# THE EFFECT OF WORK CONDITIONS AND GENERAL HEALTH ON EMPLOYEES PERFORMANCE IN MINING INDUSTRY IN LIMPOPO PROVINCE

BY

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## DECLARATION

I Tlabo Raymond Leboho (student no: 11575414), hereby declares that this research submitted to the Department of Human Resources Management and Labour Relations, in the School of Management Sciences at the University of Venda, has not been previously submitted for a degree at this or any other institution of higher learning. I therefore further declare that the content carried in this research is the researcher's own work and any references to previous scholarly work were acknowledged accordingly. This research adhered to and followed all ethical procedures and requirements for academic work in human behavioural sciences.

**Student: Leboho TR**

Signature.....

Date.....



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## REMARKS

Readers are reminded of the following:

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## ABSTRACT

The main objective of this research was to investigate the impact of work conditions and general health on work performance of employees in mining industry in the Limpopo province of South Africa. The research method used to achieve the above stated objective consists of quantitative methods of data collection, data analysis, interpretation and discussion. Data collection instruments used in this research includes Job content questionnaire, general health questionnaire and individual work performance questionnaires, and they were distributed among the research population. Pearson product-moment correlation coefficients were used to determine the relationship between work condition, general health and work performance. The correlation results found that there is statistical and practical significant relationship between work condition, general work and performance. The results have clearly shown the existing relationship between factors of work condition (Decision latitude, Job demand & Social support) and two factors of general health (Anxiety & Social Dysfunction). Similarly, all factors of work condition (Decision latitude, Job demand & Social support) proved to have practically significant positive correlations with at least two (Task performance & Contextual performance) of the three factors of work performance. Crosstab analysis was used to determine the impact of biographic information on work performance. The crosstab results found that all three characteristics of individual biographic information (i.e. gender, age & qualification) have an impact on two factors of work performance (Task performance & Contextual performance). Regression analysis was used to determine the impact of work condition on work performance. Regression results found that work condition variables (Decision latitude, Job demand & Social support) as independent variables, have a statistical significant predictive impact on the work performance as a dependent variable. The recommendations of this research where made to future researchers of the same constructs on research methodology, department of labour and the employers.

**Key words:** work conditions, general health, work performance, mines.



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CHAPTER 1

# 1. INTRODUCTION AND BACKGROUND

## 1.1. Introduction

The main aim of this research was to investigate the impact of work conditions and general health on work performance of employees in mining industry in the Limpopo Province of South Africa. This chapter covers the introduction and background of this study, in which the state and the history of South African mining industry with regard to work conditions, general health and performance of employees is explored and contextualized within the aim of this study.

## 1.2. Background of the study

The mining industry has been an important source of employment in South Africa since the early 1900s (Masia & Pienaar, 2011).It to faces continuous obstacles with regard to increased demand for productivity, labour unrest, skills shortages, and loss of scarce technical skills due to emigration and high turnover rates (Van Schalkwyk, Du Toit, Bothma & Rothmann, 2010). One of the biggest challenges that mining industry came across recently is Marikana massacre. Approximately 34 mine workers were killed in traumatic and tragic events of labour unrest at Marikana in the Rustenburg Platinum belt on 16 August 2012 (Coleman, 2012). The labour unrests in Marikana were instigated by employers' role and the mining industry and the discovery of huge platinum belt in the Rustenburg area that has resulted in tremendous wealth for corporate and executives, but social unpleasantness, tensions and poverty and unsafe working conditions for workers (Coleman, 2012).

Moller (2003), states that the mining industry is determined to improve production through accelerated performance. As such, workers are disregarding safety procedures whilst attempting to reach performance targets (Moller, 2003). Due to performance pressure and time constraints, it has been reported that many workers engage in unsafe behaviours (Masia & Pienaar, 2011). The above mentioned behaviors include short cuts that compromise safety compliance and can cause accidents (Masia & Pienaar, 2011). It results in unhealthy working conditions which lead to job dissatisfaction of employees (Probst & Brubaker, 2001). These behaviours lead to a need for the researcher to investigate the impact of work conditions and general health on performance of employees in mining industry.



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According to Frame (2004), work conditions can be defined as an employee's work place, work instruments, the work itself, organization policy, and organizational rules. Arnold and Feldman (1996), promoted factors such as temperature, lighting, ventilation, hygiene, noise, working hours, and resources as part of working conditions. Work conditions can be clearly understood from the perspective of Karasek (1998) control-demand model where work conditions is conceptualized further based on job control (skills discretion and decision authority), psychological demand and work-related social support (supervisor support and co-workers support).

However, mining conditions are very different depending on the location, type, and size of the mining operation. Among other things in mining operations, employees are expected to work under conditions that include dust, chemical spills, harmful fumes, heavy metals and radiation, heavy lifting, use of jackhammers or other vibrating machinery, loud, constant noise, long working hours and working in very hot conditions(Paul & Maiti, 2005). By understanding these working conditions as mining's threats to general health and long-term well-being, and by taking precautions to reduce harm in all mines, employees' lives can be protected and improved (Paul & Maiti, 2005).

Swanepoel, Erasmus, and Schenk (2008), defined general health as the state of optimal social, physical and mental health. General health of employees embodies the aspects of physical, psychological and social state of well-being of the people who work in an organization (Swanepoel et al., 2008). However for the purpose of this study, the scope of this definition will be extended to cover the theory of Goldberg and Hillier (1979) which identifies four concepts, namely: Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression.

According to Davidoff (1987), work performance is generally determined by three factors, namely; ability, work environment and motivation. Ability is the capability to do the job; Work environment is the tools, materials and information needed to do the job; and motivation is the desire to do the job. Although most researchers attribute to an undeniable sentiment that motivation is a principal driving force behind good performance, this research view motivation not as a standalone contributor on work performance. Variables such as work conditions and general health are equally, alongside with motivation, consequently driving force behind work performance (Baron, & Greenberg, 2003).



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### 1.3. Problem statement

Mining is still one of the toughest and most dangerous occupations (Paul & Maiti, 2005). A strong focus on maximum production characterizes the mining industry, with little attention paid to general wellbeing of employees (Masia & Pienaar, 2011). These high performance expectations and little time at hand, reduce the safety level of operations, employees have strict targets to meet within specified timelines and are encouraged to take shortcuts and jeopardize safety (Masia & Pienaar, 2011). This trend has created problems for many employers in the mining industry, who are legally obliged to create and maintain safe working conditions for all employees (Probst & Brubaker, 2001).

Cartwright and Cooper (2002), as well as Martin (2005), indicated that experiencing high level of work pressure lead to feelings of anger, nervousness, irritability, tension, hypersensitivity to criticism and mental blocks. The above mentioned psychological problems can subsequently lead to lower job performance, inability to concentrate and make decisions, and job dissatisfaction (Cartwright & Cooper, 2002; Martin, 2005). The main criticism in the field of work conditions and general health is based on the primary motive of research, which focuses on finding ways to maximize productivity by improving employees work conditions and general health. In so doing, the values and personal needs of employees' should be taken into account, to avoid the exploitation of employees and their general health (Maharaj, 2014). Therefore, current and future researchers are urged to create a balance between the needs and values of employers' and employees' work conditions and general health (Saari & Judge, 2004).

Research regarding work conditions has also pointed out the assumption that work conditions are potential determinant of absenteeism, turnover, in-role employee performance and extra-role behaviours (Oshagbemi, 2003). Most importantly, the topic of work conditions is more pertinent to the physical and mental wellness of employees. Work is a crucial aspect of people's lives and most people spend a large fraction of their time at work; therefore, work conditions shows significant relations with several work related variables (Yousef, 2000). The main problem that created gap for the relevance of this study is the overemphasis of attention on maximization of performance and profits with little or no attention paid to the work conditions and general health of employees.



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### 1.4. Research objectives

### 1.5. General objective

The main purpose of the study was to investigate the effect of work conditions and general health on employees' performance in mining industry in the Limpopo province

### 1.6. Specific Objectives

- To identify factors affecting work conditions, general health and employees' performance in mining industry in the Limpopo province.
- To determine the relationship between work conditions, general health and employees' performance in mining industry in the Limpopo province.
- To examine the impact of work conditions on employees' performance in mining industry in the Limpopo province.
- To determine the impact of individual's biographic characteristics (i.e. age, gender, qualifications etc) on employees' performance in mining industry in the Limpopo province.

### 1.7. Research questions

The following research questions can be formulated based on the above-mentioned description of the research problem;

- What are factors that affect work conditions, general health and employees' performance in mining industry in Limpopo Province?
- What are the relationships between work conditions, general health and employees' performance in mining industry in Limpopo Province?
- What is the impact of work conditions on employees' performance in the mining industry in Limpopo Province?
- What is the impact of biographic information on the employees' performance in the mining industry in Limpopo Province?

### 1.8. Hypotheses

From the above problem statement, the following research hypotheses were formulated.

- **H1:** There is a statistical and practical significant relationship between work condition, general health and employees performance



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- **H2:** Biographic variables such as age, gender and qualification have significant relationship with performance
- **H3:** There is a statistical significance relationship between work condition and Task Performance
- **H4:** There is a statistical significance relationship between work condition and Contextual Performance
- **H5:** Poor work condition predicts poor Counterproductive Behaviour

### 1.9. Significance of the study

In response to the rapid industrial development, mining companies have placed maximization of production on a high premium with little or no attention given to the employees' general well-being (Maglaggan, Bezuidenhout, & Botha, 2013). Systematic performance management strategies have been put in place to pressurize employees to meet set targets without considering employees work conditions and general health (Maglaggan, et al., 2013). However performance levels realized in such instances is less likely to be sustained due to employees' inability to cope with pressure, high rate of mistakes and accidents as well as high level of job dissatisfaction (Maglaggan, et al., 2013).

Ashworth and Peake (1994), indicates that the harsh physical conditions encountered in the mining industry could aggravate the perception of human error as a causal factor in mining accidents in South Africa. Therefore, given the aforementioned realities, this study provides mining industry with necessary recommendations. This research provides recommendations around finding an effect of work conditions and general health on work performance. The results of this proposed research assist the mining industry in finding remedial measures to working conditions and general health of employees. The study also is useful to the general society outside the scope of mining in dealing with work related conditions and general health as well as their impact on employees performance. The recommendations of this study can inspire re-invention of occupational health and safety policies and Performance Management Systems in the mining industry.

This research contributes theoretically to the scholars for future researches in terms of conducting literature review. Findings of this research help to scientifically prove the theoretical hypothesises and assumptions around the effect of work conditions and general health on work



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performance of employees in mining industry. This study will extend the current literature on work conditions and general health of employees in mining industry. The study will investigate the effect of work conditions and general health on work performance of mine workers in the mining industry in Limpopo province. This should enable common factors in the experience of work condition and general health to be identified, and separated from those factors that are peculiar to one or two mines.

The data collection methods that will include distribution of questionnaires to the sample population are used in quantitative research. The future researchers can also use the measuring instruments to measure the variables. The reliability of the measuring instruments is tested with the Cronbach's alpha coefficient. This research will also assist future researchers in analysing the collected data. In quantitative research statistical analysis of the data is the most convenient method of analysing data. The correlation coefficient is used to determine the relationship between and among variables. The multiple regression analysis is used to determine predictive value of independent variables on dependent variables. Quantitative methods use numbers to interpret data.

## 1.10. Definition of concepts

### 1.10.1. Work conditions

According to Frame (2004), work conditions are defined as an employee's work place, work instruments, the work itself, organization policy, and organizational rules. Arnold and Feldman (1996), promoted factors such as temperature, lighting, ventilation, hygiene, noise, working hours, and resources as part of working conditions

### 1.10.2. General health

According to Swanepoel, Erasmus, and Schenk (2008), general health is defined as the state of optimal social, physical and mental health. General health of employees embodies the aspects of physical, psychological and social state of well-being of the people who work in an organization, most notably the employees (Swanepoel et al., 2008).



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### 1.10.3. Employees Performance

Performance can be defined as the achievement of a particular duty measured against present known standards of accuracy, completeness, cost and speed (Breen & Thomas, 2004). In the workplace performance is deemed to be the accomplishment of a responsibility, in a way that releases the performer from all liabilities under the contract. Performance runs deep inside the organization, and it affects all of its employees and functions (Breen & Thomas, 2004). Performance is neither hereditary nor accidental. It is the outcome of deliberate choices made by senior executive (Breen & Thomas, 2004).

## 1.11. Limitation of the study

The study focused on few mines in Limpopo province, where a small sample of mine workers (both technical and administrative) was taken. It is for this reason that this research was limited to make generalization on its findings. This study relied on self-reported measure where participants were awarded opportunity to fill questionnaires and finish in their own time, which consequently limited the generality and reliability of the findings.The respondents' participation in this study was voluntary; this too limited the number of potential participants.A cross-sectional design was be used in this study; therefore it was difficult to make causal interpretations. In future longitudinal design shall be used where conclusion in terms of cause and effect can be made easily.

## 1.12. Contribution of the study

## 1.13. Theoretical contribution

- This research will contribute theoretically to the scholars for future researches in terms of conducting literature review.
- Findings of this research will help to scientifically prove the theoretical hypothesises and assumptions around the effect of work conditions and general health on employees' performance in mining industry in Limpopo province.
- This study will extend the current literature on work conditions and general health of employees in the mining industry in Limpopo province.
- This study investigated the effect of work conditions and general health on employees' performance in mining industry in Limpopo province.



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- This study enabled common factors in the experience of work condition and general health to be identified, and separated from those factors that are peculiar to one or two mines.

## 1.14. Practical contribution

- The results of this research will assist in finding remedial measures to working conditions and general health of employees in mining industry in Limpopo province.
- The study will also be useful to the general society outside the scope of mining in dealing with work related conditions and general health as well as their impact on employees performance.
- The recommendations of this study can inspire re-invention of occupational health and safety policies and Performance Management Systems in mining industry in Limpopo province.

## 1.15. Methodological contribution

This research will help future researchers in using methods of quantitative research such as the following;

- The data collection methods that included distribution of questionnaires to the sample population were used in quantitative research. The future researchers can also use the measuring instruments to measure their variables.
- The reliability of the measuring instruments was tested with the Cronbach's alpha coefficient. This research will also assist future researchers in analysing the collected data. In quantitative research statistical analysis of the data is the most convenient method of analysing data. The correlation coefficient is used to determine the relationship between and among variables.
- The regression analysis was used to determine predictive value of independent variables on dependent variables. Quantitative methods use numbers to interpret data.

## 1.16. Outline of chapters

**Section 1: Introduction and background**

This section outlines the introduction and the background of the study as an introductory phase to provide a clear understanding of what the research is all about.



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**Section 2: Literature review**

Section two outlines the existing literature conducted by previous researchers in relation to the topic. This phase provide the theoretical bases of the study. Previous work will provide the bases of the conceptualization of the operational terminology in this study.

**Section 3: Research methodology**

This section outlines the clear skeletal structure of the empirical study. It outlines the methods and techniques of data collection, the measuring instruments and the manner in which the research will be designed as well as the ethical standards applicable in scholarly work. This chapter defines and measure subjects of the research (i.e. population).

**Section 4: Data analysis and interpretation**

In this section, the data collected in the previous phase will be analyzed and interpreted through the use of statistical methods. SPSS will be used to compute data collected in the form of numbers into the meaningful information useful for the discussions and conclusion.

**Section 5: Discussion, conclusion and recommendation**

This chapter will include the discussion of the analyzed and interpreted data in the previous phase. This discussion will lead to particular research conclusions and recommendations in line with research questions and objectives.

## 1.17. Summary

This section outlined the topic, background of the study, problem statement and the significance of this research. In the similar way research questions were outlined in line with the research objective. As part of the broader objectives of the research, this chapter specified the contributions its findings will make in the mining industry, literature and the general society.



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# CHAPTER 2

## 2. LITERATURE REVIEW

### 2.1. Introduction

According to Sekaran (1992), literature review can be defined as an organized, critical analysis and summary of the available body of literature relevant to the research topic. It aims at contributing towards a clearer understanding of the nature and the meaning of the problem that has been identified. It refers to the documentations of a comprehensive review of the published and unpublished data from the secondary sources of data in the areas of specific interest to the researcher. In this chapter the literature will be reviewed on the basic theoretical background of the operational variables in this research (i.e. work conditions, general health and work performance)

### 2.2. Mining health and safety regulation in South Africa

Mining health and safety in South Africa is governed by Act 29 of the 1996 Mine Health and Safety Act. The base premise of the Act is:

- Ensuring that the owner is responsible for health and safety by creating codes of practise,
- Ensuring that there is Training, identifying potentially hazardous factors, investigating such factors, employing hygienists for the industry, and founding methods of medical attention and recording for the site.
- Safeguard the rights of workers to refuse or move away from areas which are not safe or potentially unsafe.
- Establishing the Inspectorate of Mining Health and Safety.
- Establish the Mine Health and Safety Council.

Following amendments in 1997, the original 1996 act now also includes:

- Making provision of a monetary fining system in support of tripartite institution regulation and to provide health and safety-appointed employees in the case of any inquiry.
- Making provision for the constitution of the Mine Health and Safety Council with regard to issues of procedure within the council.



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- Amendment with regard to the process of electing and appointing health and safety representatives, and establishing the authority of health and safety inspectors.

The Mine Health and Safety Inspectorate of South Africa is very clear with regard to the manner in which they intend to push legislation and national mining standards to decrease mining deaths and occupational injuries. There is also more emphasis on the importance of support and training in this. Their goals are:

- To Provide policy inputs for the establishment and application of mine safety standards at mining operations, and promote their application;
- To provide policy inputs for the establishment and application of mine equipment safety standards at mining operations, and promote their application;
- To provide policy inputs for the establishment and application of mine health standards at mining operations, and promote their application;
- To ensure an effective support and inspection services.

**2.3.** The state of mining health and safety conditions in South Africa

Notwithstanding that the mineworkers contribute less than 4% of the total workforce in South Africa, a disproportionately high percentage of occupational deaths, 15% of the estimated total for the country, are associated with mining (Hermanus, 2007). Moreover there is a significant burden of occupational diseases among former and current mine workers (Hermanus, 2007). To this end, the state of mining health and safety in South Africa inspired the development of legislations regulating mining industry to focus more on risk management, accidentinvestigation and worker involvement in health and safety (Hermanus, 2007). However, there are significant improvements in terms of reported cases on mining death and accident fatalities (Hermanus, 2007).

**2.4.** Work conditions

The theoretical background of work conditions in this study was based on Robert Karasek (1979) Job Control-Demand model. Job demand-control model identifies three cardinal factors (decision latitude, job demand and social support) as important determinants of job stress, which in turn have significant effects on general health (Theorell & Karasek, 1996). The decision latitude consists of two theoretically distinct sub dimensions called skill discretion and decision



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authority (Karasek & Theorell, 1990). Skill discretion assesses the level of skill and creativity required on the job and the flexibility permitted to the worker in deciding what skills to employ. A second sub dimension, which is decision authority, assesses the organizationally mediated possibilities for workers to make decisions about their work (Theorell & Karasek, 1996). Job demand emphasizes the level of demand particular job content poses to the worker. Dorsch and Eaton (2000) states that job demands dimension refers to whether there is enough time to get the job done, the amount of work, and the presence of conflicting demands.

The basic tenet of JDC model is that job control or decision latitude is the crucial resource that moderates potential negative effects of employees' performance (Rodriguez, Bravo & Peiro, 2001). The JDC model indicates that jobs which are high in demands and low in control at work carry the highest risk of illness and performance deficiencies.

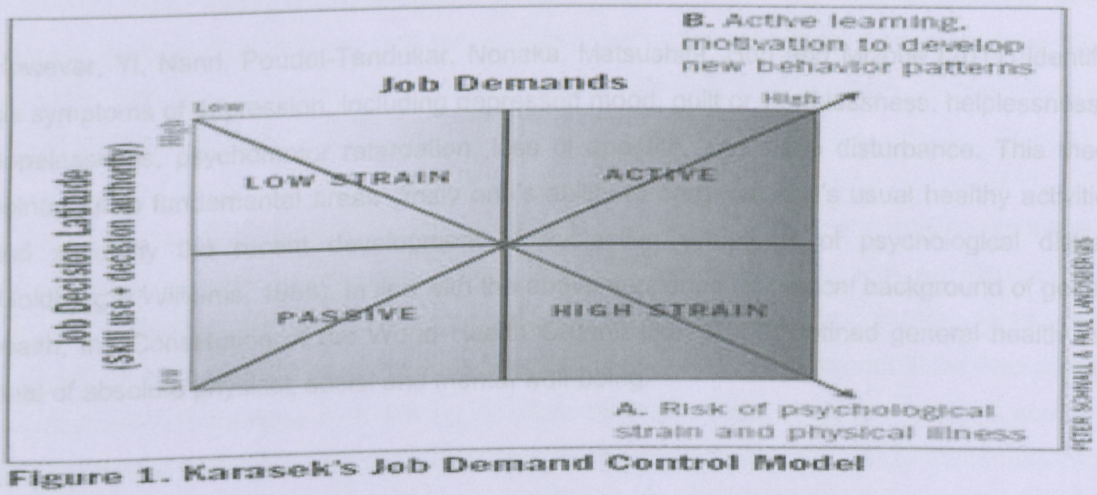



Figure 1. Karasek's Job Demand Control Model

***Figure1. Karasek's Job demand control model***

The demand/control model has been expanded by Johnson (1988) with the addition of social support as a third dimension. Social support consists of two sub dimensions called support from co-workers and support from supervisors. The JDC with a third dimension (social support), indicates that jobs which are high in demands, low in control, and also low in social support (support by co-workers or support by supervisor) at work carry the highest risk of employees' general health and performance (Johnson & Hall, 1988).



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## 2.5. General Health

The theoretical background of this variable (general health) was based on the four dimensional general health factors outlined in the theory of Goldberg and Hillier (1979) which identifies such dimensions as Somatic Symptoms, Anxiety and Insomnia, Social Dysfunction and Severe Depression. The first concept is Somatic Symptoms, which refers to a psychiatric state marked by multiple medically unexplained physical or Somatic Symptoms (Barlow & Durand, 2005; Carson, Butcher & Mineka, 1996). The second concept is Anxiety, which is described as a negative mood condition characterized by bodily symptoms of physical tension and worry about the future (Barlow & Durand, 2005). The third concept is Social dysfunction, which is considered by Barlow and Durand, (2005), as a diagnostic feature of schizophrenic disorder. The fourth concept is Depression, which affects every day life, leading to symptoms such as hopelessness and worthlessness feelings and even loss of desire to life altogether (Barlow & Durand, 2005).

However, Yi, Nanri, Poudel-Tandukar, Nonaka, Matsushita, Hori and Mizoue (2011) identifies six symptoms of depression, including depressed mood, guilt or worthlessness, helplessness or hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance. This theory points out to fundamental areas, firstly one's ability to carry out one's usual healthy activities, and secondly the recent development of subjective symptoms of psychological distress (Goldberg & Williams, 1988). In line with the abovementioned theoretical background of general health, the Constitution of the World Health Organization (2000) defined general health as a state of absolute physical, social and mental well-being.

## 2.6. Work Performance

Employees' performance in this study was viewed from the theoretical bases of an individual behaviours or actions which are relevant to the goals of the organization (Campbell, 1990). Thus, individual work performance focuses on behaviours or workers actions, instead of the results of these actions. Furthermore, behaviours should be controlled by individual employees, thus excluding behaviours that are constrained by the environment (Rotundo and Sackett, 2002).

Various researches (Rotundo & Sackett, 2002; Viswesvaran & Ones, 2000), indicates that individual work performance consists of three broad dimensions. The first dimension, task performance, refers to the proficiency with which individuals perform the core substantive or



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technical tasks central to his or her job" (Campbell, 1990). The second dimension, contextual performance, refers to a behaviour that supports the organizational, social and psychological environment in which the technical core must function (Borman & Motowidlo, 1993). The third dimension, counterproductive work behavior, refers to a behavior that harms the well-being of the organization (Rotundo & Sackett, 2002).

**2.7.** Possible instigators of employees performance

According to Davidoff (1987), individual work performance is generally determined by three factors namely; Ability, the capability to do the job; Work environment, the tools, materials and information needed to do the job; and Motivation, the desire to do the job. Boldman and Deal (2003), indicates that, by encouraging workers to engage in team works, results in them becoming more competent, motivated and flexible enough to tackle multiple tasks as well as delivering exceptional products and services required by the customers. Usually workers yearn for a job well done including being noticed and acknowledged when they do something well (Blanchard & Witts, 2009).

On the other hand, Haizlip (2008), believes that involving workers decision making processes of the decisions that affect them not only increases their personal commitment, but also motivates them to be advocates for their decisions, supporting this assertion, on the same breath, Agarwal (2008), contends that when employees are involved in making decisions and planning the execution of changes that directly or indirectly affect them, they turn to implement such changes faster with higher performance than those workers who are merely communicated to about the change. Having noted that, according to Blanchard and Witts (2009), employees greatly wish to have the equipments, training, support and authority and the discretion to make decisions and perform their jobs correctly. In agreement, Across (2005), states that employees do not perform well in situations where they lack autonomy, especially after they have gained the skills to work independently.

**2.8.** Relationship between work conditions and work performance

Bevan, (2012), reiterates the role of work performance in an organization as a very significant factor affecting profitability of an organization. In the same breath, Existing research has established a link between working conditions and job performance (Naharuddin & Sadegi, 2013). An organization that has the right environmental factors both physical and psychosocial



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will lead to increase performance (Chandrasekar, 2011). A large number of work conditions studies have been conducted in relation to its impact on work performance, for example, one study suggested that the management should make an additional investment in ergonomic tables and chairs to enhance workers' productivity (Miles, 2000). As indicated in the definition above, environmental conditions range from ordinary to extreme conditions in terms of the factors such as heat, humidity, noise, smell, light, and dust.

Arnold and Feldman (1996) states that workers may feel that poor working conditions will only aggravate negative performance, since their jobs are mentally and physically demanding. Identifying the impact of work conditions on work performance of mine workers will contribute to understand ways in which managers can enhance job performance of workers.

**2.9.** Relationship between work conditions and general health

As articulated in Karasek's job demand model, a combination of high psychological demands with little or no control as well as little or no social support at work causes psychological strains. According to Cheng, Luh and Guo (2003) there is a strong associations of high levels of job strain with increasing risks of various health problems. The work condition's demand–control model has contributed to the study of occupational health by providing a theoretical framework to explain the relation between the psychosocial characteristics of the work environment and health outcomes (Dorsch & Eaton, 2000). In this regard, Dorsch and Eaton (2000) postulates that the two basic dimensions (decision latitude and j demand) of work condition predict a broad range of health and behavioral outcomes.

Decision authority will have a stronger association with depression than other dimensions of the work condition and the association between decision latitude and other forms of depression will be stronger with increasing severity of depression (Dorsch & Eaton, 2000).

**2.10.** The relationship between general health and work conditions, and the extent to which they affect work performance

Frame (2004), defined work conditions as an employee's work place, work instruments, the work itself, organization policy, and organizational rules. Arnold and Feldman (1996), promoted factors such as temperature, lighting, ventilation, hygiene, noise, working hours, and resources as part of working conditions, with which if neglected, can cause harm to general health of



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employees. The worker would rather desire working conditions that will result in greater physical comfort and convenience. The absence of such working conditions, amongst other things, can impact poorly on the worker's mental and physical well-being (Baron, & Greenberg, 2003).

According to Robbins (2001), working conditions will influence work performance, as employees are concerned with a comfortable physical work environment. Meanwhile, Arnold and Feldman (1996), shows that factors such as temperature, lighting, ventilation, hygiene, noise, working hours, and resources are all part of working conditions. Research conducted over the past two decades indicated that poor psychosocial work conditions adversely affect general health (Karasek & Theorell, 1990).

Not only do poor psychosocial work conditions affect general health as pointed out by Karasek and Theorell (1990), Lamm, Massey and Perry, (2006), also found out in their study that there is increasing and compelling evidence that providing a healthy and safe working conditions has the potential to increase work performance, productivity and in turn increase organizations profits. Lamm et al (2006), also refer to the argument of some commentators that productivity gains are often at the expense of workers' health and safety. Employees may feel that poor working conditions will only provoke negative performance, since their jobs are mentally and physically demanding. All these theoretical evidence proves that to a certain extent, there is a relationship between work conditions, general health and work performance.

## 2.11. Factors affecting work performance

According to Judge and Ferris (1993), the most significant human resources system in organizations is performance evaluation, and the ratings of workers' performance represent important decisions that highly influence a variety of subsequent human resources actions and outcomes. Therefore in this regard, performance means both behaviour and result. To this end, performance can be viewed as a multidimensional construct, the measurement of which varies depending on a variety of factors (Armstrong, 2000). A more comprehensive view of performance can be achieved achieved if it is defined as embracing both behaviour and outcomes (Armstrong, 2000). Work performance is a significant factor that contributes to improving the outcomes, behaviour and characteristics of the workers. It helps to improve the productivity of the organization. Nickols (2003), as well as Fort and Voltero (2004), identify factors that are closely related and affect performance in the workplace. These factors include:



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clear goals and job expectations, work environment, immediate feedback, skills to perform, knowledge of the organizational structure, functional feedback system, sufficient motivation through job satisfaction and incentives.

According to Dieleman, Cuong, Vu Anh,and Martineau, (2003), factors such as Income is indeed an important motivator for work performance. Blanchard and Witts (2009), asserts that employees greatly desire to have the tools, training, support and authority to make decisions in order for them to perform effectively and efficiently.

### 2.12. The impact of biographic characteristics on work performance

Although researches point out factors affecting performance in workplaces, it is an undeniable reality that performance as a variable is not immune to the influence of factors such as biographic information/demographic diversity. Changes in demography are one of the factors that affect work performance (Palakurthi & Parks, 2000). However, there is only relatively few studies that looked into the impact of demographic factors on work performance in general.

The impact of biographic variables such as age and gender on performance has been put to test in the literature. In terms of relationship between gender and work performance, Igbaria and Shayo, (2007), reported that gender did not have a significant impact on work performance whereas on the contrary, Benggtson, Vedin, Grimby, and Tibblin (1978), noted that females were found to have better work performance compared to their male counterparts. With regards to age, a study by Yearta (1995), showed that age does not affect work performance, thus contradicting with what have been revealed by Smedley and Whitten (2006), who suggested that difference in age could be also a potential factor for work performance.

With regard to the level of education (qualifications), Linz (2002) found that there is no relationship between qualifications and performance. However McBey and Karakowsky (2001) on the other hand, found that there is likelihood a causal relationship between education level and work performance. According to McBey and Karakowsky (2001), education somewhat affect work performance. The lower the education level, the less likely people would have better work performance. The inconsistencies in the impact of biographic information on performances could be attributed to the influence of other nuisance variables as it applies to a specific study.



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## 2.13. Conclusion

This section summarized the literature review that serves to indicate the importance of understanding the relationship between work conditions and general health as well the extent to which the latter affect work performance. The information as articulated in the literature provides the theoretical bases of the problem statement as well as the objectives of this research. This review aimed to describe, summarize, evaluate and clarify this literature as it is already known. Most importantly, this literature review went beyond the search for information and included the identification and articulation of relationships between the job satisfaction, work conditions, general health and employees' performance.



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# CHAPTER 3

## 3. RESEARCH METHODOLOGY

### 3.1. Introduction

This section covers the method of research which includes the research design and data gathering techniques that are used in the study. It further outlines the procedures that were followed and describe how the data relevant to the research questions was collected and analyzed. According to Brynard and Hanekom (2006), the purpose of the research method is to provide sufficient background to appraise the quality of data and the finding of the research.

### 3.2. Research design

Brynard and Hanekom (2006) define research design as the basic plan that guide the data collection and analysis phase of the research project. It is a framework that specifies the type of information to be collected, the sources of data and the data collection procedure because it clearly indicates the plan to be followed to realize the research objective. In this research, the following research designs is used; descriptive research design and explanatory (prediction, correlation and causal) research design.

The descriptive research designs are in most cases structured and specifically designed to measures the characteristics described in the research questions (Saunders, Lewis & Thornhill, 2003). The main aim of descriptive design is to portray an accurate profile of persons, event or situations and it is very important to have a clear picture of the phenomena on which the researcher wish to collect the data prior the collection of the data (Saunders, Lewis & Thornhill, 2003). This study is descriptive in the sense that it describes the level of impact that the diverse demographic information has on employees' performance.

The explanatory research design includes studies that establish the relationships between variables. Saunders, Lewis and Thornhill (2003) indicate that the emphasis in exploratory research is studying a situation or a problem in order to explain relationship between variables. Explanatory research is designed to test whether one event causes the other (Hair, Babin, Money & Samouel, 2003). This study uses explanatory design as it focuses on the causal



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explanations. Therefore causal explanations find expression in the following research objective; (determining the impact of work condition on employees' performance) which argues that phenomenon Y (employees' performance) is affected by phenomenon X (work condition). This study is explanatory in that it determined predictive, correlation and causal values to test the relationship between identified variables as well as examining predictive values of independent variables on dependent variables. In a nutshell, the fundamental design of this research is descriptive and explanatory. It is descriptive in the sense that descriptive data was collected through detailed questionnaires and it is explanatory since the researcher explained the relationships between variables.

### 3.3. Study area

The study is conducted in the mining industry of the Limpopo province. Limpopo province is one of the provinces hosting mining operations especially coal, platinum and diamond. Limpopo province was used as the study area for the purpose of this research.

### 3.4. Target Population

According to Welman, (2005), population is the study object and it consist of individuals, groups, organizations, human products and events or the conditions to which they are exposed. Therefore the population is a full set of cases from which the sample will be drawn. In this study, the population comprises of employees in the mining industry in Limpopo province. Employees in all occupational levels in both operational and administrative were participants of this study. Total populations of about (N = 3000) mine workers from various occupational levels were targeted in this study.

### 3.5. Sample size

A sample refers to a subset of a larger population (Sudman & Blair, 1998). To obtain reliable data, the probability sampling was used in this research. Probability sample draws elements from the population by random selection. A stratified random sampling, where population members are selected directly from the sample frame was used. This method gave an equal chance of selection to all population members that appear in the sample frame. Sample size of 205 population members was randomly selected from the sample frame of 3000 population members.



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**3.6.** Data collection and measuring instruments

According to Mouton (2009), data collection involves using instruments to collect data of the sample or cases selected for the investigation. For the purpose of this study, questionnaires were used as a data collection instruments. Questionnaire refers to a document which contains questions and other types of items designed to solicit data appropriate for analysis (Babbie, 2008). In this study, questionnaires were prepared and distributed to selected participants for data collection. The informed consents were obtained from all participants, prior distribution of questionnaires.

The biographic questionnaire was developed and attached to all questionnaires. The biographic questionnaire included aspects such as educational level, age, gender, and race of employees as participants. The following measuring instruments were used to gather data.

A *Job Content Questionnaire* (JCQ) was developed by Robert Karasek (1998) and it is based on his control-demand model. The questionnaire contains 22 items, which consist of a minimum set of questions for assessment of three major JCQ scales – decision latitude, psychological demands and work-related social support. The decision latitude scale is the sum of two subscales: skill discretion, measured by six items (i.e. *"my job requires me to be creative"*), and decision authority, measured by three items (i.e. *"I have a lot of say about what happens on my job"*). The psychological demands scale is measured by five items (i.e. "*my job requires working very fast*"). The work-related social support scale is the sum of two subscales: support from supervisors and support from co-workers, both measured by four items each ("*my supervisor listens to my opinions"; "I have good relationship with my coworkers*"). For each item, the response was recorded on a four-point Likert scale, ranging from 1 (strongly disagree) to 4 (strongly agree). For each scale, a sum of weighted item scores will be calculated (Cheng, Wei-Luh & Guo, 2003).

The JCQ has shown reliability and validity in previous studies on most of the subscales measured. According to Jabali, Ghaffari, Pournik, Ghalichi, Yazdi and Motevalian (2013) JCQ was found reliable and valid for assessing health care workers in Iran. The calculated Cronbach's α was >0.75 for all scales except for psychological demand (α=0.60) indicating insufficient internal consistency for the latter scale. The reliability and validity of four selected scale from the Chinese Version of the Job Content Questionnaire were studied in 551 male and 648 female workers in Taiwan. Cronbach's alpha coefficients for job control, supervisor support,



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and coworker support were all above 80, whereas it was .55 for psychological demands, indicating insufficient internal consistency for this subscale (psychological demand) (Cheng, Wei-Luh & Guo, 2003).

*General Health Questionnaire* (GHQ) was originally described by Goldberg (1972) as a self-administered screening instrument for psychiatric disorder in nonclinical populations, and has come to be the most widely used of such instruments. The 28-item version of the GHQ is the only version that provides subscale measures of more specific domains of psychopathology (Goldberg and Hillier, 1979). There are four subscales consisting of 7 items in each case, which are labeled Somatic Symptoms (SS) measured by the first 7 items of the score (*i.e. felt that you are ill*?), Anxiety (A) measured by item 8 to 14 of the scale *(i.e. been getting scared or panicky for no good reason?),* Social Dysfunction (SD) measured by items 15 to 21 (*i.e. been able to enjoy your normal day-to-day activities?)*, Depression (D), measured by the last items of the scale (22 to 28) (*i.e. felt that life isn't worth living*?).

In past it has yielded valid and reliable results across different cultures for example, Fernandes & Vasconcelo (2013) found it highly valid and reliable scale among the clinical and non clinical sample in Brazil. Similarly López & Dresch (2008) determined its validity and reliability among Spanish population.

Individual work performance was measured using the *Individual Work Performance Questionnaire (*IWPQ 1.0) developed by Koopmans. The IWPQ 1.0 consists of 3 scales (task performance, contextual performance, and counterproductive work behavior) with a total of 18 items. Of these scales, task performance is measured by the first seven items (i.e. "*I managed to plan my work so that it was done in time*"), contextual performance is measured by the second seven items (i.e. "*I took on challenging work tasks when available*") and counterproductive work behavior is measured by the last four items (i.e. "*I complained about unimportant matters at work*"). Within each scale, items were presented to participants in randomized order, to avoid order effects. All items were measured based on a five-point rating scale ("seldom" to "always" for task and contextual performance, "never" to "often" for counterproductive work behaviour) (Koopmans, Bernaards, Hildebrandt, de Vet, & van der Beek, 2014).



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According to Koopmans, et al. (2014), the absolute presenteeism score showed a moderate positive correlation with the IWPQ task and contextual scales, and a weak negative correlation with the counterproductive scale which indicate a fair amount of convergent validity. Moreover, Terwee, Bot, and de Boer (2007) propose a standard of good construct validity when 75% of the hypotheses are confirmed. In the current study, 10 of 15 hypotheses (66.6%) (5 constructs × 3 IWPQ scales) were confirmed. Overall, these findings indicate acceptable construct validity.

### 3.7. Procedure

The research was conducted in two phases, namely; phase 1; Literature review and phase 2: Empirical study. Firstly the literature was reviewed with reference to the previous scientific researches that were conducted on the impact of work conditions and general health on job performance of employees in mines. Previous studies and various researches under the subject of work condition and general health and their impact on job performance were used as the source of literature. The literature in this research was reviewed with the help of library books, journals, articles, internet and various search engines.

Secondly, the empirical study includes the research design, the participants, measuring instruments and data analysis. It is noteworthy to indicate that the study was conducted in the form of quantitative research method. Quantitative research refers to the use of numbers to collect or work with data (Louw & Edward, 2005). In agreement, Neuman (2011), quantitative research to a research in which data is collected or coded into numerical forms, and to which statistical analysis will be applied to determine the significance of the findings. Quantitative procedure saves time and is more objective and precise as it is not easy to manipulate numbers to biasness. The mining employees were given questionnaires amid their prior consent and all ethical considerations in order to collect data. The data collected was analyzed and interpreted through the use of statistical methods (i.e. SPSS) to arrive at particular research discussions and conclusions.

### 3.8. Statistical analysis

The statistical analysis was carried out with the use of IBM-SPSS program. Cronbach's alpha coefficients were used to assess the reliability and validity of the measuring instruments (GHQ, JCQ & IWPQ) (Clark & Watson, 1995).



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The Pearson product-moment correlation coefficient was used to specify the relationship between work condition, general health and employees' performance. The statistical significance of these relationships was set at $p < 0.05$ and the effect size was computed to assess the significance of the relationships. A cut-off of $r \geq 0.05$ which represent a medium effect was also set (Cohen, 1998).

The crosstab analysis was used to determine the impact of individual biographic information on the work performance. The biographic information such as gender, age and qualifications was entered into crosstab analysis to determine their impact on employees' performance.

Multiple regression analysis was also used to analyse the predictor variables on criterion variables. Multiple regression analysis in this research was used as a statistical technique to explore linear relationship between the predictor and the criterion. The statistical significance was set at $p \leq 0, 05$.

### **3.9.** Ethical considerations

According to William (2006) ethical considerations can be defined as rules of conduct in research aimed at causing no harm and providing all possible benefits to the respondents. It also involves the responsibilities that the researcher bears towards those participating in the research. As part of the researcher's responsibilities, clearance was obtained from the University of Venda Research Ethics Committee. In addition, the permission to conduct the research was obtained from all selected mines. This study complied with the code of ethics proposed by the University of Venda. The researcher informed the participants about the purpose of the study and everything that will happen during the research process and what was expected of them. The participants were given consent forms that they signed to formally agree to take part in the study.

In this research the participation was based on the respondents' fully understanding of the benefits and risks. The researcher did not compel the participants to participate in the research, in other words, the participation in this research was fully voluntary. And most importantly, information provided by the participants, particularly sensitive and personal information, is protected and made unavailable to anyone other than the researcher. Participation was done on the bases of anonymity to ensure confidentiality.



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### 3.10. Summary

This chapter summarized the research methodology used in this study. It covered the methodology of research which includes the research design and data gathering techniques that were used in the study. This chapter further outlined the research procedure, populations and samplings as well as measuring instruments that were used to collect data. The ethical process and procedures used in this research was outlined in this chapter. This chapter also presented the statistical methods that were used to present, analyse and interpret data with the use of IBM SPSS. Most importantly, this chapter outlined the main purpose of research methodology in providing sufficient background to evaluate the quality of data and the findings of research.



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# CHAPTER 4

## 4. DATA ANALYSIS AND INTERPRETATION

### 4.1. Introduction and Tables

In this chapter, the data collected was presented, analyzed and interpreted through the use of statistical methods. SPSS was used to compute data collected in the form of numbers into the meaningful information useful for the discussions and conclusion.

Table 1

### 4.2. Characteristics of the participants

| No | Variables | Category | frequency | Percentages (%) |
|---|---|---|---|---|
| 1. | Gender | 1= Male | 126 | 61.5% |
| | | 2= Female | 79 | 38.5% |
| 2. | Race | 1= Black | 143 | 69.8% |
| | | 2= White | 27 | 13.2% |
| | | 3= Coloured | 27 | 13.2% |
| | | 4= Asian | 6 | 2.9% |
| 3. | Age | 1= 24 years and younger | 17 | 8.3% |
| | | 2= 25 – 35 years | 65 | 31.7% |
| | | 3= 36 – 45 years | 77 | 37.6% |
| | | 4= 46 – 55 years | 34 | 16.6% |
| | | 5= 56 years and older | 11 | 5.4% |
| 4. | Qualifications | 1= Grade 12 Certificate | 93 | 45.4% |



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| | | | | |
|---|---|---|---|---|
| | | 2= Diploma | 57 | 27.8% |
| | | 3= Degree/BTech | 34 | 16.6% |
| | | 4= Honours | 10 | 4.9% |
| | | 5= Masters | 4 | 2.0% |
| | | 6= PHD | 4 | 2.0% |
| 5 | Work Category | 1= Operational | 124 | 60.5 |
| | | 2= Administrative | 81 | 30.5 |

Table 1 describes the biographic characteristics of the participants in this study. This study obtained a response rate of 205 participants out of 341 sample size of the selected population. Majority of the respondents in this study were males, accounting to 61.5 % of the participants, whiles females accounted to 38.5%. The highest percentage on the age of the respondents was 37.6% falling within the age of 36 to 45, implying that majority of the participants in this study were between ages of 36 to 45 years old. This table is indicative of the fact that majority of the respondents (45%) had no qualification further than grade 12, followed by participants with diploma (27.8%), followed by Degree/BTech (16.6%). Participants with Masters and PHD recorded the least percentage (4.0%) each. Meanwhile blacks accounted for an overwhelming majority of 69% of the respondents whereas both whites and coloureds shared 13.2% each leaving Asians at minority components of only 2.9%. The work category reported significant majority of 60.5% of respondents working within operational category compared to 30.5% of respondents working within administrative category.

**4.3.** Table 2

**4.4.** Reliability statistics for measuring instruments

| Job Content Questionnaire (JCQ) | |
|---|---|
| Cronbach's alpha | Number of items |
| 0.737 | 22 |
| **General Health Questionnaire (GHQ)** | |
| Cronbach's alpha | Number of items |
| 0.747 | 27 |



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| Individual Work Performance Questionnaire (IWPQ) | |
|---|---|
| Cronbach's alpha | Number of items |
| 0.774 | 18 |

Table 2 indicate the reliability statistics of Job Content Questionnaire (Karasek, 1972), General Health Questionnaire (Goldberg, 1998) and Individual Work Performance Questionnaire (Koopman, 2014). From table 2, JCQ reported 0.74 Cronbach's alpha coefficient for reliability, GHQ reported 0.75 Cronbach's alpha coefficient for reliability, whereas IWPQ reported 0.77 Cronbach's alpha coefficient for reliability. These questionnaires reported internal inter-factor coefficient reliability and internal consistency.

Table 3

**4.5.** Descriptive statistics

| Variable | Cronbach's alpha | Mean | SD | Skewness | Kurtosis |
|---|---|---|---|---|---|
| Decision latitude | **0.36** | 2.75 | 0.54 | 3.97 | 38.6 |
| Job demand | **0.53** | 2.95 | 0.49 | 2.24 | 16.9 |
| Social support | **0.80** | 2.95 | 0.44 | 0.14 | -0.38 |
| Somatic symptoms | **0.45** | 1.85 | 0.64 | 2.11 | 7.78 |
| Anxiety | **0.44** | 2.94 | 0.42 | 0.03 | -0.08 |
| Social dysfunction | **0.68** | 2.91 | 0.47 | 0.12 | -0.53 |
| Depression | **0.22** | 2.04 | 0.77 | 4.54 | 28.9 |
| Task performance | **0.84** | 3.02 | 0.95 | 0.47 | 0.84 |
| Contextual performance | **0.67** | 2.97 | 0.95 | 2.27 | 13.65 |
| Counterproductive performance | **0.83** | 1.58 | 0.58 | 0.76 | -0.34 |

Table 3 displays the descriptive statistics of the study and the reliability (Cronbach's alpha coefficient) of all factors detected from three measuring instruments (JCQ, GHQ, IWPQ) used in this research. The overall information on table 3 indicates that the scores on social support,



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anxiety, social dysfunction, task performance and counterproductive performance subscales have a normal distribution (skewness and kurtosis is smaller than 1). The Cronbach's alpha coefficient of all subscales of Job Content Questionnaire, General Health Questionnaire as well as Individual Work Performance Questionnaire varied from 0.22 to 0.84.

All the mean inter-factor correlations of both Job Content Questionnaire, General Health Questionnaire as well as Individual Work Performance Questionnaire dimensions/subscales compared relatively well with the guideline of $r \geq 0.50$, varying from 1.58 to 2.97. The mean in each of these factors (i.e. decision latitude, psychological demand, somatic symptoms, depression & contextual performance) was very much larger than the median or (mode), relatively resulting in a large positive value of skewness coefficient (that is, the distribution was skewed to the right and sk*p* is greater than +1) (Wegner, 2008).



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Table 4

**4.6.** Correlation coefficients among work condition, general health and work performance

| Item | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Decision latitude | - | | | | | | | | | |
| 2. Job demand | 0.4† | - | | | | | | | | |
| 3. Social support | 0.4† | 0.4† | - | | | | | | | |
| 4. Somatic symptom | -0,06* | - 0.09* | -0.1* | - | | | | | | |
| 5. Anxiety | 0.5† | 0.8† | 0.5† | -0.04* | - | | | | | |
| 6. Social dysfunction | 0,5† | 0.5† | 0.9† | - 0.12* | 0.5† | - | | | | |
| 7. Depression | -0.08* | -0.11* | -0.1* | 0.3† | - 0.8* | -0.14* | - | | | |
| 8. Task performance | 0.4 † | 0.5† | 0.5† | -0.06* | 0.5† | 0.5† | - 0.02* | - | | |
| 9. Contextual performance | 0.3† | 0.4† | 0.4† | -0.03* | 0.5† | 0.4† | - 0.11* | 0.7† | - | |
| 10. Counterproductive | -0.3* | - 0.04* | -0.3* | 0.06† | -0.05* | - 0.3* | 0.11 | -0.5* | -0.4 | - |

*statistically significant: p≤0.05; †practically significant correlation (medium effect) r≥0.05:

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Table 4 illustrates the Pearson product-moment correlation coefficient in order to specify the relationship between work condition, general health and work performance, with a statistical significance set at $p < 0.05$ and the effect size computed to assess the significance of the relationships set at $r \geq 0.05$. The results of Table 4 correlation computation shows the existence of statistically significant and practically significant positive and negative inter correlations of the factors of work condition (measured by JCQ), general health (measured by GHQ) and work performance (Measure by IWPQ).

Evident from table 4, there is a practically significant relationship with medium effect between Decision latitude and anxiety (with a practical significance of 0.5), Job demand and Anxiety (with a practical significance of 0.8) as well as Social support and Anxiety (with a practical significance of 0.5). Table 4 also indicates practically significant relationship with medium effect between Decision latitude and Social Dysfunction (with practical significance of 0.5), Job demand and Social dysfunction (with practical significance of 0.5) as well Social support and Social dysfunction (with practical significance of 0.9). In a Nutshell these recorded results clearly point to the existing relationship between factors of work condition (Decision latitude, Job demand & Social support) and two factors of general health (Anxiety & Social Dysfunction). However, all factors of work condition (Decision latitude, Job demand & Social support) proved to have had negative relationship with the other two factors of general health in particular (Somatic symptoms & Depression), recording the following statistical significance levels; Decision latitude and Somatic symptoms (-0.06), Job demand and Somatic symptom (-0.09), Social support and Somatic symptoms (-0.1); Decision latitude and Depression (-0.08), Job demand and Depression (-0.1), Social support and Depression (-0.1).

Work performance reported to have practically significant positive correlations with work condition, illustrated on table 4 where all factors of work condition (Decision latitude, Job demand & Social support) proved to have practically significant positive correlations with at least two (Task performance & Contextual performance) of the three factors of work performance, with the following practically significant positive correlation coefficients ;Decision latitude and Task performance recorded a practically significant positive correlation coefficient of (0.4), Job demand and Task performance recorded a practically significant positive correlation coefficient of (0.5), whereas Social support and Task performance recorded a practically significant positive correlation coefficient of (0.5).



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On the other hand Decision latitude and Contextual performance recorded a practically significant positive correlation coefficient of (0.3), Job demand and Contextual performance recorded a practically significant positive correlation coefficient of (0.4), whereas Social support and Contextual performance recorded a practically significant positive correlation coefficient of (0.4).

The results from table 4 show statistically significance negative correlation between all three factors of work condition (Decision latitude, Job demand & Social support) and the last factor of work performance (Counterproductive behaviour) recording the following statistical significance levels; Decision latitude and counterproductive behaviour recorded a statistically significant negative correlation coefficient of (-0.3), Job demand and counterproductive behaviour recorded a statistically significant negative correlation coefficient of (-0.4), whereas Social support and counterproductive behaviour recorded a statistically significant negative correlation coefficient of (-0.3).

However one general health factor (Somatic symptom) reported to have practically significant positive correlation with counterproductive behaviour with medium effect (0.06).



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**4.7.** Cross tabulation of the biographic information with factors of work performance

*Table 5*

*Gender vs. Task Performance (TP1) (I managed to plan my work so that it was done in time)*

| | | | TP1 I managed to plan my work so that it was done in time | | |
|---|---|---|---|---|---|
| | | | 1,00 No | 2,00 yes | Total |
| Gender | 1 Male | Count | 42 | 82 | 124 |
| | | % within Gender | 33.9% | 66.1% | 100.0% |
| | | % within TP1 I managed to plan my work so that it was done in time | 66.7% | 59.0% | 61.4% |
| | 2 Female | Count | 21 | 57 | 78 |
| | | % within Gender | 26.9% | 73.1% | 100.0% |
| | | % within TP1 I managed to plan my work so that it was done in time | 33.3% | 41.0% | 38.6% |
| Total | | Count | 63 | 139 | 202 |
| | | % within Gender | 31.2% | 68.8% | 100.0% |
| | | % within TP1 I managed to plan my work so that it was done in time | 100.0% | 100.0% | 100.0% |

Majority of both male and female respondents agreed with the statement, *"I managed to plan my work so that it was done in time"* with (66%) males agreeing and (73%) females agreeing, accounting to an overall or total of (69%) of both female and males respondents agreeing to the statement. Although few respondents (31%) disagreed with the statement, general consensus



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was that majority of males and females are in agreement with the fact that they manage to plan their so that it was done in time.

*Table 6*

*Gender vs Contextual performance (CP12), (I came up with creative solutions to new problems)*

| | | | CP12 I came up with creative solutions to new problems | | |
|---|---|---|---|---|---|
| | | | 1,00 No | 2,00 yes | Total |
| Gender | 1 Male | Count | 39 | 86 | 125 |
| | | % within Gender | 31.2% | 68.8% | 100.0% |
| | | % within CP12 I came up with creative solutions to new problems | 68.4% | 58.9% | 61.6% |
| | 2 Female | Count | 18 | 60 | 78 |
| | | % within Gender | 23.1% | 76.9% | 100.0% |
| | | % within CP12 I came up with creative solutions to new problems | 31.6% | 41.1% | 38.4% |
| Total | | Count | 57 | 146 | 203 |
| | | % within Gender | 28.1% | 71.9% | 100.0% |
| | | % within CP12 I came up with creative solutions to new problems | 100.0% | 100.0% | 100.0% |

The crosstab results for Gender vs. contextual performance indicates that overwhelming majority (71.9%) of the respondents both males and females agreed with the statement (*I came*



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*up with creative solutions to new problems),* leaving the disagreeing respondents at only28.1%. So far, from the analysis on gender vs. Task Performance and Contextual performance, there is no indication whatsoever that gender has direct implication to underperformance of employees hence the trajectory of the response trend seems to move identically from both gender categories. Whereas the underperformance accounted for by minority respondents *(*28.1%) in gender vs. Contextual Performance and (31%) in gender Task Performance could be as a results of other nuisance variables.



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*Table 7*

*Gender vs. Counterproductive Behaviour (CPB18), (I sometimes did nothing while I should have been working)*

| | | | CBP18 I sometimes did nothing while I should be working | | |
|---|---|---|---|---|---|
| | | | 1,00 No | 2,00 yes | Total |
| Gender | 1 Male | Count | 112 | 14 | 126 |
| | | % within Gender | 88.9% | 11.1% | 100.0% |
| | | % within CBP18 I sometimes did nothing while I should be working | 60.9% | 66.7% | 61.5% |
| | 2 Female | Count | 72 | 7 | 79 |
| | | % within Gender | 91.1% | 8.9% | 100.0% |
| | | % within CBP18 I sometimes did nothing while I should be working | 39.1% | 33.3% | 38.5% |
| Total | | Count | 184 | 21 | 205 |
| | | % within Gender | 89.8% | 10.2% | 100.0% |
| | | % within CBP18 I sometimes did nothing while I should be working | 100.0% | 100.0% | 100.0% |

A convincing majority of both males and females respondents disagreed with the statement *(I sometimes did nothing while I should have been working)* with astounding 89.8%. Out of 79 females who responded to the statement, 72 (91.1%) disagreed while only 7 (8.9%) agreed to the statement. On the other hand, Out of 126 males who responded to the statement, 112 (88.9%) disagreed while only 14 (11.1%) agreed with the statement.



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*Table 8*

*Qualifications vs. Task Performance (TP2), (My planning was optimal)*

| | | | TP2 my planning was optimal | | |
|---|---|---|---|---|---|
| | | | 1,00 No | 2,00 yes | Total |
| Quali | | Count | 1 | 1 | 2 |
| | | % within Quali | 50.0% | 50.0% | 100.0% |
| | | % within TP2 my planning was optimal | 1.5% | 0.7% | 1.0% |
| | 1 Grade 12 Certificate | Count | 50 | 43 | 93 |
| | | % within Quali | 53.8% | 46.2% | 100.0% |
| | | % within TP2 my planning was optimal | 74.6% | 31.9% | 46.0% |
| | 2 Diploma | Count | 14 | 42 | 56 |
| | | % within Quali | 25.0% | 75.0% | 100.0% |
| | | % within TP2 my planning was optimal | 20.9% | 31.1% | 27.7% |
| | 3 Degree/BTech | Count | 1 | 32 | 33 |
| | | % within Quali | 3.0% | 97.0% | 100.0% |
| | | % within TP2 my planning was optimal | 1.5% | 23.7% | 16.3% |
| | 4 Honours | Count | 1 | 9 | 10 |
| | | % within Quali | 10.0% | 90.0% | 100.0% |
| | | % within TP2 my planning was optimal | 1.5% | 6.7% | 5.0% |
| | 5 Masters | Count | 0 | 4 | 4 |
| | | % within Quali | 0.0% | 100.0% | 100.0% |
| | | % within TP2 my planning was optimal | 0.0% | 3.0% | 2.0% |
| | 6 PHD | Count | 0 | 4 | 4 |
| | | % within Quali | 0.0% | 100.0% | 100.0% |
| | | % within TP2 my planning was optimal | 0.0% | 3.0% | 2.0% |
| Total | | Count | 67 | 135 | 202 |
| | | % within Quali | 33.2% | 66.8% | 100.0% |
| | | % within TP2 my planning was optimal | 100.0% | 100.0% | 100.0% |



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A total number of 93 out of 202 respondents have no qualification further than grade 12 certificate, of these 93 respondents (grade 12 certificate), 50 (53.8%) disagreed with the statement *(My planning was optimal)* while 43 (46.2) agreed with the statement. In the second category (respondents with diploma) 56 responded to the statement (*My planning was optimal)* with 42 (75%) agreeing with the statement and 14 (25%) disagreeing with the statement. The third category (respondents with degree/BTech) had 33 respondents on this particular statement *(My planning was optimal),* with a stunning majority of 32 (97%) agreeing with the statement and only 1 (3%) disagreeing with the statement. Category four (respondents with honours) had only 10 respondents with 9 (90%) agreeing with the statement (*My planning was optimal)* and only 1 (10%) disagreeing with the statement. Both category 5 (respondents with masters) and category 6 (respondents with PHD) had 4 respondent each and all 4 (100%) respondents in both categories agreed with the statement with no disagreement recorded.



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*Table 9*

*Qualifications vs. Contextual Performance (CP8), (I took on extra responsibilities)*

| | | | CP8 I took on extra responsibilities | | |
|---|---|---|---|---|---|
| | | | 1,00 No | 2,00 yes | Total |
| Quali | | Count | 2 | 1 | 3 |
| | | % within Quali | 66.7% | 33.3% | 100.0% |
| | | % within CP8 I took on extra responsibilities | 3.0% | 0.7% | 1.5% |
| | 1 Grade 12 Certificate | Count | 44 | 49 | 93 |
| | | % within Quali | 47.3% | 52.7% | 100.0% |
| | | % within CP8 I took on extra responsibilities | 65.7% | 36.3% | 46.0% |
| | 2 Diploma | Count | 17 | 39 | 56 |
| | | % within Quali | 30.4% | 69.6% | 100.0% |
| | | % within CP8 I took on extra responsibilities | 25.4% | 28.9% | 27.7% |
| | 3 Degree/BTech | Count | 4 | 28 | 32 |
| | | % within Quali | 12.5% | 87.5% | 100.0% |
| | | % within CP8 I took on extra responsibilities | 6.0% | 20.7% | 15.8% |
| | 4 Honours | Count | 0 | 10 | 10 |
| | | % within Quali | 0.0% | 100.0% | 100.0% |
| | | % within CP8 I took on extra responsibilities | 0.0% | 7.4% | 5.0% |
| | 5 Masters | Count | 0 | 4 | 4 |
| | | % within Quali | 0.0% | 100.0% | 100.0% |
| | | % within CP8 I took on extra responsibilities | 0.0% | 3.0% | 2.0% |
| | 6 PHD | Count | 0 | 4 | 4 |
| | | % within Quali | 0.0% | 100.0% | 100.0% |
| | | % within CP8 I took on extra responsibilities | 0.0% | 3.0% | 2.0% |
| Total | | Count | 67 | 135 | 202 |
| | | % within Quali | 33.2% | 66.8% | 100.0% |
| | | % within CP8 I took on extra responsibilities | 100.0% | 100.0% | 100.0% |

A total number of 93 out of 202 respondents have no qualification further than grade 12 certificate, of these 93 respondents (grade 12 certificate), 44 (47.3%) disagreed with the statement *(I took on extra responsibilities)* while 49 (52.7%) agreed with the statement. In the second category (respondents with diploma) 56 responded to the statement (*I took on extra*



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*responsibilities)* with 39 (69.6%) agreeing with the statement and 17 (30.4%) disagreeing with the statement. The third category (respondents with degree/BTech) had 32 respondents on this particular statement *(I took on extra responsibilities),* with a stunning majority of 28 (87.5%) agreeing with the statement and only 4 (12.5%) disagreeing with the statement. Category four (respondents with honours) had only 10 respondents with all 10 (100%) agreeing with the statement (*I took on extra responsibilities)* and no one disagreed with the statement in this category. Similarly, both category 5 (respondents with masters) and category 6 (respondents with PHD) had 4 respondent each and all 4 (100%) respondents in both categories agreed with the statement with no disagreement recorded.

*Table 10*

*Qualification vs. Counterproductive Behaviour (CPB15), (I complained about unimportant matters at work)*

| | | CPB15 I complained about unimportant things at work | | |
|---|---|---|---|---|
| | | 1,00 No | 2,00 yes | Total |
| Quali | Count | 3 | 0 | 3 |
| | % within Quali | 100.0% | 0.0% | 100.0% |
| | % within CPB15 I complained about unimportant things at work | 1.7% | 0.0% | 1.5% |
| 1 Grade 12 Certificate | Count | 76 | 17 | 93 |
| | % within Quali | 81.7% | 18.3% | 100.0% |
| | % within CPB15 I complained about unimportant things at work | 43.9% | 53.1% | 45.4% |
| 2 Diploma | Count | 46 | 11 | 57 |
| | % within Quali | 80.7% | 19.3% | 100.0% |
| | % within CPB15 I complained about unimportant things at work | 26.6% | 34.4% | 27.8% |
| 3 Degree/BTech | Count | 31 | 3 | 34 |
| | % within Quali | 91.2% | 8.8% | 100.0% |
| | % within CPB15 I complained about unimportant things at work | 17.9% | 9.4% | 16.6% |



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| | | | | | |
|---|---|---|---|---|---|
| | 4 Honours | Count | 10 | 0 | 10 |
| | | % within Quali | 100.0% | 0.0% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 5.8% | 0.0% | 4.9% |
| | 5 Masters | Count | 3 | 1 | 4 |
| | | % within Quali | 75.0% | 25.0% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 1.7% | 3.1% | 2.0% |
| | 6 PHD | Count | 4 | 0 | 4 |
| | | % within Quali | 100.0% | 0.0% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 2.3% | 0.0% | 2.0% |
| Total | | Count | 173 | 32 | 205 |
| | | % within Quali | 84.4% | 15.6% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 100.0% | 100.0% | 100.0% |

A total number of 93 out of 202 respondents have no qualification further than grade 12 certificate, of these 93 respondents (grade 12 certificate), 76 (81.7%) agreed with the statement *(I complained about unimportant matters at work)* while 17 (18.3%) disagreed with the statement. In the second category (respondents with diploma) 57 participants responded to the statement *(I complained about unimportant matters at work)* with 46 (80.7%) disagreeing with the statement and 11 (19.3%) agreeing with the statement. The third category (respondents with degree/BTech) had 34 respondents on this particular statement *(I complained about unimportant matters at work),* with astonishing majority of 31 (91.2%) disagreeing with the statement and only 3 (8.8%) agreeing with the statement. Both category four (respondents with honours) and category six (respondents with PHD) had only 10 and 4 respondents respectively with all 10 (100%) and 4 (100%) disagreeing with the statement *(I complained about unimportant matters at work)* and no one agreed with the statement at these categories. Category five (respondents with masters) had 4 respondents with 3 (75%) disagreeing and only 1 (25%) agreeing.



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*Table 11*

*Age vs. Task Performance (TP6) (I was able to do my job well with minimal time and effort)*

| | | | TP6 I was able to perform my work well with minimum time and effort | | |
|---|---|---|---|---|---|
| | | | 1,00 No | 2,00 yes | Total |
| Age | | Count | 0 | 1 | 1 |
| | | % within Age | 0.0% | 100.0% | 100.0% |
| | | % within TP6 I was able to perform my work well with minimum time and effort | 0.0% | 0.7% | 0.5% |
| | 1 24 years and younger | Count | 7 | 10 | 17 |
| | | % within Age | 41.2% | 58.8% | 100.0% |
| | | % within TP6 I was able to perform my work well with minimum time and effort | 10.4% | 7.4% | 8.4% |
| | 2 25-35 years | Count | 24 | 40 | 64 |
| | | % within Age | 37.5% | 62.5% | 100.0% |
| | | % within TP6 I was able to perform my work well with minimum time and effort | 35.8% | 29.6% | 31.7% |
| | 3 36-45 years | Count | 23 | 53 | 76 |
| | | % within Age | 30.3% | 69.7% | 100.0% |
| | | % within TP6 I was able to perform my work well with minimum time and effort | 34.3% | 39.3% | 37.6% |
| | 4 46-55 years | Count | 8 | 25 | 33 |



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| | | | | |
|---|---|---|---|---|
| | % within Age | 24.2% | 75.8% | 100.0% |
| | % within TP6 I was able to perform my work well with minimum time and effort | 11.9% | 18.5% | 16.3% |
| 5 56 years and older | Count | 5 | 6 | 11 |
| | % within Age | 45.5% | 54.5% | 100.0% |
| | % within TP6 I was able to perform my work well with minimum time and effort | 7.5% | 4.4% | 5.4% |
| Total | Count | 67 | 135 | 202 |
| | % within Age | 33.2% | 66.8% | 100.0% |
| | % within TP6 I was able to perform my work well with minimum time and effort | 100.0% | 100.0% | 100.0% |

In this table the youngest age group (24 years and younger) reported 58.8% in agreement with the statement *(I was able to do my job well with minimal time and effort)* indicating that a considerable majority of this age group was able to perform well on their job. Similarly, the respondents between the age (25-35 years) reported a convincing majority of 62.5% in agreement with the statement *(I was able to do my job well with minimal time and effort).* On the same breath the participants falling within age groups (36-45 years) and (46-55 years) were also in agreement with the statement *(I was able to do my job well with minimal time and effort)* reporting 53% and 75% respectively. However the oldest age group in this study (56 years and older) reported a considerable amount (45.5%) of those who disagreed with the statement *(I was able to do my job well with minimal time and effort),* with a slight majority (54.5%) of those who agree with this statement.



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*Table 12*

*Age vs. Contextual Performance (CP13) (I did more than was expected of me)*

| | | CP13 I did more than expected of me | | |
|---|---|---|---|---|
| | | 1,00 No | 2,00 yes | Total |
| Age | Count | 0 | 1 | 1 |
| | % within Age | 0.0% | 100.0% | 100.0% |
| | % within CP13 I did more than expected of me | 0.0% | 0.8% | 0.5% |
| 1 24 years and younger | Count | 8 | 9 | 17 |
| | % within Age | 47.1% | 52.9% | 100.0% |
| | % within CP13 I did more than expected of me | 11.1% | 6.9% | 8.4% |
| 2 25-35 years | Count | 29 | 36 | 65 |
| | % within Age | 44.6% | 55.4% | 100.0% |
| | % within CP13 I did more than expected of me | 40.3% | 27.7% | 32.2% |
| 3 36-45 years | Count | 19 | 55 | 74 |
| | % within Age | 25.7% | 74.3% | 100.0% |
| | % within CP13 I did more than expected of me | 26.4% | 42.3% | 36.6% |
| 4 46-55 years | Count | 11 | 23 | 34 |
| | % within Age | 32.4% | 67.6% | 100.0% |
| | % within CP13 I did more than expected of me | 15.3% | 17.7% | 16.8% |
| 5 56 years and older | Count | 5 | 6 | 11 |



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| | | | | |
|---|---|---|---|---|
| | % within Age | 45.5% | 54.5% | 100.0% |
| | % within CP13 I did more than expected of me | 6.9% | 4.6% | 5.4% |
| Total | Count | 72 | 130 | 202 |
| | % within Age | 35.6% | 64.4% | 100.0% |
| | % within CP13 I did more than expected of me | 100.0% | 100.0% | 100.0% |

The results on this table shows that the youngest age group (24 years and younger) reported a slight majority of 52.9% in agreement with the statement *(I did more than was expected of me)* indicating that there is a considerable number (47.1%) of this age group that never performed more than expectations. Meanwhile, the respondents between the ages (36-45 years) reported a convincing majority of 74.3% in agreement with the statement *(I did more than was expected of me).* Whereas the respondents between 25-35 age groups reported 55% in agreement with the statement *(I did more than was expected of me).* However the oldest age group in this study (56 years and older) reported a considerable amount (45.5%) of those who disagreed with the statement *(I did more than was expected of me),* with a slight majority (54.5%) of those who agree with this statement.



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*Table 13*

*Age vs. Counterproductive Behaviour (CPB15) (I complained about unimportant matters at work)*

| | | | CPB15 I complained about unimportant things at work | | |
|---|---|---|---|---|---|
| | | | 1,00 No | 2,00 yes | Total |
| Age | | Count | 1 | 0 | 1 |
| | | % within Age | 100.0% | 0.0% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 0.6% | 0.0% | 0.5% |
| | 1 24 years and younger | Count | 11 | 6 | 17 |
| | | % within Age | 64.7% | 35.3% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 6.4% | 18.8% | 8.3% |
| | 2 25-35 years | Count | 55 | 10 | 65 |
| | | % within Age | 84.6% | 15.4% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 31.8% | 31.3% | 31.7% |
| | 3 36-45 years | Count | 67 | 10 | 77 |
| | | % within Age | 87.0% | 13.0% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 38.7% | 31.3% | 37.6% |
| | 4 46-55 years | Count | 30 | 4 | 34 |



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| | | | | | |
|---|---|---|---|---|---|
| | | % within Age | 88.2% | 11.8% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 17.3% | 12.5% | 16.6% |
| | 5 56 years and older | Count | 9 | 2 | 11 |
| | | % within Age | 81.8% | 18.2% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 5.2% | 6.3% | 5.4% |
| Total | | Count | 173 | 32 | 205 |
| | | % within Age | 84.4% | 15.6% | 100.0% |
| | | % within CPB15 I complained about unimportant things at work | 100.0% | 100.0% | 100.0% |

The results on this table shows that the youngest age group (24 years and younger) reported a overwhelming majority of 64.7% in disagreement with the statement *(I complained about unimportant things at work)* indicating majority of employees under this age group did not complain more about unimportant things at work. Meanwhile, the respondents between the ages (25-35 years) reported a convincing majority of 84.6% in disagreement with the statement *(I complained about unimportant things at work).* On the same breath, the respondents between 36-45 age groups reported 87% in disagreement with the *(I complained about unimportant things at work)* as well. The respondents falling within the ages between 46-55 years and 56 years and older reported 88.2% and 81.8% respectively. In a nutshell there is a general consensus among all age group that they did not complain about unimportant matters at work.



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**4.8.** Regression Analysis of work condition variables (Decision Latitude, Job Demand & Social Support) as independent variables and Task Performance as dependent variable

*Table 14*

*Model summary for work condition variables as independent variables and Task performance as dependent variable.*

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .601[a] | .361 | .351 | .76704 | 1.765 |

a. Predictors: (Constant), Social Support, Decision Latitude, Job Demand

b. Dependent Variable: Task Performance

Table 14 show the model fit for the regression analysis of work conditions variables (Decision Latitude, Job Demand & Social Support) as independent variables and Task performance as a dependent variable. From table 14, it is clear that there is a causal relationship between work condition and performance with all three work condition variables (Decision Latitude, Job Demand & Social Support) predicting 36% variance of their effect on Task performance.

*Table 15*

*Anova for work condition variables as independent variables and Task Performance as dependent variable*

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 66.179 | 3 | 22.060 | 37.495 | .000[b] |
| | Residual | 117.081 | 199 | .588 | | |
| | Total | 183.260 | 202 | | | |

a. Dependent Variable: Task Performance

b. Predictors: (Constant), Social Support, Decision Latitude, Job Demand



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Table 15 shows the statistical significance of the relationship between all three variables of work condition and Task Performance. From the results illustrated on table 15, it is clear that there is a statistically significant causal relationship between work condition variables and Task Performance (sig. 0.000) where (p≤ 0, 05).

*Table 16*

*Coefficients for regression analysis of work condition variables as independent variables and Task Performance as a dependent variable*

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -1.353 | .419 | | -3.229 | .001 |
| | Decision Latitude | .165 | .116 | .093 | 1.428 | .155 |
| | Job Demand | .672 | .129 | .340 | 5.198 | .000 |
| | Social Support | .659 | .144 | .305 | 4.573 | .000 |

a. Dependent Variable: Task Performance

Table 16 shows the standardized coefficients and statistical significance of each variable (independent) of work condition and their causal contribution on Task Performance. The results of this table indicate the amount of causal contribution each work condition variable have on Task performance through illustrating beta (β) statistically significance (sig) values of each independent variable. From the results of table 16, Decision Latitude recorded standardized coefficients of the lowest beta value (β=0.093) and it was found to be statistically insignificant, recording sig value (sig =0.15) greater than a cut off of p≤ 0, 05, suggesting that Decision Latitude alone (as a predictor/independent variable) contribute very less on the impact of work condition on performance (as a criterion/dependent). On the other hand Job Demand and Social Support recorded standardized coefficients of high beta values (β=0.340 & β=0.305) respectively. Both Job Demand and Social Support were found to be statistically significant, with both recording (sig = 0.000). From this coefficient regression results it is clear that both Job Demand and Social Support (as predictor/independent variables) contributes more on the impact of work condition on performance (as a criterion/dependent). From this regression



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analysis results, the hypothesis (there is statistically significant relationship between work condition and Task Performance) can be accepted.

**4.9.** Regression analysis of work condition variables (Decision Latitude, Job Demand & Social Support) as independent variables and Contextual Performance as dependent variable

*Table 17*

*Model summary for work condition variables as independent variables and contextual performance as dependent variable*

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .481[a] | .231 | .220 | .84452 | 1.953 |

a. Predictors: (Constant), Social Support, Decision Latitude, Job Demand

b. Dependent Variable: Contextual Performance

Table 17 show the model fit for the regression analysis of work conditions variables (Decision Latitude, Job Demand & Social Support) as independent variables and contextual performance as a dependent variable. Table 17, indicates that there is a causal relationship between work conditions and performance with all three work condition variables (Decision Latitude, Job Demand & Social Support) predicting 22% variance of their effect on contextual performance.

*Table 18*

*Anova for work condition variables as independent variables and Contextual Performance as dependent variable*

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 42.897 | 3 | 14.299 | 20.049 | .000[b] |
| | Residual | 142.642 | 200 | .713 | | |
| | Total | 185.539 | 203 | | | |

a. Dependent Variable: Contextual Performance

b. Predictors: (Constant), Social Support, Decision Latitude, Job Demand



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Table 18 shows the statistical significance of the relationship between all three variables of work condition and Contextual Performance. From the results illustrated on table 18, it is clear that there is a statistically significant causal relationship between work condition variables and contextual Performance (sig. 0.000) where (p≤ 0, 05).

*Table 19*

*Coefficients for regression analysis of work condition variables as independent variables and Contextual Performance as a dependent variable*

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -.498 | .461 | | -1.080 | .281 |
| | Decision Latitude | .265 | .127 | .149 | 2.084 | .038 |
| | Job Demand | .572 | .142 | .288 | 4.021 | .000 |
| | Social Support | .357 | .159 | .164 | 2.250 | .026 |

a. Dependent Variable: Contextual Performance

Table 19 shows the standardized coefficients and statistical significance of each variable (independent/predictor) of work condition and their causal contribution on Contextual Performance (dependent/criterion). The results of this table indicate the amount of causal contribution each work condition variable have on Contextual performance through illustrating standardized coefficients beta (β) and statistically significance (sig) values of each independent/predictor variable. From the results of table 19, Decision Latitude recorded standardized coefficients of the lowest beta value (β=0.149) and it was found to be statistically significant, recording sig value (sig =0.038) less than a cut off of p≤ 0, 05. Unlike in the results of the regression coefficients for Decision Latitude vs. Task Performance where Decision Latitude was found to be statistically insignificant and with a very low standardized coefficient beta, in this regard when tested with Contextual Performance, Decision latitude shown increase in standardized coefficient beta and was found to be statistically significant, suggesting significant amount of contribution of the impact work condition have on performance. Job Demand recorded standardized coefficients of highest beta values (β=0.288) with a statistically



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significant value of 0.00. Whereas Social Support recorded the second highest (second to JD) standardized coefficient beta value (β=0.164) and it was also found to be statistically significant (sig = 0.026). Both Job Demand and Social Support were found to be statistically significant, with both recording (sig = 0.000). From this coefficient regression results it is clear that all three work condition variables (Decision Latitude Job Demand & Social Support) as predictor/independent variables contributes more on the impact of work condition on performance as a criterion/dependent. From this regression analysis results, the hypothesis (there is statistically significant relationship between work condition and Contextual performance) can be accepted.

**4.10.** Regression analysis of work condition variables (Decision Latitude, Job Demand & Social Support) as independent variables and Counterproductive Behaviour as dependent variable

*Table 20*

*Model summary for work condition variables as independent variables and Counterproductive Behaviour as dependent variable*

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .413[a] | .170 | .158 | .53180 | 1.614 |

a. Predictors: (Constant), Social Support, Decision Latitude, Job Demand

b. Dependent Variable: Counterproductive Behaviour

Table 20 show the model fit for the regression analysis of work conditions variables (Decision Latitude, Job Demand & Social Support) as independent variables and Counterproductive Behaviour as a dependent variable. Table 20, indicates that there is a causal relationship between work condition and performance with all three work condition variables (Decision Latitude, Job Demand & Social Support) predicting 15% variance of their effect on Counterproductive Behaviour



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*Table 21*

*Anova for work condition variables as independent variables and Counterproductive Behaviour as dependent variable*

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 11.618 | 3 | 3.873 | 13.693 | .000[b] |
| | Residual | 56.562 | 200 | .283 | | |
| | Total | 68.180 | 203 | | | |

a. Dependent Variable: Counterproductive Behaviour

b. Predictors: (Constant), Social Support, Decision Latitude, Job Demand

Table 21 shows the statistical significance of the relationship between all three variables of work condition and Counterproductive Behaviour. From the results illustrated on table 21, it is clear that there is a statistically significant causal relationship between work condition variables and Counterproductive Behaviour (sig. 0.000) where (p≤ 0, 05).

*Table 22*

*Coefficients for regression analysis of work condition variables as independent variables and Counterproductive Behaviour as a dependent variable*

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 3.262 | .290 | | 11.233 | .000 |
| | Decision Latitude | -.207 | .080 | -.193 | -2.587 | .010 |
| | Job Demand | -.330 | .090 | -.275 | -3.688 | .000 |
| | Social Support | -.043 | .100 | -.033 | -.435 | .664 |

a. Dependent Variable: Counterproductive Behaviour

Table 22 shows the standardized coefficients and statistical significance of each variable (independent/predictor) of work condition and their causal contribution on Counterproductive



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Behaviour (dependent/criterion). The results of this table indicate the amount of causal contribution each work condition variable have on Counterproductive Behaviour through illustrating standardized coefficients beta (β) and statistically significance (sig) values of each independent/predictor variable. From the results of table 22, Decision Latitude recorded second highest standardized coefficients beta value (β=0.193) and it was found to be statistically significant, recording sig value (sig =0.01) less than a cut off of p≤ 0, 05. Job Demand recorded standardized coefficients of highest beta values (β=0.275) with a statistically significant value of 0.00. Whereas Social Support recorded the lowest standardized coefficient beta value (β=0.033) and it was also found to be statistically insignificant (sig = 0.66), statistical value greater than a cut off of p≤ 0, 05. In this regard Social Support was found to have less causal contribution to the impact work condition have on performance, unlike when it was tested with Task Performance and Contextual performance where it shown consistent significant contribution to the causal contribution. From this coefficient regression results it is clear that Decision Latitude and Job Demand as predictor/independent variables contributes more on the impact of work condition on performance as a criterion/dependent than Social Support. From this regression analysis results, the hypothesis (poor work condition predicts Counterproductive Behaviour) can be accepted.

## 4.6. Summary

This chapter outlined the presentation, analysis and interpretation of data. Data was presented in line with the research hypotheses and objectives of the research. The biographic characteristics of the population was presented to indicate the population composition. The reliability statistics of the questionnaires (job content, general health & individual work performance questionnaires) were presented to indicate the reliability of the measuring instruments. The descriptive statistics was presented in this chapter to show the means, medians and standard deviations of the data. Correlations, crosstab and regression results were presented, analyzed and interpreted in accordance with the research objectives and hypothesis.



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# CHAPTER 5

## 5. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

### 5.1. Introduction

The main aim of this research was to determine the impact of work condition and general health on the performance of employees in the mining industry in Limpopo Province. This research was also aimed at determining the relationship between work condition, general health as well as work performance. This research also examined and assessed the extent to which individual biographic information affect the performance of employees. To ensure credible data collection, the reliability analysis of the Job Content Questionnaire, General Health Questionnaire as well as Individual Work performance was conducted. The results of the reliability analysis proved that all the measuring instruments (JCQ, GHQ & IWPQ) were all reliable with JCQ reporting 0.74 Cronbach's alpha coefficient, GHQ reporting 0.75 Cronbach's alpha coefficient and IWPQ reporting 0.77 Cronbach's alpha coefficient. These Cronbach's alpha coefficient compared relatively well with the cut-off value of 0, 70. These questionnaires reported internal inter-factor coefficient reliability and internal consistency.

The data collected on this research was analyzed and interpreted with the use of SPSS. In line with the research objective and hypotheses, Pearson product - moment correlation coefficient was used to specify the relationship between work condition, general health and work performance. The results obtained on this analysis addressed the first hypothesis ***H1*** *(there is a statistical and practical significant relationship between work condition, general health and employees' performance).* A crosstab analysis was used to determine the impact of the biographic information of employees' performance. The results of this analysis were particularly helpful in addressing the second hypothesis ***H2*** *(Biographic variables such as age, gender and qualification have significant relationship with performance).* Regression analysis was used to determine the impact of the predictor/independent variables on criterion/dependent variables. The results of regression analysis was particularly helpful in addressing the last three hypotheses ***H3, H4 & H5*** (*there is statistically significant relationship between work condition and Task Performance, there is statistically significant relationship between work condition and Contextual performance & poor work condition predicts Counterproductive Behaviour*)



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**5.2.** Discussion of the correlation coefficients results

The results of Pearson Product-moment correlation computation revealed that there is practically significant positive relationship between work condition, general health and work performance. All three factors of work condition (Decision Latitude, Job Demand & Social Support) have reported a practical significant relationship with two factors of general health (Social Dysfunction & Anxiety), partially confirming the first hypothesis **H1** *(there is a statistical and practical significant relationship between work condition, general health and employees' performance)*. This revelation is indicative of the fact that high job demand with no or little control and decision making over it as well as lack of social support from both supervisors and co-workers could be related to social dysfunction and anxiety of employees in mining industry in Limpopo province. It is worth mentioning that work condition factors reported negative relationship with both depression and somatic symptoms, implying no or little impact by work condition on these factors.

On the same breath, Work performance reported to have practically significant positive correlations with work condition, where all factors of work condition (Decision latitude, Job demand & Social support) proved to have practically significant positive correlations with at least two (Task performance & Contextual performance) of the three factors of work performance. Again these results reaffirmed the first hypothesis **H1** (*there is a statistical and practical significant relationship between work condition, general health and employees' performance).* These results reaffirm the notion that work conditions (in this case referring to: employees having decision authority, job demand and supervisor and co-worker support) have an impact on performance of employees in the mining industry in Limpopo Province.

These findings also reaffirmed the previous literature done on the same subject i.e. Haizlip (2008), believes that involving employees in decisions that affect them not only increases their personal commitment, but also motivates them to be advocates for their decisions. Supporting this assertion, Agarwal (2008), contends that when employees are involved in making decisions and planning the implementation of changes that affect them, they implement changes faster with higher performance than employees who are merely communicated to about the change. Moreover, Johnson and Hall, (1988), articulated that Job Demand/Control Model with a third dimension (social support), indicates that jobs which are high in demands, low in control, and also low in social support at work carry the highest risk of employees' general health and



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performance. Lastly, Across (2005), states that employees do not perform well in situations where they lack autonomy, especially after they have gained the skills to work independently.

On the other hand, one general health factor (Somatic symptom) reported to have practically significant positive correlation with counterproductive behaviour with medium effect (0.06).

**5.3.** Discussion of Crosstab results

Biographic information (i.e. gender, qualifications & age) was put to crosstab analysis in order to determine impact of these biographic variables on employees' performance. This is in line with the second hypothesis ***H2*** *(Biographic variables such as age, gender and qualification have significant relationship with performance).* The results of crosstab analysis on the relationship between gender and performance indicated that both males and females shared the same opinion (with high percentage agreement) on all three variables of work performance. These results indicate that gender had no particular effect on performance hence there was no fundamental difference in the response trend of both males and female. From the previous studies conducted on gender vs. performance, Igbaria and Shayo, (2007), reported that gender did not have a significant impact on work performance whereas on the contrary, Benggtson, Vedin, Grimby, and Tibblin (1978), noted that females were found to have better work performance compared to their male counterparts. In a nutshell the findings of this research were in agreement with the findings of the Igbaria and Shayo, (2007), research on the relationship between gender and performance which found that there is no significance relationship between gender and performance.

On the other hand, crosstab analysis results for qualifications vs. performance revealed a significant relationship between the respondents' qualifications and their performance. The results indicated that majority of the employees with no qualification further than grade 12 certificate disagreed with a higher percentage with the statements (my planning was optimal & I did more than it was expected of me ) for both Task Performance and Contextual Performance respectively. These findings implies that majority of employees with no qualification further than grade 12 had no optimal planning and did less than it was expected of them. Whereas employees with higher qualifications (diploma, degree/BTech, Honours, Masters, & PHD) were found to have agreed with the statements (my planning was optimal & I did more than it was expected of me) for both Task Performance and Contextual Performance in their majority. In



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fact the trajectory was such that the higher the qualification the respondents had, the higher the percentage of the respondents who agreed with afore mentioned statements, leading to instances where respondents with Masters and PHD reporting 100% agreement with the statement. Therefore it was found in this study that the higher the qualifications had, the more changes that they perform better.

With regard to age, all age groups reported a higher percentage in agreement with the statement of Task Performance and Contextual Performance. Likewise, all age groups also reported a higher percentage in disagreement with the statement of Counterproductive Behaviour implying that there is no significant effect of age difference on the performance of employee in mining industry in Limpopo Province. However it is noteworthy to report that the oldest age group (56 years and older) recorded a considerable amount of percentage (45%) in disagreement with the Task Performance and Contextual Performance statement, implying that there is a considerable number of older employees whose performance is affected by their age, however not in majority.

Previous studies also found out that age have no significant effect on performance, i.e. a study by Yearta (1995), showed that age does not affect work performance, However, Smedley and Whitten (2006), Suggested that difference in age could be also a potential factor for work performance. The inconsistencies in the impact of biographic variables on performances could be attributed to the influence of other nuisance variables as it applies to a specific study.

**5.4.** Discussion of regression analyses

Regression analysis was used to particularly address the last three hypotheses ***H3, H4 & H5*** (*there is statistically significant relationship between work condition and Task Performance, there is statistically significant relationship between work condition and Contextual performance & poor work condition predicts Counterproductive Behaviour*).

This analysis used the model fit to specify the percentage in variance as a predictive value for predictor/independent (Decision Latitude, Job Demand & Social Support) variables on criterion variables (Task Performance, Contextual Performance & Counterproductive Behaviour). ANOVA results were illustrated to specify the statistical significance on the relationship between predictor/independent variables and criterion/dependent variables. Lastly the coefficients table



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was presented to specify the standardized coefficient beta values and the statistical significance of each predictor variable on each criterion variable

The results of regression analysis found that there is a statistical significance relationship between work condition and Task Performance predicting 36% variance of the work condition's effect on Task Performance and reported a value of 0.000 statistical significant. However the coefficient analysis revealed that Decision Latitude recorded standardized coefficients of the lowest beta value (β=0.093) and it was found to be statistically insignificant, recording sig value (sig =0.15) greater than a cut off of p≤ 0, 05, suggesting that Decision Latitude alone (as a predictor/independent variable) contribute very less on the effect of work condition on performance (as a criterion/dependent). On the other hand Job Demand and Social Support recorded standardized coefficients of high beta values (β=0.340 & β=0.305) respectively. Both Job Demand and Social Support were found to be statistically significant, with both recording (sig = 0.000). Therefore level of job demand and social support of employees in mining industry in Limpopo province have an impact on their performance. Decision Latitude alone reported to have lesser impact on the performance of employees in mining industry in Limpopo province.

Meanwhile all three work condition variables (Decision Latitude, Job Demand & Social Support) reported to have statistical significant relationship with Contextual Performance with 22% variance of prediction. Decision Latitude was again found to have recorded standardized coefficients of the lowest beta value (β=0.149) however statistically significant, recording sig value (sig =0.038) less than a cut off of p≤ 0, 05. Both job Demand and Social Support recorded higher standardized coefficient values and were both statistically significant. These results imply that both Job Demand and Social Support contributed more on the effect of work condition on Contextual Performance, whereas Decision Latitude contributed lesser. In a nutshell, factors such as high job demand, lack of supervisor support and co-workers support affect the performance of employees in mining industry in Limpopo province.

Regression analysis result on work condition vs. Counterproductive Behaviour indicate that work condition have an impact on Counterproductive Behaviour with 15% variance of prediction. However Social Support was found to be statistically insignificant with a very low standardized coefficient beta value, insinuating its least contribution to Counterproductive Behaviour. Both Decision Latitude and Job Demand were found to have an impact on Counterproductive Behaviour of employees in mining industry of Limpopo province.



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According to these regression results all three hypotheses (***H3, H4 & H5***) can be accepted with a specific emphasis of the fact that Decision Latitude was found to have no influence on both Task Performance and Contextual Performance whereas Social Support was found to have no influence on Counterproductive Behaviour.

## 5.5. Conclusions

### 5.5.1. Conclusion based on specific theoretical objective

The main theoretical objective in this study was to determine factors affecting employees' performance in mining industryin the Limpopo province. The conceptualization of work performance in this research was based on Koopman (2014)'s theoretical concept of Individual Work Performance. However most studies pointed out few factors that affect performance, these factors include clear goals and job expectations, work condition, immediate feedback, skills to perform, knowledge of the organizational structure, functional feedback system, sufficient motivation through job satisfaction and incentives (Fort & Voltero, 2004).

In this research, work condition was found to have an effect on performance, and therefore adding to the existing literature that pointed work condition as a factor that affect performance. The results of this study led the researcher to infer that factors such as Decision Latitude, Job Demand and Social Support affect performance. These results are in line with the existing literature that points work condition as one of the factors affecting performance.

### 5.5.2. Conclusion based on specific empirical objectives.

The first empirical objective was to determine the relationship between work condition, general health and work performance. This determination was made through the Pearson product-moment correlation coefficient in order to specify the relationship between work condition, general health and work performance, with a statistical significance set at $p < 0.05$ and the effect size computed to assess the significance of the relationships set at $r \geq 0.05$. The correlation results indicated that there is statistically and practically significant relationship between factors of work condition, general health and work performance of employees in mining industry in Limpopo province.



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The second empirical objective of this research was to determine the impact of biographic information such as gender, qualification and age on performance of employees in mining industry in Limpopo province. Crosstabulation analysis was conducted to determine the impact of the above mentioned biographic information on performance. The results of crosstab analysis in this revealed that qualification have an impact on performance of employees in the mining industry of Limpopo province. The findings of this analysis can be concluded that the higher the qualification employee possess, the better performance they give on their job. On the other hand age and gender proved to have no impact on the performance of employees in mining industry of Limpopo province according to the crosstab results of this study.

The last empirical objective of this research was to determine the impact of work condition on performance of employees in mining industry in Limpopo province. Regression analysis was used to determine the impact of work condition as an independent/predictor variable on performance as a dependent/criterion variable. Three work condition variables (Decision Latitude, Job Demand &Social Support) were computed against work performance variables (Task Performance, Contextual Performance & Counterproductive Behaviour). The results of regression analysis in this regard revealed that factors of work condition have an impact on the performance of employees in mining industry of Limpopo province. These results recorded statistically significance and standardized coefficients beta values signifying the existing relationship between the predictor variable (work condition) and the criterion variable (performance), as well as a considerable percentage of variance (36% highest) signifying the prediction extent of the predictor variable on the criterion variable. Although there were variables (independent/predictor) that have shown less influence (by recording very low standardized coefficient beta values) on dependent variable, the general conclusion of the results is that work condition have an impact on work performance.

## 5.6. Recommendations

### 5.6.1. Recommendations for future researchers

The results of this research were obtained from a small sample (205) of mine workers in Limpopo province. Consequently, this might have limited the generalization of the findings. Therefore, it is recommended that a larger population group represented by more mining companies is conducted with the same constructs (work condition, general health & performance) in future. More researches should be done on the relationship between work



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condition, general health and performance mine workers. More longitudinal studies should be conducted on the same constructs (work condition, general health & performance) in other provinces (within mining industry) in an intention to compare the results.

### 5.6.2. Recommendations for Department of Labour

- The Department of Labour should ensure effective implementation of labour legislative framework as prescribed to workplaces (i.e. occupational health and safety Act no 85 of 1993 & Mining health and safety Act 29 of 1996).
- The Department of Labour should in collaboration with Mining health and safety inspectorate and Mining health and safety council ensure that health and safety inspectors do visit mines to check the level of compliance with the mining legislative regulations.
- The Department and of Labour should consider revisiting mining health and safety Act in an expressed intention to amend it so as it encompass issues around favourable work conditions of employees at workplace.
- The Department of labour should work cooperatively with South African chamber of mine in resolving issues affecting work conditions of mine workers.

### 5.6.3. Recommendations for employers

- It is highly recommended that employers in mining industry consider making favourable working conditions for workers in order for them to sustain competitive performance. It has been proven in this study that high job demand with little or no decision authority and lack of supervisor and co-workers support can affect employees' performance.
- Employers should avoid overemphasis on profit maximization at all cost and start investing on human capital in order to gain sustainable performance.
- Employers are encouraged to focus on training and development program in order to have skilled and qualified workforce. It was revealed in this study that the more qualified employees are the better performance they display.



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5.7. Appendix A (Measuring instruments)

**Dear Respondent**

I am a master student in Human Resource Management (MCOMHRM) at the University of Venda, School of Management Sciences, department of Human Resources Management and Labour Relations. I would like to conduct a research study under the topic; ***"The effect of work conditions and general health of employees' performance in mining industry in Limpopo Province".*** I would greatly appreciate your participation in this study. Please note that you are not required to provide your names, your participation should be anonymous, and any information you provide will be treated as confidential. This means that it will not be divulged to anyone without your consent. Also, your participation is voluntary, meaning that you are not compelled to take part, and you are free to terminate your involvement at any time should you feel uncomfortable during the course of the study.

**SECTION A**

**Biographic Information**

*Please answer the following questions by marking the appropriate boxes:*

**1. Gender:** **Male** 1 ☐ **Female** 2 ☐

**2. Race:** **Black** 1 ☐ **White** 2 ☐ **Coloured** 3 ☐ **Asian** 4 ☐

**3. Age:** **24 years and younger** 1 ☐ **25 – 35 yrs** 2 ☐ **36 – 45 years** 3 ☐ **46 – 55 yrs** 4 ☐ **56 years and older** 5 ☐

**4. Qualifications:**

**Grade 12/Certificate** 1 ☐ **Diploma** 2 ☐ **Degree/BTech** 3 ☐ **Honours** 4 ☐ **Masters** 5 ☐ **PhD** 6 ☐

**5. Indicate which of the following work category you belong to:**



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Operational 1 ☐ Administrative 2 ☐

## SECTION B

***Job Content Questionnaire***

Cross one of the four categories from strongly disagree to strongly agree to each statement as it applies to you. **SCALE:1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree**

| | Statements | Scales | | | |
|---|---|---|---|---|---|
| 1 | My job requires that I learn new things. | 1 | 2 | 3 | 4 |
| 2 | My job involves a lot of repetitive work. | 1 | 2 | 3 | 4 |
| 3 | My job requires me to be creative. | 1 | 2 | 3 | 4 |
| 4 | My job allows me to make a lot of decisions on my own. | 1 | 2 | 3 | 4 |
| 5 | My job requires a high level of skill. | 1 | 2 | 3 | 4 |
| 6 | On my job, I have very little freedom to decide how I do my work. | 1 | 2 | 3 | 4 |
| 7 | I get to do a variety of different things on my job. | 1 | 2 | 3 | 4 |
| 8 | I have a lot of say about what happens on my job. | 1 | 2 | 3 | 4 |
| 9 | I have an opportunity to develop my own special ability. | 1 | 2 | 3 | 4 |
| 10 | My job requires working very fast. | 1 | 2 | 3 | 4 |
| 11 | My job requires working very hard. | 1 | 2 | 3 | 4 |
| 12 | I am not asked to do an excessive amount of work. | 1 | 2 | 3 | 4 |
| 13 | I have enough time to get the job done. | 1 | 2 | 3 | 4 |
| 14 | On my job, I am not asked by different people to do things that are contradictory. | 1 | 2 | 3 | 4 |
| 15 | My supervisor is concerned about the welfare of those under him. | 1 | 2 | 3 | 4 |
| 16 | My supervisor listens to my opinions. | 1 | 2 | 3 | 4 |
| 17 | My supervisor is helpful in getting the job done. | 1 | 2 | 3 | 4 |
| 18 | My supervisor is successful in getting people to work together. | 1 | 2 | 3 | 4 |
| 19 | People I work with are competent in doing their jobs. | 1 | 2 | 3 | 4 |
| 20 | People I work with take a personal interest in me. | 1 | 2 | 3 | 4 |
| 21 | People I work with are friendly. | 1 | 2 | 3 | 4 |
| 22 | I have good relationship with my co-workers | 1 | 2 | 3 | 4 |



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## SECTION C

***General Health Questionnaire***

We would like to know if you have had medical complaints, and how your health has been in general, over the past few weeks. Please answer the questions below using the following formats;

**SCALE: 1 = Better than usual; 2 = Same as usual; 3 = Worse; 4 = Much Worse**

| HAVE YOU RECENTLY..... | | | | | |
|---|---|---|---|---|---|
| **S/N** | **Items** | 1 | 2 | 3 | 4 |
| 1 | Been feeling perfectly well and in good health? | 1 | 2 | 3 | 4 |

**SCALE: 1 = Not at all; 2 = No more than usual; 3 = Rather more than usual; 4 = Much more than usual**

| HAVE YOU RECENTLY..... | | | | | |
|---|---|---|---|---|---|
| **S/N** | **Items** | **1** | **2** | **3** | **4** |
| 2 | Been feeling in need of a good tonic? | 1 | 2 | 3 | 4 |
| 3 | Been feeling run down and out of sorts? | 1 | 2 | 3 | 4 |
| 4 | Felt that you are ill? | 1 | 2 | 3 | 4 |
| 5 | Been getting any pains in your head? | 1 | 2 | 3 | 4 |
| 6 | Been getting a feeling of tightness or pressure in your head? | 1 | 2 | 3 | 4 |
| 7 | Been having hot or cold spells? | 1 | 2 | 3 | 4 |
| 8 | Had difficulty in staying asleep once you are off? | 1 | 2 | 3 | 4 |
| 9 | Felt constantly under strain? | 1 | 2 | 3 | 4 |
| 10 | Been getting edgy and bad tempered? | 1 | 2 | 3 | 4 |
| 11 | Been getting scared or panicky for no good reason? | 1 | 2 | 3 | 4 |
| 12 | Found everything getting on top of you? | 1 | 2 | 3 | 4 |
| 13 | Been feeling nervous and strung-up all the time? | 1 | 2 | 3 | 4 |
| 14 | Been thinking of yourself as a worthless person? | 1 | 2 | 3 | 4 |
| 15 | Felt that life is entirely hopeless? | 1 | 2 | 3 | 4 |
| 16 | Felt that life isn't worth living? | 1 | 2 | 3 | 4 |
| 17 | Thought of the possibility that you might do away with yourself? | 1 | 2 | 3 | 4 |
| 18 | Found at times you couldn't do anything because your nerves were too bad? | 1 | 2 | 3 | 4 |



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| | | | | | |
|---|---|---|---|---|---|
| 19 | Found yourself wishing you were dead and away from it all? | 1 | 2 | 3 | 4 |
| 20 | Found that the idea of taking your own life kept coming into your mind? | 1 | 2 | 3 | 4 |

**SCALE: 1 = More than usual; 2 = Same as usual; 3 = Less so; 4 = Much Less**

| HAVE YOU RECENTLY..... | | | | | |
|---|---|---|---|---|---|
| **S/N** | **Items** | 1 | 2 | 3 | 4 |
| 21 | Been managing to keep you busy and occupied? | | | | |
| 22 | Felt that you are playing a useful part in things? | | | | |
| 23 | Felt capable of making decisions about things? | | | | |
| 24 | Been able to enjoy your normal day-to-day activities? | | | | |

**SCALE: 1 = Quicker than usual; 2 = Same ; 3 = Longer; 4 = Much Longer**

| HAVE YOU RECENTLY..... | | | | | |
|---|---|---|---|---|---|
| **S/N** | **Items** | 1 | 2 | 3 | 4 |
| 25 | Been taking longer over the things you do? | | | | |

**SCALE: 1 = Better than usual; 2 = Same; 3 = Less well; 4 = Much well**

| HAVE YOU RECENTLY..... | | | | | |
|---|---|---|---|---|---|
| **S/N** | **Items** | 1 | 2 | 3 | 4 |
| 26 | Felt on the whole you were doing things well? | | | | |

**SCALE: 1 = More satisfied; 2 = Same as usual; 3 = Less satisfied; 4 = Much less**

| HAVE YOU RECENTLY..... | | | | | |
|---|---|---|---|---|---|
| **S/N** | **Items** | 1 | 2 | 3 | 4 |
| 27 | Been satisfied with the way you've carried out your task? | | | | |



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## SECTION D

***Individual Work Performance Questionnaire***

We would like to know how your performance has been in general, over the past few months. Please answer the questions below using the following format;

**SCALE: 1 = Seldom; 2 = Sometimes; 3 = Frequently; 4 = Often; 5 = Always**

| Task Performance (TP) and Contextual Performance (CP) | | | | | | |
|---|---|---|---|---|---|---|
| **In the past three months….** | | **1** | **2** | **3** | **4** | **5** |
| 1 | I managed to plan my work so that it was done in time. | 1 | 2 | 3 | 4 | 5 |
| 2 | My planning was optimal. | 1 | 2 | 3 | 4 | 5 |
| 3 | I keep in mind the results that I had to achieve in my work. | 1 | 2 | 3 | 4 | 5 |
| 4 | I was able to separate main issues from side issues at work. | 1 | 2 | 3 | 4 | 5 |
| 5 | I knew how to set priorities | 1 | 2 | 3 | 4 | 5 |
| 6 | I was able to perform my work well with minimal time and effort. | 1 | 2 | 3 | 4 | 5 |
| 7 | Collaboration with others was very productive. | 1 | 2 | 3 | 4 | 5 |
| 8 | I took on extra responsibilities. | 1 | 2 | 3 | 4 | 5 |
| 9 | I started new tasks myself, when old ones were finished. | 1 | 2 | 3 | 4 | 5 |
| 10 | I took on challenging work tasks when available. | 1 | 2 | 3 | 4 | 5 |
| 11 | I worked on keeping my job skills up-to-date. | 1 | 2 | 3 | 4 | 5 |
| 12 | I came up with creative solutions to new problems. | 1 | 2 | 3 | 4 | 5 |
| 13 | I did more than was expected of me. | 1 | 2 | 3 | 4 | 5 |
| 14 | I actively participated in work meetings. | 1 | 2 | 3 | 4 | 5 |

**Counterproductive Work Behaviour (CWB)**

Please answer the questions below using the following format: **1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Frequently; 5 = Often**

| **In the past three months….** | | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|---|
| 15 | I complained about unimportant matters at work. | | | | | |
| 16 | I focused on negative aspects of work situation instead of positive aspects. | | | | | |
| 17 | I did less than was expected of me. | | | | | |
| 18 | I sometimes did nothing while I should have been working. | | | | | |

**Thank you for your contribution in this study. It is fully appreciated.**



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