

THE RELATIONSHIP BETWEEN ABSENTEEISM AND  
PHYSICAL WORKPLACE CONDITIONS AT  
TSHEPONG MINE  
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Field study submitted to the UFS Business School in the Faculty of Economic and Management Sciences in partial fulfilment of the requirements for the degree of

Master  
in  
Business Administration  
at the  
University of the Free State

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30 OCTOBER 2015  
Bloemfontein

## **ACKNOWLEDGEMENTS**

**“Through God nothing is impossible”**

**All the Glory and Honour to God for the strength and patience he graced me with during this study.**

*I would like to express my gratitude to the following people:*

- *To my wife, Susan Gouws for her patience, support and countless cups of coffees during my studies. Your support made this possible.*
- *To my two daughters Lee-Ann and Nikita whose inquisitive questions kept my spirits up.*
- *To Lyle Markham his encouragement, expert guidance and assistance, during the study.*
- *To my Mother and each and everyone in my family who supported me throughout the studies.*

I thank you!

## **Declaration**

I declare that the field study handed in for the qualification Masters in Business Administration at the UFS business School at the University of the Free State is my own independent work and that I have not previously submitted the same work, either as a whole or in part, for a qualification at/in another university/faculty.

I hereby cede copyright to the University of the Free State

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Date: 30 October 2015

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## Chapter 1 – Introduction

### 1.1 Background

On the fateful day of 16 August 2012, 34 workers of the Marikana Platinum Mine lost their lives in an industrial strike action for higher wages in a skirmish with the South African Police force. This event together with other strikes in the rest of the mining industry led to a major loss in production for the mining houses.

Over the last decade South Africa's mining industry has contracted, even though they possess the world's wealthiest proven mineral resources. The Statistics South Africa Mining Bulletin of April 2013 noted that the volume of mining production index declined by almost 13 index points from 108.3 in 2007 to 95.8 in 2012. South Africa's mining industry is not performing; therefore the impact on the Gross Domestic Product of South Africa is huge (Harvey, 2013).

Lower production and rising costs has put major pressure on the South African Mining Industry on finding ways to increase productivity and lower their total costs. Nick Holland, CEO of Goldfields stated in an interview with Mining Weekly that South Africa is one of the most expensive countries for gold mining with cost the cost per ounce averaging at \$968. He further stressed that annual increases in wages were in excess of the national inflation rate and production losses occurred as a result of industrial action (Lazenby, 2012).

Mining houses have to look at ways to reduce total costs in order for them to be able to survive. The research head of Standard Bank commodities, Walter de Wet, reflected in an interview with Mining Weekly that 2014 will be a tough year from a pricing perspective and stated that a gold price of \$1250/ounce will be problematic for the gold mining industry (Davenport, 2014).

One method is to mechanise some operations on the mine, but this will lead to more job losses and therefore more issues with the unions and the workforce. The mines will have to look at increasing the productivity of the current labour force.

Tshepong Mine is situated in the Odendaalsrus District, Free State, approximately 240km from Johannesburg. The orebody being mined is primarily the Basal Reef, with selective mining of the B-Reef facies.

Tshepong employees 4200 employees, inclusive of contractors of which 54% is directly related to production and services departments making up the remaining 46%.

Factors that influences the productivity of Tshepong Mine is:

- Physical workplace conditions;
  - Mining further away from the shaft between 3 – 5km impacts on the available face time to complete daily work;
  - Ageing infrastructure impact on availability of services such as air, water and electricity;
  - Ventilation constraints caused by the sheer size of the mine that needs to be ventilated;
- Experience and skills loss due to older workers retiring;
- Absenteeism (lack of control);
- Low morale of employees.

There are various methods to improve the productivity of a workforce, but the focus will be on one aspect specifically; “Producing the same volume with less people” The question can now be asked if this does not simply mean we want to reduce the workforce and demand more from them. This is not the case.

The mines are probably the least efficient of all operations when it comes to efficiency. Tshepong Mine employs 4200 employees and is planned at productivity rates of 17m<sup>2</sup>/man (Total employees costed). Tshepong is currently achieving in the order of 14m<sup>2</sup>/man (Total employees costed).

In order to understand how there will be less people an understanding is necessary on how the workforce is planned. An At-Work figure is planned; this is the number of people that is needed at work on a daily basis to deliver on the production plan. To this 8.3% for leaves and 3% for sick people are added. The 3% employees that are planned for sick cater for all unavailable employees.

The unavailable employees, is categorised into the following:

- Sick note;
- Sick Reporting (At the Mine Medical Station);

- Sick in Hospital;
- Convalescent Sick (People recovering from an illness);
- Mine Accident;
- Convalescent Mine Accident.

This is the area where impact can be made. Through proper management this number of people off-sick can be minimised and therefore planning for off-sick employees will not be necessary. The total employees will then be less without affecting the production parameters. On Tshepong they employ 4200 employees and have planned 140 employees extra into this figure to accommodate the “unavailables”

## TSHEPONG MINE

### SICK STATUS STATISTICS - FEBRUARY 2013

Description	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb	24-Feb	Average
(C) Sick (Convalescent)	113	108	116	120	115	123	123	89
(c) Sick Note	15	46	36	28	24	18	18	76
(I) Sick (OHC)	108	102	102	95	101	70	70	72
(m) Mine Acc Conval	34	34	32	32	33	33	33	31
(M) Mine Accident	4	4	4	4	4	4	4	4
(s) Sic Rep (MEDSTAT)	63	27	40	27	32	70	70	76
(S) Sick (Hospital)	8	7	6	8	7	7	7	13
<b>Grand Total</b>	<b>345</b>	<b>328</b>	<b>336</b>	<b>314</b>	<b>316</b>	<b>325</b>	<b>325</b>	<b>361</b>

(Table from Tshepong Sick Status report, February 2013)

From the table above, on average 361 people are absent every day, 221 more than what was planned for. In effect there are 221 less employees underground to keep the production going. This shortage has a major impact on the rate of production as well as a safety consequence due to people having to do extra work to accommodate the people that are absent.

It is important to note that people will get sick and will need time to recover, but it is also a fact that many people abuse this right to enrich themselves at the expense of others. If we can understand why people abuse this right then measures can be put in place to manage these numbers downwards.

The area that must be focussed on is the sick reporting at the medical station.

Everyday about 76 employees report at the medical station with minor illnesses, aches and pains, and the Medical staff treats them and the next day they are back at work, the typical “one-day” sick patients.

Numerous workshops and meetings were conducted with the medical personnel as well as organised labour to try and determine why there are so many people that book in at the medical station in the mornings. From these meetings it became clear that people are abusing the medical station.

Some go to the medical station because they were late or had a headache after a party the previous night. Then they don't feel like working and book in at the medical station, see the nurse and gets pills for the headache and are back at home in no time.

The underground environment is a harsh one, it is dark, hot, humid, wet, and dangerous and the air that you breathe in has been circulating through the other work areas. Some workplaces are between 4 and 5km from the station and people have to walk that distance to get to their workplaces.

It would be very easy for a person to decide that if he is feeling even the slightest discomfort, to not go underground and rather book in at the medical station. The study that the researcher is conducting will be to determine if this is indeed happening.

## **1.2 Problem Statement**

The problem at Tshepong Mine is that absenteeism levels are high which leads to production losses and safety risks since the work of those absent individuals needs to be done by the other team members.

This leads to conflict in the team and more often than not the work is not completed and leads to production losses or when the work is done then shortcuts are taken and safety rules are not adhered to, which leads to people being injured underground.

Hence, the profitability of the mine is negatively impacted.

Tshepong analyses all the absentees on a daily basis and can classify whether they are sick, on leave or absent, either with or without permission. Although they are aware of all the absentees, inclusive of the sick people, it is not known whether the sick people are abusing their sick leave.

Tshepong's environmental conditions is not conducive to good work performance due to temperature extremes and the distance that people need to travel on foot to get to their working places and can be a demotivating factor.

These conditions can have a negative effect on the mind-set of employees and might play a role in absenteeism.

### **1.3 Research Objectives**

#### **1.3.1 Primary Objective**

To determine if a relationship exists between absenteeism and the physical workplace conditions underground at Tshepong Mine.

#### **1.3.2 Secondary Objectives**

To provide an overview of absenteeism in the workplace.

To outline physical workplace conditions.

To determine the factors that contributes to poor underground workplace conditions underground at Tshepong Mine.

To identify the reasons for high levels of absenteeism at Tshepong Mine.

To examine if a relationship exists between absenteeism and the physical workplace conditions.

##### **1.3.2.1 Null Hypothesis (H1)**

There exists no relationship between absenteeism and the physical workplace conditions underground at Tshepong Mine.

##### **1.3.2.2 Alternate Hypothesis**

There exist a relationship between absenteeism and the physical workplace conditions underground at Tshepong Mine. **1.4 Preliminary Literature Review**

Searches on the combination of the keywords of “absenteeism”, “mining” and “workplace conditions” in a South African context did not yield any results. Searches were then conducted on the keywords as separate searches and some hits were achieved.

Hilton, Sheridan, Cleary and Whiteford, (2008) stated that, “*Employee absenteeism measures reflecting current work practises may be instrumental in a re-evaluation of the relationship between psychological distress/mental health and absenteeism*” that as mental health symptoms increases so does absenteeism.

The measurement of absenteeism was done on the traditional method of being away from work for more than two hours or the whole day and did not take into account the hours of work of the different people in different occupations.

Their view is to work on the basis of task-driven employees completing their tasks on time, irrespective if they were at work or not. They count the overtime hours that these employees work as part of the normal work week.

The paper does not dwell on any other reasons for absenteeism and only focuses on the impact that psychological distress has on absenteeism. The question is open on what causes this distress.

The above two papers focussed on absenteeism in a wide front and did not concentrate on a specific industry. The mining and construction industry are very similar in their workings and papers on this industry can be related to some extent to the mining industry.

Sichani, Lee and Fayek, (2011) found that absenteeism creates a negative impact on productivity, costs and scheduled completion of projects.

Absenteeism was classified into planned and unplanned absenteeism. Causes and factors of absenteeism were classified as follows:

#### Causes

- Personal Issues (e.g., Child care);
- Work or Job Conditions (e.g., unsafe work conditions);
- Project Management and Supervision (e.g., lack of adequate resources);
- Interpersonal Relationships (e.g., poor workplace relations);
- External Issues (e.g., bad weather for working).

#### Factors

- Personal Information (e.g., age, gender, position);
- Project information (e.g., work schedule);
- Economic and Market Information (e.g., unemployment rate, volume of construction in the province) (Sichani, Lee, & Fayek, 2011).

A survey and tracking tool was developed to measure and understand the reasons for absenteeism. The results were as follows, absenteeism expressed as a percentage of the total amount of absentees per category:

- Personal Issues 60%;
- Work or Job Conditions 11%;
- Project Management and Supervision 12%;
- Interpersonal Relationships 2%;
- External Issues 15%.

The paper does not address the details with regards to the different categories, but does speak to the research that will be conducted in terms of the correlation of the workplace conditions and absenteeism. It does not address the reasons why certain workplace conditions exist.

Closer to home Parsee explored the rights of the employee and employer with regards to absenteeism in: "Absenteeism in the workplace", (2008).

The author comments on various labour cases in which employees were rightly or wrongly dismissed and advises on which routes should have been followed by both parties.

The author does not directly contribute to the reasons for absenteeism but does note that absenteeism leads to low morale among co-workers, and defines absenteeism

as the unauthorised absence from work. This definition is consistent with the definition of Tshepong mine.

From the review of the applicable literature found it is concluded that the objective of the intended research has not been exhaustively studied. Only one paper hinted in the direction of the research and found that workplace conditions contributed to the 12% of the total absenteeism rate in the construction industry.

The researcher therefore needs to explore this avenue further and deduce if the same is true for Tshepong Mine. In terms of the reasons why certain conditions exists in the workplace much more work is needed and warrants a study on its own.

## **1.5 Research Methodology**

This is a quantitative research project which will follow a positivistic approach. The positivistic paradigm is an objective approach in studying social phenomena.

Quantitative research is defined as the precise count of some behaviour, knowledge, opinion, or attitude (Cooper & Schindler, 2011).

This type of research answers question related to how much, how many, how often, who and when and is often used for theory testing which necessitates of the researcher to keep a distance from the research to avoid biasing the results.

### **1.5.1 Sampling and data analysis**

Sampling is described by Cooper and Schindler (2011) as selecting some elements of the population and drawing conclusions on the entire population.

Tshepong Mine employs 4200 employees of which, on average, 361 people are absent every day. The population size will be the 420 absentees on Tshepong Mine. Sekaran and Bougie (2011) provided a list to determine the sample size if giving the population size. From this table they propose a sample size of 186 if the population size is 360.

The sample size of 165 is based on the number of employees who report sick at the medical station, their personal doctors and at the hospital. This sample size is also close to what Sekaran and Bougie recommends.

Probability Sampling is a controlled randomized procedure that ensures that each population element is given a known non-zero chance of selection; used to draw participants that are representative of a target population; necessary for projecting findings from the sample to the target population (Cooper & Schindler, 2011).

Stratified Random Sampling is the process by which the sample is constrained to include elements from each of the segments of the population (Cooper & Schindler, 2011). This sampling is useful when the researcher wants to study the characteristics of certain population subgroups.

The Stratified Random Sampling process was applied as the researcher wanted to study the characteristics of the subgroup of absentees.

The absentees are a mutually exclusive subpopulation of the workforce of Tshepong and they will be able to provide adequate data for the purpose of this research project.

Data collection is done through the Time and Attendance system of the Mine as well as the reporting system at the medical station. All absent employees are registered on the system and classified accordingly. We know on a daily basis how many employees booked off-sick through the hospital, medical station and private doctors. Therefore the number of absentees is known. The data that need to be collected is the condition of the workplaces where these absentees are normally working. This will be done by means of a survey that our Case Manager can conduct with the target group.

A specific questionnaire for this purpose will be developed that will focus on asking questions relating to the persons' place of work and will not focus on why he was absent for the day.

Survey results will be generalized to the larger population.

### **1.6 Statistical Methods**

The Pearson Product Moment Correlation Coefficient will be used to determine if a relationship exists between absenteeism and physical working conditions. Pearson's Product Moment Coefficient reveals the magnitude and direction of the relationship between two variables. The magnitude is the degree to which variables moves in opposition or unison to each other and the direction tells us whether small values on the variable correspond to small values on the other variable. If this is the case then a positive relationship exists (Cooper & Schindler, 2011).

### **1.7 Demarcation of Field Study**

The study will be conducted on the causes for absenteeism at Tshepong Mine. The study will be conducted on Tshepong Mine and will involve the employees who

absent themselves from work. This study will be run under the auspices of the Human Resource Department of Tshepong Mine.

The human resource capacity is of utmost importance to the efficiency of the company and understanding the reasons for absenteeism will assist in improving absenteeism.

### **1.8 Ethical Considerations**

Integrity in research is vital and the rights of the subject or participants must be protected. The research process must be designed in such a manner that no physical harm, discomfort, pain embarrassment or loss of privacy must come to the respondents or the company (Cooper & Schindler, 2011).

Shamoo and Resnik (2009) suggested some ethical principles which will be adapted during the research process of this project. For this study only the following principles will be adopted.

#### **Honesty**

Be honest in all scientific communications. All data, results, methods and procedures must be reported honestly, do not manufacture, forge, or misrepresent data. All questionnaires will be open for scrutiny from the participants and the data analysed by an independent source.

#### **Objectivity**

Avoid bias in data analysis and interpretation, and other aspects of research where objectivity is required. Disclose personal interests that may affect research. The interviewers are professional human relations officers and act in a professional capacity. The Human Resources Leader have taken a personal role in communicating the importance of the study and advanced objectivity.

#### **Integrity**

Don't break promises or agreements; act with earnestness; be consistent. The participants, interviewers and other stakeholders are bound under the disciplinary procedure of Tshepong mine to abide to all agreements. Contravening behavior can lead to disciplinary action.

#### **Carefulness**

Care should be taken to prevent negligence and careless errors; prudently and analytically examine your own work and the work of your peers. Keep decent records of research activities, such as data collection and research design. The data collected was scrutinised by the Human Resource Manager and copies of the questionnaires are kept for record purposes.

### **Respect for Intellectual Property**

Acknowledge all contributions to research. Never plagiarize. All sources of information as well as authors was cited and acknowledged.

### **Confidentiality**

Protect confidential communications with the respondents including personnel records and patient records. All information gathered from the mine are deemed to be confidential under the disciplinary code as well as the code of conduct of the company and disciplinary and legal action can be taken for contravention of these codes.

### **Legal**

Obtain permission from the respondents to use the information they provide in the survey.

Obtain permission from the Sponsor to do the research and publish the results.

The researcher obtained permission from the respondents to use the information they provide in the survey and included anonymity as a clause.

## **1.9 Conclusion**

This study aims at determining if a relationship exists between absenteeism and the physical workplace conditions underground at Tshepong Mine.

The researcher intends to do this through a quantitative study of the employees who absent themselves from work.

Questionnaires will be used to determine what the reasons for absenteeism are by conducting interviews with the affected employees.

A statistical analysis will be done of the collected data to determine if the relationship exists.

## Chapter 2 - Literature review

### 2.1 Introduction

The literature review will serve the purpose of researching absenteeism in general and then narrow this phenomenon down into the mining industry, in particular underground mining in South Africa, to understand the reason why employees absent themselves from work without permission.

The research will be conducted from academic research papers, journals, published articles, academic textbooks; web based reports as well as shaft specific documentation.

With this literature review the researcher intends on determining if any research has been conducted on the relationship between employee absenteeism and their physical underground working place conditions underground specifically limited to the South African Mining Industry.

Conclusions will be drawn from the literature as to what the causes for absenteeism are and determine if further research is needed on the relationship between absenteeism and physical working place conditions.

### 2.2 What is absenteeism

Mbaskool (2015) defines absenteeism as being absent from work, be it for a controlled reason like leave or uncontrollable factors like emergency, sickness or accidents etc.

Included in this definition is the fact that some employees choose not to attend work despite the fact that they are capable to, which they ascribe to dissatisfaction with their work or to their level of motivation. The company is most affected by these unscheduled absences of their employees and contributes to a huge cost for the companies (MBASKOOL, 2015).

Further study of the literature with regards to absenteeism reveals two schools of theory whereby absenteeism is defined either in terms of cause or in terms of physical presence.

Goldberg and Waldman's theory offered that absence from work is essentially a behavioural response to dissatisfaction with certain aspects of one's job (Goldberg & Waldman, 2000).

These authors also rejected job satisfaction as a cause of absenteeism and placed more emphasis on other influencing factors such as constraint, whether it be work related or not, and demographics (Goldberg & Waldman, 2000).

Supplementary definitions in terms of causes are provided by De Boer, Bakker, Syroit and Schaufeli (2002). They offer two theories to absenteeism namely the withdrawal theory and the stress theory.

The withdrawal theory, regards absenteeism as withdrawing from adverse working conditions, whilst the stress theory adopt the view that employees develop stress symptoms as they are not able to cope with certain work conditions.

There are various authors that defined absenteeism in terms of physical presence:

- Harrison and Martocchio (1998) defined absence to occur whenever a person chooses to allocate time to activities that compete with planned work, either to satisfy the waxing or waning of underlying motivational rhythms or to maximise personal utility;
- Robbins, Odendaal and Roodt (2001) offered that absenteeism is the failure of an employee to report for scheduled work irrespective of the reason;
- Martochchio and Jimeno (2003) term absenteeism as a single day of missed work;
- The lack of physical presence at a given time and location in term of the social expectation for an employee to be there is what Patton and Johns (2007) defined as absenteeism;
- Parsee (2008) defines absenteeism as the unauthorised absence from work.

The definition in terms of absenteeism that will be used for this study will be as defined by Parsee (2008) as unauthorised absence from work, as it is consistent with what Tshepong Mine defines as absenteeism.

### 2.3 Causes of absenteeism

Hilton, Sheridan, Cleary and Whiteford (2008) stated that, “*Employee absenteeism measures reflecting current work practises may be instrumental in a re-evaluation of the relationship between psychological distress/mental health and absenteeism*” as mental health symptoms increases so does absenteeism.

The paper does not dwell on any other reasons for absenteeism and only focuses on the impact that psychological distress has on absenteeism. The question is open on what causes this distress.

Halkos and Bousinak (2009) conducted a study and concluded that absenteeism is related to stress and that low levels of job satisfaction exist due to this stress.

The causes of job stress was identified from the research conducted by Bhagat, Krishnan, Nelson, Leonard, Ford JR and Billing (2010) as conflict between work and personal demands, role ambiguity and demanding job tasks.

Mirela (2009); Mohren, Kant, van Schayk and Galama (2005) confirmed the findings of the above authors and included insufficient control, rigid policies, organisational policies, leadership practises, long working hours, work-life imbalances, remuneration fairness and physically demanding conditions as additional sources of job stress and that these can lead to absenteeism.

Sichani, Lee and Fayek (2011) found that absenteeism creates a negative impact on productivity, costs and scheduled completion of projects.

Absenteeism was classified into planned and unplanned absenteeism. Causes and factors of absenteeism were classified as follows:

#### Causes

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- Interpersonal Relationships (e.g., poor workplace relations);
- External Issues (e.g., bad weather for working).

#### Factors

- Personal Information (e.g., age, gender, position);
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- Economic and Market Information (e.g., unemployment rate, volume of construction in the province).

(Sichani, Lee, & Fayek, 2011).

A survey and tracking tool was developed to measure and understand the reasons for absenteeism. The results were as follow, absenteeism expressed as a percentage of the total amount of absentees per category:

- Personal Issues 60%;
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- Interpersonal Relationships 2%;
- External Issues 15%.

The paper does not address the details with regards to the different categories, but does speak to the research in terms of the correlation of the workplace conditions and absenteeism. It does not address the reasons why certain workplace conditions exist.

Hassan (2010) listed the following causes of absenteeism:

- Maladjustment with the workforce;
- Social and religious ceremonies;
- Unsatisfactory housing conditions at the work place;
- Industrial fatigue;
- Unhealthy working conditions;
- Poor welfare conditions;
- Alcoholism;
- Unsound personal policies;
- Inadequate leave facilities;
- Low level of wages.

#### **2.4 Cost of absenteeism and the effects on business**

Sichani, Lee and Fayek (2011) found that absenteeism creates a negative impact on productivity, costs and scheduled completion of projects and cited from The Business Roundtable (1982) that absenteeism causes:

- Increased manpower;
- Loss in revenue due to delayed project deadlines;
- Capital investments being underutilized;
- Work flow interruption and task execution;
- Increased overtime;
- Employee fatigue.

(Roundtable, 1982).

Rhodes and Steers (1981) added that loss of goodwill amongst employees and productivity loss are other consequences of absenteeism.

Firms, Travaglione and O'Neill (2006) suggest that replacing the absent high level skilled employee can result in performance and safety issues and further stated that the organisational climate, performance and job satisfaction also suffers from the effects of absenteeism.

Wolfe (2008) highlighted that financial cost, decrease in productivity and administrative cost is the three main costs that burden the organisation as a result of absenteeism. He argued that the benefits paid to an absent employee have a direct impact on financial cost for the company due to having to pay "sick pay" to the absent employee. He further argued that product/service quality can decrease leading to loss of customers and this can lead to raised stress levels and decreasing staff morale. Low productivity can lead to a company not growing to their full potential.

The high cost of absence can have an overwhelming impact on an organisation. High absence might have a negative effect on operational activities through work flow stoppages. Crisis management is the on the order of the day which can lead to important decisions being delayed. Assembly-line operations are highly affected due to unacceptable output quality levels caused by the high absenteeism and could lead to complete shutdown of operational activities (Robbins S. P., 2003).

Occupational Care South Africa (OCSA) and Statistics South Africa estimate that the South African economy loses between R12- to R16-billion per year due to absenteeism according to an article written by I Skosana in 2014 for the Mail & Guardian. (Ina, 2014).

## 2.5 Statistics

Yorges (n.d.) noted in her article *“The role of supervisors in managing absenteeism”* that unscheduled absenteeism rates have increased to their highest level since 1999 and also noted that a point of concern is that almost two out of three employees who are absent from work aren’t ill. (Yorges).

Occupational Care South Africa (OCSA) estimates that on average, 15% of staff are absent on any given day. Of these absentees only 33% are physically ill and more than 40% of sick notes are issued without a diagnosis (Ina, 2014).

OCSA further states that “one day’s absence can cost a company 3 days’ worth of salary without active management of absenteeism”.

Johnson of Camsolution found in his study that sick absenteeism should be sitting at an overall rate of 1.5%, but most South African companies are sitting between 3.5% and 6% almost double the acceptable rate (Johnson, 2009).

## 2.6 Measurement of absenteeism

Considering the consequences and cost of absenteeism it would be seem pertinent to measure the absenteeism rate of the organisation to monitor and assess if a problem does exist and be able to react on it before it becomes problematic.

There are various methods of measuring absenteeism, expressed as a rate, in terms of hours, days or employees.

The authors at mbaskool present the following method of measuring absenteeism:

$$\text{Absenteeism (in a month)} = \frac{\text{No of absent days in a month}}{\text{Average headcount of employees * no of working days in a month}}$$

(MBASKOOL, 2015).

Sahha (2011) indicated the following methods as alternatives to measure absenteeism:

$$\frac{\text{No of days/shifts lost to absence}}{\text{Total no of working days/shift}} \times 100$$

[Standard Formula]

$$\frac{\text{No of spells of absence}}{\text{No of employees}} \times 100$$

[Help in producing policies to reduce absenteeism]

$$\frac{\text{No of employees (1 + Spells)}}{\text{No of employees}} \times 100$$

[Help find the proportion of employees absent]

(Sahha, 2011)

Hassan (2010) offered a similar measurement of absenteeism and added that the frequency rate reveals the occurrence of absence and is typically expressed as the amount of separate absence in a given period, regardless of length of absences.

Further the frequency rate denotes the average number of absences per worker in a given period and is calculated with the formula:

Total number of absences / Total number of Man days scheduled to work x 100 =  
Frequency Rate

The following formula calculates the severity rate, which indicates the average length of time lost per absence.

Severity Rate = Total number of absence during a period / Total number of times absent during that period x 100.

Hassan (2010) concludes that a high severity rate is indicative of an employee that is absent for longer durations each time. High severity and frequency rates show that the workers are absent more regularly and for longer periods each time, causing high absenteeism even in absolute terms.

## **2.7 Job satisfaction and absenteeism**

Hassan (2010) offers the definition of Job Satisfaction as being the workers general attitude towards his/her job. His definition notes that when an employee is dissatisfied with his work then he generally has a negative attitude about his work.

Drakopoulos and Grimani (2011) concluded from their study of the relationship between absence and job satisfaction that there were four main factors that supported this relationship.

First, the results of the less methodologically research on absenteeism and job satisfaction could have been influenced by the operation of experimenter anticipations.

Second, because of the failure to differentiate between absenteeism and labour turnover, it was concluded that satisfaction is a foremost cause of withdrawal behaviour, even though the evidence suggested that job satisfaction is regularly related to turnover while its relationship with absenteeism is more questionable.

Additionally, the empirical research drawn mainly from industrial psychology specialists was challenging (e.g. sampling and interpretation errors).

Finally, it appears that the belief to the validity of this relationship had to do with essential environmental constraints or other applicable moderators which if included will re-establish the relationship.

Luthans (1995), revealed in his research a consistent inverse relationship between absenteeism and job satisfaction, i.e. high satisfaction, low absenteeism and vice versa. Despite the moderate correlation, the basic assumption is that absence is in part, the outcome of dissatisfaction on the job (Anderson, 2004).

## 2.8 Relating workplace conditions to Job Satisfaction and motivation

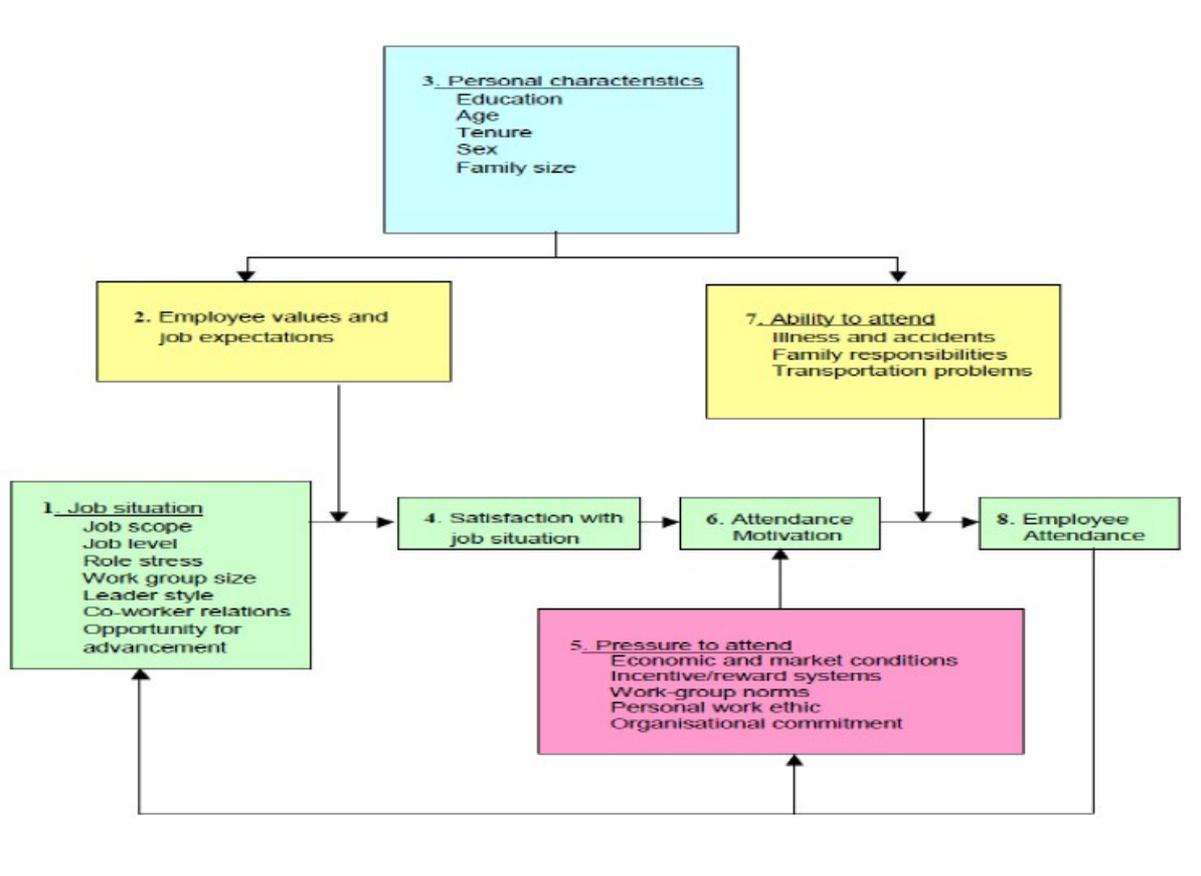


Figure 2.1: Variables of Employee's attendance

(Rhodes & Steers, 1990)

Figure 2.1 put forward that an employee's attendance (Box 8) is predominantly determined by two variables:

- Motivation to attend (Box 6); and
- Ability to attend (Box 7).

(Rhodes & Steers, 1990)

The authors further advocate that the employees satisfaction with his job situation (working environment as well as the nature of the task depicted in Box 4) and attendance pressure (Box 5) influences his/her motivation to attend.

Alavi and Askaripur (2003) stated job satisfaction in the workplace affects individuals' private lives which in turn have an influence on absenteeism and other work-related attitudes and behaviour.

Employee's job satisfaction is moderately impacted by his working conditions according to Luthans (1995) referring to aspects as temperature, lighting, noise and ventilation, he however also indicates that unless the conditions are extremely bad, most employees do not recognise this as a cause of dissatisfaction.

Robbins (1989) remarked that employees are concerned with their work environment for enabling good job performance and for personal comfort.

Studies have established that employees prefer physical surroundings that are safe, clean, comfortable and with a minimum degree of distractions (Robbins S. P., 2005).

According to Spector (1997), research has shown that employees are likely to be dissatisfied if they encounter high levels of constraints in terms of their work environment.

Work conducted by Kehinde (2011) reveals that a 78.4% relationship exists between absenteeism and job satisfaction, which reveals a direct positive relationship between the variables. Furthermore it indicates 61.5% of job satisfaction is explained by absenteeism of employee.

## **2.9 Absenteeism management policies**

Sichani, Lee and Fayek (2011) assessed the effect that policies to reduce absenteeism had on the construction sector. Three policies were assessed and the following was the findings per policy

- Attendance incentives was implemented to motivate employees to improve attendance and found that it had only a slight positive effect on attendance and this was also short-lived;
- Disciplinary actions against absent employees and proved effective when there was a real risk of losing your job. This was however not as effective in a strong economic environment when it is easy to find alternative employment;

- Overtime policies aimed at rewarding employees to work additional overtime during the weekends, provided they had attendance records during the week, were introduced to increase the individual's pay. This policy did not have the desired effect as employees abused the rules of the policy by working one week and taking of the a day in the next week due to fatigue.

Drawing from the above study the advantages of having policies in place can be seen, provided that they are well thought through and implemented properly. The South African Labour Guide stipulates that the company van introduce company policies, procedures and regulations which apply to your company only. These may not conflict with the conditions of any Statute except if the company rule is more favourable (Brits, 2015).

## 2.10 Conclusion

This chapter dealt with applicable literature review for absenteeism on a broader spectrum in terms of possible causes and the effects of absenteeism and then brought closer to home.

From the review of the applicable literature found it is concluded that the objective of the intended research has not been exhaustively studied for the mining industry in South Africa. Some authors hinted in the direction of the research and found that workplace conditions contributed to about 12% of the total absenteeism rate in the construction industry and that physically demanding conditions can lead to job stress, which in turn can result in unplanned absenteeism.

Absenteeism was linked to job satisfaction and motivation as depicted by Robbins (2005), Luthans (1995) and Spector (1997) who linked workplace conditions as being a factor or constraints that lead to absenteeism.

Kehinde (2011) concluded from his study that a direct positive relationship existed between absenteeism and job satisfaction and that 61.5% of absenteeism was due to job satisfaction.

The effect of absenteeism is also profound as described by OCSA, in that absenteeism costs the South African economy anywhere in the region of R12Bn – R16Bn a year.

This together with other effects of absenteeism such as low productivity, low morale amongst employees and financial cost as indicated by Sichani, Lee and Fayek (2011), Rhodes and Steers (1990) as well as Wolfe (2008) justifies the study of absenteeism and what the causes are so that it can be addressed sooner rather than later.

The researcher needs to explore these findings further and deduce if the same is true for Tshepong Mine and determine if physical workplace conditions does lead to job stress and by implication absenteeism. In terms of the reasons why certain conditions exists in the workplace much more work is needed and warrants a study on its own.

The next chapter will deal with the research methodology that was followed.

## Chapter 3 - Research Methodology

### 3.1 Introduction

In this Chapter the research methodology that was followed is described. The research approach that was followed was Quantitative as it suited the purpose of the research the best.

Quantitative research is defined as the precise count of some behavior, knowledge, opinion, or attitude (Cooper & Schindler, 2011).

In addition Aliaga and Gunderson (2000) defined Quantitative Research as “Explaining phenomena by collecting numerical data that are analyzed using mathematical method (in particular statistics)”

Numerical data was captured from questionnaires conducted by interviewers on the sample population. Statistical analysis was conducted on the data from which finding was drawn. The approach that was followed for the research project was thus a quantitative one that followed a positivistic approach. The positivistic paradigm is an objective approach in studying social phenomena.

Sampling is described by Cooper and Schindler (2011) as selecting some elements of the population and drawing conclusions on the entire population. The sampling strategy included Stratified Random Sampling of a sample size of 420 from a population of 4200. The employees included in the sample size were mainly Group 4-8 category underground workers.

The Group 4-5 workers are the class of workers that do the physical work underground and are generally lower skilled labor trained in doing a specific task.

The following job categories will be classed as Group 4-5:

- General Worker
- Miners Assistant
- Winch Driver
- Waterjet Operator
- Engineering Assistant
- Pump Attendants
- Locomotive Operators
- Loader Operators

- Rockdrill Machine Operators

The Group 6-8 workers are the supervisory class of workers that takes charge of a group of people consisting of between 3-15 people. They have been trained in multiple disciplines as well as supervision skills.

The following job categories will be classified as Group 6-8:

- Crew Supervisor
- Haulage Maintenance Crew Supervisor
- Transport Crew Supervisor
- Equipping Team Leader
- Development Team Leader
- Stoping Team Leader

The Group 4-8 category is the engine of the mine, without these people no physical work underground can happen, therefore absenteeism in this group affects the efficiency and profitability of the mine the most.

The Pearson Chi-Square was used to determine if a relationship exists between absenteeism and physical working conditions.

Data collection was done through the Time and Attendance system of the Mine as well as the reporting system at the medical station. All absent employees are registered on the system and classified accordingly.

The absentees were interviewed by a case manager from the medical hub by means of questionnaire that was designed specifically for this purpose.

Consideration was given to the ethical responsibility that goes with a research study of this nature.

### **3.2 Research Design**

Research is a process of steps used to gather and scrutinize information, which allows us to better our understanding of a topic or issue (Cooper & Schindler, 2011).

Research can be conducted by following a qualitative or quantitative approach.

Cooper and Schindler (2011) describes Qualitative Research as research that seek to describe, translate or decode to come to terms with the meaning of certain phenomena and not the frequency, through interpretive techniques.

Quantitative research is defined as the precise count of some behavior, knowledge, opinion, or attitude (Cooper & Schindler, 2011).

In addition Aliaga and Gunderson (2000) defined Quantitative Research as “Explaining phenomena by collecting numerical data that are analyzed using mathematical method (in particular statistics)”

The key differences between qualitative and quantitative research that altered the decision on which type of study to conduct was based on the following table:

	Qualitative	Quantitative
<b>Research Purpose</b>	Theory building and in-depth understanding	Predict, describe; build and test theory
<b>Research Design</b>	Often uses multiple methods	Single or mixed method
	Longitudinal approach	Cross-sectional or longitudinal method
	Not expected to be consistent	Consistent
	May adjust or evolve as study continue	Determined before start of study
<b>Data Type</b>	Verbal or pictorial descriptions	Verbal
	Reduced to verbal codes	Reduced to numerical codes
<b>Data Analysis</b>	Human analysis	Computerized analysis
	Distinction between facts and judgements less clear	Clear distinction between facts and judgements
	Ongoing during study	Ongoing during study

Adapted from (Cooper & Schindler, 2011).

The study is aimed at testing a theory that was determined before the study commenced. The research design is consistent and a single method is used. The data type was reduced to numerical codes for statistical analysis.

The approach that was followed for the research project was thus a quantitative one that followed a positivistic approach. The positivistic paradigm is an objective approach in studying social phenomena.

This type of research answers question related to how much, how many, how often, who and when and is often used for theory testing which necessitates of the researcher to keep a distance from the research to avoid biasing the results.

The researcher made use of data collected in numerical form from questionnaires that completed by people from the sample population by independent workers from the medical hub at Tshepong Mine.

The data that was collected from these questionnaires were statistically analyzed to create a data set that was used to test against the hypothesis of this research.

### **3.3 Sampling Strategy**

Sampling is described by Cooper and Schindler (2011) as selecting some elements of the population and drawing conclusions on the entire population.

#### **3.3.1 Description of sample**

Tshepong Mine employs 4200 employees of which, on average, 361 people are absent every day. The population size will be 420 absentees on Tshepong Mine. Sekaran and Bougie (2011) provided a list to determine the sample size if giving the population size. From this table they propose a sample size of 186 if the population size is 360.

The sample size of 165 is based on the number of employees who report sick at the medical station, their personal doctors and at the hospital. This sample size is also close to what Sekaran and Bougie recommends.

The employees that formed part of the sample size included all categories on the mine, both surface and underground employees. The bulk of the sample size comprise of underground employees in the category groups of group 4-8, miners and artisans and shift bosses and foremen. Management levels are not presented in this sample as they do not report at the medical hub as a general rule.

#### **3.3.2 Sampling Technique**

Probability Sampling is a controlled randomized procedure that ensures that each population element is given a known non-zero chance of selection; used to draw participants that are representative of a target population; necessary for projecting findings from the sample to the target population (Cooper & Schindler, 2011).

Stratified Random Sampling is the process by which the sample is constrained to include elements from each of the segments of the population (Cooper & Schindler, 2011). This sampling is useful when the researcher wants to study the characteristics of certain population subgroups.

The Stratified Random Sampling process was applied as the researcher wanted to study the characteristics of the subgroup of absentees. The absentees are a mutually exclusive subpopulation of the workforce of Tshepong and they will be able to provide adequate data for the purpose of this research project.

### **3.4 Statistical Analysis**

Statistical analysis is the collection, examination, summarisation, manipulation, and interpretation of quantitative data to discover its underlying causes, patterns, relationships and trends (Business Directory, 2016).

The Pearson Product Moment Correlation Coefficient was used to determine if a relationship exists between absenteeism and physical working conditions. Pearson's Product Moment Coefficient reveals the magnitude and direction of the relationship between two variables. It determines the linear relationship between two variables in this case physical workplace conditions and absenteeism. The magnitude is the degree to which variables moves in opposition or unison to each other and the direction tells us whether small values on the variable correspond to small values on the other variable. If this is the case then a positive relationship exists (Cooper & Schindler, 2011).

### **3.5 Data Collection Method**

Data collection was done through the Time and Attendance system of the Mine as well as the reporting system at the medical station. All absent employees are registered on the system and classified accordingly. It is known on a daily basis how many employees booked off-sick through the hospital, medical station and private doctors.

Therefore the number of absentees was known. The data that need to be collected is the physical condition of the workplaces where these absentees are normally working. This was done by means of a survey that the Case Manager conducted with the target group.

A specific questionnaire for this purpose was developed that focused on asking questions relating to the persons' place of work and what the cause of absence was for the day.

The questionnaire consisted of a set of questions and preconceived answers. The interviewers had to ask the respondents the question and ask them to choose the appropriate answer.

The questions that was asked was designed to understand the participant's biographical data, experience, workplace conditions, job satisfaction, relationships with supervisors and colleagues and reason for their absenteeism.

The questions were designed to determine if a relationship between absenteeism and physical workplace conditions exist.

Survey results were generalized to the larger population.

### **3.6 Ethical Considerations**

Our relationship with others and our moral choices about our behavior are guided by norms or standards of behavior known as ethics (Cooper and Schindler, 2011).

Cooper and Schindler (2011) further explains that ethics in research aims at ensuring no one is negatively affected or suffers adverse consequences from research activities.

Integrity in research is vital and the rights of the subject or participants must be protected. The research process must be designed in such a manner that no physical harm, discomfort, pain embarrassment or loss of privacy must come to the respondents or the company (Cooper & Schindler, 2011).

Shamoo and Resnik (2009) suggested some ethical principles which will be adapted during the research process of this project.

Only the relevant principles will be adopted.

**Honesty**

Be honest in all scientific communications. All data, results, methods and procedures must be reported honestly, do not manufacture, forge, or misrepresent data.

**Objectivity**

Avoid bias in data analysis and interpretation, and other aspects of research where objectivity is required. All personal interests that may affect research were disclosed.

**Integrity**

Don't break promises or agreements; act with earnestness; be consistent.

**Carefulness**

Care was taken to prevent negligence and careless errors. Decent records of research activities, such as data collection and research design were kept.

**Respect for Intellectual Property**

All contributions to this research were acknowledged.

**Confidentiality**

No personal records or patient medical cards were used to obtain information.

**Legal**

Permission was obtained from all the respondents to use the information they divulged in the study. No questionnaires were completed if permission was not granted by the respondent. Anonymity was guaranteed to the respondents as no information was taken down in terms of identifying the respondents.

The Sponsor gave consent to do the research and publish the results.

**3.7 Conclusion**

In this chapter methodology that was followed for the study was discussed which included the research design, the sampling strategy, the statistical analysis, the data collection method and the ethical considerations.

A quantitative approach was adopted as it best suited the needs of the study.

The methods described under each heading are favourable to collect and analyse the data and give an accurate interpretation to the data in order to come to a factual conclusion.

The next chapter will deal with the findings of the data that was gathered as well as the interpretation of the data.

## Chapter 4 – Findings of the study

### 4.1 Introduction

This Chapter will describe the results that were obtained from the respondents after the questionnaire was answered.

Stratified Random Sampling strategy was used with sample size of 420 from a population of 4200. The employees included in the sample size were mainly Group 4-8 category underground workers.

The Group 4-5 workers are the class of workers that do the physical work, whilst the Group 6-8 workers are the supervisory class of workers that takes charge of a group of people.

The Group 6-8 employees have undergone multiple skill and supervisory training. Without the Group 4-8 category physical work underground will not happen, therefore absenteeism in this group affects the efficiency and profitability of the mine the most.

The Pearson Chi-Square was used to determine if a relationship exists between absenteeism and physical working conditions. The Pearson Chi-Square was significant at 0.01 and a relationship could be determined from the results. Consideration was given to the ethical responsibility that goes with a research study of this nature.

The following ethical considerations were taken in consideration:

- Honesty – in all scientific communications;
- Objectivity - Avoid bias in data analysis and interpretation;
- Integrity - Don't break promises or agreements; act with earnestness; be consistent;
- Carefulness - Care was taken to prevent negligence and careless errors;
- Respects for Intellectual Property - All contributions to this research were acknowledged;
- Confidentiality - No personal records or patient medical cards were used to obtain information;
- Legal - Permission was obtained from all the respondents.

## 4.2 Biographical data

In the next section, focus was placed on the biographical data that was obtained during this study.

Figure 1 provides a graphical representation of the age distribution of the sample

### Age

#### Figure 41: Age Distribution

The age of the mineworkers are spread out quite evenly among the categories. One respondent did not indicate his age, and therefore only 419 respondents are included in this output. The age groups are classified as per the figure above.

34 respondents are female. 5 respondents did not indicate gender. Total of 415 respondents indicated gender. This amounts to 8.2% of the respondents being female and is in line with Tshepongs' overall female distribution of 9% of the labor force.

From figure 4.1 it can be concluded that 15% of the sample were over the age of 50. Furthermore, 14% of the samples were between the ages of 46-50 years old.

Respondents between the ages of 41-45 amounted to 12% of the samples, whilst 18% were between the ages of 36-40. In addition 14% of the samples were aged 31-35 and 17% were in the 26-30 years age range. Finally the remaining 10% were aged 18-25.

### Length of service

#### Figure 4-2: Length of Service

From figure 4.2 it can be concluded that the vast majority (53%) of the respondents have been working on Tshepong Mine for longer than 5 years with 19% working on Tshepong Mine between 2 years and 5 years. 18% of the respondents have worked between 1 and 2 years and 10% of the respondents have worked for less than a year.

### Interpretation

The significance of the question is to determine experience of the person being absent. This has a bearing due to the fact that the person who works longer on the mine should be more conversant with the policies of the mine. In addition this person

would theoretically have been exposed to the implied poor physical conditions for longer.

The fact that 53% of the respondents are long term workers is interesting as this is implying that newer workers tend to be absent less than the older workers.

### 4.3 Inferential Statistics

In this section the inferential statistics that was obtained from the study will be discussed.

#### Absence Frequency

Table 1 provides the percentages of the absenteeism rates per month.

**How often do you remain absent in a month?**

		Frequency	Percent	Valid Percent
Valid	Nil	99	24	24
	Once	100	24	24
	Twice	152	36	36
	More than twice	67	16	16
	Total	418	100	100
Missing	0	2	0.5	
Total		420	100.0	

Table 1

#### Findings

The biggest absence frequency is twice a month with 36% of the respondents, whilst 16% responded that they are more than twice absent per month. 24% Respondents noted that they are only absent once in a month, whilst a further 24% responded that they are not absent. This is significant as the target sample group was in fact the absentees.

#### Interpretation

From the 420 respondents, 52% were absent at least twice per month which adds up in terms of lost man hours and lost productivity.

## Main Reason for Absence

Table 2 indicates the main reason for absenteeism per month.

According to you what is the main reason for employees absent?

		Frequency	Percent	Valid Percent
Valid	Health problems / Domestic reasons	328	78	82
	Stress	12	3	3
	Work dissatisfaction	23	6	6
	Working environment	35	8	9
	Total	398	95	100
Missing	0	22	5	0
Total		420	100.0	

Table 2

## Findings

This question was the base question to this study as it asked the respondents to give their opinion on what the main reason was for absenteeism. The responses revealed the following information as expressed from the viewpoint of the respondents:

- Health and Domestic problems were rated as the main reason for absenteeism with 82% respondents answering to this effect;
- 9% responded that their working environment is the reason for absenteeism;
- 6% responded that work dissatisfaction was the cause; and
- 3% responded that they were absent because of stress.

### Interpretation

Based on the responses from the questionnaires the employees perceive health problems/domestic reason as being the biggest reason for absenteeism with 82% of the respondents noting this as the reason for absenteeism. From the responses only 9% regarded the work environment as being the reason for absenteeism, which is significant as the hypothesis of this research was that there is a positive relationship between the physical working conditions and absenteeism. Due to the huge difference in the number of answers between health/domestic problems and working environment it can be deduced that the null hypothesis is valid in that there is not a positive relationship between the physical workplace conditions and the rate of absenteeism.

### Absenteeism Policy of Tshepong Mine

Table 3 provides the views of the respondents regarding the Absenteeism Policy of Tshepong.

#### Your views regarding the present Absenteeism Policy of Harmony Tshepong Gold Mine?

	Frequency	Percent	Valid Percent
Valid Excellent	32	8	8
Good	242	58	58
Fair	43	10	10
Don't know	103	24	24
Total	420	100	100

Table 3

### Findings

The respondents answered in the following manner:

- 8% believe the policy is excellent;
- 58% believe the policy is good;
- 10% believe the policy is fair; and
- 24% indicated that they don't know of the policy.

### *Interpretation*

Although 66% of all the respondents responded positively towards the policy it is concerning to note that 24% of the respondents indicated that they were not aware of the policy.

## Job Responsibilities

Table 4 describes how clear the respondents were on what the job responsibilities were.

### Are you clear about your work / job responsibilities?

		Frequency	Percent	Valid Percent
Valid	Well clear	188	45	45
	Good	172	41	41
	Fairly clear	49	12	12
	Don't know	10	2	2
	Total	419	100	100
Missing	0	1	0.2	
Total		420	100	

Table 4

## Findings

The 419 respondents answered the following question in a very positive manner with:

- 45% saying that are well clear on the job responsibilities;
- 41% indicated that they have a good understanding of their job responsibilities;
- 12% are fairly clear; and
- Just 2% indicated that they don't know what their job responsibilities are.

## Interpretation

Positive feedback in terms of people understanding what their job responsibilities are. 86% of the respondents indicated that they are clear on their responsibilities. A mere 2% of the respondents indicated that they don't know what their responsibilities are.

## Job Satisfaction

Table 5 explains how satisfied the respondents are with their jobs.

### Are you satisfied with your work?

	Frequency	Percent	Valid Percent
Valid Well satisfied	181	43	43
Good	145	34	34
Fair	62	15	15
Not satisfied	32	8	8
Total	420	100	100

Table 5

## Findings

Work satisfaction was answered as follow by the 420 respondents:

- 43% indicated that they are well satisfied with their work;
- 34% replied that they are satisfied;
- 15% said that they are fairly satisfied; and
- 8% responded negatively indicating that they are not satisfied with their work.

## Interpretation

Significantly 77% of all the respondents indicated that they are satisfied with their work and only 8% indicated that they are not satisfied. Work satisfaction has been noted by previous literature as one of the main reasons of absenteeism and their poor workplace conditions have been noted as a contributor to job dissatisfaction.

## Working Environment

Table 6 indicates how the respondents view their work environment

### Your views regarding the working environment of Harmony Tshepong Gold Mine & work place?

		Frequency	Percent	Valid Percentage
Valid	Excellent	74	18	18.85
	Good	222	53	53.31
	Fair	51	12	12.21
	Poor	72	17	17.71
	Total	419	100	100.00
Missing	0	1	0.2	
	Total	420	100	

Table 6

## Findings

Working environment has been indicated as a contributor to employee motivation, job satisfaction and absenteeism. The question was posed as a follow up the reason for absenteeism and determining if there are in fact working places with a poor work place conditions. The following responses were noted:

- 18% responded that their working places are in excellent condition;
- 53% responded that their work places are in a good condition;

- 12% indicated that their work places are fair; and
- 17% indicated that their work place conditions are poor.

### *Interpretation*

From the responses it is clear that work place conditions are viewed as being good with 71% of the respondents indicating that they have good to excellent work place conditions. Only 17% indicated that they have poor working conditions.

## Relationship with Supervisors and Co-workers

Table 7 describes the relationship between the respondents and their supervisors and co-workers.

### How are your relations with your superiors / co-workers?

		Frequency	Percent	Valid Percentage
Valid	Excellent	112	27	27.5
	Good	226	54	55.1
	Fair	42	10	10.0
	Poor	35	8	8.4
	Total	415	99	99.0
Missing	0	5	1	1.0
	Total	420	100.0	

Table 7

### Findings

The 415 respondents' view of their relationship with their supervisors and co-workers was as follow:

- 27% viewed that their relationship was excellent;
- A positive 55% expressed their relationship as being good;
- 10% viewed their relationship as being fair;
- Only 8% responded that they had a poor relationship with their supervisor.

### *Interpretation*

The respondents responded in a very positive light with 82% of the respondents indicating that they have a good to excellent relationship with their supervisors. This is very positive feedback as it was noted from previous literature that poor relationships with supervisors and co-workers can cause an increase in absenteeism.

## Superiors Behavior

Table 8 indicates the superior's behavior towards the respondent's problems.

### Your superior's behavior towards your problems?

		Frequency	Percent	Valid Percentage
Valid	Excellent	126	30	30
	Good	205	49	50
	Fair	41	10	10
	Poor	43	10	10
	Total	415	99	100
Missing	0	5	1	
Total		420	100	

Table 8

## Findings

The 415 respondents' responded positively as to their supervisor's behaviour towards their problems in that:

- 30% experienced excellent behaviour from their supervisors;
- A positive 50% experienced good behaviour;
- 10% felt that the behaviour was fair;
- 10% responded that their supervisors had a poor attitude towards their problems.

### *Interpretation*

This question was answered in a positive light with 80% of all the respondents being satisfied with their supervisor's behaviour towards their problems and ties in neatly with the previous question. Only 10% of the respondents were unhappy with their supervisor's attitudes.

## Health Care Facilities

Table 9 describes how the respondent's rate the health care facilities provided to them.

### Your views regarding the health care facilities provided to you by Harmony Tshepong Gold Mine?

		Frequency	Percent	Valid Percent
Valid	Excellent	144	34	35
	Good	212	51	51
	Fair	30	7	7
	Poor	29	7	7
	Total	415	99	100
Missing	0	5	1	0
Total		420	100	

Table 9

## Findings

The health care facilities of Tshepong Mine are viewed as excellent by 35% of the respondents, whilst 51% view the health care facilities as good. 7% of the respondents added that the healthcare facilities are fair whilst 7% viewed it as being poor.

### *Interpretation*

From the above findings it is clear that the majority of the respondents (86%) regard the overall healthcare facilities of Tshepong mine as being good and thus are satisfied with the care they receive.

## Work Environment and Reason for Absenteeism

Table 10 provides a cross tabulation of the work environment and the reason for absenteeism to determine if the respondents that indicated to be working in poor working conditions are absent because of the working conditions.

		Frequency	Percent	Valid Percent
Valid	Health problems / Domestic reasons	56	78	85
	Stress	1	1	1
	Work dissatisfaction	3	4	5
	Working environment	6	8	9
	Total	66	92	100
	Missing	0	6	8
Total		72	100	

Table 10

### Findings

The table and figure above was compiled by taking only the responses of the respondents that answered that they have poor working conditions in question 7 above.

The 66 respondents responded as follow:

- 85% indicated that health and domestic problems are the main cause of absenteeism;
- 1% responded that stress is the main cause;
- 5% were dissatisfied with their work; and
- Only 9% indicated that they were off work due to the working environment.

### Interpretation

Even though the respondents indicated that they have poor working environments as per question 7, their opinion on the main reasons for absenteeism is mostly health and domestic problems, with 85% of respondents indicating as such.

## Work Environment and Work Satisfaction

Table 11 provides a cross tabulation of the work environment and work satisfaction to determine if the respondents that indicated to be working in poor working conditions are dissatisfied with their work.

		Frequency	Percent	Valid Percent
Valid	Excellent	20	28	28
	Good	25	35	35
	Fair	8	11	11
	Poor	18	25	26
	Total	71	99	100
Missing	0	1	1	
Total		72	100	

Table 11

### Findings

The table and figure above was compiled by taking only the responses of the respondents that answered that they have poor working conditions in question 7 above.

The 71 respondents responded as follow:

- 28% respondents indicated that are very satisfied with the work;
- 35% indicated that they are satisfied with their work;
- 11% were fairly satisfied with their work; and
- 26% indicated that they were not satisfied with their work.

### Interpretation

These particular respondents are mostly satisfied with their work (74% of these respondents), with 26% of these respondents not being satisfied.

### 4.4 Findings Summary

From the findings the following can be deduced;

53% of the respondents being long term workers are interesting as this is implying that newer workers tend to be absent less than the older workers.

52% were absent at least two times per month which adds up in terms lost man hours and lost productivity.

9% regarded the work environment as being the reason for absenteeism. 82% of the respondents perceive health problems/domestic reason as being the biggest reason for absenteeism which is significant as the hypothesis of this research was that there is a positive relationship between the physical working conditions and absenteeism. The null hypothesis is valid in that there is not a positive relationship between the physical workplace conditions and the rate of absenteeism, based on the data gathered from the sample population.

65% of all the respondents responded positively towards the policy, with 86% of the respondents being clear on their job responsibilities.

Significantly 78% of all the respondents indicated that they are satisfied with their work, which have been noted as a contributor to absenteeism. From the data it is clear that job satisfaction is not a major contributor to absenteeism.

The respondents (71%) are overall very happy with their workplace conditions. The study intended to show a positive correlation between poor workplace conditions and absenteeism, which this question opposes. From the responses it reveals that poor work place conditions are not a major contributor to absenteeism.

This is very positive feedback as it was noted from previous literature that poor relationships with supervisors and co-workers can cause an increase in absenteeism.

80% of all the respondents indicated that they are satisfied with their supervisors' behaviour towards their problems and further to this 81% have a good relationship with their supervisors. Poor relationship with supervisors has been cited in previous literature as a cause of absenteeism.

The respondents (86%) regard the overall healthcare facilities of Tshepong mine as being good and thus are satisfied with the care they receive.

The above indicate that Tshepong employees are fairly satisfied with their working environment and supervisors and that it is not a major cause of absenteeism. A cross tabulation was done between respondents indicating that their working place was in a poor condition and the result indicated that even for these respondents, working place condition was not a major cause of absenteeism.

From the data it is the opinion of the respondents that health and domestic problems are the number one cause of absenteeism on Tshepong.

## 4.5 Conclusion

This Chapter presents the data that was collated through data collection from a questionnaire that was provided to a specified group of people selected by means of a stratified sampling strategy.

The sample size of 420 people selected consisted as group 4-8 employees who is the engine of the mine and has the biggest impact in terms of profitability.

The data indicated that the main cause of absenteeism was due to health problems and absenteeism as indicated by 82% of the respondents. The null hypothesis was proven as there does not appear to be a positive relationship between the workplace conditions and absenteeism.

Job satisfaction and workplace conditions is also not a major contributor as 78% of respondents are satisfied with their work and 71% believe their workplace conditions to be good.

The next chapter will deal with the recommendation and conclusion of this study.

## Chapter 5 - Recommendations and Conclusions

### 5.1 Introduction

The previous chapter revolved around the statistical analysis of data that was gathered from a mutually exclusive subpopulation of Tshepong. The responses were quantified and presented in table and graph format. Some cross tabulations between questions were also done to see if certain relationship exists. The chapter concluded with the interpretation of the quantified data and highlighted the main causes of absenteeism as per the opinion of the respondents.

The researcher will propose what further steps can be taken to identify and address the causes of absenteeism in Chapter 5, the final chapter of the research.

### 5.2 Recommendations

In Chapter 4 the following findings were derived from the questionnaires that were used in the interviews conducted with the sample group:

- 82% of the sample group indicated that Health Problems / Domestic Reasons was the main cause of absenteeism;
- 65% were satisfied with the current absenteeism policy;
- 86% were clear on what their work roles / responsibilities are;
- 78% of the respondents were satisfied with their jobs;
- 71% were happy with their work conditions and environment;
- 81% indicated that they have a good relationship with their supervisor;
- 80% were satisfied with their superiors behavior towards their problems; and
- 86% were happy with the health care facilities of Tshepong mine.

The above findings points to a relative happy group of respondents in terms of work environment and conditions, supervisor relationship and policies. This is clearly not the reason for absenteeism on Tshepong Mine.

The Null hypothesis is thus accepted in that a positive relationship between absenteeism and physical workplace conditions underground at Tshepong does not exist based on the fact that only 9% of the respondents were of the opinion that it was the reason for absenteeism.

## **Recommendations for the Health problems and Domestic Reasons**

From the findings the following recommendations is presented in terms of Health problems and Domestic Reasons.

### ***Further study in terms of Health problems and Domestic reasons***

The strong indication by the respondents (82%) leads the researcher to believe that a separate study needs to be conducted in terms health problems and domestic problems.

It is recommended that the results of the study be used as a base for further study on Tshepong as it will be beneficial for Tshepong in understanding the main reason for their absenteeism.

However the researcher is of the opinion that the following interventions will assist in alleviating the problem.

### ***Health Problems***

Health problems can include a number of issues; hence a separate study is needed to determine what the specific issues are. The following Major intervention should assist irrespective of what the reasons for the health problems are:

- Encouraging employees to make use of the health care facilities on the mine to receive medical treatment and being able to get their medicine from the on-shaft dispensary;
- Healthy Living awareness campaigns will assist in making employees aware of how their everyday life choices can affect their health;
- Campaigns to encourage employees to be tested for Tuberculosis, Silicosis and HIV/Aids will assist employees to identify these diseases early and afford them the opportunity to get on a treatment programme as provided by the mining houses.

### ***Domestic Reasons***

The reason why domestic reasons were listed should be explored through a separate study, but the following recommendations can assist to minimise the impact on absenteeism;

- Employee Assistance Programs should be communicated and promoted to the employees in order for them to get professional assistance from the social worker;

- Positive relationships between the supervisor and employee should be encouraged to allow the employee to discuss his problems freely with his supervisor.

### **5.3 Conclusion**

The study have been conducted to determine if a positive relationship exist between the physical workplace conditions underground and the rate of absenteeism on Tshepong Mine.

The findings indicated that Tshepong has a fairly satisfied workforce in terms of supervisor's relationship, workplace environment and policies, and that health problem and domestic reasons were the biggest contributor to absenteeism.

Despite the shortcomings that was identified the researcher is still confident that results obtained from this study can be used as a base to conduct a further study in terms of absenteeism at Tshepong.

It is evident from the literature that Tshepong will only benefit from knowing what the main reason for absenteeism is which will allow them putting in concrete action plans to address the cause. Such actions can lead to improved work attendance which could have a positive impact on the bottom line of Tshepong Mine.

### **5.4 Chapter Conclusion**

This chapter dealt with the limitations and conclusion of the study as well as the recommendations based on the findings.

Limitations to the study included questions not being specific and answers ambiguous. Thorough preparation of interviewers should be done to ensure that respondents give clear and concise answers.

The study indicated that the main reason for absenteeism was health and domestic problems as indicated by 82% of the respondents. Most of the respondents believe that their workplace conditions were good (71%) and that they are satisfied with their work (78%)

The Null hypothesis is thus accepted in that a positive relationship between absenteeism and physical workplace conditions underground at Tshepong does not exist based on the fact that only 9% of the respondents were of the opinion that it was the reason for absenteeism.

Further study is needed to understand what the specific reasons for the health and domestic problems are. Understanding of these reasons and implementing solutions

to these can have a positive impact on the bottom line of Tshepong Mine through reduced absenteeism.

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## **Abstract**

The purpose of this study was to determine whether a positive correlation exists between the physical workplace conditions underground and the rate of absenteeism underground at Tshepong Mine.

The research was designed as a quantitative study during which data was obtained from a sample group of employees from the group 4-8 employees who frequently absent themselves from work. A questionnaire was used to obtain information from the respondents in determining the reasons for absenteeism. A statistical analysis was performed on the data that was obtained.

The study indicated that the main reason for absenteeism was health and domestic problems as indicated by 82% of the respondents. Most of the respondents believe that their workplace conditions were good (71%) and that they are satisfied with their work (78%)

The Null hypothesis is thus accepted in that a positive relationship between absenteeism and physical workplace conditions underground at Tshepong does not exist based on the fact that only 9% of the respondents were of the opinion that it was the reason for absenteeism.

## **Keywords**

*Absenteeism, workplace conditions, job satisfaction, health problems, causes of absenteeism, factors of absenteeism, consequence of absenteeism, mining, labour planning*