



Analysing the effects of employee benefits on the productivity in a South African mine

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ABSTRACT

Employee benefits play an important role in the productivity of the mine. These benefits focus on ensuring that employees are protected, and their quality of life is uplifted. Examples of employee benefits include retirement plans, health protection insurance, education reimbursement, security, and recognition benefits. The main reason most organisations construct employee benefit programmes is so that they can attract, retain and encourage employees. However, organisations implement employee benefits while striving to cut costs for their operations.

It is therefore important to investigate if the employee benefits do influence the productivity of employees in the mine. The data collection for this study was done using structured questionnaires. The questionnaire utilised was obtained from a similar study conducted by Kamau (2013) in Kenya in 2011. The descriptive survey design was used in this research with the focus of finding the frequency with which something happens and also the connection between variables by using inter-mean correlation as an additional reliability statistic. The study focused on the mine's employees who have been employed by the mine for over one year and are not in executive positions. The study reveals that employee benefits are important to employees and have an influence on their productivity. Unfortunately, from the results, employees believe that employee benefits are not distributed fairly to all employees. In addition, the results also show that employees would like to be recognised for their hard work in the form of recognition benefits.

The study, therefore, recommends the establishment of employee recognition benefit programmes for a job well done to all the employees that are doing an outstanding job. Proper information dissemination ensures that all employees are aware of the employee benefits offered by the mine and ensures that information becomes easily accessible and dispersed to all levels.

Key words: Employee benefits, Productivity, Security benefits, Health protection benefits, Retirement benefits, Recognition benefits.

DECLARATION

I, Cathrine Kgomotso Kowang, hereby state that the mini-dissertation I have submitted for the Master of Business Administration (MBA) degree at the North-West University, Potchefstroom Campus, entitled "Analysing the Effects of Employee Benefits on Productivity at a Mine," is entirely my original work, and all sources have been properly cited. I also state that I have never before submitted this dissertation for a degree at this or any other university.

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LIST OF ACRONYMS

Abbreviation	Full description
Ai	Inherent availability
BELT	Bucket based excavating, loading and transporting
HR	Human resource
LHD	Load Haul-Dump
LPDT	Low-Profile-Dump-Truck
MRM	Mineral resource management
OR	Operation research
PI	Production index
R	Regression
ROM	Run of mine
SDL	Side- Discharge-Loader
SPSS	Statistical Package for Social Sciences

1 OVERVIEW OF THE STUDY

1.1 INTRODUCTION

Employee benefits are claimed to benefit both employers and employees and play a key role in their relationship. Today's workers, more than half of them, acknowledge that benefits are equally important to them as their minimum income. This is significant because some employee benefits allow employees to save money or offer conveniences that would have been otherwise challenging to obtain.. Some of the examples include insurance and health care (Mirea & Naftaliana, 2012: 2226). The breadth and depth of employee benefits have increased steadily, yet a significant roadblock persists because businesses occasionally fail to comprehend the needs of their workforce to offer the correct set of benefits (Deming, 2018). The expense of offering benefits to employees is one of the main problems.

When employees are satisfied with their benefits they tend to feel significant. Therefore, to attract loyal employees, the company has to maximise motivation for its staff. This can be accomplished through increased productivity and a shared interest in achieving a common goal. The more a company dulcifies its staff, the better the results will be. The following study presents, with the assistance of the method of description, the effects of employee benefits on productivity at a mine. This is the main reason that this study aims to analyse the effects of employee benefits on productivity. When organisations set employee benefits that are in favour of employees, their expenditure decreases and result in increased productivity. Being productive in the workplace is an integral part of the business in the organisation. Productivity is critical to all economic sectors because it is so important to a country's overall economic health (Humphreys, 2019).

Organisations need to have favourable employee benefits to ensure that they are happy and productive. Therefore, employee benefits and productivity are proportional to one another.

1.2 BACKGROUND

Employee benefits form one of the derivatives of the industrial revolution which resulted in the growth of free labour markets and large-scale industrial organisations. This created a society with major labour problems which were mainly due to low salaries, excessive working hours, dangerous working environments as well as oppressive practices by supervisors. The problems resulted in violent protests and a great threat to social stability. It was, therefore, necessary for

the labour unions to intervene to ensure that organisations compensated their employees fairly and developed employee benefits that benefited both the employees and organisations.

In South Africa, some organisations do not offer a complete range of competitive employee benefits to workers. However, there are some legally required employer contributions such as retirement and medical insurance funding. It should be noted that the retirement and medical contributions by the employer are only legally required if the employer falls under the public sector schemes or as regulated under the Bargaining Council Agreement (Outsourced HR, 2019).

The legally required employee benefit contributions in South Africa are the unemployment insurance fund (UIF), skills development levy (SDL), and payment for on-duty injuries and diseases. Employee benefits are often overlooked and are a fundamental area of the business. A comprehensive review of the employee benefits package can highlight opportunities for the organisation with employee benefits packages that provide stability to the company (Purdon, 2018: 11). Benefits accepted by an organisation generally have a positive impact on the productivity of employees and result in a positive organisational climate.

1.3 PROBLEM STATEMENT AND CORE RESEARCH QUESTION

The majority of mining organisations in South Africa regard the design and implementation of a good employee benefits plan as critical. The problem being investigated in this study is that shortly after employees have joined an organisation, they start looking for other opportunities elsewhere due to job dissatisfaction resulting from the lack of benefits offered by the employer. Also, a lack of satisfaction occurs when new employee benefits are not fairly implemented for everyone in the company, resulting in demoralised employees and a feeling of being left out of the decision-making of the company. Organisations usually delay or reduce employee benefits when management implements cost-reduction measures but this, unfortunately, results in reduced productivity and high turnover of employees.

The following therefore serves as the core research question:

- Do employee benefits have a significant positive impact on productivity?

1.4 RESEARCH OBJECTIVES

The main purpose of this study is to investigate the effects of employee benefits on the performance of employees in the mine. The specific objectives are:

- To determine whether health protection benefits affect employee productivity;
- To establish whether employment security benefits affect employee productivity;
- To determine whether retirement benefits affect employee productivity; and
- To determine whether employee recognition benefits improve productivity.

1.5 IMPORTANCE AND BENEFITS OF THE PROPOSED STUDY

This study aims to recommend employee benefits practices that can be implemented in an organisation. Therefore, this study will indicate to the management of the organisation how different employee benefits plans and packages can be implemented to increase productivity. The study also highlights the employee benefits which the mine has provided the employees with by noting the level of encouragement and enthusiasm the mine has given to employees to increase their productivity outputs. Moreover, the study will allow the management to understand how the employees feel and what their desires are.

1.6 DELIMITATIONS AND ASSUMPTIONS

1.6.1 Delimitations (scope)

The study will be conducted with the sole focus on a mining organisation. Employees on a top management level, employees who have worked less than one year in the organisation, non-permanent employees and contractors are not included in the scope of the study. It is also impossible to include employees that meet the sample criterion as not all the employees would be interested in participating in the study.

1.6.2 Assumptions

The study assumes that the employees participating in the study will truthfully and honestly answer the research questionnaires provided. It is also assumed that the participants are participating out of natural interest with no ulterior motives. Also, it is assumed that the sample is representative of the employees. It is further assumed that the data collection tools are relevant and sufficient to gather the necessary data and have a significant conclusion.

1.7 DEFINITION OF KEY TERMS

Appreciation: Recognising the good qualities of someone.

Employee benefits: Benefits that are part of an employee's total compensation, along with cash payments.

Employee productivity: The amount of work completed by a worker in a certain period.

Intangible rewards: Rewards that do not have monetary value but have a great impact by making the employee feel recognised and motivated.

Optimal mean: Most desirable or satisfactory.

Recognition: Identification of someone or something with a prior encounter.

Tangible rewards: Rewards that can be in the form of money or goods that can be traded for cash.

1.8 STRUCTURE OF THE STUDY

This study comprises the following chapters:

1.8.1 Chapter 1: Overview of the study

The first section is the introduction of the study with supporting factors from the problem statement, research objectives and the importance of the proposed study. This chapter also investigates the delimitations and assumptions that will apply to the proposed study. The definition of keywords is also included to give the reader a better understanding of the words used in the study.

1.8.2 Chapter 2: Literature review

The second chapter which is the literature review explains the background as well as the content of the proposed topic in more detail and highlights the studies that have been done concerning the proposed topic.

1.8.3 Chapter 3: Research design and methods

The third chapter represents the research design and methods by discussing the population, sampling, data collection and analysis methods used. Besides, this section also highlights the quality and ethical concerns relating to the study.

1.8.4 Chapter 4: Results and findings

Chapter four will give an analysis of the results and provide a comprehensive discussion of the findings.

1.8.5 Chapter 5: Conclusions and recommendations

Chapter 5 summarises findings, recommendations, and conclusions.

2 LITERATURE REVIEW

2.1 INTRODUCTION

Employee benefits are non-salary compensation that companies can reward their employees with. These benefits do not necessarily need to be in the form of money. Examples of employee benefits include medical insurance, life insurance, retirement benefits, fringe benefits, paid time off, social security and other specialised benefits (Spacey, 2018).

An organisation can use different compensation methods to increase employee productivity. Benefits result in happy employees and this type of employees become more productive (Marzullo, 2018). According to Marzullo (2018), employees that have benefits granted to them are twenty percent more productive when asked to undertake a duty. Moreover, employees with good benefits generally stay with their companies for longer. Benefits also attract better-skilled employees to the company. Therefore, the happier employees are, the more productive they become.

DeWitt (2017) states that employees prefer additional benefits to an increase in salary because of the tax implications of a salary increase, which might not apply to all benefits. Benefits are not only essential to employees but can motivate employees to improve the business. This is so because benefits enhance loyalty, focus, productivity, and attendance while making the recruiting process much easier. Having employees benefit from an organisation helps them become even more dedicated to the company. Some benefits are required to be implemented by law but some are voluntary.

Introducing more employee benefits results in motivated employees because some of these benefits contribute to employees' personal development, which, in turn, results in fewer employees quitting their jobs and could result in increased productivity and performance. According to Kang *et.al.* (2016: 1456), the opportunity cost of employee turnover could be considerable.

Employee benefits have a positive direct relationship to individual employee satisfaction and increase the level of individual motivation and performance. Motivated employees are beneficial for implementing organisational strategies because each employee knows their dedicated role.

Employee benefits such as bonuses, stock options, and traditional health insurance and retirement packages are tools that some organisations utilise to retain workers. According to Iqbal, Guohao & Akhtar (2017: 4), employee benefits can help employees:

- feel appreciated, treasured and valued;
- be team participators rather than just employees; and
- positively affect the bottom-line performance of the organisation.

2.2 EMPLOYEE BENEFITS

2.2.1 Theoretical framework

There has been a major debate about the effects of employee benefits on the company's performance. The relationship is explained by the agency theory and transaction cost theory. These theories argue that employees focus on their interests instead of the firm's interest and contribute to an imbalance of information exchange between the employer and employee.

This section will highlight the associated theoretical debates that relate to the association between employee benefits and productivity.

2.2.1.1 Expectancy theory

According to Woods & West (2020:108), people tend to put in more effort at work when they know that their efforts will yield good performance which will result in the desired outcome. However, the consequence of expectancy for motivating, encouraging and promoting performance at work is that management needs to warrant that people recognise that work will lead to required outcomes and these can be measured by effort-related performance (Slabbinck *et al.*, 2018). Having a clear understanding of the things that people desire is a fundamental component of this approach to motivation. Even though this theory suggests that having rewards for performances increases motivation and performance, some authors have debated this concept by highlighting that monetary rewards cannot necessarily increase intrinsic motivation (Woolley & Fishbach, 2018:888).

2.1.1.2 Need theory

The need theory's main aim is to recognise what motivates people in the workplace. This theory suggest that when people have unsatisfied needs, they will only do what satisfies them (Woods

& West, 2020: 102). The most used need theory by organisations is Maslow's theory which identifies a hierarchy of five needs. The theory implies that human beings are eager to fulfil these needs on different levels. The sets of needs are physiological, safety, social, esteem and self-actualisation (Desmet & Fokkinga, 2020:18).

2.1.1.3 The total reward model

The total reward model suggests a reward strategy that incorporates aspects such as learning and development in the employee's benefits package. Both tangible and intangible rewards are considered important in this model. The total reward model aims to get optimal results from rewards and maximise their effects on enthusiasm, job engagement and organisational obligations (Mabaso & Dlamini, 2018:7).

2.2.2 The most preferred employee benefits by employees

Flexi-time: The amount of flexibility is mostly influenced by the nature of the business and the culture of the company, but having some degree of flexibility is important. For example, having people work under the old-fashioned practice of nine-to-five does not represent the best working shift for all employees. Flexi-time allows employees that are more efficient when working early in the morning or late in the afternoon to perform optimally (Kratz, 2017; Davidescu *et al.*, 2020: 50).

Working-from-home: Kratz (2017) states that many organisations that have allowed employees to work from home have seen increased productivity after introducing this practice. Working from home often enables better working times and environmental settings for optimal performance (Alipour *et al.*, 2021:8).

Team events: Team events often take the form of an outing for the whole company or individual divisions within the company. Team events are designed to bring the team together in an environment that is not work-related and should be fun for all. Such events can strengthen relationships between employees and can have the benefit of both team-building events and opportunities to reward employees, which could benefit productivity (Kratz, 2017; Chen *et al.*, 2021: 230).

Learning opportunities: Offering employees the opportunity to learn new skills or advance the ones they already have can positively impact their productivity. Employees are usually

grateful for the opportunity and this generally makes the teams stronger, as long as employees are offered something that they appreciate (Kratz, 2017; Hongal & Kinange, 2020:7).

Family care programmes: Childcare is the most common family care benefit offered by big companies, but there is increasing interest by employees in benefits such as elderly care, pet care and other forms of assistance by employers because these benefits can lower employee stress levels, resulting in more focused employees. Small companies usually cannot afford to pay for such allowances but can alternately offer extra personal off days, should an emergency occur (Kratz, 2017; Querbach *et al.*, 2020:11).

Awards and rewards performance: This is a benefit that most companies adopt and is practised regularly. The focus is to reward employees for hard work. Ideally, awards should not only be done at the end of the year. For example, if an employee does a great job, they should be given recognition and if a team achieves its target they should be recognised rapidly (Kratz, 2017; Rohim & Budhiasa, 2019:554).

Break encouragement: According to Kratz (2017) implementing short breaks throughout the day will result in increased productivity and motivated workers. It is generally perceived that people who work for long hours without breaks are hard workers. However, this practice can lead to burnout (Davidescu *et al.*, 2020:49).

Other fringe benefits: These benefits are non-monetary and include benefits such as tuition aid, child-care benefits, and child-care spending accounts (Chukwudumebi & Kifordu, 2018:90).

2.2.3 Health protection benefits

Health protection benefit refers to offering health benefits to employees at the employer's expense or contributing to the cost of giving such benefits to employees (Soltani, 2019: 510). Employee health and safety programmes should receive top priority from management since they increase productivity, reduce costs, and save lives. Such programmes must have a component for general well-being, ongoing monitoring, and employee involvement (Anthony *et al.*, 2007: 660). Workplace safety demands should not be a major chance that employees may become unable to perform their jobs. Therefore, the goal of health and safety at work is to establish the environments, skills, and routines necessary for both the employee and the organisation to complete their work effectively and without experiencing any potentially

harmful situations (Reese, 2018). Employee behaviours are influenced by safe working environments, which in turn affects productivity. This suggests that workers who are in a safe environment are more inclined to act in a way that will not hurt them.

Workers and managers must be trained to have a health and safety mindset to maintain a safe and healthy workplace. Such receptivity is not always accompanied by the advancement of equipment operation expertise or knowledge. For instance, most individuals find it pretty simple to learn how to drive a car. But one needs to have a mature mentality (Friend & Kohn, 2018).

2.2.4 Employee retirement benefits

Retirement benefits include any pension, lump sum, gratuity, or similar benefit paid or to be paid on or after retirement (including early retirement), death, or disability in connection with an employee's employment (Marumoagae, 2017). Retirement plans can increase productivity in addition to providing a tax-advantaged way to save for retirement. Pensions have a significant impact on employee behaviour because they provide younger employees with a convincing reason to stay with their employer and motivate older employees to retire when the time is right.

Perrin (2005) asserts that to recruit, retain, and engage the people, leading firms must have a clear understanding of the makeup of their existing and future workforces. Additionally, there is a chance to match the consumer and employee demographics and establish the organisation as a preferred employer among the various generations represented in the modern workforce.

2.2.5 Employee recognition benefits

Employee recognition rewards can be tangible and intangible. There are various ways to receive tangible appreciation, such as "employee of the month," "perfect attendance," or other unique rewards. Recognition may also have an ethereal or psychological quality. Even though monetary prizes are not offered, feedback from managers and supervisors that recognises extra effort and performance of employees provides acknowledgement. Managers have received training on how to take extra care to acknowledge employee service and performance in both concrete and intangible ways (Shonubi *et al.*, 2016: 5224).

According to Montani *et al.* (2020: 367), salaries and benefits make up a significant and growing portion of operational expenditures; nevertheless, productivity can fall among employees who receive higher pay and perks. When wages are equitable and performance-based, workers are more productive. Ironically, pay increases and promotions do not always address issues with employee enthusiasm and productivity. Pay changes do not need to go above a reasonable industry-wide (market) level. The quality of work-life technique includes the customisation of benefits to meet particular demands.

2.2.6 Employee benefit systems, plans and implementation

Iqbal *et al.* (2017: 5) stated that companies need to implement strategic reward systems that recognise compensation, benefits, recognition and appreciation. There has been a great problem with the reward systems in many companies as they intentionally omit to pay attention to these factors and have not aligned their reward systems with their corporate strategies.

Employee benefits are part of the strategic reward systems and companies that are not on the same standard as their competitors will have difficulty in retaining their employees. Employee benefits should always have a component of recognition and appreciation to enable a successful strategic system. These two components are relatively cheap to implement and often receive little attention from the employers.

When implementing employee benefits it is necessary to answer the following questions:

- Are the benefits aligned with the business strategy?
- Are the benefits promoting the right behaviours in the company?
- Are performance goals reached?
- Do the employee benefits incorporate payments, benefits, acknowledgement and gratitude?

2.2.7 Problems in practice

Organisations usually measure employee satisfaction by conducting periodic employee surveys. This is done by asking the employees to rate their satisfaction with the organisation on several characteristics. The analysis is then used to implement improvement measures which will then assist in better-improved engagement between the organisation and employees. Therefore, the employee survey tool is considered the most important management

improvement technique (Hartley, 2001: 189). However, in practice, the employee survey often does not serve the purpose it is intended to do. This is because the following are associated with the survey:

- Management seldom acts on the results obtained from the surveys. Great attention is put to obtaining information from the employees but no improvement action plan is put into place. The reasons behind the no action from management are usually due to downplaying the survey results, no plan or knowledge to attend to the dissatisfaction and no accountability. Also, the problem is that there is often no feedback on the actions taken. Therefore, this results in demoralised employees as they feel their concerns are not addressed (Mastrangelo, 2009: 14; Sugheir *et al.*, 2011: 55).
- What the employee survey measures is not what the management thinks it is measuring (Stiglitz, 2019). This then gives management the perception that they know how their employees are feeling. This is because sometimes the employee survey only measures the understanding of employees and not their feeling regarding a specific aspect (Lepold *et al.*, 2018:15). In addition, the survey can sometimes investigate the aspects not planned in solving, for example, employees can be asked about their satisfaction regarding their salaries.
- The employee survey addresses issues that management cannot attend to within a year before another employee survey is conducted (Mastrangelo, 2009: 16).
- The employee survey focuses on the satisfaction of employees regarding internal issues only like working conditions, and work environment which could cause other probable issues to be excluded. Moreover, no possible link is made between employees' opinions and the effects of these opinions on the organisation's strategy. This results in management not having a clear picture of the organisation and therefore taking broad development movements to create a high-performance organisation.

2.2.8 The current state of employee benefits in Africa

According to Willis Towers Watson (2020), the 2019/2020 benefit trends survey indicates that 17% of employers in Africa believe that their current benefits strategy is operational. About 84% of the organisations believe that they understand what their employees want and 61% of the organisations believe that employee benefits are attributing factors to why employees join organisations.

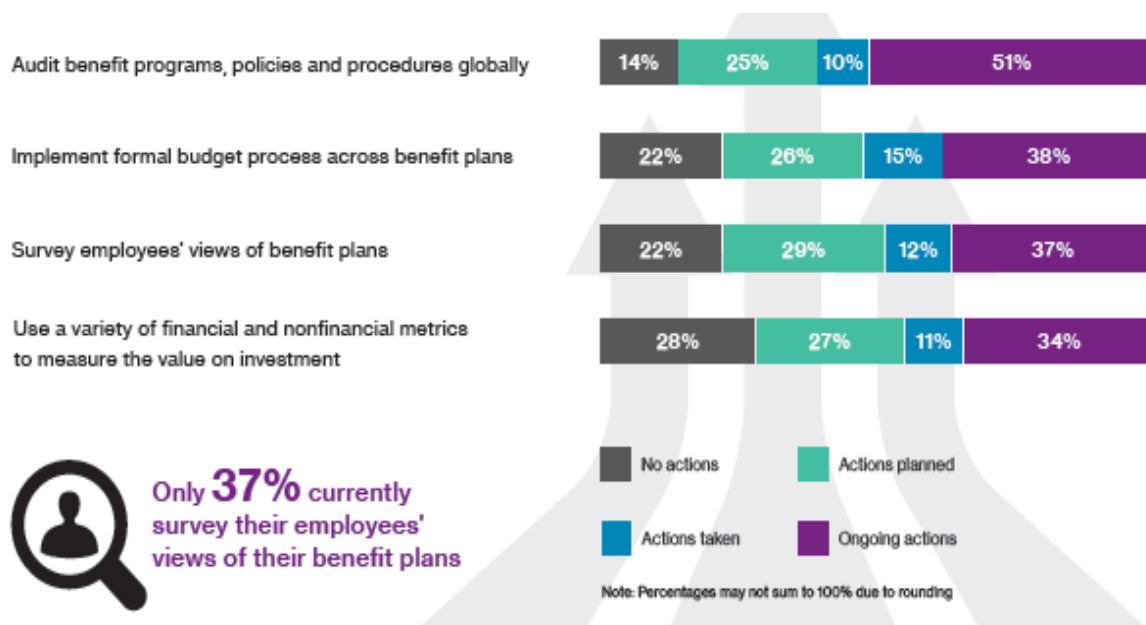
Most organisations have raised concerns about the rise in benefit costs. 67% of organisations have indicated that costs are a concern and this is in line with the medical trend for Africa which was predicted to be 12.86% in 2020. 55% of employers have indicated that providing the needs and wants of a multigenerational employee is a great encounter. 34% have indicated that there is no employee engagement concerning employee benefit programmes.

The following are priorities for African employers with the benefits portfolio:

- 73% improve core benefits beyond traditional health and retirement needs.
- 70% improve work policies.
- 67% investigate suitability and coverage.
- 67% include well-being in their benefit strategy.
- 64% align employee benefits with market standards and the needs and wants of employees.

There are newer benefit employee trends that are emerging in Africa and include the following:

- Stress management programmes and about a third of African employers considers them.
- Mental health programmes considered by a quarter.
- Health coaching is considered by 23% of employers.



Source: Willis Towers Watson, 2020

Figure 2.1: Focus on non-financial metrics

Figure 2.1 shows a growing focus on nonfinancial metrics and it can be noticed from all the categories while little attention is given to the actual actions taken.

Modern employee benefits programmes that Africa can implement:

- Launch benefits philosophy and strategy that reflects organisational strategy and employee values that include their preferences, variety and inclusion (Hadler & Carter, 2018:e510).
- Define a portfolio of employee benefits (Hadler & Carter, 2018:e510).
- Treat employees like clients to promote talent involvement to enable engagement about employee well-being and effective communication (Sayed *et al.*, 2019:20).
- Make use of data-driven analytics, insights and reports to enhance cognisant decisions to promote the relevance of programmes.

Nisar & Siddiqui (2019: 233) highlight that the practices of human resource management are playing a crucial role in achieving organisational strategies and competitive benefits. Today, in many countries, human resource practices are being used as managers are starting to have confidence in understanding that spending more now is a great investment for the company. In industry service, having satisfied employees is critical because the success of the organisation is dependent on it. It has been noticeable through the years that the concept of compensation and employee benefits is receiving great attention and has a positive impact on organisations as employees work in a positive work environment.

2.3 PRODUCTIVITY

2.3.1 What is Productivity?

The quantifiable link between output and input is the least contentious way to define productivity (Antle & Capalbo, 2018). Two linked factors contribute to the general acceptance of this term. One is that the definition gives an idea of what productivity is in the context of a business, an industry, or the economy as a whole. Moreover, the definition of productivity is the link between the quantity and quality of goods and services produced and the number of resources utilised to produce them, regardless of the type of production, economic, or political system (Prokopenko, 2017). Eatwell & Newman (2019) defined productivity as the ratio of an output measure to an index of input usage. In other words, productivity is just the mathematical relationship between the volume of output and of any inputs needed for production. According

to this definition, productivity can be defined as the ratio of output to input or as the efficient use of resources (Samuelson & Nordhaus, 2015).

There are many different methods to define productivity, including output per worker, direct labour, group of workers, unit of material and unit of energy. One must remember that a variety of elements, including worker aptitude, drive, effort, work procedures, employee invention, tools employed, and management effectiveness, affect productivity (Plag, 2020: 490). The foundation of any country's economic development is productivity. If more output can be produced with the same input, the same output can be produced with less input, or more output can be produced with a correspondingly smaller increase in input, then productivity is higher.

In addition to increasing sales potential, customer service responsiveness, cash flow, and profits, higher productivity also lowers costs. Increased corporate success can result in operations being expanded and more employment being created. If wage increases without associated productivity growth, then it will lead to the increased product cost and contribute to inflation. Long-term productivity gains cannot be made just by putting more effort into the job. Only by making capital investments in newer and better facilities, equipment, and machinery can real growth be achieved (Goshu *et al.*, 2017: 10). Productivity is also increased by paying attention to better employee motivation and incentives like profit sharing.

2.3.2 Productivity in South Africa

According to McKinsey & Company (2019), the MineLens Productivity index produced in 2019 shows that the South African mining sector has been stagnant for over a decade. The productivity of South Africa's mines has fallen steadily. The Index indicates that the productivity of the mines in South Africa for base metals, iron and platinum commodities has declined by 0.3% a year between 2013 and 2017. When compared with Asia, North America and Oceania for the same period their productivity increased by 5%.

Looking further into the productivity in South Africa regarding the productivity statistics released by Productivity SA (2020), South Africa experienced a labour productivity decline to -0.9% in 2018 from 0.4% in 2017. After four years of erratic increase in labour productivity between 2014 and 2017, there was negative growth in 2018. Negative growth was also observed in 2015 and 2016. While there was a positive change between 2010 and 2014, the other fall in labour productivity was seen in 2016. Indicators saw a significant increase in 2013,

but the opposite was true in 2016. Furthermore, multifactor productivity declined to -0.4% in 2018 from 1.7% in 2017. The indicator's of other two years of negative growth were 2015 and 2016, while the years of positive growth were 2014 and 2017. Other related indicators demonstrate that the labour input increased from 1.3% in 2017 to 1.5% in 2018. The indicator experienced significant growth from 2014 to 2018, with particularly strong growth in 2015.

Growth in labour productivity is generally low. South Africa has the lowest productivity growth rate among developing nations, and the only two with negative rates are Brazil and Argentina. South Africa's low productivity performance is a result of a lack of skilled workers, high transaction costs, and a lack of competition in many markets.

Inadequate framework conditions in South Africa result in underperformance in terms of employment quality, quantity and inclusivity (Department of National Treasury, 2019).

2.3.3 Measuring productivity

A change in the production function, which has an impact on the output relation and input relation, is what defines productivity growth. The calculation for total productivity typically looks like this: Total productivity is equal to the quotient of output and input. This formula demonstrated how input and output changes, including both quantitative and qualitative changes, must be measured (Jorgenson & Griliches, 2016: 267). When relative and quantity prices of various output and input factors change, many quantitative and qualitative changes also occur. The formula for total productivity is shown as follows if one wants to emphasise qualitative changes in input and output:

Total productivity = Output quantity (and quality) / Input quantity (and quality) (Kozai *et al.*, 2022). Productivity is measured as a ratio of input to output. In general, single-factor productivity measures and multi-factor productivity measures can be used to categorise the measure of productivity.

2.3.4 Benefits of productive employees

Being productive at work is essential to the operation of the organisation. The personnel should produce and deliver high-quality results at the end of their shift. Productivity fosters stronger connections with customers. Customers will probably be considerably satisfied with the turnaround time and general efficiency when productivity is increased.

Employees that are not productive often get disengaged and unmotivated which has a detrimental effect on the workplace culture. One of the most crucial factors in workplace productivity is increased engagement. More productive employees are more likely to participate in organisational activities and foster good relations with their co-workers. They are less likely to experience frustration and burnout. This also helps the employee and the company to benefit from a positive feedback loop created by this. Business costs are also impacted by productivity. When employees are productive, they usually have more time to work on other projects. As a result, productivity rises, leading to cost savings (Mattson, 2022).

According to Conway *et al.* (2015), when a business is very productive, it usually succeeds in the end, and as a result, the employees will almost certainly receive incentives. These consist of pay increases, bonuses, health insurance, and other benefits. Additionally, when the business expands, this will give employees new job opportunities and inspire them.

Productivity at work is crucial for offering dependable, high-quality services to various stakeholders. Prem *et al.* (2018: 1020) found that training is crucial to maintain a high impact and satisfaction-guaranteed production since the relationship between employer-sponsored training and labour productivity is multifaceted.

2.3.5 Measuring productivity in the mines

In mining, output per employee is frequently used as a measure of labour productivity. Output in this context refers to the amount of the primary metal product that is normally present in the ore. This measure has the advantage of having easy access to the data it needs, but it also has several well-known drawbacks. It specifically neglects to take into account changes in the typical number of hours mining company employees work each year, the rising use of contract workers and outsourcing, variations in the quantities of by-products produced, and changes in the amount of domestic ore processing (Bhadury & Basu, 2013).

For mining firms to continue to compete in the global market, one of the largest obstacles is to achieve the high production and productivity target. As a result, it necessitates accurate performance evaluation of large, expensive machinery used in the mining industry. Rapid industrialisation and population growth have increased the demand for minerals, forcing surface and underground mines to increase production. To satisfy the need, numerous bucket-based excavating, loading, and transporting (BELT) tools are used, including draglines,

shovels, dumpers, side-discharge loaders (SDL), load haul dumpers (LHD), and low-profile dump trucks (LPDT). To meet high production and productivity goals while using this massive and expensive equipment, it's crucial to increase their general efficacy and performance. As a result, it needs accurate equipment efficiency measurement (Allahkarami *et al.*, 2016: 681).

Given this, several measures, including cycle time, bucket-fill factor, material swell factor, dependability, availability, maintainability, utilisation, and production efficiency, have been widely used to assess the operation of BELT equipment for a long time. The major performance indicators of equipment are availability and utilisation, and management typically uses these indicators to make decisions in the mine operation. The rate of production is extremely dependent on the availability and use of the equipment (Allahkarami *et al.*, 2016: 685). Therefore, mining companies should make considerable efforts to increase and sustain the level of capital-intensive equipment availability and usage.

2.3.5.1 Operational Availability

The operation of a piece of equipment or a system is related to operational availability. It can be expressed as the total number of hours that a piece of machinery can work in a certain time frame (Bhadury & Basu, 2013). There are some contradictions in the meaning and application of the term "period," though, as some studies suggest a calendar-time-based method that bases this period on scheduled and unscheduled time for operation (Mohammadi *et al.*, 2015: 245). A loading-time-based technique has been proposed by other researchers, which takes into account this period based on planned/scheduled operating time (Allahkarami *et al.*, 2016: 688).

The assessment of total time for assessing operational availability is where the two approaches diverge most. Higher availability values are offered by the loading-time-based technique than by the calendar-time-based approach. Before moving on with the availability evaluation, it is crucial to be extremely clear about the selection and application of one of these methodologies. Additionally, it is discovered that there are certain discrepancies in the definition and classification of events, which have an impact on the value of availability and the capacity to compare results when carefully examining the study of the literature. For instance, the word "maintenance" has consistently been used to refer to scheduled maintenance, corrective maintenance, and routine maintenance. It is critical to define each occurrence precisely (Fraser *et al.*, 2015).

2.3.5.2 Inherent Availability

The term "inherent availability" (A_i) refers to a property that is built into a piece of equipment or one of its components. It disregards the outages brought on by external factors, which are often out of the designer's control and not directly related to the equipment design. As a result, it is advised to evaluate design attributes during the design phase as they can serve as a crucial tool for creating a preventative maintenance schedule, managing spare parts, and developing the best replacement strategies (Jakkula & SN, 2019).

The best maintenance intervals and consumption patterns of spare parts may typically be determined with the aid of reliability investigations. Therefore, enhancing equipment's reliability and maintainability, either by lowering the frequency of unplanned shutdowns or by shortening scheduled turnarounds, is one of the most efficient ways to increase equipment's inherent availability (Ahmad *et al.*, 2018: 240).

2.3.5.3 Utilisation

Utilisation denotes making good use of the time that is available. Even if a machine is available, it might not be operating throughout the allocated hours because of excessive or idle conditions. Utilisation, therefore, indicates a reduction in the number of hours that are accessible (Wibowo, 2012: 53).

It is important to keep in mind that the low utilisation of loading, transport, and digging equipment in surface mines is generally a result of a fault with their administration or control. This is especially noticeable in big, deep open pits with plenty of dump locations and a big vehicle fleet. Pfleider (2012) categorises various truck control and allocation techniques into dispatching and non-dispatching (locked out or fixed-assignment mode) modes. In the mining business, a dispatching system is successfully used to maximise the use of shovel and truck operations (Wibowo, 2012: 54).

Since the 1960s, the mining sector has used Operation Research (O.R.) extensively in the fields of mine planning, design, production scheduling, equipment selection, and dispatching. When there are multiple viable options, O.R. aids in selecting the best course of action and assists in selecting the best policy. It is the use of mathematical techniques to find the best and/or most precise answers to issues in economics, planning, and management (Wibowo, 2012: 57).

2.3.5.4 Bucket-fill factor

The bucket-fill factor shows how efficiently the bucket's space is utilised. This indicates how much of the bucket's capacity is filled with material. The bucket-fill factor is affected by the bucket's size and shape, the material's dig-ability (its ability to be moved and filled into the bucket), fragmentation (the material's particle size, shape, and distribution), the angle at which the material is resting on top of the bucket, and the operator's skills (Sandzimier & Asada, 2020: 2684).

2.3.5.5 Production index

Another indicator used in the mining sector to manage day-to-day and shift-to-shift operations is the production index (PI). The ratio between the equipment's actual production (output) and its prospective production (rated output) during the equipment's operation may be used to define the production index for any earthmoving equipment (Rai, 2014: 495). However, PI does not explain why production is low.

According to Misra (2011), any excavator's production efficiency is divided into two parts: work management efficiency and machine operating efficiency. A machine's operational effectiveness is influenced by its state of maintenance, operating environment, operator experience and skill, and operational conditions. However, most of the time, such machines work in tandem with other pieces of machinery. In these situations, the output is also influenced by task management effectiveness, which regulates the system's level of machine usage.

Productivity models

A rise in output that is proportionately greater than an increase in inputs is a sign of higher productivity. Because it is influenced by so many different factors, measuring productivity is an extremely challenging undertaking. A company's output can be quantified in physical terms, such as the number of units produced, volume, or weight, if it is producing a single product. However, it becomes quite challenging when producing a wide range of commodities (Sharma, 2009). When an industry produces certain by-products, the issue gets more challenging. Money measurements do not accurately reflect changes in quantity when the value of money is unstable as a result of price fluctuations.

Therefore, productivity expressed as a monetary value may not reflect reality. There are a wide variety of input factors. As a result, measuring inputs presents similar issues. Some of them, like managerial abilities, could not even be quantifiable. They must be translated into monetary values. Generally speaking, one factor's productivity may influence another's productivity. For instance, poor management, faulty equipment, and subpar materials can all harm the labour force's productivity. Despite these challenges, it is nevertheless advisable to monitor productivity to take corrective and improving action. Finding the shortages of a certain item that may have contributed to a decline in productivity may also be done with the use of productivity measurement and analysis (Matysek & Fisher, 2016). Finding ways to increase efficiency is the primary goal of productivity analysis, and similar methods may also be used to better utilise resources (Sharma, 2009).

Comparisons of changes in productivity over time within an industry as well as between two or more industries can reveal several fascinating facts about the managerial, technological, and financial components of the sector.

2.3.6 Production Function Models

The production function model follows the assumption that the organisation's primary function is its production. As a result, it derives the productivity measurement from the production function. In practice, additional input variables are present but are not taken into account by models based on the production function.

2.3.6.1 Economic Utility Models

This method's productivity measurement models suggested the use of many ratios, with each ratio reflecting a certain economic activity or utilitarian function. This model does not adhere to the standard output-to-input ratio notion. Instead of assessing productivity at the micro level, it could be more helpful to do it at the macro level.

2.3.6.2 Measurement through Financial Ratio

Although financial statistics are typically helpful for gauging a company's financial performance, productivity is rarely captured by them. The stability, financial viability, and activity of the company have a significant impact on productivity. The productivity of concern can therefore be measured by looking at areas like liquidity, stability, profitability, and

coverage, as well as stock and creditors turnover. The concern will be more productive if ratios for the aforementioned criteria are more favourable. Acid test ratio, debtors' turnover, creditors' turnover, and stock turnover are used for this. Turnover of assets and return on capital employed could be seen as crucial ratios in this context.

2.4 CONCLUSION

Productivity growth is crucial for the economy and the success of a company. It helps each organisation to use inputs more effectively and efficiently and generates extra cash by allocating funding for product development and product line updates. Chapter 2 focused on the literature review. It looked at employee benefits, employee benefit systems, plans and implementation, problems in practice, and the current state of employee benefits in Africa. The literature reviews further looked at productivity, productivity in South Africa, measurement, benefits of productive employees, how productivity is measured in a mining environment, and models that are used in productivity measurement. The chapter is a precursor to chapter 3 which focuses on research design and methodology.

3 RESEARCH DESIGN AND METHODS

3.1 INTRODUCTION

This chapter provides an overview of the population being studied, the sampling process, and the data collection method employed in the study. The validity and reliability of the research tool are discussed. Also mentioned are the research's ethical considerations.

3.2 DESCRIPTION OF OVERALL RESEARCH DESIGN

According to Akhtar (2016: 68), research design refers to how the research is organised. It may be thought of as the glue holding all of the parts of a study project together. It is, in essence, a blueprint for the suggested study project. As a result, the research design specifies all of the crucial components of the study, including the sampling, measurement, and analysis techniques that will be used to address the primary research questions.

The quantitative technique is employed as the research design for the study, and structured questionnaires are used as the main source of data collection to meet the study's objectives. Quantitative research was chosen because it accumulates and discovers many types of positions and knowledge that are prevalent in society and is built on the foundation of ontological and epistemological principles (Young & Hren, 2017: 9). The necessity to examine the many perspectives of employee benefits on productivity served as the driving force behind the selection of this strategy.

The research process integrated information from literature review and empirical sources to derive an employee benefits framework that will add value to the mining organisation.

3.3 POPULATION

According to Majid (2018), population is the study's target population that it intends to study or treat. In this study, permanent employees who have been employed by the mine for over one year are the target population.

It is nearly hard to study the entire population in research. However, a sample was identified that produced results characteristic of the whole population. The study focuses on all the departments that are in the mine to ensure that the feedback from the employees represents the population of the mine as a whole.

3.3.1 Sampling technique

According to Greener & Martelli (2018: 68), a sample should be typical of the larger population so that the results of the study can be applied to the entire population. In addition, a sample is defined by its size, representativeness, parameters, accessibility to the sample, and the sampling technique used, according to Mugenda & Mugenda (2003).

This study made use of the non-probability sampling technique and as indicated by Battaglia (2008). This method is cheaper and can be completed in a shorter amount of time. This technique does not require randomisation from the target population. This means the samples are chosen in such a way that not every participant in the population has the same chance of getting chosen.

The responsibility lies with the researcher to make sure that the non-probability sampling method is suitable for the study. The nature, style, and primary goal of the study have an impact on the decision. The primary goal of this study is to examine how employee benefits affect the mine's productivity. The target population's fulfilment of practical requirements, such as excitement for participation and time restrictions, led to the selection of purposive sampling.

Purposive sampling assumes that the target population's participants are uniform. This suggests that research findings derived from a random sample should not differ in any way. The drawback of this approach is that it is more likely to be biased and that there may be outliers as a result of the potential for self-selection.

3.3.2 Inclusion criteria

Permanent employees employed by the mine for at least one year were eligible to participate in the study. However, the study focused on middle management and lower-level positions. Executive and top management are not included in the study. Moreover, the population does not exclude any employee in terms of race, language, disability and level of education but employees should be 20 years old or older as this is the general minimum age at the mine. All genders will be included in the study but it is important to note that there will be more males in the study as they are the majority gender that is employed in the mine.

3.3.3 Primary data collection

This study made use of primary data obtained from the questionnaires attached in Annexure A. The reason for choosing questionnaires is because they are affordable to execute and are resourceful for attaining great amounts of data from a large sample (McLeod, 2018).

The questionnaires consist of both open and closed-ended questions and consist of six parts. The closed-ended questions are used because they will enhance speedy response, they are easier to answer and quicker to capture, code and analyse the data (Hyman & Sierra, 2016: 2). Moreover, open-ended questions give respondents a chance to provide an extensive variety of answers.

To enhance the rate of response the questionnaires were distributed in the following ways:

Face to face: Since not all employees can read and write therefore and not everyone can comprehend the English language, face-to-face interviews were conducted to assist such employees in completing the questionnaires.

Phone: WhatsApp was used to increase accessibility to the target population. The questionnaire was sent via a google form link to the employees. This method also saved money and time enabling data to be collected speedily.

Hard copy (Hand out questionnaires): Questionnaires were printed and handed over to participating employees that could not be reached by other methods and for those who prefer the traditional method of completing questionnaires.

3.4 DATA ANALYSIS

The data collected was processed and coded accordingly to establish inconsistencies and uniformity. This included a correct presentation in terms of data capturing, tabulation, graphs generation and calculation of per centages and frequencies through the Statistical Package for Social Sciences (SPSS).

The data analysis made use of the quantitative method which made use of the excel spreadsheet to populate the measurable data composed through questionnaires.

The North-West University's Statistical Consultation Service was consulted to make sure reliability was attained. The closed-ended questions were examined utilising the SPSS. The descriptive analysis method was the one that was most frequently utilised.

3.5 VALIDITY AND RELIABILITY

3.5.1 Validity

According to Greener & Martelli (2018: 49), validity is the correctness of the study or observation, because a valid instrument measures what it is supposed to measure. The study made use of a valid and reliable methodology. The data collection instrument was compiled from validated questionnaires. The questionnaires were pretested in a similar study and the data was gathered from dependable sources. Leedy & Ormrod (2010) highlights that when a measurement accomplishes its goal of measuring what it's supposed to measure, it is considered legitimate.

3.5.2 Reliability

Greener & Martelli (2018: 49) defines reliability as the consistency of a measurement over time since the same instrument will produce the same results when administered at a different time. The measuring instrument must be transparent and clear so that the participant can repeat the same method more than once and yield the same results. It is important to note that just because something is reliable, it does not mean it is valid. But, measurement cannot be valid if the study is not reliable (Greener & Martelli, 2018: 49).

The study employed Cronbach's alpha coefficients to assess the results' reliability. The consistency of the covariance between the variables is measured by Cronbach's alpha coefficient. According to Taber (2018:1278), an alpha of 0.60 is considered acceptable and variables with low-scale items of which alpha equal to 0.50 is considered satisfactory. In addition to alpha, inter-item correlations are calculated as an additional reliability statistic. According to Pallant (2020), a level of r equal to 0.10 is considered acceptable.

3.6 ETHICAL CONSIDERATION

With consideration to the ethical requirements of the research, the ethical principles that were used are confidentiality and sensitivity of information obtained from the respondents as well

as the organisation where the study is taking place. In addition, consent to conduct the study was requested from the organisation.

Additionally, respondents were asked for their permission to take part in the survey. This document's Annexure B contains the consent form. They were informed that their participation in the study is entirely optional and that, by returning the completed questionnaire, they consent to the use of their answers in the research. Respondents were not obliged to enter their identities to protect their anonymity and the security of the data.

The North-West University granted ethical clearance, which is attached to the paper as Annexure C.

3.7 CONCLUSION

This chapter provided an overview of the research methodology used in this study, covering the population, sampling technique, data collection tool, and data gathering process. Measures were followed to improve the reliability and validity of the research findings. Ethics-related issues were also highlighted in this chapter. The research results and analysis of the data are presented in the following chapter.

4 DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

This chapter focuses on how the data was presented, interpreted, and analysed. The mine granted the researcher permission to collect data from the employees by use of questionnaires. The participants completed the questionnaires by following a link created from Google forms on their phones to complete the online survey. A total of ninety online questionnaire links were sent to the participants and sixty-three questionnaires were completed.

Another sixty sets of questionnaires were printed and given to the mine's employees to complete. Thirty-seven of these questionnaires were completed and submitted. This was a satisfactory response considering that most of the employees do not have access to their phones at work and that some of them had to complete the questionnaire during their lunchtime.

A total of hundred questionnaires were completed by the mine's employees and the responses are considered reasonably correct and representative of the entire population. A statistical analysis of data followed by interpretation and inference using SPSS version 22 tools.

4.2 RELIABILITY ANALYSIS

The reliability of a questionnaire that includes items and scales of the Likert-type is evaluated by Cronbach's alpha (α) reliability coefficient. It has a numerical value between 0 and 1. Cronbach alpha coefficient of above 0.7 is ideally but according to Pallant (2020) items with scales lower than ten are more likely to result in low Cronbach alpha values. In this case, it is, therefore, recommended to report the mean inter-item correlation as a supplement method to confirm reliability. The following variable breakdown was used:

- Production: Question 10,11 & 19.
- Security benefits: Question 13a, 13b, 13c
- Health & safety benefits: Question 17a, 17b, 17c, 17d
- Retirement benefits: Question 21a, 21b, 21c, 21d

Table 4.1: Cronbach's alpha coefficients

Subscale	Cronbach's Alpha (α)	N of items	Mean Inter-item correlation	Internal consistency
Part B	0.529	3	0.270	Satisfactory
Part C	0.661	3	0.391	Adequate
Part D	0.619	4	0.289	Moderate
Part E	0.591	4	0.264	Acceptable

Table 4.1 shows that Cronbach's alpha coefficients are close to 0.6 ranging from 0.529 to 0.661. According to Tabler (2018:1278), a range between 0.45 to 0.98 is considered acceptable, albeit not good. These values can be ascribed to the fairly small sample size of 100 respondents.

About the effect of employee benefits on productivity (part B), the inter-item correlation ranges from 0.143 (low positive correlation) to 0.495 (medium positive correlation) and the mean inter-item correlation is 0.270. The correlation indicates satisfactory reliability as supported by Pallant (2020) and the inter-item correlation mean of 0.270 is considered optimal according to Briggs & Cheek (1986). Part C which is the employee security benefits has an inter-item correlation ranging from 0.230 to 0.503 with a mean inter-item correlation of 0.391. The correlation indicates satisfactory reliability and the mean inter-item correlation shows an optimal mean. The inter-item correlation for the health protection benefits (part D) ranges from 0.135 to 0.443 and the mean inter-item correlation is 0.289. The correlation indicates satisfactory reliability as well as optimal mean. The inter-item correlation for the employee retirement (part E) benefits range from 0.102 to 0.420 and the mean inter-item correlation is 0.264. The correlation indicates satisfactory reliability and shows that the participants reliably answered the questions. It can be concluded that the results are reliable and the questions asked achieved the intended purpose.

4.3 DEMOGRAPHICS

4.3.1 Gender of respondents

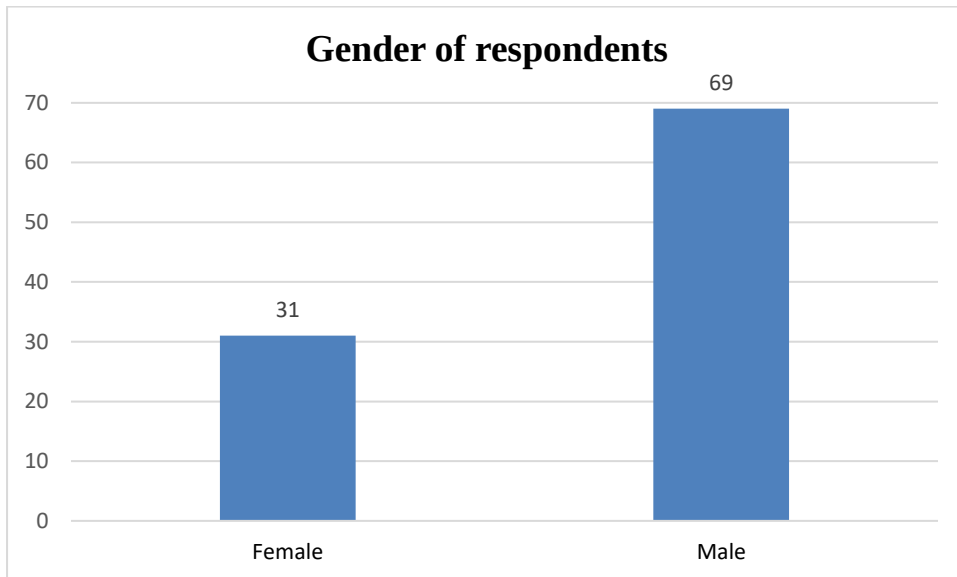


Figure 4.1: Gender distribution

The dominating respondents were males as compared to female respondents. Of the one hundred completed questionnaires, 69 percent were males and 31 percent females. These numbers show that males are dominant in the mine and this could be a result of the working mine conditions that probably prevent women from entering the sector.

4.3.2 Age of respondents

The participants were also distinguished according to age groups. Figure 4.1 shows that 7 percent were aged between 21 - 30, 61 percent were aged 31 - 40, 31 percent were aged 41 - 50 and 1 percent were aged 51 - 60. The majority of the respondents were aged between 31 - 40 which indicates that most of the respondents are young adults.

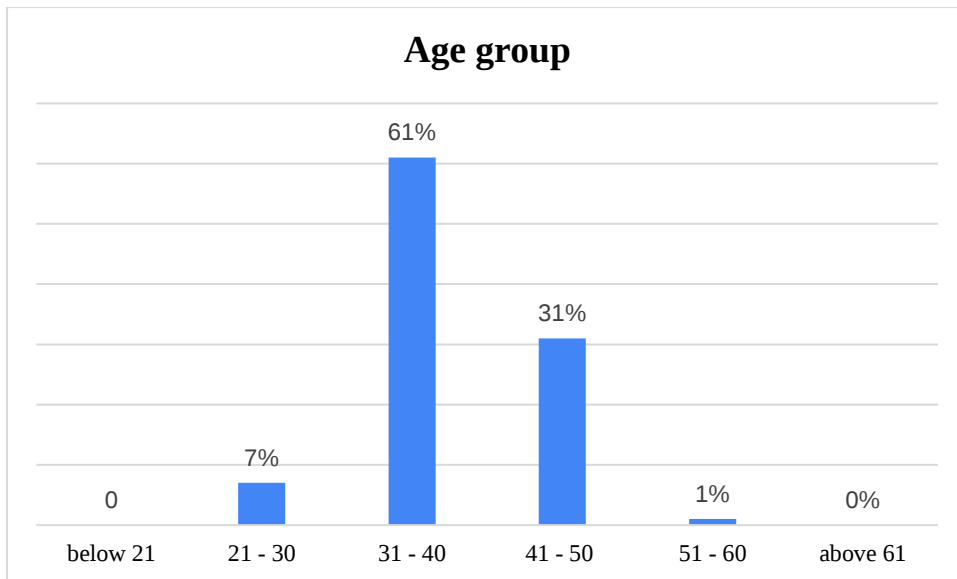


Figure 4.2: Age distribution

4.3.3 Level of education

Figure 4.2 shows the level of education of the respondents. 63.4 percent studied until the school level, 13.9 percent qualified for college while 21.8 percent studied at a university. 1 percent of the respondents do not have any form of educational background. This is an indication that the majority of the respondents had attained a school level of education which can be any grade from grade 1 to 12. This, however, does not give an indication of the relevant certification the employees have acquired to be competent to do their jobs.

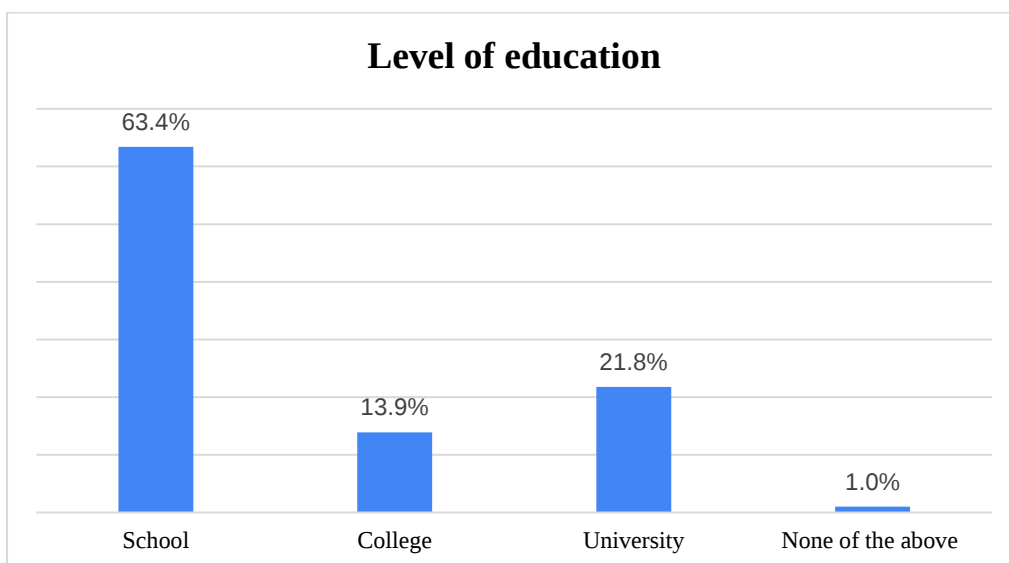


Figure 4.3: Level of education

4.3.4 Job designations of respondents

Figure 4.3 shows the job designation of the respondents. The study accommodated employees from different departments with different positions. The results show that most of the participants were employees from the mining section with truck operators being the dominating participants. This is because the mining section is the bigger department with more employees. The variety of participants with varying job positions indicates that the study was diverse in terms of selecting the participants. The study covered people working in the following departments: mining, drilling, Mineral resource management (MRM), human resource (HR), engineering, process, run of mine (ROM), training and time & attendance.

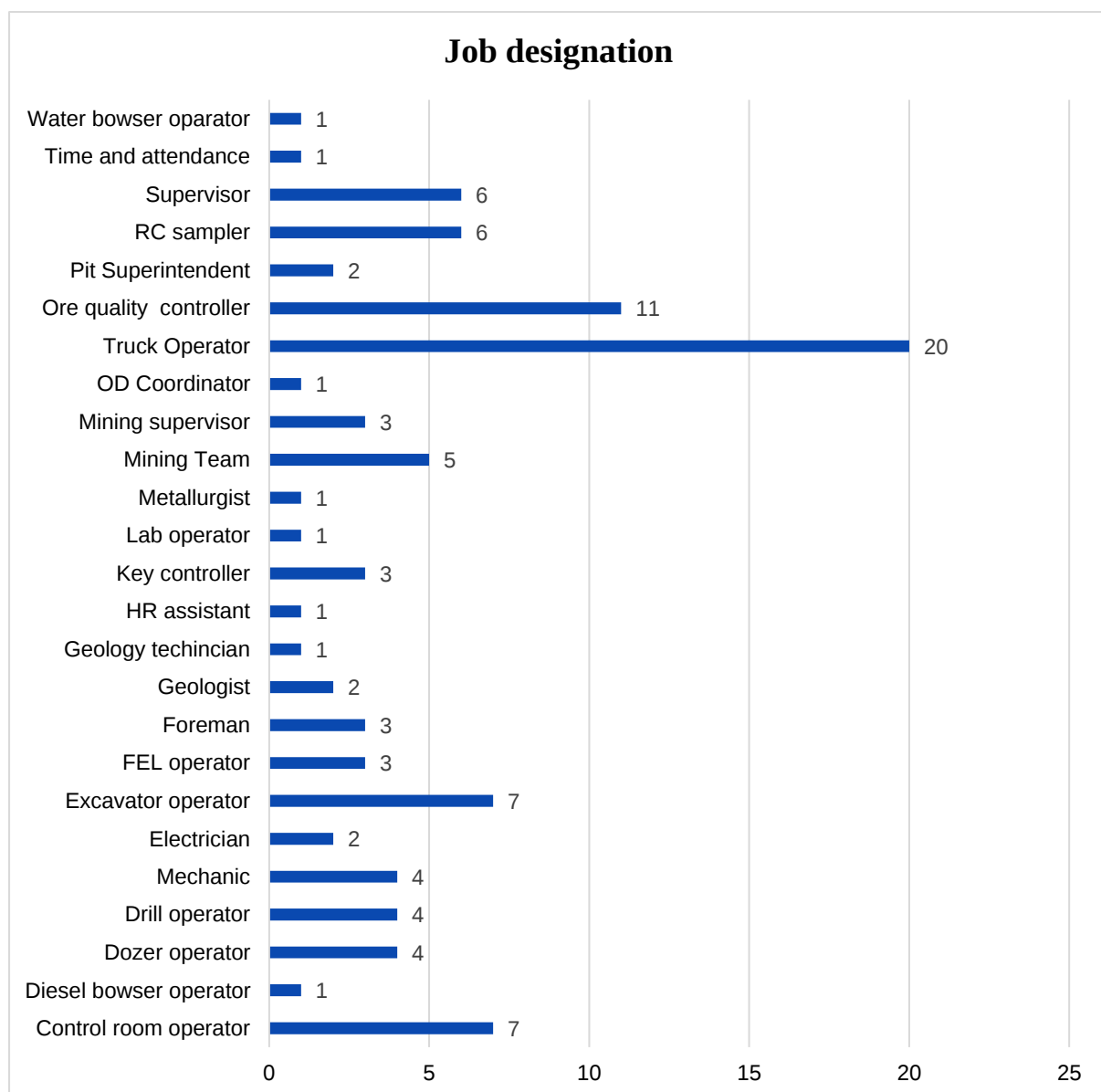


Figure 4.4: Job designation

4.3.5 Period of service

The study also required respondents to indicate the number of years they have worked for the mine. From the findings that were also indicated in Figure 4.4, 58% of the respondents have worked for the mine for the period between 1 and 5 years, 33 percent between 5 and 10 years and 9 percent between the period of 10 and 15 years. This indicates a fair spread as the mine has been in existence for twelve years thus the respondents have served a considerable period with the mine.

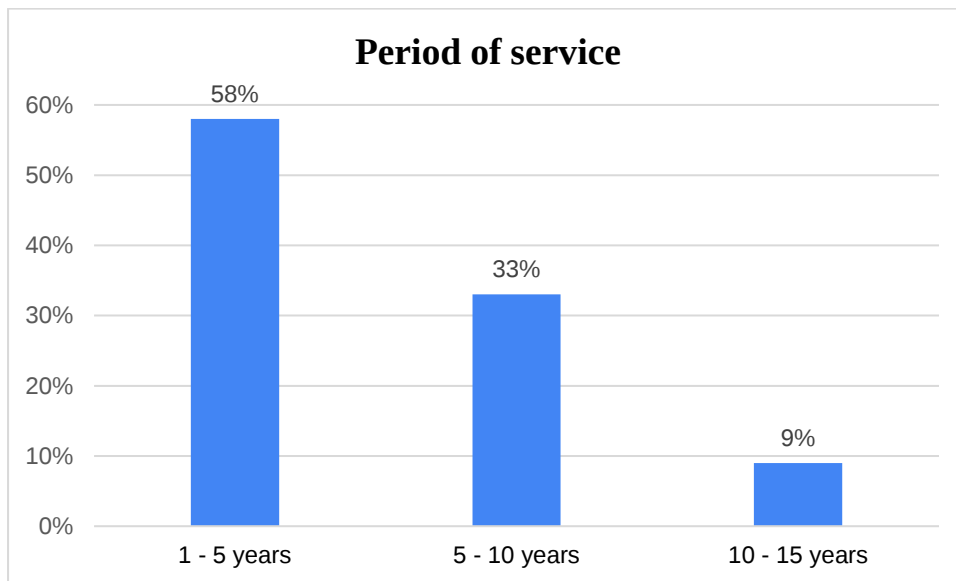


Figure 4.5: Period of service

4.4 DESCRIPTIVE ANALYSIS

4.4.1 Effects of employee benefits on employee productivity

Table 4.2: Importance of employee benefits

	Frequency	Percentage
Yes	97	97
No	3	3
Total	100	100

The study aimed to determine if employees considered employee benefits important and from the findings indicated in Table 4.2. 97 percent of the respondents indicated that employee benefits are important to them while on the other hand, 3 percent indicated otherwise. It can be concluded that the majority of the employees considered employee benefits important.

Table 4.3: Extent to which respondents considered employee benefits important

	Frequency	Percentage
Not at all important	0	0
Slightly important	3	3
Moderately important	11	11
Very important	59	59
Extremely important	27	27
Total	100	100

The purpose of the study was to see how valuable employee benefits were to respondents. From the findings indicated in Table 4.3, 3 percent indicated that employee benefits are slightly important to them, 11 percent indicated that the employee benefits are moderately important to them, 59 percent indicated that employee benefits are very important to them whereas 27 percent indicated that employee benefits are extremely important to them. From the findings, it can be deduced that employee benefits are very important to employees.

Table 4.4: Distribution of employee benefits

	Frequency	Percentage
Yes	45	45
No	55	55
Total	100	

The study aimed to establish that employee benefits were distributed fairly to everyone. From the findings indicated in Table 4.4, 45 percent indicated that the employee benefits are distributed fairly with 55 percent indicating they are not. This indicates that most of the respondents believe that employee benefits are not distributed fairly.

Table 4.5: Extent to which employee benefits positively affect employee productivity

	Frequency	Percentage
Never	8	8
Rarely	12	12
Sometimes	26	26
Often	21	21
Always	33	33

The study sought to determine the extent to which employee benefits positively affect employee productivity. From the findings indicated in Table 4.5, the study shows that 8 percent of the respondents indicated that employee benefits never positively affect their productivity, 12 percent indicated that employee benefits rarely positively affect their productivity, 26 percent indicated that employee benefits sometimes positively affect their productivity, 21 percent indicated that employee benefits often positively affect their productivity while the majority of the respondents of 33 percent indicated that employee benefits always positively affect their productivity. Therefore, the findings indicate that the respondents perceive employee benefits as a source that can positively affect their productivity.

Table 4.6: Extent to which employee benefits negatively affect productivity

	Frequency	Percentage
Never	14	14
Rarely	11	11
Sometimes	31	31
Often	24	24
Always	20	20

The study sought to determine the extent to which employee benefits negatively affect employee productivity. From the findings indicated in Table 4.6, the study shows that 8 percent of the respondents indicated that employee benefits never negatively affect their productivity,

11 percent of the respondents indicated that employee benefits rarely negatively affect their productivity, 31 percent of the respondents indicated that employee benefits sometimes negatively affect their productivity, 24 percent of the respondents indicated that employee benefits often negatively affect their productivity and 20 percent of the respondents indicated that employee benefits always negatively affect their productivity. It can therefore be deduced that employee benefits can negatively affect the productivity of employees.

The study also identified that most of the respondents do not know the aspects looked at when setting employee benefits in the organisation as most of the respondents indicated that they do not know the aspects looked at when setting employee benefits. Some indicated that the aspects looked at include profits, productivity, development, safety, employee effectiveness and employee encouragement.

4.4.2 Employee security benefits and employee productivity

Table 4.7: Statement relating to employment security in the organisation

Statement	Disagree	Slightly agree	Neutral	Agree	Strongly agree
Employees must have appropriate nutrition during the workday and receive the necessary training to support their duties.		2	2	11	85
To prevent overtime from being abused by employees and to make it productive, it should be well planned and managed.	2		1	20	77
A female employee is entitled to three months of maternity leave in addition to whatever yearly leave she is eligible for, as well as sick leave if she gets sick while pregnant and with the employer's permission.		1	6	13	80

The study aimed to determine the level at which respondents agreed or disagreed with the statements in Table 4.7 concerning employee security benefits in the mine. From the results, 85 employees must have appropriate nutrition during the workday and receive the necessary

training to support their duties, 77 percent of the respondents strongly agree that to prevent overtime from being abused by employees and to make it productive, it should be well planned and managed. 80 percent of the respondents also strongly agree that a female employee is also entitled to three months of maternity leave in addition to whatever yearly leave she is eligible for, as well as sick leave if she gets sick while pregnant and with the employer's permission. From this section, it can be concluded that the majority of the respondents are in favour of the above statements relating to security benefits.

4.4.3 Health protection benefits and employee productivity

Table 4.8: Contribution of the protection benefits on productivity

	Frequency	Percentage
Yes	96	96
No	4	4
Total	100	100

The study aimed to determine if health protection benefits contributed to employees' productivity. From the results indicated in Table 4.8, 96 percent of the respondents have indicated that health protection benefits contributed to their productivity while, on the other hand, 4 percent have indicated that health protection benefits do not contribute to their productivity. Therefore, it can be concluded that health protection benefits are important to the employees and have a great influence on their productivity.

Moreover, the study also determined that employees are aware that there are policies and procedures in place to ensure that both occupational health and safety as well as medical insurance in the mine is guaranteed as 88 percent of the respondents have indicated that they are aware of these policies. Knowledge about the policies is important for employees to know how they benefit from both occupational and safety and medical insurance.

Table 4.9: Statement about Occupational Health and Safety in the mine

Statement	Disagree	Slightly agree	Neutral	Agree	Strongly agree
The productivity of the workforce and the state of the national economy are closely linked to worker health.	2	3	7	44	44
Workplace injuries and accidents cost the employer a lot of money.	1	4	16	44	35
The annual cost to employers of accidents or injuries brought on by excessive lifting, carrying, or pushing can amount to billions of rands.	3	15	29	30	23
The expense of addressing these workplace health and safety issues could make the organisation less competitive in the world market.	1	0	22	45	32

The study aimed to determine the level at which respondents agreed or disagreed with the above statements in Table 4.9 relating to occupational health and safety in the mine. The majority of the respondents have indicated that the health of the employees directly affects the productivity of employees and in turn, affects the state of the economy. In addition, the majority of respondents have indicated that work-related incidents, as well as injuries, have a great impact on the mine. The respondents are mostly in agreement that work-related accidents or injuries significantly add to the mine's costs on an annual basis and the majority of the respondents agree that responding to workplace health and safety issues has the potential to undermine the organisation's competitiveness in the world market. It can be concluded from the findings that the employee's health contributes hugely to their productivity and employees are also aware of the financial implications of occupational health and safety issues in the mine.

4.4.4 Employee retirement benefits and productivity.

Table 4.10: Contribution of retirement benefits on productivity

	Frequency	Percentage
Yes	66	66
No	34	34
Total	100	100

The study aimed to determine if retirement benefits contributed to employees' productivity. From the findings indicated in Table 4.10, 66 percent of the respondents agree that retirement benefits influence employee benefits and 34 percent think that retirement benefits do not affect productivity. Therefore, it can be concluded that the majority of the employees demonstrate that retirement benefits influence employee productivity.

Table 4.11: Extent to which retirement benefits positively enhance employee productivity

	Frequency	Percentage
Never	13	13
Rarely	13	13
Sometimes	22	22
Often	20	20
Always	32	32

The study aimed to determine the extent to which employee benefits positively enhance employee productivity. From the findings indicated in Table 4.11, 13 percent of the respondents highlighted that retirement benefits never positively enhance their productivity, 13 percent indicated that retirement benefits rarely positively enhance their productivity, 22 percent indicated that retirement benefits sometimes positively enhance their employee productivity, 20 percent indicated that retirement benefits often positively enhance their productivity and 32 percent of the respondents indicated that retirement benefits always enhance their employee productivity.

The study also determined if employees would leave the organisation for another job if the mine did not provide retirement benefits. 76 percent of the respondents indicated that they would leave, 14 percent indicated that they would not leave and 10 percent were not sure. The results indicate that the majority of the respondents prefer to have retirement benefits and would go to other organisations if this benefit is not provided.

Table 4.12: Statement about retirement benefits in the mine

Statement	Disagree	Slightly agree	Neutral	Agree	Strongly agree
Pensions have a significant impact on employee behaviour because they give younger employees a motivating reason to stay with their employer and motivate older employees to retire when the time is right.	2	2	8	45	43
Pensions have an impact on the kind of employee a company hires and can assist a business in attracting candidates with desirable personality characteristics.	1	2	17	47	33
Retirement became an earned benefit in reward for years of service to a particular organisation, to an industry, or more generally to the society.	2	2	11	45	40
To attract, retain, and engage employees and meet organisational goals, organisations must understand the makeup of their present and prospective workforces and	2	0	3	43	52

provide the appropriate mix of benefits and other initiatives.					
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The study aimed to determine the level at which respondents agreed or disagreed with the above statements relating to retirement benefits in the organisation. From the findings indicated in Table 4.12, 45 percent of the respondents agree and 43 percent of the respondents strongly agree that pensions have a significant impact on employee behaviour because they give younger employees a motivating reason to stay with their employer and motivate older employees to retire when the time is right. Forty seven percent of the respondents agree and 33 percent of the respondents strongly agree that pensions have an impact on the kind of employee a company hires and can assist a business in attracting candidates with desirable personality characteristics. Forty five percent of the respondents agree and 40 percent of the respondents strongly agree that retirement became an earned benefit in reward for years of service to a particular organisation, to an industry, or more generally to society. Forty three percent of the respondents agree and 52 percent of the respondents strongly agree that to attract, retain, and engage employees and meet organisational goals, organisations must understand the makeup of their present and prospective workforces and provide the appropriate mix of benefits and other initiatives. The results show that retirement benefits have a great influence on the behaviour of employees.

4.4.5 Employee recognition benefits and employee productivity

The study established that recognising and awarding for a job well done would enhance productivity as 98 percent of the respondents have expressed that recognition benefits would enhance their productivity and only 2 percent have indicated otherwise.

Table 4.13: Extent to which employee recognition benefits enhance productivity

	Frequency	Percentage
Never	7	7
Rarely	10	10
Sometimes	15	15
Often	21	21
Always	47	47

The study aimed to establish the extent to which employee recognition and reward for a job well done would enhance employee productivity. From the findings, presented in Table 4.13, 7 percent of the respondents indicated that employee recognition benefits do not enhance their productivity, 10 percent of the respondents have indicated that employee recognition benefits rarely enhance their productivity, 15 percent of the respondents have indicated that recognition benefits sometimes enhance their productivity, 21 percent of the respondents have indicated that recognition benefits often enhance their productivity and 47 percent of the respondents have indicated that recognition benefits always enhance their productivity. Therefore, the results show that employee recognition and reward for a job well done could improve productivity hugely.

4.5 REGRESSION ANALYSIS

The regression model was used whereby benefits were considered as the independent variables and productivity as the dependent variable was significant ($p < 0.05$). The predictors (benefits) explained 23% of the variance for productivity. This is an indication that 23% of changes in employee productivity could be accounted for by employee benefits. The relationship between the research variables is indicated by the correlation coefficient. From the study, the correlation coefficient is 48% and indicates a positive relationship between the variables

Table 4.14: Regression analysis

Model	Standardised Coefficients	Sig.
	Beta	
(Constant)		0.018
Recognition benefits	0.448	0.000
Security benefits	-0.023	0.807
Health benefits	-0.175	0.108
Retirement benefits	0.129	0.241

a. Dependent Variable: Productivity Total

Table 4.14 shows the regression analysis for all the predictors (recognition, security, health and security benefits). The only significant factor affecting total productivity is recognition benefits. The standardised coefficient is 0.448 for recognition benefits which indicates that a

unit increase in recognition would result in an increase in employee productivity by 0.448 at a statistical significance level of 0.000. The significance level of security benefits for employee productivity is at 0.807 indicating that a unit increase in security benefits would lead to a decrease in employee productivity by a factor of 0.023. The significance level of health benefits for employee productivity is 0.108 and a unit increase in health benefits would lead to a decrease in employee productivity by a factor of 0.175. The significance level of retirement benefits for employee productivity is 0.241 and a unit increase in retirement benefits would increase employee productivity by a factor of 0.129. The recognition benefits are the only significant predictor at $p < 0.05$. The remaining predictors namely: security benefits, health benefits and retirement benefits are not significant as their p-value is greater than 0.005. This means that a higher observation from the recognition benefits will also result in increased perceptions of productivity.

4.6 CORRELATION ANALYSIS

Table 4.15 : Correlation analysis

		Recognition Benefits	Productivity Total	Security Benefits	Health Benefits
Productivity Total	Pearson Correlation	.459**			
Security Benefits	Pearson Correlation	0.085	0.017		
Health Benefits	Pearson Correlation	-0.168	-0.184	0.161	
Retirement Benefits	Pearson Correlation	-0.127	-0.029	.230*	.545**

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The correlation is statistically significant when $p < 0.05$. Practical effects of correlations were examined due to the random sampling procedure (Ellis & Steyn, 2003). The practical

significance of correlations is interpreted as follows: 0.10 = small effect, 0.30 = medium effect and 0.50 = large effect (Cohen, 1988; Ellis & Steyn, 2003).

The correlation analysis between productivity and recognition benefits was significant ($r = 0.46$; $p < 0.01$). This indicates that respondents who reported higher observations of recognition benefits were also inclined to report higher observations of productivity. The correlation analysis between productivity and security benefits was insignificant ($r = 0.017$; $p = 0.868$). The correlation between productivity and health benefits was also insignificant ($r = -0.184$; $p = 0.067$). The correlation between productivity and retirement benefits was also insignificant ($r = -0.029$; $p = 0.776$). From the results only recognition benefits were significant and the rest of the benefits were not.

4.7 CONCLUSION

This chapter aimed to present, interpret, and analyse the information gathered from the mine's employees. This chapter's data came from employee questionnaires that were filled out. Statistical software called SPSS was used to analyse the data. The average and correlation of measurable items were calculated using Cronbach's alpha. Based on the discussions in chapter four, recommendations are made in the study's next chapter.

5 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

The final section of the study is covered in this chapter, which includes a summary, comments, difficulties, conclusions, and possible recommendations. The research topics, methodology, and findings are also summarised in this chapter.

5.2 SUMMARY

5.2.1 Employee benefits and productivity

From the findings, it was evident that employees consider some employee benefits important. Almost all of the respondents indicated that they consider employee benefits important. Concerning whether employee benefits positively or negatively influence employees' productivity, it is clear that employee benefits can have an influence on their performance at work which then influences their productivity. What is of great concern is that a majority of the employees indicated that the employee benefits are not distributed fairly to all employees in the mine. This can affect their enthusiasm and loyalty towards the company. As indicated by Wibowo (2012: 58), the utilisation of machines in the mining industry is critical and people have great influence in terms of idling and breakdowns of machines. Therefore, they can greatly influence productivity if they are not satisfied with their benefits. It was further revealed by the regression analysis that 23% of changes in employee productivity could be accounted for by employee benefits. One of the objectives of this study was to determine whether employee benefits have a significant positive impact on productivity. From the findings, it can be concluded that employee benefits have a significant impact on productivity at the mine.

5.2.2 Employee security benefits and employee productivity

Security benefits are also important to employees. Employees do agree that they need to adequately be trained to perform their duties as this directly has an impact on their output. They further indicated that being adequately nourished during the working day is important because employees work long hours and also in physically demanding conditions. To ensure that fatigue management is controlled employees indicated that they are in support of overtime control plans of ensuring that overtime hours are adequately controlled and planned as mismanagement

of overtime could have a great impact on the safety of employees and also on the productivity of an individual due to fatigue. The regression analysis, however, showed that a unit increase in security benefits would lead to a decrease in productivity, although this result is not statistically significant.

5.2.3 Health protection benefits and employee productivity

The majority of the respondents have indicated that health protection benefits influence their productivity and a majority have indicated ‘always’ on the frequency of the influence. It is also important to highlight that employees are well aware that there are policies and procedures in place to ensure that both occupational health and safety and medical insurance are guaranteed in the mine. This gives the employees assurance that their health and safety are important. The results also prove that if the health of the workforce is compromised it will eventually affect the productivity of the mine. Anthony *et al.* (2007: 665) indicate that employee health and safety programmes can save lives, increase productivity and reduce costs. It is also important to highlight that work-related accidents, as indicated by the respondents, have a great impact on the finances of the mine as well as on the industry and the country. Therefore, it is important to ensure that employees work safely and are provided with the right resources to perform their duties. From the regression analysis, it was observed that a unit increase in health protection benefits would lead to a decrease in productivity, however, with no significance.

5.2.4 Retirement benefits and employee productivity

The majority of the respondents have indicated that retirement benefits influence their productivity. The employees also indicated that retirement benefits also positively influence their productivity at work. The regression analysis indicated that a unit increase in retirement benefits would increase employee productivity but not significantly.

5.2.5 Recognition benefits

The employees have mostly indicated that recognition of their job well done would enhance their productivity. The regression analysis also showed that an increase in recognition benefits would increase productivity at a significant level.

5.3 CONCLUSION

The study aimed to analyse the effects of employee benefits on productivity in the mine. The findings from the study suggest an existence of a strong relationship between employee benefits and productivity.

Employees who are offered a variety of employee benefits are more likely to last in the organisation than those who are not. Employees also expect more employee benefits contributions to reward their work with benefits.

The mine needs to provide the employees with improved and fair employee benefits to everyone because employee benefits directly and positively affect satisfaction. The more the employees are satisfied with their benefits the more they tend to be devoted, compassionate and profitable to the organisation.

5.4 RECOMMENDATIONS

From the summary and conclusion, it has been indicated how critical the effect of employee benefits is on productivity. Therefore, the following is recommended to the management of the mine:

- Ensure that all employees are aware of the employee benefits offered by the mine and that information is easily accessible and dispersed to all levels. It is important to keep employees well informed as information can enable them to make sound decisions, and keep them motivated and productive. Building up the morale of a team, generating a sense of support and belonging among employees, and enhancing employee productivity may all be accomplished by connecting employees through a centralised employee engagement platform. The mine can achieve large-scale employee involvement through the use of an app that facilitates the dissemination of general company communication throughout the organisation. This will also enable the mine to gain insight that they can then translate into crucial initiatives to improve the working life of employees. In addition, the mine can implement the dashboard systems by hooking up the dashboards in the offices so that everyone can get a quick snapshot of the displayed information.
- Implement employee recognition benefits programmes for a job well done to employees doing an outstanding job. The performance of employees can be monitored by

implementing regular reviews and evaluations to encourage employee productivity. These reviews can be done regularly which can be on a monthly, quarterly, or yearly basis. Recognition benefits should be awarded to employees that perform exceptionally well and these benefits can be used as a platform to engage with employees on how to improve their productivity. It is important to ensure that the employees do not feel threatened by the reviews so that they can participate open-mindedly with the strategy of increasing productivity. Moreover, it is important to also recognise employees whose productivity increased even though they did not meet their targets. This will encourage them to continue to work hard to improve their productivity. The implementation of the recognition benefits program should start with the production teams and follow through with the other departments in the mine. It is important to start with the production team as they are the main drivers of production in the mine.

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ANNEXURE A: DATA COLLECTION INSTRUMENT

PART A: PERSONAL DETAILS

Please (tick) the correct answers

1. Gender Male ☐ Female ☐ Other ☐

2. Age

21 - 30	☐
31 - 40	☐
41-50	☐
51-60	☐
61-70	☐

3. Level of education?

School	☐
College	☐
University	☐

4. Professional qualification?

.....
.....

5. What is your job designation?

.....
.....

6. How long have you worked with the organisation?

5 -10 years	
10 - 15 years	
15 - 20 years	

PART B: Effects of employee benefits on productivity

Please tick where appropriate and fill out your answer in the space provided

7. In your opinion do you consider employee benefits important

Yes

☐

No

☐

8. Are employee benefits important to you?

Not at all important

☐

Slightly important

☐

Moderately important

☐

Very important

☐

Extremely important

☐

9. Are employee benefits distributed fairly to all employees?

Yes

☐

No

☐

10. Do employee benefits positively affect your productivity?

Never

Rarely

Sometimes

Often

Always

11. Do employee benefits negatively affect your productivity?

Never

Rarely

Sometimes

Often

Always

PART C: Employee security benefits

13. Please indicate the extent to which you agree with the following statements about employee security benefits in your organisation on the scale of 1 – 5, where 1= Disagree, 2= Slightly disagree, 3= Neutral, 4= Agree, 5= Strongly agree

Statement	1	2	3	4	5
13.a) Employees must have appropriate nutrition during the workday and receive the necessary training to support their duties.					
13.b) To prevent overtime from being abused by employees and to make it productive, it should be well planned and managed.					
13.c) A female employee is entitled to three months of maternity leave in addition to whatever yearly leave she is eligible for, as well as sick leave if she gets sick while pregnant and with the employer's permission.					

PART D: Health protection benefits

Please tick where appropriate and fill out your answer in the spaces provided

14. Do health protection benefits such as Occupational Health and Safety and Medical insurance contribute to your productivity in the organisation?

Yes

No

15. Do health protection benefits contribute to your productivity?

Never

Rarely

16. Are there policies and procedures in place to ensure that both occupational health and safety and the medical insurance in your organisation is guaranteed

.....

17. Please indicate the extent to which you agree with the following statements about Occupational Health and safety in your organisation on the scale of 1 – 5, where 1= Disagree, 2= Slightly disagree, 3= Neutral, 4= Agree, 5= Strongly agree

Statement	1	2	3	4	5

17.a) The productivity of the workforce and the state of the national economy are closely linked to worker health.					
17.b) Workplace injuries and accidents cost the employer a lot of money.					
17.c) The annual cost to employers of accidents or injuries brought on by excessive lifting, carrying, or pushing can amount to billions of Rands.					
17.d) The expense of addressing these workplace health and safety issues could make the organisation less competitive on the world market.					

PART E: Employee retirement benefits

18. Do retirement benefits affect your productivity?

Yes

☐

No

☐

19. Do employee retirement benefits positively enhance your productivity?

Never

☐

Rarely

☐

Sometimes

☐

Often

☐

Always

☐

20. If the organisation did not provide retirement benefits would you leave it for another job?

.....

21. Please indicate the extent to which you agree with the following statement about retirement benefits in your organisation on the scale of 1 – 5, where 1= Disagree, 2= Slightly disagree, 3= Neutral, 4= Agree, 5= Strongly agree

Statement	1	2	3	4	5
21.a) Pensions have a significant impact on employee behaviour because they give younger employees a motivating reason to stay with their employer and motivate older employees to retire when the time is right.					
21.b) Pensions have an impact on the kind of employee a company hires and can assist a business in attracting candidates with desirable personality characteristics.					
21.c) Retirement became an earned benefit in reward for years of service to a particular organisation, to an industry, or more generally to society.					
21.d) To attract, retain, and engage employees and meet organisational goals, organisations must understand the makeup of their present and prospective workforces and provide the appropriate mix of benefits and other initiatives.					

PART F: Employee recognition benefits

Please tick where appropriate and fill out your answer in the spaces provided

22. If recognised and awarded for a job well done would it enhance your productivity?

Yes

☐

No

☐

23. Do employee recognition benefits enhance your productivity?

Never

☐

Rarely

☐

Sometimes

☐

Often

☐

Always

☐

ANNEXURE B: INFORMED CONSENT



Dear Participant

This **Informed Consent Statement** serves to confirm the following information as it relates to the officially approved research project at the North-West University on “Analysing the effects of employee benefits on productivity at a mine”.

1. The sole purpose of this study is to obtain information from employees like yourself to determine the nature of your experience related to the research topic.
2. Participation is completely voluntary and you may withdraw at any time. You may also decide not to answer specific questions.
3. The procedure to be followed is quantitative research design, which entails a questionnaire. Basic background information will be asked e.g. your age, gender, level of education, function and related experience to the topic.
4. Confidentiality of the data is guaranteed and only the combined results will be used for research and publication purposes.
5. The data gathered from the questionnaires will only be used for research purposes.

6. Please note that there are some classifying variables in Section 5 (age, employment and gender) which will be used only to profile the respondents who partook in this study. It will be used in comparative analysis to distinguish between the experiences of different demographic groups regarding the topic. Note that only the combined results will be used and at no stage can any specific respondent or his/her data entry be isolated and analysed. (You may also select the option not to answer the specific question should you feel like it.)

7. Also, note that this study does not have a correct or incorrect answer to any of the questions. This means that in comparing profiles of respondents, there is not a correct or incorrect behavioural profile.

Thank you for your time. If you have any questions or queries, feel free to contact me on 0767390511 or my supervisor, Dr Johan Jordaan at 0713662262.

Signed: *Kgomotso Kowang*

Please indicate your consent. The approximate time to complete the questionnaire is about 20 minutes.

I hereby give my consent after having read the above information that my data may be used as stated above.	<u>YES</u>	NO
I hereby give my consent that my demographic data may be used to develop a profile in terms of the variables of the study	<u>YES</u>	NO

.....

Participant

ANNEXURE C: ETHICAL CLEARANCE LETTER APPROVAL LETTER



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Private Bag X6001, Potchefstroom
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Tel: 018 299-1111/2222
Web: <http://www.nwu.ac.za>

Economic and Management Sciences Research
Ethics Committee (EMS-REC)

29 June 2021

Dr J Jordaan
Per e-mail
Dear Dr Jordaan,

EMS-REC FEEDBACK: 25062021- Round Robin
Student: Kowang, CK (31373933)(NWU-00059-21-A4)
Applicant: Dr J Jordaan - MBA

Your ethics application on, *Analysing the effects of employee benefits on productivity at a mine*, which served via Round Robin, refers.

Outcome:

Approved as a minimal risk study. A number **NWU-00059-21-A4** is given for one year of ethics clearance.

Please note that the ethics approval of this application is subject to the Covid-19 protocols.

Kind regards,

Prof Mark Rathbone
Chairperson: Economic and Management Sciences Research Ethics Committee
(EMS-REC)

ANNEXURE D: CERTIFICATE OF LANGUAGE EDITING



Kgaabi Academic Enablers (Pty) Ltd Editing and Proofreading Confirmation Letter

Westview 2 Security Estate
Andeon
Pretoria
0183
September 2022

Cell: 072 692 7635
Email: kgaabiacademicenablers@gmail.com
Alt: dkkgaabi@gmail.com

TO WHOM IT MAY CONCERN

This letter serves as confirmation that I, Kwena Dominic Kgaabi¹, together with Lufuno Ligavha-Mbelengwa² have edited the research proposal of Kowang CK student number (31373933) entitled "Analysing the effects of employee benefits on productivity at a mine" to be submitted for Master of Business Administration at the North-West University. I, therefore, declare that the document is to my knowledge devoid of language errors that may deprive Kgomo's work of being accepted for the qualification Master of Business Administration.

Kwena completed his BA Hons Media Studies postgraduate at the University of Limpopo with a distinction in the research mini-dissertation and Lufuno completed her MSc Geohydrology at the University of the Free State.

We can be reached on the above contact details should you require clarity on anything.

Sincerely yours,

Kgaabi KD (Mr)

¹ Currently enrolled for MA Communication Sciences at the University of South Africa. BA Hons Media Studies (University of Limpopo) with a distinction. BA Media Studies (University of Venda) Major Courses: Advanced English Structure (ENG 3541) Advanced English Usage (ENG 3542) and Media Studies. Microsoft Excel certificate: Basic, Intermediate and Advanced level + Project Management certificate (Africa International Advisors) General Course on Intellectual Property (World Intellectual Property Organization), Introduction to the Patent Cooperation Treaty (World Intellectual Property Organization), Advanced Course on Intellectual Property, Traditional Knowledge and Traditional Cultural Expression (World Intellectual Property Organization).

² PhD Candidate in Geohydrology and MSc Geohydrology from the University of the Free State. Microsoft Certificate. Published a paper titled: Investigation of factors influencing groundwater quality in a typical Karoo aquifer in Beaufort West town of South Africa. Cite: Ligavha-Mbelengwa, L. and Gomo, M., 2020. Investigation of factors influencing groundwater quality in a typical Karoo aquifer in Beaufort West town of South Africa. Environmental Earth Sciences, 79(9).