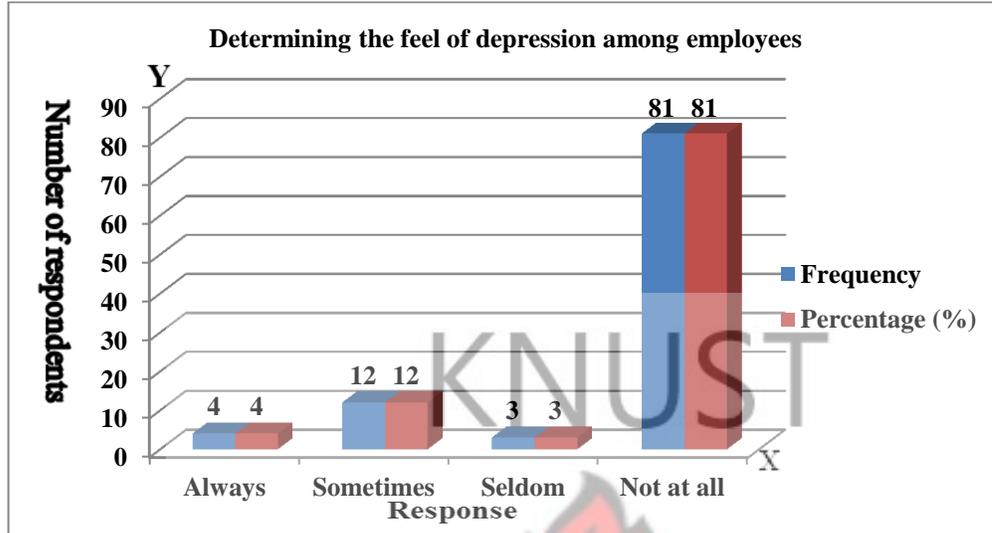
**Fig 4.7: Determining employees' reaction to situations**

Source; Field work. (2014)

From figure 4.7, it is evident that 76% of the respondents asserted that they did not panic to least situations while 22% were in doubt of panicking at least situations with the minority of 2% confirming to the symptom of traumatic stress.

According to Taylor (1995), trauma victims have initial shock and emotional fallout, many gradually begin to recover. But for some people, the psychological and physical symptoms triggered by the trauma do not go away, the body does not return to equilibrium, and life does not return to normal. This condition is known as post trauma stress disorder.

#### 4.2.5 Determining the feel of depression among employees



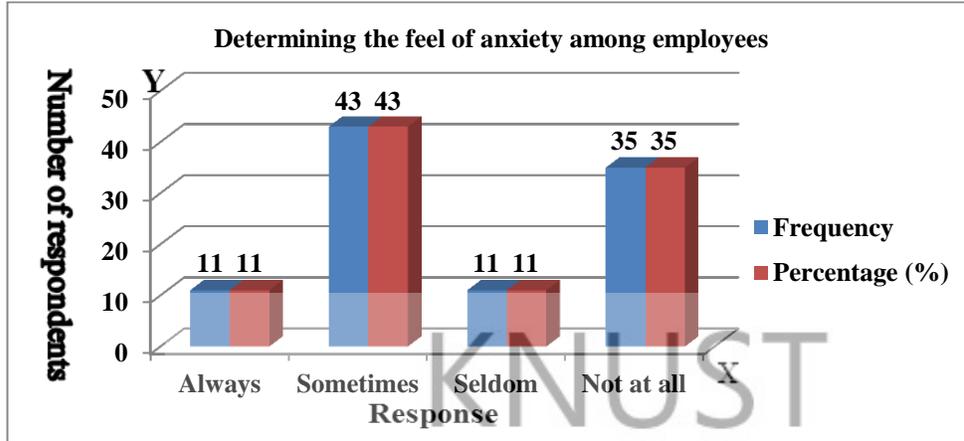
**Fig 4.8: Determining the feel of depression among employees**

Source; Field work. (2014)

From figure 4.8, 81% of the respondents reported that they do not feel depressed at the work place whiles 15% were not sure of themselves about feeling depressed with the minority of 4% confirming their depression agreeing to the fact that the employees were going through acute stress.

Taylor (1995), asserted that the most common symptom of acute stress are Emotional distress — some combination of anger or irritability, anxiety and depression, the three stress emotions.

#### 4.2.6 Determining the feel of anxiety among employees

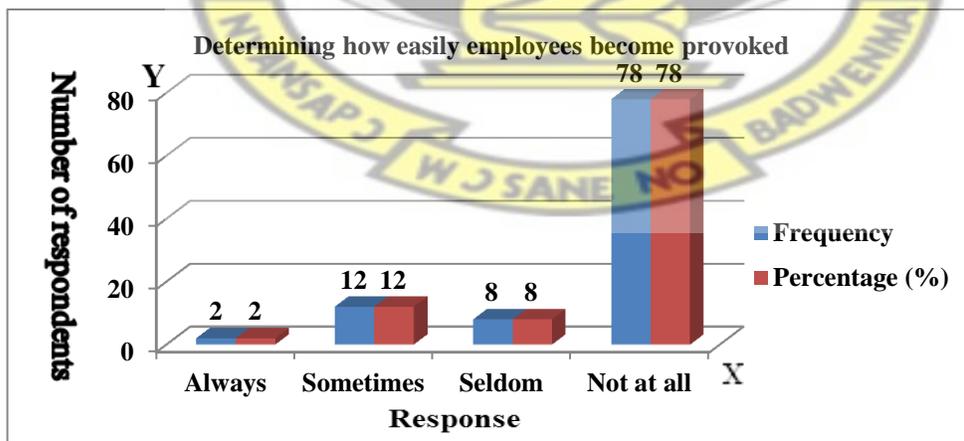


**Fig 4.9: Determining the feel of anxiety among employees**

Source; Field work. (2014)

Figure 4.9 reflects that 54% of the respondents were in doubts of the feel of anxiety while 35% felt no anxiety with 11% confirming the symptom of acute stress at the work place. There could be a correlation between figure 4.8 and 4.9.

#### 4.2.7 Determining how easily employees become provoked

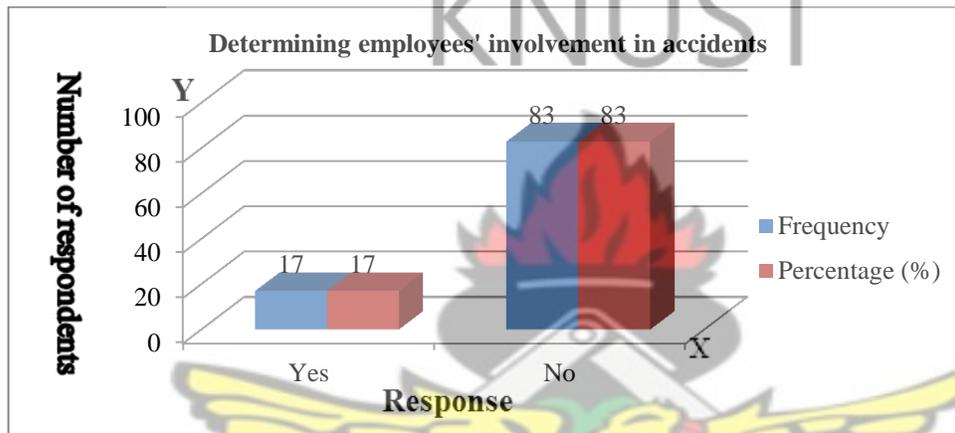


**Fig 4.10: Determining how easily employees become provoked**

Source; Field work. (2014)

From the figure above, out of the one hundred respondents 78% disputed provocation at the work place while 20% were doubtful of being provoked with only 2% confirming one of the acute stress emotions which is provocation. Figure 4.8, 4.9 and 4.10 has a correlation between them.

#### 4.2.8 Determining employees' involvement in accidents



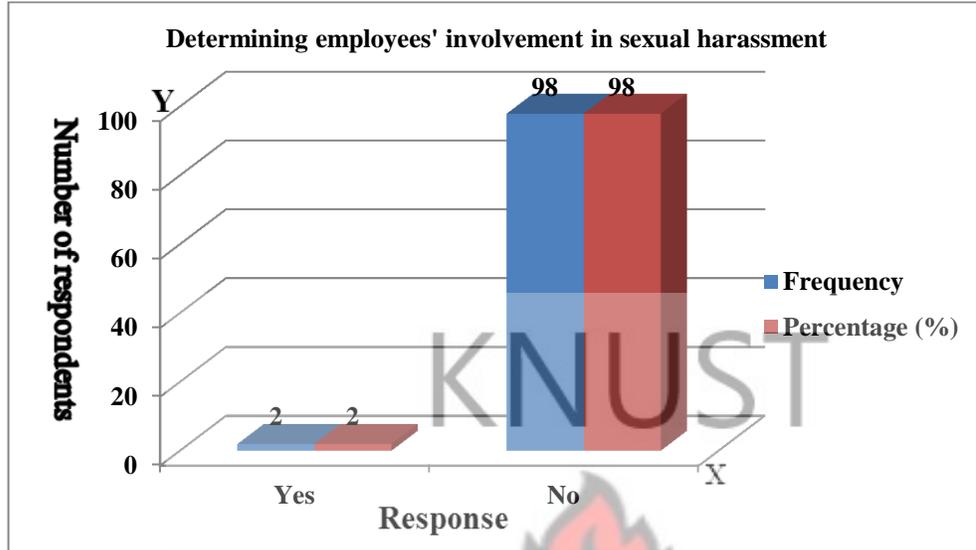
**Fig 4.11: Determining employees' involvement in accidents**

Source; Field work. (2014)

Taylor (1995), in classifying the types of stresses stated that traumatic stress is a severe stress reaction that results from a catastrophic event or intense experience such as a natural disaster, sexual assault, life-threatening accident, or participation in a combat.

From figure 4.11, 83% of the respondents refuted being involve in an accident whiles a minority of 17% reported being involved in an accident confirming showing a possibility of traumatic stress.

#### 4.2.9 Determining employees' involvement in sexual harassment



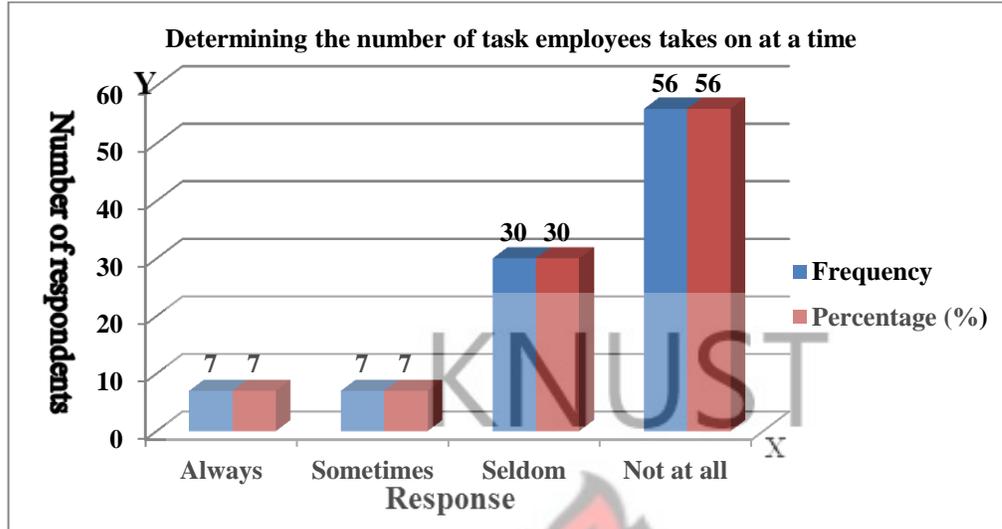
**Fig 4.12: Determining employees' involvement in sexual harassment**

Source; Field work. (2014)

According to figure 4.12 only 2% of the respondents admitted being sexually harassed at the work place while majority of 98% responded in the negation of being sexually harassed.

Taylor (1995), again classified sexual assault as a cause of traumatic stress, therefore the minority could possibly be confirmed of having traumatic stress on the account of sexual harassment.

#### 4.2.10 Determining the number of task employees takes on at a time



**Fig 4.13: Determining the number of task employees takes on at a time**

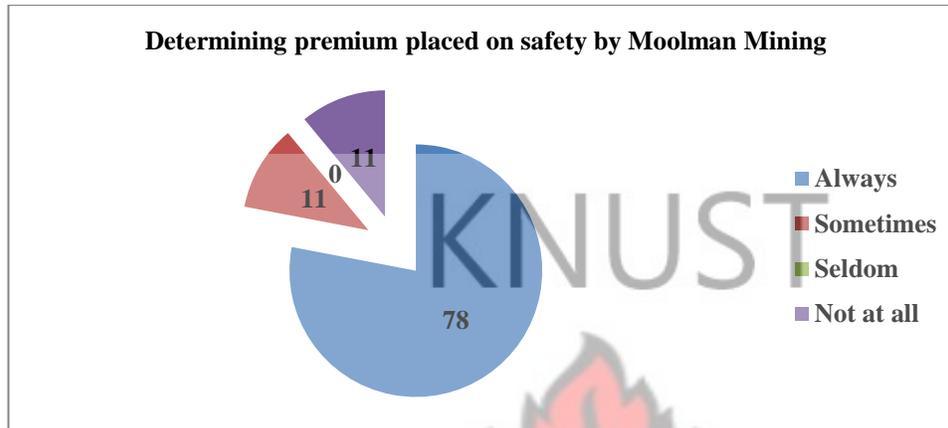
Source; Field work. (2014)

Out of the one hundred (100) respondents 56% of the respondents debunked the fact that they took on more than a task at a time at the work place while 37% claimed they sometimes and seldomly took on multiple task with 7% confirming their involvement in multiple task at a time asserting a possible episodic acute stress situation.

Again Anderson and Kyprianou (1994), differentiated between quantitative (too much) and qualitative (too difficult) overload. They suggested that both qualitative and quantitative overload may produce at least nine different symptoms of psychological and physical strain such as job dissatisfaction, job tension, lower self-esteem etc.

### 4.3 Identifying the causes of stresses on employees of Moolman Mining Ghana Limited

#### 4.3.1 Determining premium placed on safety by Moolman Mining



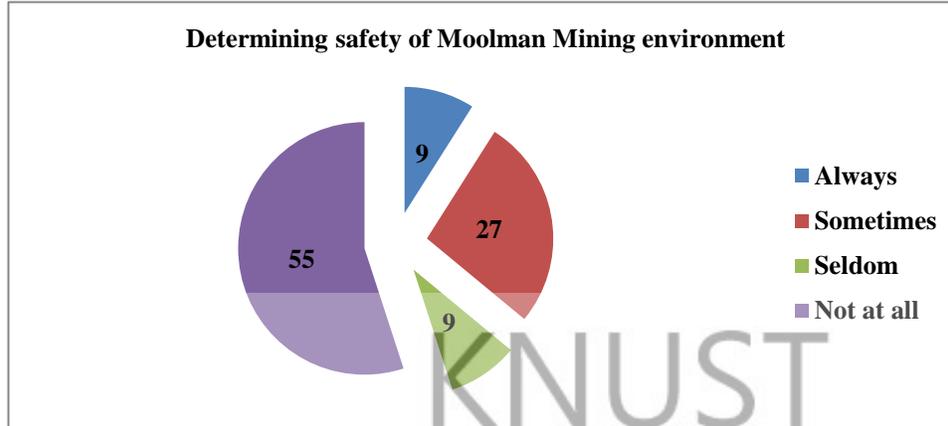
**Fig 4.14: Determining premium placed on safety by Moolman Mining**

Source; Field work. (2014)

From figure 4.14, 78% of the respondents confirmed the prioritization of safety by the company with 11% seeing safety to be sometimes prioritized by the company and 11% debunking that safety is being prioritized by Moolmans. Minority (22%) might be suffering from traumatic stress because of the way safety issues are handled by Moolmans.

Latal (2009), Stated that safety incidents at the work place are driven up by the high cost of unaddressed stressors, including fear of punishment, that cause numerous accidents and risky behaviours.

### 4.3.2 Determining safety of Moolman Mining environment



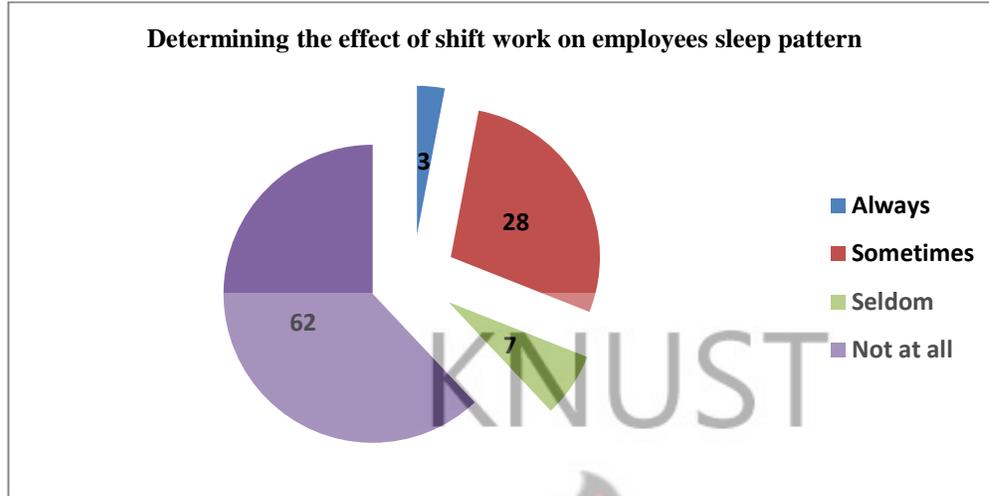
**Fig 4.15: Determining safety of Moolman Mining environment**

Source; Field work. (2014)

From figure 4.15, 55% of the respondents saw their environment as accident prone free with 36% sometimes and seldomly seeing their working environment to be accident prone. 9% however saw the working environment to be accident prone and are likely to be suffering from traumatic stress.

Arnold, et al (1993) stated that a job which involves more risk and danger put employees in higher stress level. This is because when an employee is constantly aware of potential danger and he is prepared to react immediately, this results in rush, respiration changes and muscles tension which are all seen as potentially threatening on long-term health.

### 4.3.3 Determining the effect of shift work on employees sleep pattern



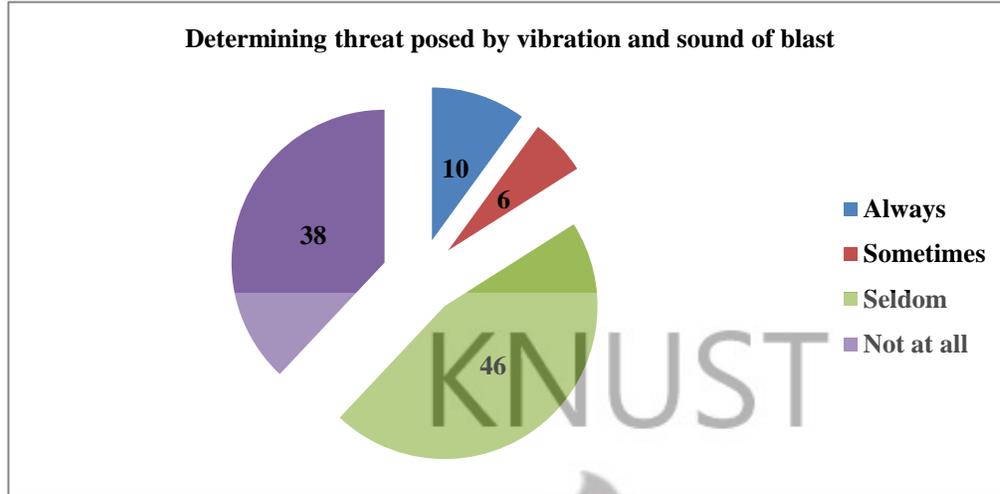
**Fig 4.16: Determining the effect of shift work on employees sleep pattern**

Source; Field work. (2014)

The above figure 4.16 shows that majority of the employees (62%) debunked the idea of the sleep pattern being disturbed by their shift work pattern while 35% sometimes and seldomly asserted their sleep pattern to be affected by their shift pattern. Minority (3%) however confirmed the disruption in their sleep pattern due to the shift system which is a likely cause of acute stress.

According to Arnold, et al (1993), when employees work shifts, it affects their blood temperature, metabolic rate, blood sugar levels, mental efficiency, and sleep patterns, resulting in hypertension, mild diabetes and peptic ulcers which is a possible cause of acute stress.

#### 4.3.4 Determining threat posed by vibration and sound of blast



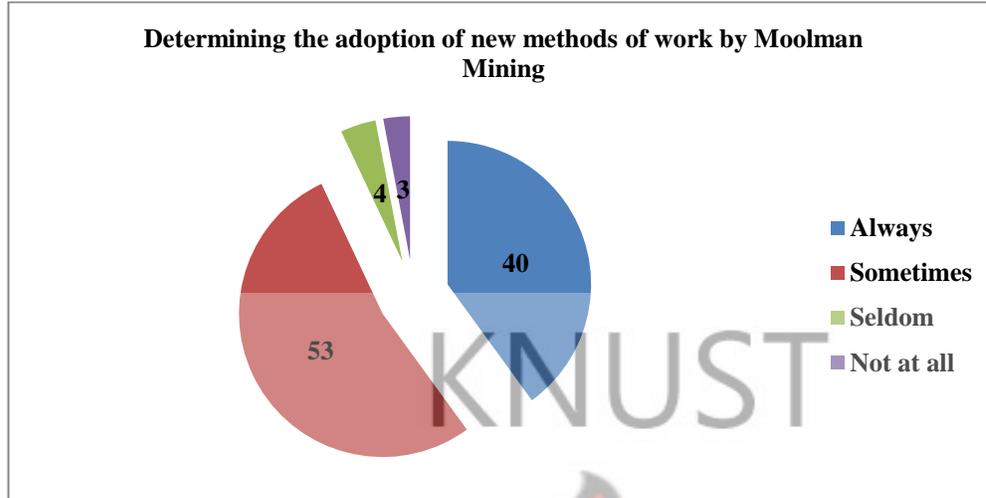
**Fig 4.17: Determining threat posed by vibration and sound of blast**

Source; Field work. (2014)

Of the one hundred (100) respondents, figure 4.17 depicts 46% seldomly being threaten by the sound and vibration of blast carried out at the work place whiles 38% have no feel of threat by these blast with minority of (10%) asserting to threats because of the blast a likely cause of traumatic stress. 6% however sometimes being threatened by the sound and vibrations from these blasts.

Arnold, et al (1993), asserted that, a job which involves more risk and danger such as blasting in the mining industry puts employees in higher stress level which is seen as a potential threat to long term ill health.

#### 4.3.5 Determining the adoption of new methods of work by Moolman Mining



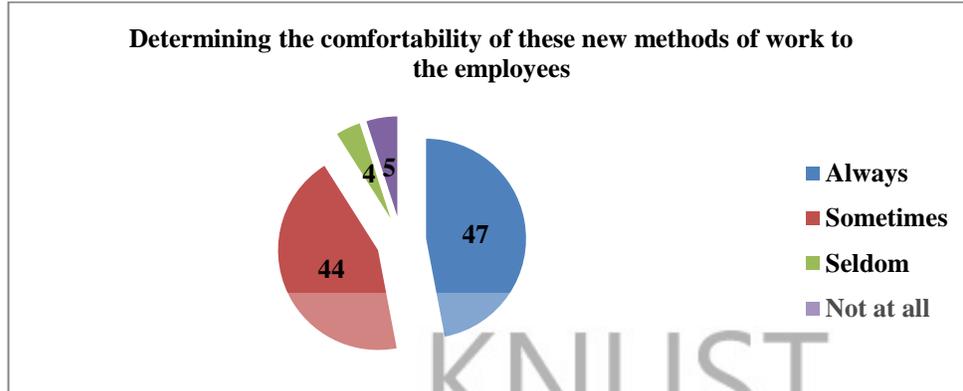
**Fig 4.18: Determining the adoption of new methods of work by Moolman Mining**

Source; Field work. (2014)

From figure 4.18, 53% of the respondents were doubtful about the adoption of new methods of work by the company while 40% saw the company to be involved in the adoption of new methods of work with only 4% noticing a seldom adoption of the new methods of work. Minority of (3%) however did not see the company to be involved in the adoption of new methods of work which is a cause of chronic stress.

According to Arnold, et al (1993), the introduction of new methods of work into the work environment requires employees to adapt continually to new working ways; thus leading to great source of pressure and will increase employees stress level since the employee will be under pressure to learn these new methods to secure his or her job.

#### 4.3.6 Determining the comfortability of these new methods of work to the employees

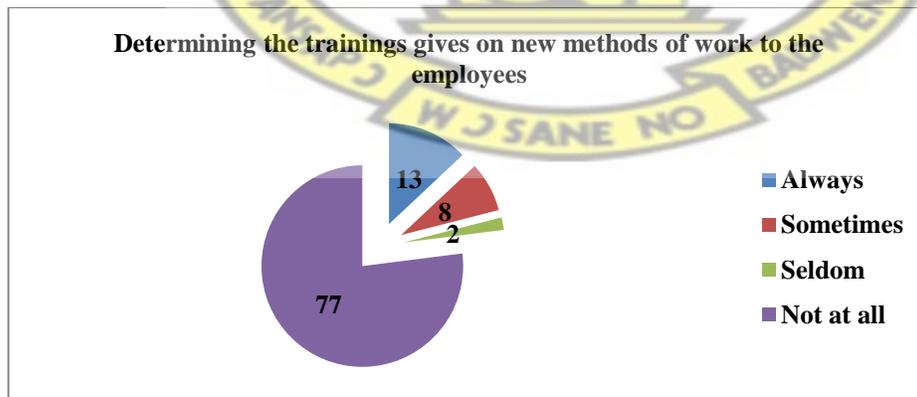


**Fig 4.19: Determining the comfortability of these new methods of work to the employees**

Source; Field work. (2014)

From figure 4.19, 47% are comfortable with the introduction of new methods of work with 44% not fully comfortable with these introductions while 5% are not comfortable at all with these introduction, a likely cause of chronic stress and 4% seldomly comfortable with the change. There could be a correlation between figure 4.18 and 4.19.

#### 4.3.7 Determining the trainings given on new methods of work to the employees



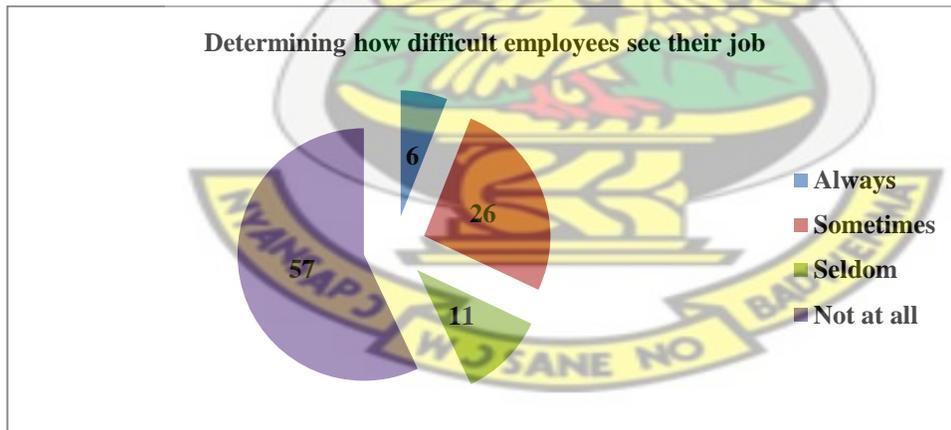
**Fig 4.20: Determining the trainings given on new methods of work to the employees**

Source; Field work. (2014)

Figure 4.20 has 77% of the respondents debunking the idea of training given before the introduction of new methods of work indicting a possible cause of chronic stress situation whiles 13% were in support of trainings given before the introduction of these new methods of work. 10% however were doubtful of whether training was always given before the introduction of the new methods of work or not.

According to Arnold, et al (1993), when a new method of work is introduced, the worker is under pressure to learn these new methods for the sake of job security. This increases the employees stress level especially when the needed training is not given to the employee before he or she is asked to adopt this new methods leading to a possible cause of chronic stress.

#### 4.3.8 Determining how difficult employees see their job



**Fig 4.21: Determining how difficult employees see their job**

Source; Field work. (2014)

Figure 4.21 saw majority (57%) of the respondents seeing the kind of task given them as normal without any difficulty or challenging which can cause acute stress. 37% however saw their task to be sometimes and seldomly difficult or challenging with the minority of (6%) asserting to the fact that their task are challenging and difficult to perform; a possible cause of acute stress.

According to Arnold, et al (1993), work under-load is where work related demands are too low so they do not challenge the individual. It is associated with repetitive routine, boring and under-stimulating work which causes stress to the employees. They also said work overload is where too much work is imposed on the employee with datelines which often also causes stress in employees.

#### 4.3.9 Determining demand of task from supervisors



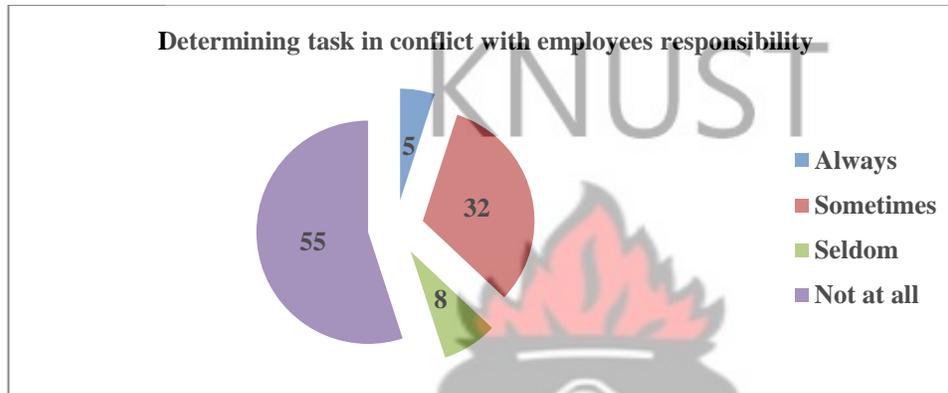
**Fig 4.22: Determining demand of task from supervisors**

Source; Field work. (2014)

Out of the one hundred (100) respondents, figure 4.22 depicts that 64% saw their supervisors giving them a normal task to perform whiles 30% had their supervisors

sometimes and seldomly giving them many task to perform within a short time. 6% however asserted to the fact of being giving more task to be performed within a short time. This is a possible cause of acute stress. There could be a correlation between figure 4.21 and 4.22.

#### 4.3.10 Determining task in conflict with employees responsibility



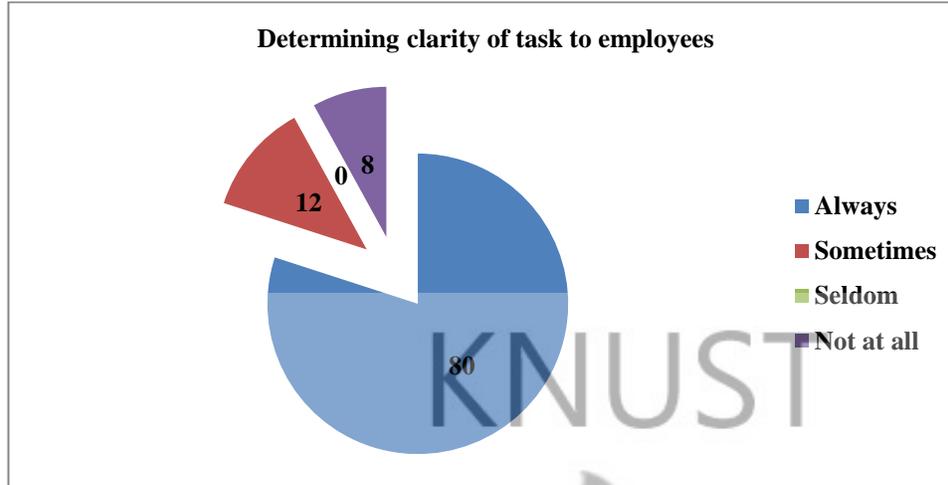
**Fig 4.23: Determining task in conflict with employees responsibility**

Source; Field work. (2014)

Figure 4.23 gives a clear indication that the majority (55%) did not see any conflict in their types task given them at the work place while 40% reported that they are sometimes or seldomly given a task that conflict with their responsibility. However, 5% agreed to the fact that their task always conflict with their responsibilities at the work place. An assertion of a possible cause of acute stress.

Luthans (2002), Stated that the second type of intra role conflict creates contradictory expectations about how a given role should be played. He further stated inter role conflict results from differing requirements of two or more roles that must be played at the same time leads to employees experiencing a high rate of stress.

#### 4.3.11 Determining clarity of task to employees



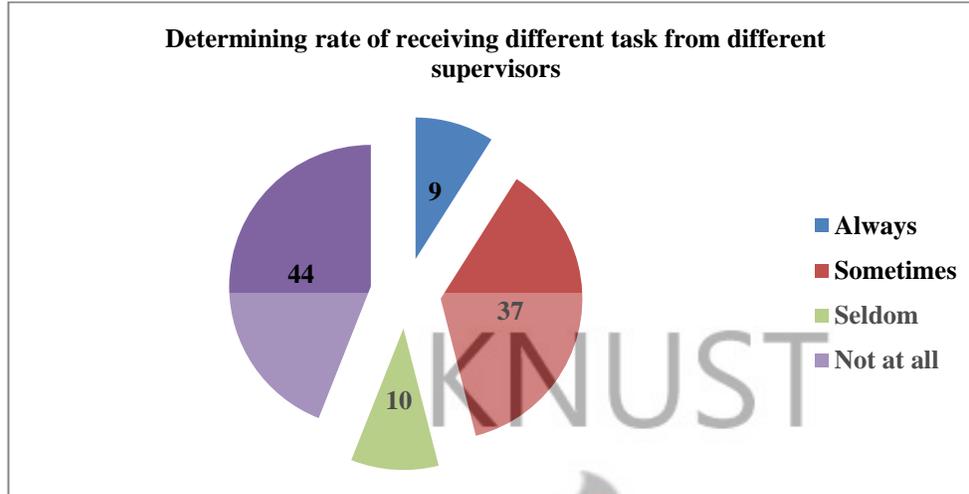
**Fig 4.24: Determining clarity of task to employees**

Source; Field work. (2014)

Out of hundred respondents (100) graph 4.20 showed that 80% admitted that their supervisor always explain specific task to them before its execution. 12% reported that their supervisors sometimes explain a task to them before undertaking it. However 8% refuted this claim. Showing a possibility of acute stress situation.

According to Johns (1996), there is substantial evidence that role ambiguity can provoke stress. Lack of direction can prove stressful, especially for people who are low in their tolerance for such ambiguity. These unclear roles may involve expectations for behavior or performance level.

#### 4.3.12 Determining rate of receiving different task from different supervisors



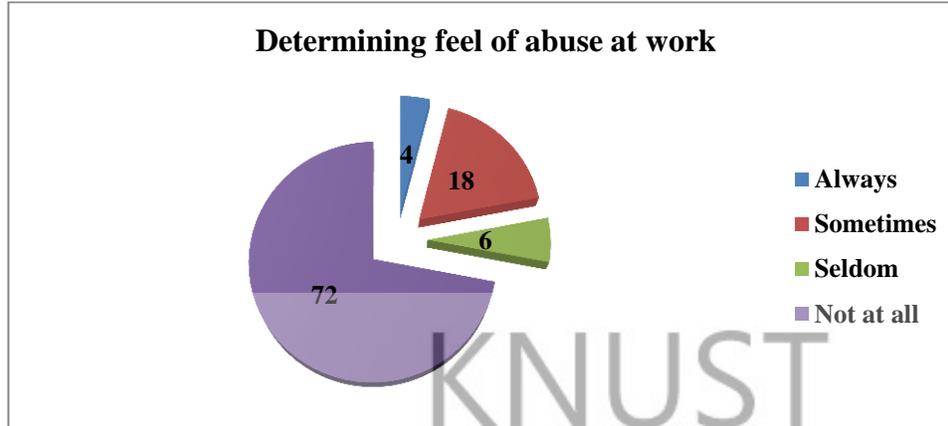
**Fig 4.25: Determining rate of receiving different task from different supervisors**

Source; Field work. (2014)

Figure 4.25 showed that 47% agreed that they sometimes and seldomly receive task from different supervisors while 44% reported that they only receive task from a particular supervisor. However 9% were of the view they always receive different task from different supervisors. Showing that there is a possibility of acute stress in the minority.

According to Arnold, et al (1993), Employees experience a high rate of stress when two superiors are demanding conflicting things and in attending to one will mean they are disobeying the other superior. This makes employees confused and frustrated.

#### 4.3.13 Determining feel of abuse at work



**Fig 4.26: Determining feel of abuse at work**

Source; Field work. (2014)

Of figure 4.26, Majority (72%) refuted the claim of abuse by their supervisors and/or co-workers whiles 24% agreed that they are sometimes or seldomly abused. However 4% reported that they are always abuse by their supervisors and/or co – workers.

Arnold, et al (1993), stated that when an employee experiences poor working relationship with superiors, colleagues and subordinates his stress level increases. This is because most employees spend so much time at the workplace; it is estimated that workers averagely spends about 50 hours a week in their workplace and this long hours results in the formation of workplace friendship and therefore poor working relationship can affect them adversely.

#### 4.3.14 Determining rate of reports on migraine by employees

*(Exclusive to management and Company's Medical officer)*

Response	Frequency	Percentage (%)
Always	5	33
Sometimes	5	33
Seldom	2	14
Not at all	3	20
<b>TOTAL</b>	<b>15</b>	<b>100</b>

**Table 4.0: Determining rate of reports on migraine by employees**

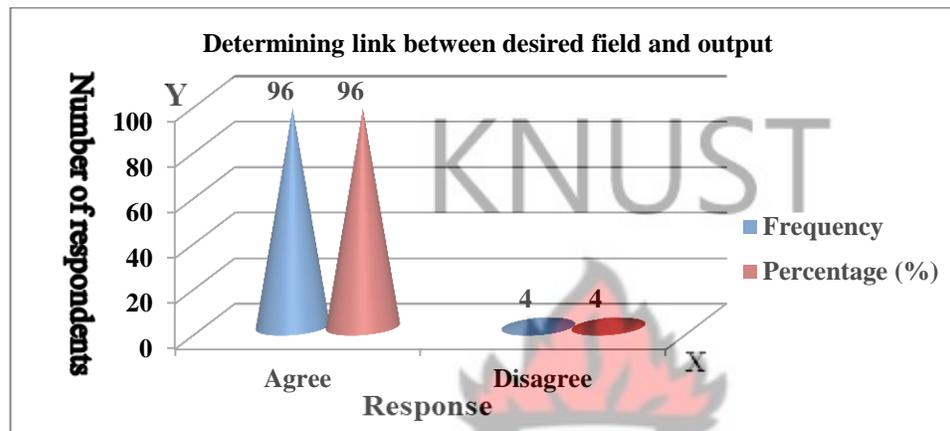
Source; Field work. (2014)

From the table, of the fifteen (15) managerial staff 33% showed reported case of migraine, 33% and 4% reported sometimes and seldomly respectively while 20% showed no reported case of migraine. Showing a possibility of episodic acute stress in employees.

Taylor (2005), emphasized that the symptoms of episodic acute stress are the symptoms of extended over arousal, persistent tension headaches, migraines, hypertension, chest pain and other heart diseases. Stress is therefore considered as one of the most common triggers of these medical cases.

## 4.4 Identifying the effect stress on performance of employees of Moolman Mining Ghana Limited

### 4.4.1 Determining link between desired field and output



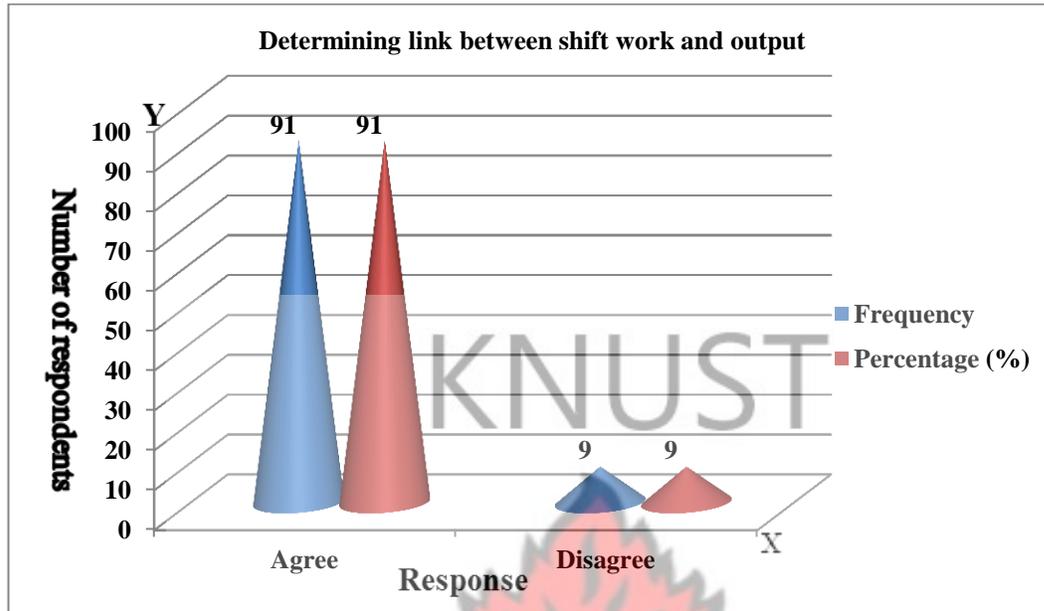
**Fig 4.27: Determining link between desired field and output**

Source; Field work. (2014)

From figure 4.27, Majority (96%) of the respondents agreed that they achieve their targets when they are in their desired field or job while only 4% disagreed to this assertion. Confirming a possibility of chronic stress.

Jackson (1993), emphasized that job related stress tends to decrease general job satisfaction and performance; job dissatisfaction is the simplest and most obvious psychological effect of stress and this in effect affects employees performance and hence decrease in performance.

#### 4.4.2 Determining link between shift work and output



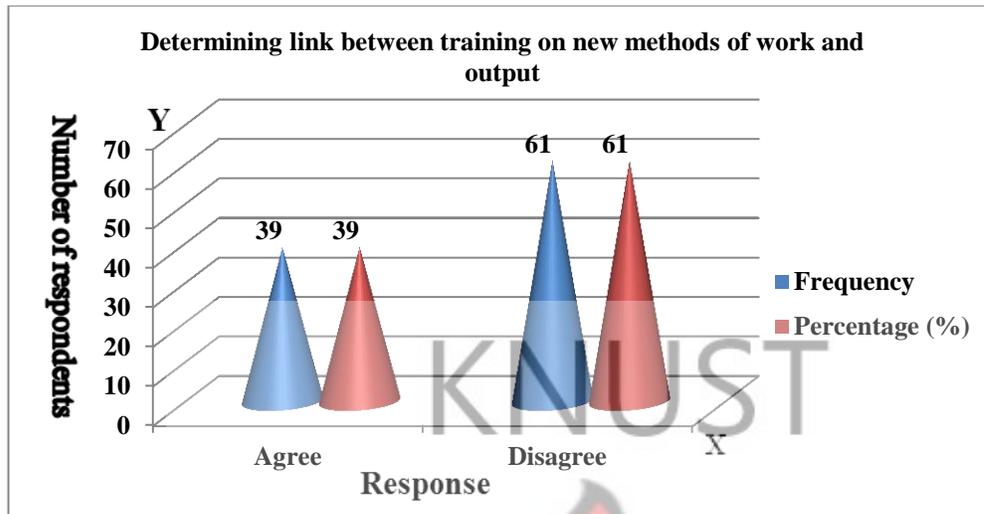
**Fig 4.28: Determining link between shift work and output**

Source; Field work. (2014)

Figure 4.28 reflects that 91% of the respondents were of the view that they achieve their results under shift work and only 9% disagreed of achieving their result under shift work. This might lead to a possibility of acute stress.

Drake et al (2004), after their studies on workers who lack shift – work disorder concluded that shift work adversely affects worker performance, health and quality of life.

#### 4.4.3 Determining link between training on new methods of work and output



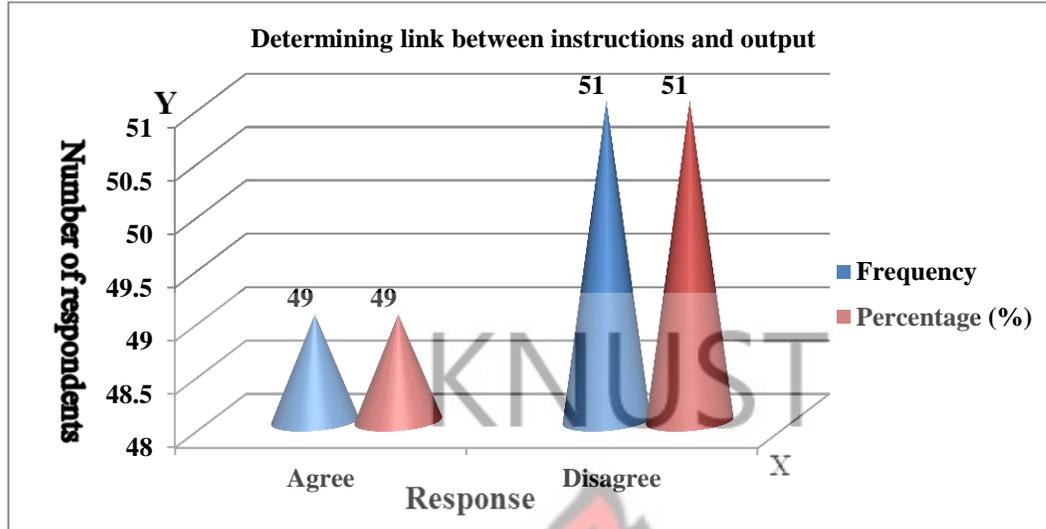
**Fig 4.29: Determining link between training on new methods of work and output**

Source; Field work. (2014)

Of the one hundred (100) respondents 61% disagreed of achieving their expected targets even when training on a new method of work is not done while 39% agreed of achieving their expected targets when training of new method of work is not done.

Hooper (2005), asserted that employees who are better trained perform better, have less time off work, are less stressed, make fewer mistakes and are more motivated and happier. These factors together save the organisation thousands and even millions depends on the size of the company. There is also the legal aspect, in the fact that if employees are not trained and suffer an illness, accidents or stressed, the company may be looking at an HSE fine and also civil court action.

#### 4.4.4 Determining link between instructions and output



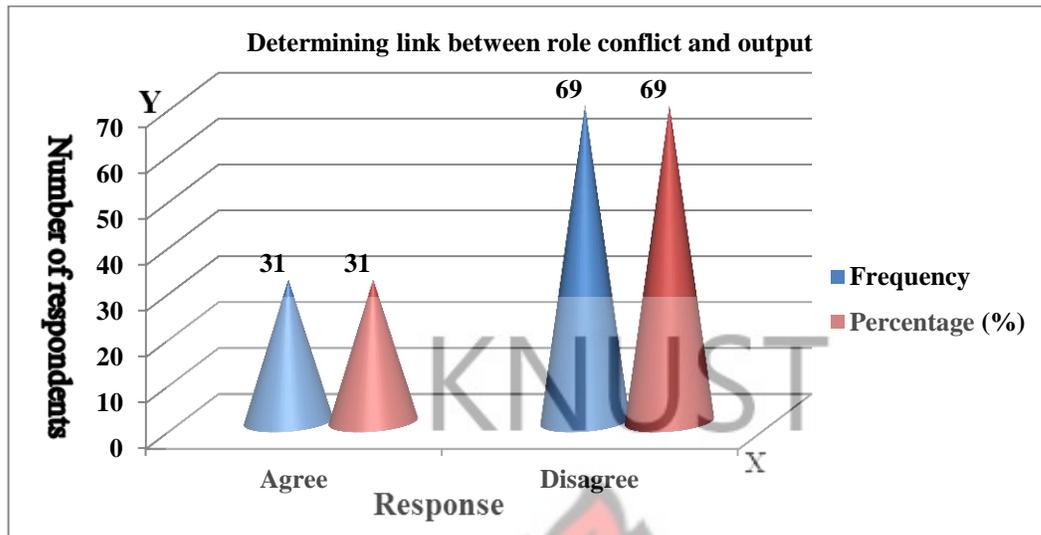
**Fig 4.30: Determining link between instructions and output**

Source; Field work. (2014)

Figure 4.30 has 51% of respondents disagreeing to the assertion that they underperform when they receive different task from different supervisors while 49% agreed to this assertion. This confirms a possibility of acute stress situation among respondents.

Luthans (2002), emphasized that employees experience a high rate of stress when two superiors are demanding conflicting things and in attending to one will mean they are disobeying the other superior. This makes employees confused and frustrated. For example, workers may often feel themselves torn between two groups of superiors who demand different types of behaviour and roles or who believe the job entails different functions.

#### 4.4.5 Determining link between role conflict and output



**Fig 4.31 Determining link between role conflict and output**

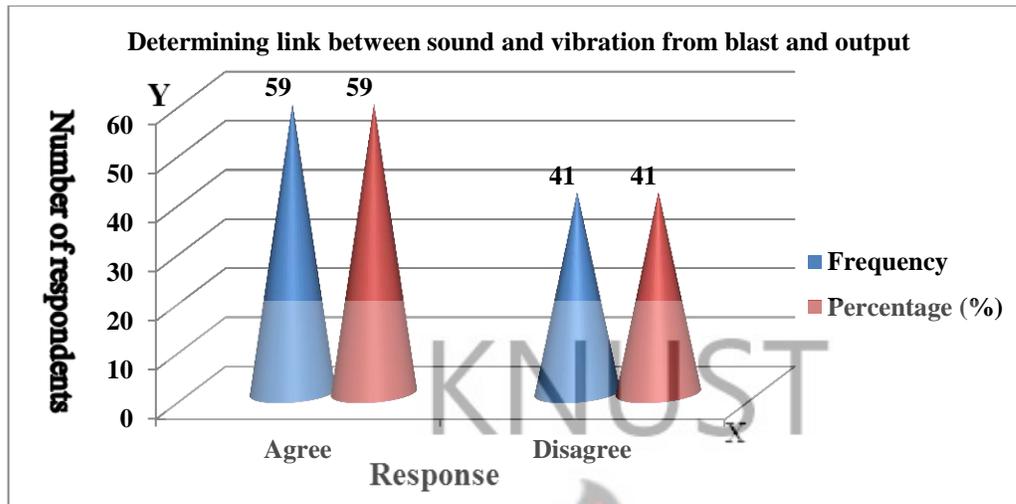
Source; Author's field work.

Majority (69%) of the respondents disagreed of achieving their results when their task is in conflict with their roles whiles 31% agreed of achieving their targets in this condition. This is a possible cause of acute stress.

Luthans (2002), in researching on role conflict stated that evidence showed that role conflict could has a negative impact on performance.

Again according to Johns (1996), there is substantial evidence that role ambiguity can provoke stress. Lack of direction can prove stressful, especially for people who are low in their tolerance for such ambiguity. These unclear roles may involve expectations for behaviour or performance level.

#### 4.4.6 Determining link between sound and vibration from blast and output



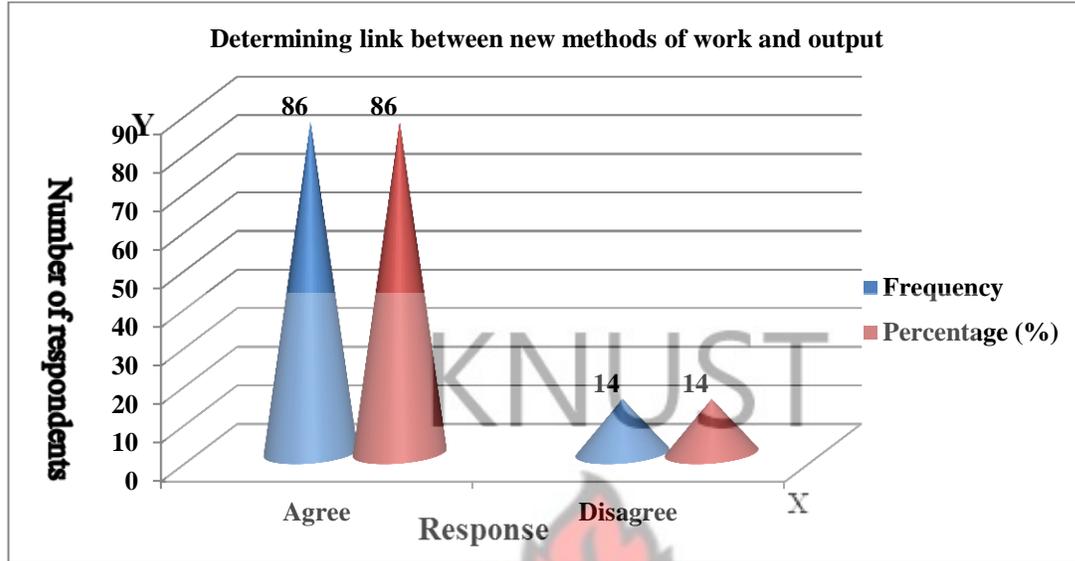
**Fig 4.32: Determining link between sound and vibration from blast and output**

Source; Field work. (2014)

In Figure 4.32, 59% of the respondents agreed that the sound and vibration of blast does not affect their performance in any way while 41% were of the opinion that their performance are affected by this condition. This might lead to traumatic stress on respondents.

Arnold, et al (1993), emphasized that surrounding or the environmental conditions of the job which include but not limited to high level of noise, high or low lighting, fumes, heat, poor ventilation systems, smells and all the stimuli which bombard a worker's senses and can affect his moods and overall mental state and thereby affecting his performance at work.

#### 4.4.7 Determining link between new methods of work and output



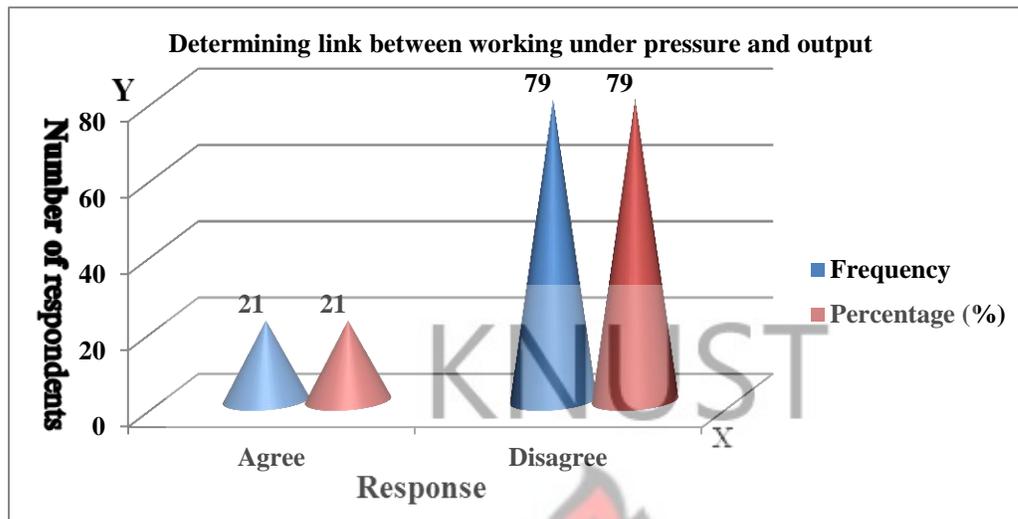
**Fig 4.33: Determining link between new methods of work and output**

Source; Field work. (2014)

From figure 4.33, majority (86%) of the respondents reported that their output is high when new method of work is introduced while 14% disagreed to this assertion. This might lead to chronic stress.

McGronagle and Kessler (1990), stated that the introduction of new technology or methods into the work environment has required workers to adapt continually to new equipment, systems, and ways of working which improves the working performance.

#### 4.4.8 Determining link between working under pressure and output



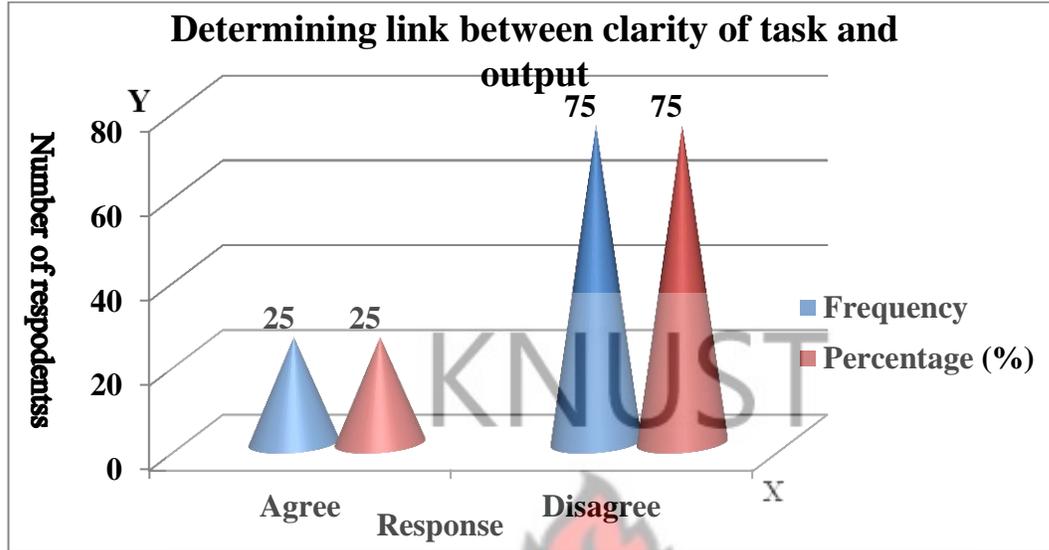
**Fig 4.34: Determining link between working under pressure and output**

Source; Field work. (2014)

According to figure 4.34, 79% of the respondents disagreed to the assertion of high work performance even when pressured by their supervisors while 21% agreed that their work output is high when they are pressured. This might be a cause of acute stress situation.

According to McGronagle and Kessler (1990), pressure from bosses may affect employees' performance. For instance, a boss trained in the latest methods or the use of a new machine or equipment may be extra burden for an employee trained in the old ways and this may increase his stress level, since he or she will be under pressure to learn the new technology to secure his job.

#### 4.4.9 Determining link between clarity of task and output



**Fig 4.35: Determining link between clarity of task and output**

Source; Field work. (2014)

Of the one hundred (100) respondents majority (75%) disagreed that their performance is high when their task is not clearly explained to them whiles 25% agreed of high work output under this condition and this is a likely cause of chronic stress.

Arnold, et al (1993), asserts that when employees do not know what is expected of them at the workplace and how their work performances are evaluated or when people are unclear or uncertain about their expectations within a certain role. It arises when the definition of the person job is vague or ill defined.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

In their quest to achieve production targets, most mining companies including Moolman Mining Ghana put safety as paramount due to the high risky nature of their environment. These companies seek to achieve their target in a safer environment with healthy employees and hence managing stress in employees of Moolman Mining Ghana has become an integral part of the company's business strategies. This chapter is made up of the summary of the research, recommendations based on the findings of the study and conclusion.

#### 5.1 Summary of findings

The productivity of an organization thrives on the emotional, physical and psychological well-being of its employees. Stress is both a major setback as well as a promoter in employees performance being bad or good stress respectively.

##### *5.1.1 Identification of the presence of stress in employees*

From the data analysed in chapter four of this research, it was found out that majority of the employees were suffering from each of the four types of stresses the researcher studied. There is evidence to the effect that most of the respondents were sufferings from acute stress with the minority sufferings from episodic acute stress. The response from the employees showed that at least one of the conditions that pertain to each of the stresses was prevailing in a respondents. Respondents who are suffering from each of these stresses shared that they are not in their desired field of the job or field, there were excessive demands of task from

their supervisors, they panic at least situation and feeling of depression at the work place. Some respondents again reported the feeling of anxiousness by performing a certain task at a work place, easily provoked at least situation, being involved in an accident at the work place, performing multiple task at a time and few of them reported sexual harassment. From the findings above it can be confirmed that employees of Moolman Mining Ghana Limited are suffering from acute, chronic, traumatic and episodic acute stresses. These factors that helped the researcher to assess the types of stress in employees of Moolman Mining Ghana Limited confirm Taylor (1995), classification or categorisation of stress into their various types. Taylor describes stress as a negative emotional experience accompanied by predictable biochemical, physiological, cognitive and behavioural changes that are directed either towards altering the events or accommodating its effects. Based on these factors he grouped stress into acute, chronic, traumatic and episodic acute stress.

### ***5.1.2 Causative factors of stress in employees***

Regarding the causes of the detected stresses in employees' of Moolman mining Ghana, the analysis clearly confirmed Repetti (1990), McGronogle and Kessler (1990), Pervin (1992) causes of stress. Again it also agrees with Arnold, et al (1993) in their assertion about the causes or sources of stress. Arnold, et al (1993), identified five major causes of work stress as: factors intrinsic to the job, role in the organization, relationships at work, career development and organizational structure and climate. From the analysis all these factors were seen to prevail in the employees of Moolman Mining Ghana Limited.

Every stress has a distinct cause and the data analysis response from the respondents helped in the categorisation of the stresses. The response from the data showed that almost all the causes of these stresses are managerial and few are personal. The managerial causes are the issues the company is failing to address to give congenial environment for people to work safely. A poor environmental condition poses threat to employees and this was the case some respondents saw with the company's environs. Some of the respondents also reported shift work as another cause of their stresses because it was affecting their sleeping pattern. Evidence from the data stated that most of the respondents feel threatened by the sound and vibration of the blast carried out at the work place. Introduction of new method of work was underlined as one of the causes of respondents' stresses with about 97% respondents agreeing to this assertion. With this employees are required to continually adapt to new working ways; thus leading to a great source of pressure and was increasing employees stress level since they will be under pressure to learn these methods to secure their jobs. Moreover, 77% of the respondents emphasized that no training are given to them before this new method are introduced and this adds to their frustration. Some also reported that performing challenging or difficult task; especially supervisors assigning many task or roles to employees at a time and task received from different supervisors at the same time were also some of the causes of their stresses.

Evidence showed that conflicting roles assigned to employees by their supervisors also contributed to these stresses since their concentration to a task is always divided. Again some of the respondents were also of the view that role ambiguity was also present at their work place and a contributing factor to their stress since their supervisors' fails to explain

specific task to them clearly before they are asked to execute and according to Johns (1996) there is substantial evidence that role ambiguity can provoke stress. Lack of direction can prove stressful, especially for people who are low in their tolerance for such ambiguity. These unclear roles may involve expectations for behaviour or performance level. From the data though 72% of the respondents refuted the claim of abuse a number of them reported some level of abuse by their supervisors and/or co-workers which also contributes to the causes of these stresses. These were the factors that lead to the causes of the four main stresses as identified by the researcher and was found present in employees of Moolman mining Ghana.

### ***5.1.3 Impact of stress on performance of employees***

From the data it was observed that stress has significant impact on performance either positively or negatively. From the data analysis there is no deviation between the researcher's observation and the work of Defrank et al (1998). He stated that positive and negative effects of stress are apparent in the relationship between stress and performance. And this is depicted in the figure (fig. 2.1) the general stress - performance relationship in the shape of an arc. At low levels of stress, employees may not be sufficiently alert, challenged or involved to perform at their best in a given task. As the curve indicates, increasing a low amount of stress may improve performance but only up to a certain point. At optimal or most favourable level of stress probably exists for most tasks, but performance begins to deteriorate beyond that level. Defrank et al asserts that at excessive levels of stress, employees are too agitated, aroused, or threatened to perform well.

From the analysis in determining the performance of employees in relation with desired field and production target, majority (96%) of respondents agreed that their targets are met when they are in their expected field, the opposite will be true. Psychological effect of stress is obvious when employees find themselves in a wrong field or job. The data again showed that though 91% of the respondents admitted of achieving their targets on shift work, 9% of the respondents disagreed. Shift- work disorder adversely affects worker performance, health and quality of life. This is evident in the records of reported health cases by the company employees. The data and company medical records showed that there is a high reported case of blood pressure, headache or migraine, depression and anxiety. Stress is considered one of the most common triggers of these medical cases. The data again showed that lack of training on new method of work, conflict of interest and role ambiguity adversely affect the performance of employees and their inability to achieve their expected targets. All these factors affect employees and lead to accident and other safety related incidents. The results also showed that stress impacted positively on employee's performance. From the analysis though some factors that were to be addressed to decrease stress in employees were still in existence, employees achieved their expected results. But this will only occur when low amount of stress are increased; here their alertness to the job is activated for them to perform.

## **5.2 Conclusion**

The aim of the study was to evaluate the impact of stress on employees of Moolman Mining Ghana Limited, Tarkwa. The results of the study showed that the negative factor that triggers stresses have negative impact on performance, yet its positive impact on

performance cannot be overlooked. Factors that helped in identifying the various types of stresses and the conditions that cause these stresses with its impact on employee's performance were graphed and analysed. It was evidently clear that employees of Moolman Mining Ghana Limited were suffering from the major types of stresses; namely chronic, acute, traumatic and episodic stresses. The response showed that most of the causes of these stresses were from the company management or nature of the work.

KNUST

The stresses identified by the researcher undoubtedly affect the performance of Moolmans employees negatively since the employees reported of failure to meet their expected targets. Though the effect of these stresses is largely negative the positive effect cannot be ignored, since some employees responded a gain in target though they were still experiencing negative condition of stress from their supervisors. This is because the positive and negative effects of stress are apparent in the relationship between stress and performance. At low levels of stress, employees may not be sufficiently alert, challenged or involved to perform at their best in a given task. Increasing a low amount of stress may improve performance but only up to a certain level, but performance will begin to deteriorate beyond that level.

It is clear from the types and causes of stresses identified, reported and analyzed and through the literature review that the goal of the study was achieved. Moreover, there was no deviation between the researcher's findings and that of some authors such as Shelly Taylor, Robertson and Cooper etc stated in the review of the literature. This also served to prove that stress has both positive and negative impact on employees as well as their performance at Moolman Mining Ghana Limited, Tarkwa.

### **5.3 Recommendations**

It is an undeniable fact that in recent times many organizations have come to the realization of the importance of the role of stress management programs as it increases the organization's employee's efficiency, skills and productivity. In order to reap the full benefits of employees to increase performance, Moolman Mining Ghana Limited, Tarkwa and other academic or corporate institution who may see this research useful should ensure that the following are instituted at the work place

#### ***5.3.1 Stress management***

The study revealed that stress was active in the employees and was hence affecting the performance of employees. It is therefore recommended that stress management should be incorporated into Moolmans induction and orientation programme to give new employees requisite knowledge on stress. Stress release programmes such as sporting activities as well as fatigue management should be also organised frequently for employees to relieve them from the presence of stress.

#### ***5.3.2 Improve interpersonal relationships***

It was found out from the study that most of the stresses were managerial related than personal and therefore recommended that coaching and counselling unit should establish to be able to interact with employees and help deal with employees stress related problems since interpersonal relationship bring together employees and their superiors. Special stress identification and management programmes is also recommended to be organised for

managerial staff, front line supervisors and shift supervisors to enable them to know how to manage the task they give to their subordinates.

### ***5.3.3 Systematic Training***

It has emerged from the study that employees are not given the required training on new methods of work before its execution and based on the views of the respondents it is recommended that management should improve on in – service training and train employees on the use of new technology and method of work to enable employees to understand the use of new equipment as well as be abreast with what is expected of them before any new method of work is rolled out. Supervisors must also assess the level of their subordinates knowledge and skills and whether they will be able to meet their deadlines before enrolling them on new methods of work to prevent pressure on the employees.

### ***5.3.4 Improvement on safety***

As a form of commendation, it is recommended that management should keep up with their current high levels of safety practices but should still improve on the safety at the work place to create a more congenial environment to eradicate or minimize accidents since the study revealed some safety issues raised by the respondents. It is also highly recommended that a policy to stop moonlighting should be adopted and enforced to enable employees have ample sleep before coming to work.

### ***5.3.5 Attitudinal change***

The study revealed that most employees when under stress feel neglected by their superiors and workmates and resort to excessive drinking of alcohol. It is therefore recommended that employees should try to focus on the positive side of situations to reduce their stress levels as well as involve themselves in the exercising by walking, riding bicycles, playing football and so on. This is because, when employees relax the response for stress will be reserved in the human mind-body system and reduces employee's heart rates, blood pressure and other physiological indicators of stress.



## REFERENCES

- Agyedu, D. K., Donkor, F. and Obeng, S. Y. (1999), *Teach yourself research methods*, Kumasi: Geobell Publishers.
- Anderson, A.H. and Kyprianou, A. (1994). *Effective Organizational Behaviour: a skills and activity-based approach*. Oxford: Blackwell Publishers.
- Anderson, A.H., Sleezer, M., and Russ-Eft, D. F. (2000). *Heat and Violence - Psychology*. Iowa: Iowa state University press.
- Arnold, J., Cooper, L. and Robertson, I.T. (1993). *Work Psychology*. London: Pitman Publishing.
- Babbie, W. (2007). *Practice of Social Research*. New York: South Eastern University Publishing.
- Barden, J.(2001). *Emotions Management in manufacturing companies in New Zealand: A comparative case study analysis*.
- Bennet, R. (1994). *Organisational Behaviour*. 2nd Ed. London: Pitman Publishing.
- Betts, P.W. (1993). *Supervisory Management*. 6th Ed. London: Pitman Publishing.
- Blackwell, S. (1998). *Organisational Theory*. New York: Dorchester Publishing Co., Inc.
- Blumenthal, I. (2003). Services SETA. *Employee Assistance Conference Programme.2* (2).p5-21.
- Bowin, R.B. and Harvey D. (2001). *Human Resource Management an Experiential Approach*. 2nd Ed. New Jersey: Prentice Hall.
- Carrel, M.R. et al. (1996). *Human Resource Management*. South Africa: Prentice Hall.
- Carroll, M. and Walton, M. (1997). *Handbook of Counselling in Organisations*. London: Sage Publications.

- Campbell, M.C., McHenry, D.M., and Wise, J. (1990) *Human Resource Management: More Than a New Name for Personnel Management*. The International Journal of Human Resource Management Vol 8, Iss 1, pp 1- 14
- Chin, W.F. and Kramer, H.G. (1999). *Personology: From individual to Ecosystem*. Johannesburg: Heinemann.
- Claude S., George, J. and Cole, K. (1992). *Supervision Action*, Australia: McPherson's Group.
- Cresswell, J. W. (2003). *Research Design. Qualitative, quantitative and mixed methods approach*. London: Sage Publications Inc.
- Davey, P., DeBortoli, J. M., Parker, C. and Smolkin, E. (2003). *Assessing the Cause of work Stress*. pp180.
- DCS gaumail (2003). *Work Stress Management and Prevention*. [Online]. Available from: <http://dcsgaumail02.dcs.gov.za/exchange>. [Accessed: 12th January 2014]
- Dean, C. (2002). Stress and Work Performance. HR Future. 2 (5).
- Defrank, R. A., Hollenbeck, J. R., Gerhard, B. and Wright, P. M. (2006). *Human resource management: gaining a competitive advantage* (5th ed.). Boston, MA: McGraw-Hill Irwin.
- Dessler, G. (2000). *Human Resource Management*. 8th Ed. New Jersey: Prentice Hall.
- Du Brin, A.J. (1996). *Human Relations for Career and Personal Success*. New Jersey: Prentice Hall.
- Edmond, W. and Kennedy, F. (2010). *Quantitative Research Methods*. New York: South Eastern University Publishing. pp.1- 23.

- Fraenkel, J. R. and Wallen, N. E. (1993). *How to Design and Evaluate Research in Education*. New York: McGraw-Hill.
- French, T. and Caplan, R. (1987). Double loop learning in organizations. *Harvard Business Review*, 55(5), 115-125. Retrieved from Business Source Premier database.
- Frost, P.J. (2003). *Toxic emotions at work*. Boston: Harvard Business School Press.
- Garrison, M. and Bly, M.E. (1997). *Human Relations; Productive Approaches for the Work Place*. Massachusetts: Allyn and Bacon.
- Henry, O. and Evans, A.J. (2008). Occupational Stress in Organisations. *Journal of Management Research*. 8. (3). p123-135
- Hoel, A., Spark, P., Rieradevall, J., and Cooper, P. (2001). Experiences with Labour Management. The Universitat Autònoma de Barcelona. *Journal of Human Resources*, 16(15), 1610-1619. Retrieved from Academic Search Premier database.
- John, G. (1996). *Organisational Behaviour*, Understanding and Managing Life at Work. New York: Harper Collins College Publishers.
- Levi, R., and Lunde-Jensen, J. (1996). *Total stress management*. Oxford: Elsevier.
- Levin-Epstein, M. (2002). Tackle Work Place Stress to Improve Productivity, Reduce Absenteeism. *Staff Leader*. 15 (2).
- Lucey Richards, (1994). *Business Administration*. 1st edition.
- Luthans, F. (2002). *Organisational Behaviour*. New York: McGraw-Hill Companies, Inc.
- Luthans, F. and Stajkovic, A.D. (1998). *Social cognitive theory and self-efficacy: Going beyond traditional motivational and behavioural approaches*. *Organisational Dynamics*, 26 (4).

- Mark, R. (1996). *Research Made Simple*. New Delhi: International Educational and Professional Publisher.
- Mandeler, Beamon, (1993). "*Designing the psychological chain*", Human Resource Information Management, Vol. 12 Iss: 4, pp.332 - 342
- Mathis, R.L. and Jackson, J.H. (2000). *Human Resource Management*. Ohio: South Western Collage Publishing.
- Mcgronogle, P. and Kessler, A. (1990). *Effective Management*. 2nd Ed. London: Lender Education Ltd.
- Michac, J. (1997). *Stress and Productivity*. Trexima: Slovak Republic.
- Moorhead, H. and Griffen, F. (1998). *Organisational Behaviour*. Boston: Houghton Mifflin Company.
- Omolar, B E. (2008) Influence of work related stress on organizational commitment at Olabisionabanjo University Ago Iwoye Ogun State Nigeria. *EABR and TLC Conferences Proceedings*. Rothenberg, Germany.
- Pervin, K. (1992). *Personnel Management*, England: Stanley Thornes Publishers Ltd.
- Pilot, D. F. and Hungler, B. P. (1995). *Nursing Research: Principles and Methods*. 5th Ed. Philadelphia: J. B. Lippincott Company.
- Ramacoitti, S.L. and Perriard, F. (2001). *Les Cousts du en Suisse*. Pp.133
- Repetti, M. (1990). *Organisational Behaviour*. New York: McGraw-Hill Companies, Inc.
- Ritchie, S. and Martin, P. (1999). *Motivation Management*. Hampshire: Gower Publishing Limited.
- Robbins, S.P. (2004). *Organisation Behaviour*. 11th Ed. New Jersey: Pearson Prentice Hall.

- Santé, Québec. (1998). *Québecers health and well-being*. Academy of Management Proceedings (pp.1-6).
- Santé, B. (2002). *Leading the Lean Enterprise*. *Industrial Management*, 44(5), 28. Retrieved from Academic Search Premier database.
- Sarantakos, S. (2005). *Social Research*. 2nd Ed. London: Palgrave Publishers Ltd.
- Sharkil, A. (2001). *Skills, training and human resource development: A critical text*. New York: Palgrave Macmillan.
- Sherman M., Bahlander, S. and Snell, B. (1996). *Managing Human Resource*. 10th Ed. Cincinnati Ohio: South West College Publishing.
- Statistics Canada (2002). *Perspective on Labour and Income*: The online edition, Vol. 4(1)
- Swanepoel, B. Erasmus, B., Schenk, H, and Van Wyk, W. (2000). *South African Human Resource Management: Theory and Practice*. South Africa: Juta and Co. Ltd.
- Taylor, S. (1995). *Managing People at Work*. London: Reed Educational and Professional Publishing Ltd.
- Terry, L. (1994). *Business Administration*, London: DP Publication Ltd.
- The Weekly Mirror. (2006). *Stress in organisations*. Nov 24th.
- Thompson, P. and McHugh, D. (1995). *Work organisations; A Critical introduction*. 2nd Ed. Hampshire: Macmillan Press Ltd.
- Vézina, G. and Bourbonnais, P. (2001). *Occupational Health and Safety*. Pp 346
- Watson Wyatt (2003), *Annual Survey Report* (Buckmaster Annual Report)
- Webster A., Barba-Aragon I., Sanz-Valle R. (1999). *The good manager's guide*. London: Synene Publishers.

Wikipedia (2014). *Occupational Stress*. [Online] Available from:  
<http://en.wikipedia.org/wiki/mindtools>. [Accessed: 14th November 2013]

[http://en.wikipedia.org/wiki/occupational\\_stress](http://en.wikipedia.org/wiki/occupational_stress). [Accessed: 24th May 2014]

Yin, R. K. (1994). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

Zhu, Q.; Sarkis, J., (2004). Relationships between operational practices and performance among early adopters of stress management practices in Chinese manufacturing enterprises, *J. Oper. Manage.*, 22, 265-289.



**APPENDIX**

**MASTER OF BUSINESS ADMINISTRATION**

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,**

**KUMASI.**

**QUESTIONNAIRE FOR MOOLMANS STAFF**

This research is for academic purposes only and this questionnaire is to evaluate the impact of stress on employees' performance of Moolman Mining Ghana Limited, Iduapriem - Tarkwa. Information given out will be accorded the necessary confidentiality.

**Biographic data**

1. Gender; Male  Female

2. Age

a) 20-29 yrs  b) 30-39 yrs  c) 40-49 yrs  d) 50 yrs and above

3. Academic Qualification. a) Basic  b) Secondary  c) Tertiary

d) Others specify.....

4. Marital status a) Single  b) Married  c) Widowed  d) Divorced

**The questions below are formulated to solicit information on the types of stresses that occurs at the work place. Please tick to indicate your opinion using the box provided.**

5. Are you in your desired field or job?

a) Yes  b) No

6. Are you always having problem in the kinds of task you are given?

a) Always  b) Sometimes  c) Seldom  d) Not at all

7. Does your supervisor demand more task from you?

a) Always  b) Sometimes  c) Seldom  d) Not at all

8. Do you panic at least situations?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

9. Do you feel depressed at your work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

10. Do you feel anxious at a certain task at a work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

11. Do you become easily provoked at the work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

12. Have you been involved at an accident at your work place before?

a) Yes [ ] b) No [ ]

13. Have you been sexually harassed at the work place before?

a) Yes [ ] b) No [ ]

14. Do you carry multiple tasks at a time?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**The questions below are formulated to solicit information on causes of stress on employees. Please tick to indicate your opinion using the box provided.**

15. Does your company put premium on safety issues?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

16. Do you see your company environment accident prone?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

17. Does your shift work affect your pattern of sleep?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**18.** Do you feel threaten by the sound and vibration of the blast that is carried out at your work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**19.** Does your company adopt the use of new methods of work in its operations?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**20.** Are you comfortable with the level of change by these new methods of work adopted by your company?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**21.** Do you get the necessary and adequate training before these new methods of work are introduced?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**22.** Is your work challenging or difficult to perform at your work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**23.** Does your supervisor give you many tasks to perform within a short time?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**24.** Are you sometimes given a task that conflict your responsibility at the work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**25.** Does your supervisor clearly explain a specific task to you before you are asked to execute?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**26.** How often do you receive different task from different supervisors in a particular task?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

27. Do you feel abused by your supervisor and/or co-worker?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**The questions below are formulated to solicit information showing the relationship of the employees and their performance. Please tick to indicate your opinion using the box provided.**

28. You achieve your targets when you are in your desired field or job.

a) Agree [ ] b) Disagree [ ]

29. You can achieve your targets under shift work.

a) Agree [ ] b) Disagree [ ]

30. You can achieve your expected targets without the necessary training on new method of work

a) Agree [ ] b) Disagree [ ]

31. You underperform when you receive different task from different supervisors

a) Agree [ ] b) Disagree [ ]

32. You can achieve your expected targets when your task is in conflict with your roles.

a) Agree [ ] b) Disagree [ ]

33. You can still perform even under the sound and vibration of blast at the work place.

a) Agree [ ] b) Disagree [ ]

34. Your output is high after the introduction of new methods of work.

a) Agree [ ] b) Disagree [ ]

35. Your output is high working under pressure from your supervisor.

a) Agree [ ] b) Disagree [ ]

36. Your output is high even when the task to be performed is not clearly explained to you.

a) Agree [ ] b) Disagree [ ]

**Thank you for your participation**

# KNUST



## QUESTIONNAIRE FOR MOOLMANS MANAGEMENT

### Biographic data

1. Gender; Male  Female

2. Age

a) 20-29 yrs  b) 30-39 yrs  c) 40-49 yrs  d) 50 yrs and above

3. Academic Qualification. a) Basic  b) Secondary  c) Tertiary

d) Others specify.....

4. Marital status a) Single  b) Married  c) Widowed  d) Divorced

**The questions below are formulated to solicit information on the types of stresses that occurs at the work place. Please tick to indicate your opinion using the box provided.**

5. Do you place employees in their desired field or job?

a) Yes  b) No

6. Do you encounter problem with your employees in the kinds of task given them?

a) Always  b) Sometimes  c) Seldom  d) Not at all

7. Does your employees see their task more demanding?

a) Always  b) Sometimes  c) Seldom  d) Not at all

8. How often do you notice employees panic at least situations?

a) Always  b) Sometimes  c) Seldom  d) Not at all

9. How often do employees complain of depression at your work place?

a) Always  b) Sometimes  c) Seldom  d) Not at all

10. How often do you observe employee's anxiousness for task assigned them at a work place?

a) Always  b) Sometimes  c) Seldom  d) Not at all

11. How often do you observe employee's become easily provoked at the work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

12. How often do employees get accidents at your work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

13. How often do you get complains of employee's sexually harassed at the work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

14. How often do you observe carrying multiple tasks at a time?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

15. How often do you get medical reports on severe migraine on employees?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**The questions below are formulated to solicit information on causes of stress on employees. Please tick to indicate your opinion using the box provided.**

16. Does your company put premium on safety issues?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

17. Do you see your company's environment as accident prone?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

18. How often do you get complains about your shift work pattern affecting employees sleep?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

19. How often do you get complains from employees about the feel of threat by the sound and vibration of the blast that is carried out at your work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**20.** How often does your company adopt the use new methods of work in its operations?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**21.** How often do you observe the comfortability of employees with the level of changes in the new methods of work adopted by your company?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**22.** Do you give the necessary and adequate training needed by employees before these new methods of work are introduced?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**23.** How often do you get complains from employees about their work being very challenging or difficult to perform at your work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**24.** Does your supervisors give employees many tasks to perform within a short time?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**25.** How often do you get complains from employees about giving a task that conflict their responsibilities at the work place?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**26.** Does your supervisors clearly explain a specific task to be executed by employees before they are asked to execute?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**27.** How often do you get complains from employees about receiving different task from different supervisors?

a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

28. How often do you get complains from employees about the feel of abuse by your supervisors and/or other employees?

- a) Always [ ] b) Sometimes [ ] c) Seldom [ ] d) Not at all [ ]

**The questions below are formulated to solicit information showing the relationship of the employees and their performance. Please tick to indicate your opinion using the box provided.**

29. Employees achieved their targets when they are in their desired field or job.

- a) Agree [ ] b) Disagree [ ]

30. Employees can achieve their targets under shift work.

- a) Agree [ ] b) Disagree [ ]

31. Employees can achieve their expected targets without the necessary training on new method of work

- a) Agree [ ] b) Disagree [ ]

32. Employees under perform when they received different task from different supervisors

- a) Agree [ ] b) Disagree [ ]

33. Employees achieve their expected targets when their task is in conflict with their roles.

- a) Agree [ ] b) Disagree [ ]

34. Employees can perform even under the sound and vibration of blast at the work place.

- a) Agree [ ] b) Disagree [ ]

35. Employees output are high after the introduction of new methods of work.

- a) Agree [ ] b) Disagree [ ]

36. Employees output is high under pressure from supervisor

- a) Agree [ ] b) Disagree [ ]

37. Employees output is high even when the task is not clearly explained.

a) Agree [ ] b) Disagree [ ]

**Thank you for your participation**

# KNUST

