



Rhodes Business School

Leadership for Sustainability

**AN ANALYSIS OF BARRIERS TO EMPLOYEE ADOPTION OF WORKPLACE
HEALTH AND SAFETY STANDARDS AT ESKOM, MAKHANDA
(GRAHAMSTOWN)**

A thesis submitted in partial fulfillment of the requirements for the degree of

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By

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DECLARATION OF ORIGINAL WORK

I, Nobubele Makholwane, hereby declare that research “An Analysis of barriers to Employee Adoption of workplace Health and Safety Standards at Eskom, Makhanda (Grahamstown)” is my original work, that it has not been submitted for any degree or examination in any other university, and that all sources I have used or quoted have been indicated and acknowledged by complete references.

NOBUBELE MAKHOLWANE

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ABSTRACT

Workplace fatalities and injuries are a concern around the world, with over 2 million deaths because of workplace related activities. This makes safety culture in the workplace crucial to the sustainability of individuals, businesses and the society in general. Safety culture includes everything in the workplace, and is understood as common sense awareness and practice relating to safety. Central to developing a safety culture in an organization, is a good understanding of what safety problems existed in the past; what safety problems exist in the present, and what caused them, as well as what could be done to deal with those causes. The goal of this thesis, therefore, was to understand what barriers potentially exist for Eskom employees in Makhanda (Grahamstown) to understanding and adopting the company's safety policies and measures. A secondary aim was to explore different strategies for addressing these barriers. In order to get to the goal, it was important to; first, understand which aspects of Eskom's health and safety standards do employees have difficulty adopting. Second, it was important to investigate the specific barriers to employees' non-adoption of health and safety standards, by understanding their perceptions of safety issues in the workplace. Third, based on the findings, the study aimed to propose recommendations for improving the adoption of safety policies and measures by employees of Eskom. The key findings of the study include the fact that car accidents are the company's and employees major concern, but the employees also have many other concerns that they see as needing the company's attention (e.g. dealing with attacks on employees by customers; focusing on incentives rather than harsh enforcement for violators of safety policies). However, it is also clear that most employees do see safety as their responsibility as well. The two key areas of recommendations are, first, that leadership of Eskom adopt alternative leadership styles that focus more on ethical leadership, rather than transactional leadership that focus on profit margins more than it does on people. Second, it is recommended that Eskom provide incentives for compliance with safety policies; more training and education about safety; encouragement for Eskom to not put so much pressure on employees, who can lead fatigue; rather they should employ more people to do the jobs that the high pressure. To conclude, this research argues that neither do employees not employers think death and injuries are good for anybody. This is why this researcher is hopeful that this will get better, not worse, in terms of having a firm safety culture at Eskom as a workplace environment.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

Fatalities and injuries in the workplace are a concern around the world, with over 2 million deaths occurring because of workplace related activity (Tshoose, 2014). This makes health and safety in the place of work crucial to the sustainability of human life, businesses and the society in general. Carmichael et al (2016) argue that, given that the place of work is where employed people spend most of their time and their lives, it is important that the workplace should be a safe and secure environment that leaves workers safe and healthy. Even though workplace injuries and fatalities can directly or indirectly result from a range of factors, including vehicle accidents, exposure to cancer-causing material, and mental health, concerns the elements of risk are not spread across the factors equally (Carmichael et al, 2016). Working with electricity, for example, is relatively more risky than working in a retail environment. Albert and Hallowell (2013) detail how transmission and distribution lines for electricity can be as high as 750kV in terms of voltage. Contact with this kind of voltage, has been responsible for at least 43% of all the deaths reported in the United States between 1992 and 2009 for workplace fatalities in this sector. Since it is projected that the demand for electricity in South Africa is to increase to about 1 trillion kWh between 2003 and 2020, due to technological advances that require electricity, workers in this field will be exposed to even more potentially dangerous situations (Chupkam et al, 2008).

However, even in sectors that have the most risks for fatalities and injuries from one factor (e.g. electricity), health and safety policies in the workplace should not focus on single factors, but should cover all areas exposing workers to risk of death and injuries (Smallwood and Venter, 2012). This is why scholars in this field prefer to talk about safety culture that includes everything in the workplace, and is a common sense awareness and practice (Haghighi et al, 2017). However, safety culture in an organization is not something that comes automatically. Rather, it is something that develops over time, and is often encouraged and enforced by leadership in an organization. At the centre of developing a safety culture in an organization, is a thorough understanding of what safety problems existed in the past; particularly what caused them and what could be done to deal with those causes.

Given that Eskom, South Africa's main electricity supplier, reports yearly injuries and fatalities in the workplace (Eskom, 2018), it is important to gain better understanding on why safety culture at this company is likely facing challenges. Using the case study of Eskom, Makhanda

(Grahamstown), therefore, this thesis seeks to contribute to the broader debate about workplace safety culture, by bringing about deeper understanding of reasons why employees might not be adhering to their organizations' safety culture.

In the remainder of this chapter, the aims and objectives of the study are discussed first, followed by the significance of the study, then the structure outlining the different parts of the thesis. A brief conclusion for the chapter is presented last.

1.2 Aim and Objectives

Aim

The main aim of the study is to understand what barriers may exist for Eskom employees to understanding and adopting the company's health and safety standards. A secondary aim is to propose strategies for addressing these barriers.

Objectives

The study has the following specific objectives:

- i. To understand which aspects of Eskom's health and safety standards employees have difficulty adopting;
- ii. To investigate the possible barriers to employees' non-adoption of health and safety standards;
- iii. Based on the findings, to make recommendations for improving the adoption of health and safety standards by employees of Eskom

1.3 Significance of the study

This study focuses on understanding barriers to safety culture at Eskom. It could be useful to three stakeholder groups. First, the government, particularly the national department dealing with labour issues, could find the information useful for policy making about safety. Findings about barriers to adoption of safety culture in organizations could particularly feed to policies that ensure safety to workers all over South Africa. Second, as Eskom considers employee safety as one of its priorities under their social sustainability goal, findings of this study could assist the company in providing necessary incentives and training to instil safety culture. This

safety culture could in turn yield economic benefits for the company, as it could reduce legal actions against the company because of injuries or death, as well as reduce time lost from work because of sick leave taken by injured employees. Third, by being aware of their own challenges to adopting safety culture, Eskom employees are likely to be more sensitive to safety issues. This could improve the overall safety culture at Eskom.

1.4 Structure of the thesis

Chapter One: Introduction

This first chapter presents the research problem, the aim of the study, its objectives, as well as its significance. In other words, the chapter justifies why this study is necessary, by highlighting the gaps that exist from other studies about health and safety, and how a case study of Eskom employees' views could shed some light about why health and safety policies are not easily adopted. The aim and objectives outline the key issues being investigated.

Chapter Two: Literature Review

In line with the aim and objectives of the study, this chapter reviews literature that relates to health and safety. In particular, it first discusses the importance of safety culture in an organization, as something that should be taken seriously by both employees and leadership in an organization. In relation to safety culture, the literature review also presents examples of cases where fatalities and injuries resulted from employees not complying with safety culture. The second theme of the literature review is the discussion of barriers to employees' adoption of health and safety standards of their organization. The third and last section of the literature review is about challenges faced by the electricity industry, with regard to safety culture in the workplace.

Chapter Three: Research Methods

This chapter presents the research design. It first justifies why a case study of Eskom was seen as the best way to explore safety and culture policy challenges. The chapter then outlines how the study was carried out, including an explanation how people who participated were chosen (sampling); how the data was collected (data collection methods), and how the data collected will be analysed (data analysis). The chapter also presents any limitations that may have influenced the study because of methodological choices the researcher made.

Chapter Four: Research Findings

This chapter presents the research findings that are based on the interviews of Eskom employees. The findings are organized into themes, based on the key questions that are in line with the objectives of this thesis. Therefore, the findings will cover the employees' views about the most common safety challenges at Eskom; the barriers to the adoption of safety policies by Eskom employees, which lead to some of the deaths and injuries mentioned earlier, and lastly the views of employees on what they may wish to see done differently so as to increase chances of employees adopting safety policies at Eskom.

Chapter Five: Discussion

This chapter draws from the findings of the study to further discuss the views of the research participants, but in the broader context of safety culture and barriers its adoption. The chapter aims to organize the data into arguments that need to emerge from the research.

Chapter Six: Conclusions

This final chapter does three main things. First, the chapter presents an overall summary of the thesis, mainly highlighting why the study was seen as necessary, how it unfolded and what the main findings were. The second section of the chapter presents some recommendations for Eskom. The last section of the chapter presents the conclusion of the chapter, where it draws the main take-away points that readers could learn the study.

1.5 Conclusion

This chapter has discussed the research question, which is the problem of inadequate safety culture adoption by employees in general. In particular, the chapter highlighted the challenge that is faced by Eskom, where yearly, injuries and fatalities are reported among the company's employees. This background discussion was followed by a statement of the aim and objectives of the study, as well as the significance it has among three different stakeholder groups – government, Eskom leadership and Eskom employees. The next chapter (Chapter Two) discusses relevant literature that deals with safety culture in different industries, as well as barriers to adoption of this culture within organizations. As a framework for understanding the importance of safety culture, the chapter begins by discussing the links between safety culture and resource-based theory.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The previous chapter presented the research problem, the aim of the study, its objectives, as well as its significance. It then presented justification of why this study is necessary, by highlighting the gaps that exist from other studies about health and safety, and how a case study of Eskom employees' views could shed some light about why health and safety policies are not easily adopted. The aim and objectives outline the key issues being investigated, including the poor adoption of health and safety policies at Eskom.

This present chapter reviews the literature that relates to workplace health and safety. In particular, it first discusses the relevance of understanding employee safety through the lens of resource-based theory (RBT), which sees employees as important and unique resources of an organization's competitive advantage. Second, the importance of safety culture in an organization is something that should be taken seriously by both employees and leadership in an organization. In relation to safety culture, the literature review also presents examples of cases where fatalities and injuries resulted from employees not complying with safety culture. Third, the literature review discusses barriers to employees' adoption of health and safety standards of their organization. The fourth and last section of the literature review is about challenges faced by the electricity industry, with regard to safety culture in the work place.

2.2 Health and Safety through the Resource-Based Theory (RBT) Lens

Why should employee safety in the workplace matter to an organization? The answer is clear, because human resources encapsulate at least two factors of production; namely labour and entrepreneurship (Froeb et al, 2016). In other words, people are important to the economic, social and environmental sustainability of an organization (Weybrecht, 2014); therefore, their welfare directly or indirectly influences the performance of an organization. This is why resource-based theory (RBT) is a good framework for understanding the importance of health and safety in the workplace.

Resource-based theory, which is widely acknowledged as one of the most important theories for understanding relationships within organizations, states that each organization's success or failure in achieving its goals is dependent on the resources that it has, otherwise known as factors of production; but to gain advantage over its competitors, an organization must focus

on resources that are unique and not easy to imitate (Barney et al, 2011). According to the same authors, these resources can be either tangible (e.g. land, machinery, etc) or intangible (e.g. knowledge, skills, etc). Amongst many other resources, Marta (1999) argues that each firm should focus on the heterogeneity of the resources it has that can last for long periods, including human resources. Human resources, Marta (1999) argues, is particularly important, since it is the employees in an organization that are able to create a sustainable competitive advantage, through exploiting other unique features or resources. In other words, labour and entrepreneurship are seen as valuable focuses in RBT (Alvarez and Busenitz, 2001).

However, as Davis and Simpson (2017) argue, in spite of research that demonstrates that employees are not just simple contributors to competitive advantage of their organization, but are themselves a direct source of competitive advantage, employees are often reduced to invisible entities. This goes against Coff (1997)'s emphasis in regard to RBT, that human resources in an organization are in fact a sources of sustainable advantage due to the knowledge and social complexity that are not easy to imitate. Therefore, RBT, particularly a focus on human resources, provides a clear and important justification to value the employee welfare, including health and safety, which is the focus of this thesis. The next section focuses on safety culture within organizations, as a deliberate attempt to safeguard the welfare of employees as unique resources.

2.3 Safety culture

Stringfellow (2010) shows that workers' unsafe behavior has been identified as one of the main causes of work place accidents and deaths, and is responsible for over 80% of workplace accidents and fatalities. This unsafe behavior is simply about the absence or lack of safety culture in an organization. The concept of safety culture first appeared in a 1987 report, following the Chernobyl nuclear disaster, and was defined as "the product of individual and group values, attitudes, perceptions, competencies and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management" (Kaafarani et al, 2009). Safety culture implies that all stakeholders in an organization are concerned about safety matters. The members of the organization are therefore expected to be active and accountable in predicting managing risks and other threats; developing and promoting safety, and enhancing operation, effectiveness and production. As

Roughton and Mercurio (2002) argue, safety culture will only be a reality when all members of the organization perceive it to be a key value. Haghighi *et al* (2017) argues that in order to design effective educational programs that focus on health and safety in the workplace, occupational healthcare professions should have a better understanding of what determines safety culture among the employees. This leads to a discussion about barriers to adoption of safety policies by employees in general. This is discussed next.

2.4 Barriers to Health and Safety standards Adoption

In simple terms, barriers refer to a variety of factors that prevent a certain desired effect from happening Fourcade (2012). Health and safety culture in the workplace is a desired situation for most businesses. The problem is that this desire, which could be a requirement by the government, or the industry, or by the employer and employees, often is not fulfilled because of certain barriers. A number of studies have shown that, in general, barriers can relate to internal and external factors, including poor communication, financial challenges, legal matters, and technological aspects (Fourcade, 2012; LeRouge and Garfield, 2013). Several authors point to certain barriers that make adoption of health and safety standards by employees difficult. First, Welch *et al* (2015) argues that rather than comply or adopt health and safety standards, some employees choose the opposite because they believe that all workplace regulations are given to them as part of the profit-making motive of the company. Second, and related to the previous point, sometimes employees do not appreciate being instructed about what to do about their own health and safety, especially if they remain suspicious of the motive of management, hence the resistance. Third, and apparently a major issue when it comes to barriers to adoption of new standards in general, is the cultural appropriateness of those standards.

Sakyi *et al* (2011) argues that health and safety standards should take into consideration the socio-cultural context within which those standards are introduced. This is especially so when the standards are suggested or designed by people who do not necessarily have the same socio-cultural background as the majority of the employees. This is why Egonmwan (1984), in reference to developing countries, believes that the failure of employees to adopt safety standards is a result of the wide gap between those who design the standards and those who should be adopting them. The gap that exists is partly evident in how that policy is implemented. Makinde (2005) believes that the policy gap in implementation is not only about

the policy itself, but also about the gap between the management and employees in a company. Fourth, according to Sakyi et al (2011) is the question funding, logistics, lack of transparency and poor interpersonal relationships that become a major barrier to adoption of health and safety standards. Last, Neyens (2016) argues that employees sometimes do not adopt a health and safety standard because they are not convinced of its positive benefits. That is why it is important to provide as much training and communication as possible on the company and industry's safety standards.

2.5 Health and safety in the electricity distribution and transmission sector in South Africa

Eskom is a power utility company that has existed for many decades, and is owned by the South African government. The company aims to provide electricity sustainably, in order to fulfil the government's vision of a countrywide access to electricity, improvement of people's quality thousand people across different divisions of the company and provinces (Eskom, 2018). According to their annual report (Eskom, 2018), as well as explicit in their many policies, Eskom prioritizes health and safety of employees, including having related policies and regulations. Thus, in addition to the Safety, Health, Environment and Quality (SHEQ) policy 32- 727 that aims to ensure the consideration of economic development, environmental quality, and social equity, the company has a well-publicized slogan and ethical value known as 'Zero Harm', which is part of its 'The Way' sustainability policy (Eskom 2014), which is aggressively promoted for employees. In spite of this, for the last 10 years (since 2007), Eskom employees have experienced between two and 17 fatalities; 12 and 30 electric contact injuries; and an average of five vehicle accidents per year, nationally. These figures are in line with rates found in the United States' electricity sector (Albert and Hallowel, 2013). It is therefore important to understand why such injuries and fatalities continue to happen despite the promotion of health and safety standards at the company. This is what the study aims to do.

More specifically, vehicle accidents appear to be the most common cause of injuries and fatalities for Eskom employees. In a letter to colleagues, the Senior Manager of Corporate – Occupational Health and Safety wrote, "In Eskom, motor vehicle accidents are one of the biggest contributors to employee and contractor fatalities, injuries and loss of property throughout the organisation. It is therefore imperative to create the necessary awareness in order to address some of the identified causes, with the aim of reducing and preventing motor vehicle incidents" (Stramrood, 2017:1). In a move consistent with this sentiment, in 2015

Eskom implemented a Vehicle and Driver Safety Management Procedure (Eskom, 2015), in which roles and responsibilities, monitoring processes and vehicle and driver safety management procedures are laid out. In section 3.2 of the same document, the following is clearly laid out as the responsibility of the employer (Eskom, 2015: 10):

Eskom Holdings shall take all reasonably practicable steps to prevent vehicle accidents and harm to any person, including members of the public, and damage to property. By virtue of his/her delegation of authority, the responsible manager or his/her delegates is/are responsible for vehicle safety. In order to implement and comply with vehicle safety and by virtue of delegation of authority, the employer may assign specific or general duties to any person under his/her control in terms of the Occupational Health and Safety Act (Act 85 of 1993) and in terms of the OHS Roles, Responsibilities, and Statutory Appointments Standard 240-62582234. The employer shall do the following:

- 3.2.1. Introduce and maintain driver awareness programmes in his/her area of responsibility.
- 3.2.2. Ensure that each driver is certified as medically fit.
- 3.2.3. Not permit an employee to drive a vehicle if the employee has been certified medically unfit to do so or if the medical certificate of fitness has expired.
- 3.2.4. Ensure that each driver, when driving for Eskom's business, is in possession of a valid national driver's license, as well as an Eskom driver permit, as specified in the Eskom Vehicle Driver Permit Process 240-62989991.

Consistent with the guidelines discussed above (Eskom 2015), Eskom shows the importance of managing vehicle accidents within the company. This is shown by the following guidelines that were shared with Eskom employees at a workshop in Port Elizabeth in July 2018. These are laid out in bullet points as follows:

Group Customer Services Incident Management Guide

- Employee involved in an incident should get medical treatment (employees should use the WCL2 form and not their own medical aid when seeking external medical attention)

- 2 Employee involved in an incident must notify his or her manager/supervisor before the end of shift or day
- Employee's manager/supervisor should complete an incident notification form and send it to the SHE Department before end of shift or business day
- Manager/supervisor together with the SHE Department should prioritize the incident as per the Incident Management Procedure 32-95
- SHE Department should generate a flash report within 24 hours of the incident occurring and send it to the relevant persons
- Manager/supervisor guided by the SHE Department should commence with the investigation within 7 days of the incident occurring
- Action owners should implement the corrective and preventative actions recommended by the investigation team within the specified timelines
- SHE Department should generate a case study and communicate the lessons learned to all employees

Source: Eskom 2018. Baseline Risk Assessment – Port Elizabeth Zone (10 July, 2018)

In addition to these safety issues relating to vehicles, Eskom holds regular meetings with employees to get feedback on what employees experience on the ground. An example of this is the baseline Risk Assessment excel spreadsheet that the Port Elizabeth office produced, where different risks that employees face were assessed. These ranged from vehicle accidents, attacks by customers or animals (e.g. snakes and dogs), exposure to thunder and lightning, poor road conditions, etc. Eskom is therefore an appropriate case study, given the big investment in accident prevention, yet the high number of accidents in the company are experienced every year.

2.6 Conclusion

This chapter has presented a literature review that helps to contextualize the arguments made in this study. It begins by discussing the resource-based theory (RBT) as an entry point to discussing the importance of employees in an organization. This allowed for a discussion on how employees as unique resources of an organization need to be considered seriously as part of social sustainability of the company. The next discussion was about safety culture and how it is desired yet it is not always easy to maintain. This discussion took us to the introduction of

Eskom as an appropriate case study for understanding safety culture and difficulties of maintaining that in a company.

CHAPTER THREE: RESEARCH METHODS

3.1 Introduction

Having laid out the aim and objectives of the study (Chapter One), as well as theoretical framework that helps to contextualize the study (e.g. Resource Based Theory; Chapter Two), this chapter explains how the research is organized, to help it move from aim and objectives, to findings. In a way, it explains the systematic process of generating the findings and conclusions.

In terms of structure, following this introduction, the chapter discusses the research strategy. In this section, justification is provided for using a case study approach and mostly quantitative analysis to understand perceptions about safety culture at Eskom. The next section explains the details of the instrument (the questionnaire, Appendix A). This section details and justifies the different sections in the questionnaire. This is followed by a section detailing the data collection process. The next section focuses on data analysis, which explains how the data moved from being raw on the questionnaire to being converted into results, using theme development and statistical package for analyzing quantitative data. The next two sections discuss ethical considerations and limitations, before the chapter ends with a conclusion.

3.2 Research Strategy

The research is based on a case study approach that utilizes the experiences of Eskom employees from different departments, including Maintenance, Customer Services, Risk Management, Finance and Security, in Grahamstown (Makhanda), Eastern Cape. The case study approach is suitable for this study as it assists in understanding contextual complexity of the issues, while allowing for depth in the understanding of the challenges around health and safety (Scheyvens, 2014). McLeod (2014) argues that a case study utilizes data gathered from different sources, using different methods. In other words, a case study can use either qualitative or quantitative methods to collect data. Both approaches are used in this research, making the methodological approach mixed method. This research can be categorised as descriptive research, in that the purpose was to get a better understanding of the barriers to the adoption of safety policies created by Eskom. To understand these barriers, the study had to describe and analyse the perceptions of Eskom employees about certain safety issues, mainly from their own perspectives. Amongst several methods of descriptive research, the survey or use of questionnaire is by far the most commonly used tool for collecting data. The survey

helps researchers gain a better understanding of existing situation in particular areas of concern (Denscombe, 2014). Thus, the survey allows the researcher to measure what a participant knows (knowledge and information), their likes (values and preferences), and what they think (attitudes, beliefs and perceptions) (Kepe, 1992).

The questionnaires were administered in person. Surveys that are administered in person to the participants have a number of advantages. First, the person administering the questionnaire has the opportunity to explain the goals of the study, as well as what different items and questions mean. Second, when the survey is conducted in person, there is a usually high rate of returns, as well as more usable questionnaires (Flowerdew and Martin, 1997). However, it is important to note that in this present study the survey was conducted in person in the sense that the questionnaires were given by the researcher in person and collected by the researcher in person, since the researcher also worked for the same company, and thus a colleague of the participants. As mentioned above, this study also utilized qualitative data gathering methods, including allowing the participants to express their views about what they would like to see at Eskom concerning the safety culture; the researcher doing direct observations, and lastly analysis of secondary sources, particularly Eskom's safety policies and regulations. However, the survey was clearly the most dominant data gathering method.

3.4 The Instrument

Since the purpose of the study was to understand what employees of Eskom think about safety policies, as well as what the barriers are to complying with these, the survey (See Appendix A) was divided into five sections. In Section A, biographical information about each participant was required. This biographical information included the division that an employee worked in; the length of their service in years; whether they have even been injured while performing their duties in the workplace; whether they ever drive the company's vehicles; whether they physically handle electricity as part of their duties, and lastly, whether they are in a supervisory role or not. In Section B, using a 3-point Likert scale of 'Strongly Agree'; 'Strongly Disagree' and 'Not Sure', the participants were required to state their opinion on the most common causes of accidents for Eskom employees. They had to choose from a number of carefully pre-selected possibilities, including car accidents in Eskom vehicles; Electrocuting; falling from heights; attack by insects/wild animals/dogs' injuries caused by faulty work equipment; and physical attack by customers. In Section C, again using the 3-point Likert scale of 'Strongly Agree';

‘Strongly Disagree’ and ‘Not Sure’, the participants were required to state their perceptions on a number of possible causes of each of the six items listed in section B. In Section D, again using a 3-point Likert scale of ‘Strongly Agree’, ‘Strongly Disagree’ and ‘Not Sure’, the participants were required to state their opinion on the barriers that employees have to adopting Eskom’s safety measures. They had to choose from a number of carefully pre-selected possibilities, including poor understanding of safety policies; poor training about safety; poor communication about safety; poor enforcement of Eskom policies; resistance against harsh enforcement; belief that safety is not a big problem, and the lack of safe work equipment. In the last section of the survey, Section D, participants were asked to suggest some ideas about how employee compliance about safety can improve at Eskom. In all, the questionnaire had 25 questions, plus the space requiring their suggestions on how to improve compliance on safety policies.

Rather than pre-testing the questionnaire, the researcher approached two employees to assist with creating possible responses to the questions in sections B, C and D. The researcher believed that basing the survey questions on opinions of people in the same location as those to be surveyed was provided authenticity in both the questions and the responses. The responses from these two participants were then used by the researcher to construct possible responses that needed participant responses through the 3-point Likert scale opinions.

3.5 Sampling

The Makhanda (Grahamstown) office has about 49 employees in different departments, which can be divided into two broad categories – customer services (those who answer customer questions and advise on electricity purchases) and field services (e.g. technicians). The study, therefore, used purposive and convenience sampling (Denscombe, 2014), to sample the whole population, but in the end 45 people participated in the survey. The sampling is purposive in the sense that it only focusses on employees of the company, and it is convenience sample in that it only involves people who are accessible to the researcher and are willing to be interviewed. The vast majority of Eskom employees in the Makhanda (Grahamstown) office are technicians; therefore, the sample likely reflects skewed opinions about safety standards and challenges. In any case, this group is at higher risk of injuries and fatalities, since they work directly with electricity. The second major group of participants are people who work in

customer services, including various roles, such as service agents who help customers with their electricity needs (e.g. queries about their contracts with Eskom).

3.6 Data Collection

Permission to conduct the survey on Eskom employees in Makhanda (Grahamstown) was obtained from the senior manager of customer services in East London, the customer relations manager in Port Elizabeth and the senior technician in Makhanda (Grahamstown). In all these cases, the managers were informed of the study goals, and permission was sought to interview Eskom employees, in which case all three granted it.

The survey was conducted between the end of April and beginning of May, 2018. The researcher made use of weekly meetings that are held by both field services and customer services employees. After asking for approval from the person chairing the meeting, the researcher explained her study goals, as well as the fact that nobody is obligated to participate. Where the employees had questions related to the study, they were answered. The researcher then read out the contents of the consent form (Appendix C), and supplied each participant with a questionnaire. Those who decided to participate; they signed the consent form and had a week to return the completed questionnaires. 45 employees decided to participate. During the meeting, the researcher also went through all the questions to explain them and to answer any questions about what the employees found unclear. The consent forms were collected at the end of the meeting. For colleagues who were not at the meetings at the time of recruitment (See Appendix B) by the researcher, they were individually visited in the hours or days that followed, to go through the same process as those that attended the meetings. It was important to emphasize to all the potential participants that they have a right to withdraw from the study at any point before the thesis is written; can refuse to answer particular questions, and that their names were not required and thus their responses were anonymous.

During the following days, the participants returned the completed questionnaires. On several occasions, especially given the fact that the researcher worked in the same organization and site, participants asked for clarity on certain questions before they could answer them. All the 45 questionnaires that were distributed were returned. However, a handful of research participants left between one and three questions unanswered, which they were allowed. In all, all the questionnaires were usable.

The rest of the data collection for this study constituted two different strategies. First, the researcher used direct observations (Denscombe, 2014) to gain insights on the attitudes and practices around safety culture in the Makhanda (Grahamstown) office. While these direct observations were not deliberate, and often happened by chance, thus they were opportunistic, they were important in the overall understanding of what happens in practice. Second, to gain better understanding of Eskom safety policies and practices, the researcher reviewed secondary material that was published on the internet (e.g. the annual report; copies of policies and regulations, (etc), or that were shared in meetings or other email communication from managers at the company. Part of this secondary information included studies that are conducted by Eskom on safety.

3.7 Data Analysis

Data analysis for this study constituted developing themes from the responses given by the participants during the survey (Denscombe, 2014), as well as information that was gleaned from secondary sources and direct observations. Theme development is one of the most important aspects of data analysis in social science research. In dealing with both quantitative and qualitative data (from secondary sources), the focus was to group and categorise data in ways that make sense to the research goal (Scheyvens, 2014). In other words, the material from secondary document analysis was categorised to correspond with the objectives of the study. For the secondary sources data the key thing was to look for recurring phrases used by Eskom in discussing safety, as well as areas where the company itself identified challenges, which for this study contributed to better understanding of barriers against employee's adoption of safety policies.

Since the significant part of this study was the survey, it is important to go through the process that was followed in analysing the data from it. When all the 45 questionnaires were returned, they were checked for accuracy and usability. Once this was assured, the data was coded by giving each one a numerical value, to ready it for entering into statistical packages for analysis (Neuman and Robson, 2012). A codebook was developed, which describes the coding procedure and where particular data is located. Computer statistical analysis programs require data in a grid format, where each row represents a participant/respondent and the issue or subject. Columns contain variables. To facilitate accuracy and the system described above, the data was first entered into an Excel spreadsheet, which made it easy to check for mistakes and

other inconsistencies. Once these were checked and the researcher was satisfied, the data on Excel was converted into a StatPlus program for statistical analysis.

The study used descriptive statistics to analyse the data. According to Denscombe (2014), these describe numerical data and can either be univariate, bivariate or multivariate. In this study univariate, which focuses on one variable, was used for one aspect of the analysis. However, bivariate analysis was also used to analyse the relationship between two different variables. First, therefore, all the numerical data, for each variable were presented by generating frequency distributions. This covered sections A, B, C and D of the survey. For ease of reading and understanding, only tables and pie charts were used to display the frequency distribution data. Due to the small size of the survey, measures of central tendency (e.g. averages and means) were not deemed necessary for this study. Additionally, in cases where some participants did not answer a question, the pie chart depicted those as 'blank'.

After frequency distributions were generated, the next analysis was bivariate analysis, where two variables are put side by side to understand their relationship. The research made a decision to do this using cross-tabulations/Chi-Squares. All the demographic data in section A was cross tabulated with data in section B (major common accidents) and section D (barriers to adoption of safety practices). Chi-Square test is not a measure of the degree of a relationship between variables, but an estimate that the likelihood that some factor other than chance is responsible for the apparent relationship (Larson, 1969; Neuman and Robson, 2012). As is standard, this study only discusses relationships between variables where the Chi-Square is 5.99 or more and where the p-value is 0.05 or less (Neuman and Robson, 2012). Thus, for all the Chi-Squares that were less than 5.99 and p-values of higher than 0.05, the research had to accept the Null Hypothesis, meaning that one has to agree that any difference between the populations is purely based on error, so there is no relationship. For this study, the research has only presented data findings where the Null Hypothesis can be rejected (5.99 or above Chi-Squares and p-value of 0.05 or less). The study therefore, uses the language of significance or no significance to describe these relationships. One of the reasons why the majority of the Chi-Squares that were run the researcher could not reject the Null Hypothesis, was that the sample size was small (45).

3.8 Ethical Considerations

Since this research involved human participants, the researcher was required to develop a proposal and an ethics protocol that were submitted for appropriate assessment at Rhodes University. As part of the ethics protocol, the researcher had to produce an informed consent document (See Appendix C), which outlines what the study is all about and what is expected of the participants; their rights and so forth. The participant, if they agreed to participate, had to sign the informed consent form. The researcher ensured that line of questioning will not result in any harm to those participating, during and after the interviews. Secondly, all participants agreed that they fully understand what the study aims to achieve and what their role is, as well as their rights as participants (e.g. the right to refuse participation).

3.9 Limitations

As much as the researcher made strong efforts to ensure that the findings of the study are valid and usable, some issues could have affected the results. First, the MBA thesis is a study of limited scope. Students are only required to write about 15 000 words, and are often encouraged to do projects that are related to their jobs. This potentially limited the size of the sample, and thus generalizations. Second, even though it was possible to survey more participants, particularly from areas outside of Makhanda (Grahamstown), this would have been costly and unaffordable. Thirdly, the researcher is also an employee of Eskom, meaning that all the participants know her. This could have influenced some responses. However, with all these limitations, care was taken to come up with accurate data and reasonable analysis.

3.10 Conclusion

This chapter has discussed the research design. It first justified why a case study of Eskom was seen as the best way to discuss safety and culture policy challenges. The chapter then outlined how the study was carried out, including explanation how people who participated were chosen (sampling); how the data was collected (data collection methods), and how the data collected was analysed (data analysis). The chapter also presented limitations that may have influenced the study because of research methods' choices the researcher made. The next chapter (Chapter Four) presents the findings or results of the study.

CHAPTER FOUR: RESEARCH FINDINGS

4.1 Introduction

The purpose of this study was to gain a better understanding on why safety culture at certain industries, such Eskom, is likely facing challenges. Using the case study of Eskom, Makhanda (Grahamstown), and the specific goal of the study is to understand what barriers possibly exist for Eskom employees to understanding and adopting the company's health and safety standards. In particular, the objectives of the research were to (i) to understand which aspects of Eskom's health and safety standards do employees have difficulty adopting; (ii) to investigate the specific barriers to employees' non-adoption of health and safety standards; and (iii) based on the emerging responses, to make recommendations for improving the adoption of health and safety standards by employees of Eskom. Overall, the study seeks to contribute to the broader debate about workplace safety culture, by bringing about more understanding of how employees of the organization perceive safety and what challenges they face.

In this present chapter, the findings of the study are presented, based on a survey of 45 Eskom employees in the Makhanda (Grahamstown) office. As outlined in the previous chapter (Chapter Three), the sampling strategy for the study was all the available and willing employees of the office, which totaled 45 people. After the data was collected, it was coded, then entered onto excel spreadsheet, before it was converted to a statistical package, Stat plus to do the actual analysis. In addition to direct observations by the researcher, the analysis of the study yielded frequencies for all the variables, including demographics and employees' perceptions about safety. The second analysis performed on StatPlus was cross-tabulations to generate Chi-Squares.

Following this introduction, the next section of this chapter presents frequencies of the demographic data of the employees. This is followed by a section that presents frequencies employee perceptions about safety issues at Eskom, Makhanda (Grahamstown). The next section presents the relationship between the demographic characteristics and different perceptions about safety issues. This is presented in the form of Chi-Squares. All the data presented in this chapter is either in the form of tables or pie charts. The next section presents participant's perceptions about what they think could be done to improve employee's compliance to Eskom's safety policies in the workplace. The last section of the chapter presents chapter conclusions.

4.2 Demographic Characteristics

In terms of biographical information supplied by the participants about their employment at Eskom, the study first shows that the vast majority of employees in this office are in the area of maintenance/field services with 30 people out of 45 (See Figure 1). These are the people who directly work with electricity in the field, such as technicians and engineers. All the other 15 people who participated in the study were in the customer services division, mostly comprising service agents who deal with day-to-day queries of customers relating to their use of electricity. It is important to realize that these skewed numbers towards people in the field services division could influence responses that are discussed below.

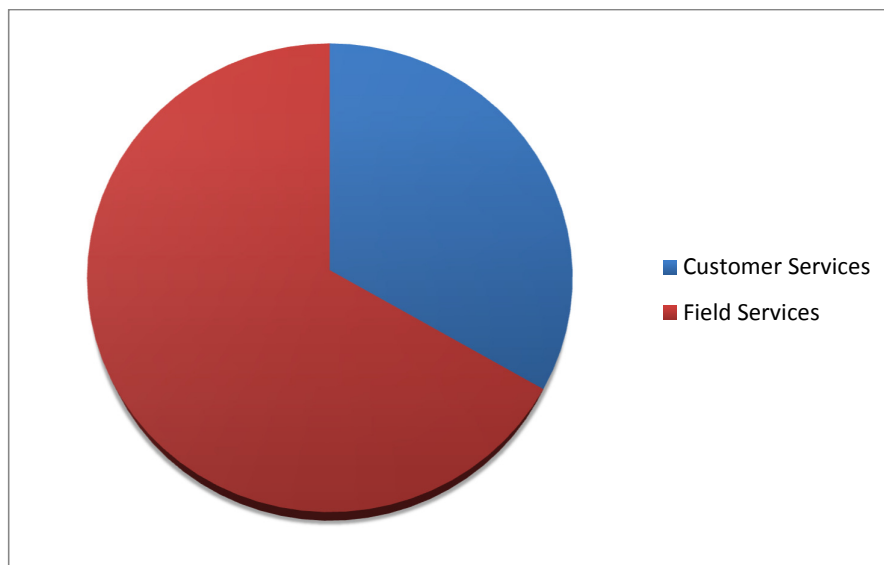


Figure 1: Participants Categorized by the General Division they Work in

The average number of years the employees worked for Eskom was 12.6 years, with at least 22 people having more than 10 years' work experience at the company, and 23 with less than 10 years' work experience. The least experienced employee had two years' work experience and the most experienced one had 35 years work experience. On the question of how many times was each employee injured while on Eskom duties, only about five percent (n=2) reported being injured at least once. An overwhelming 95% (n=40) of the participants claimed that they have never been injured while on Eskom duties ever. Three of the participants did not answer this question.

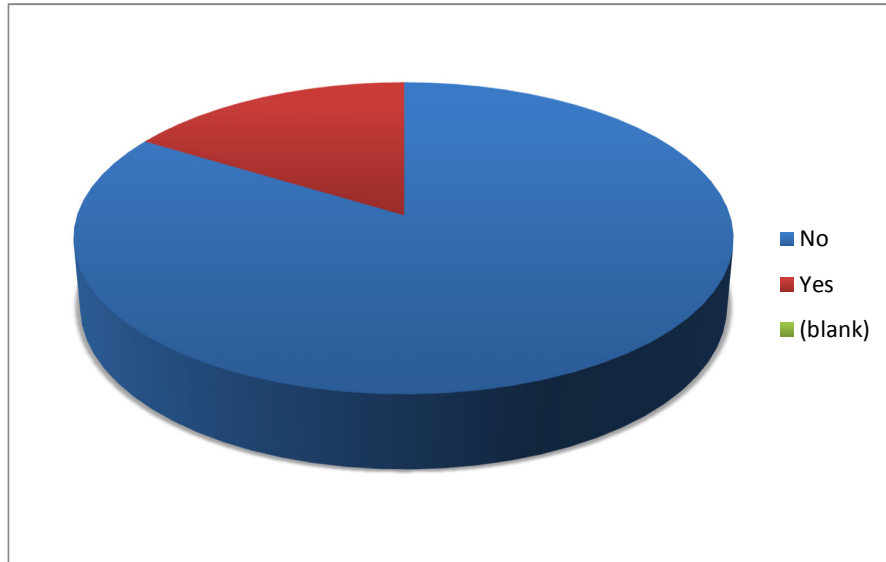


Figure 2: Are you in a Supervisory Position?¹

Seven out of forty four participants indicated that they are in a supervisory position (See Figure 2). This question is relevant, as management and leadership are seen as crucial for promoting health and safety culture in the workplace (Roughton and Mercurio, 2002).

Given the general perception that vehicle accidents constitute a prominent cause of injuries for Eskom employees, the participants were asked whether they do drive an Eskom vehicle as part of their duties. Figure 3 indicates that the majority of employees do drive Eskom vehicles (80% or 35) and only 20% (n=9) employees did not drive, with one non-response out of 45 participants.

¹ Where respondents did not answer a question, the pie chart displays a 'blank' in the field.

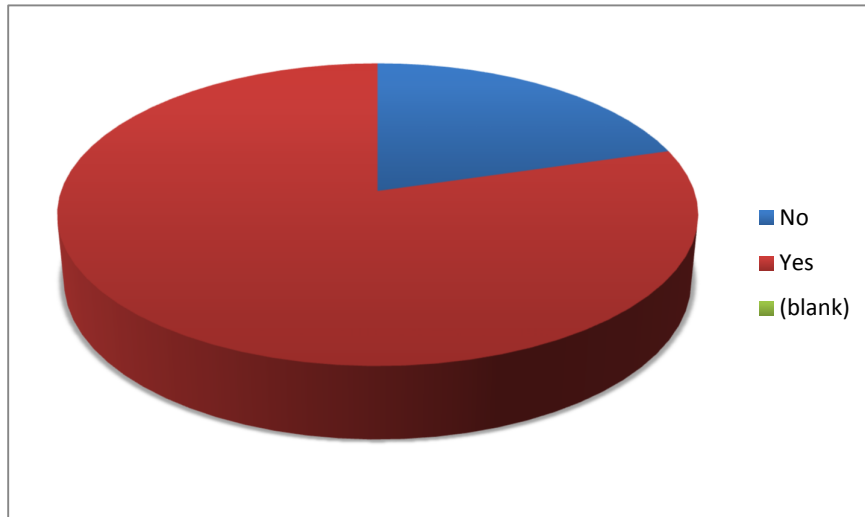


Figure 3: Drive (Yes) or not Drive (No) an Eskom Vehicle?

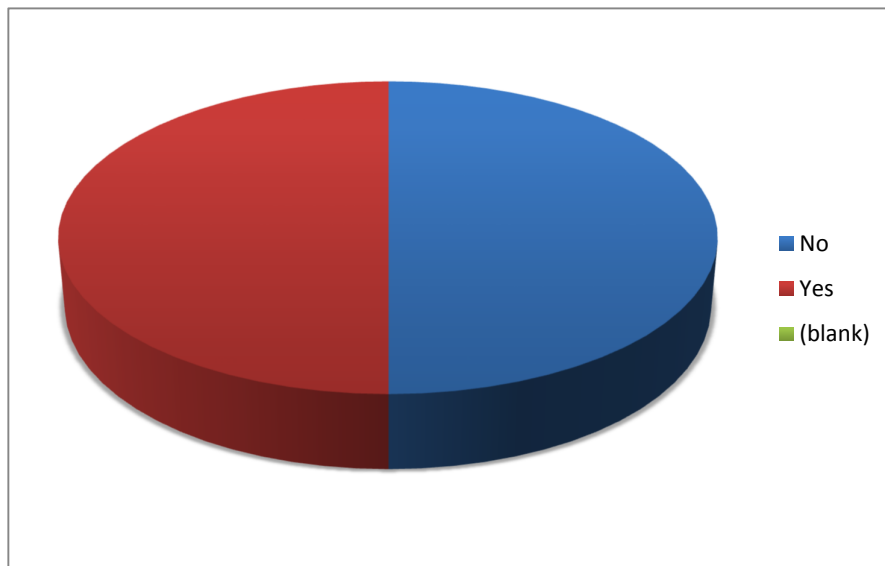


Figure 4: Whether handle Electricity or Not?

Of the 44 participants who answered the question on whether they handle electricity as part of their duties, the numbers were equally split in the middle, 22 each for Yes and No responses (see Figure 4). However, the Yes responses could have tilted towards field services staff, rather than being split right in the middle. This is because customer services argued that in their day-to-day activities they also do handle electricity, even if it is to operate computers and other devices in the office. In retrospect, the way the responses to this question emerged is a better

reflection than originally intended, because the question was simply about the risk of electrocution as part of one's job at Eskom. Therefore, one does not have to be a technician or an engineer working with high voltage electricity to be electrocuted. This makes the results valid and appropriate.

To conclude this section on frequency distribution of demographic characteristics of respondents, it can be highlighted that the Makhanda (Grahamstown) office of Eskom has diversity that allows fair generalizations in this study. Some of the most notables include the fact that there is a wide range of work experience, with the least experienced being two years and most experience being 35 years on the job. Second, a significant number of employees do drive Eskom vehicles; handle electricity with the office premises or outside the premises. Third, the majority of people who responded to the survey are field staffs, which means they are more exposed to possibilities of injuries from different sources, including motor vehicles, electrocution, attacks by animals or customers and falling from heights when they climb to work on poles. Additionally, at least seven people are in supervisory positions. However, a significantly lower number of people have ever experienced injuries at least once in the workplace in this Eskom facility.

4.3 Common Accidents at Eskom and their Root Causes

In section B of the questionnaire, the survey used a 3-point Likert scale to understand what Eskom employees in Makhanda (Grahamstown) thought were the most common accidents that risk the safety of employees in the workplace (see Table 1). The question items were generated by a combination of preliminary conversations with employees, as well as regular updates on safety issues affecting the workplace that are published by Eskom. Thus, first, for car accidents. An overwhelming 40 (88.8%) out of 45 participants strongly agreed that car accidents are a major cause of accidents at Eskom, compared to 4.4% (n=2) and 6.7% (n=3) who strongly disagreed and not sure, respectively.

Second, while not as high as car accidents, contact with electricity as a major cause of accidents, contact with electricity was had almost 58 percent (n=26) people strongly agreeing, compared to 24.5% and 17.8% who respectively strongly disagreed or not sure. Third, the response to whether falling from heights was a major cause of accidents was similarly split along the 3-point Likert Scale, with 60% (n=27) strongly agreeing, and 17.8% (n=8) and 22.2% (n=10) respectively strongly disagreeing or not sure. Fourth, on whether wild animals/insects/dogs were a major cause of accidents for Eskom employees, only 42% (n=19)

participants strongly agreed, while 31.1% (n=14) respondents strongly disagreed, and 26.7% (n=12) were not sure. Direct observation and conversations with colleagues shows that this field service are more aware of the dangers caused by animals such as snakes, insects and dogs while they are out in the field installing or fixing electricity. On the other hand, customer service staff who answered this question would not automatically have much knowledge about this aspect of safety issue. They answered, nevertheless.

Table 1: Perceptions of the Most Common Accidents at Eskom (n =45)

Cause of accident	Strongly Agree - % (number)	Strongly Disagree - % (number)	Not Sure - % (number)
Car accidents in Eskom Vehicles	88.8 (n=40)	4.4 (n=2)	6.7 (n=3)
Contact with live electricity/electrocution	57.8 (n=26)	24.4 (n=11)	17.8 (n=8)
Falling from Heights	60 (n=27)	17.8 (n=8)	22.2 (n=10)
Attack by insects/wild animals/dogs	42.2 (n=19)	31.1 (n=14)	26.7 (n=12)
Injuries caused by work equipment	20 (n=9)	33.3 (n=15)	46.7 (n=21)
Physical Attack by Customers	22.2 (n=10)	42.2 (n=19)	35.6 (n=16)

Fifth, on whether or not faulty equipment in the workplace was a major cause of accidents, 20% (9) strongly agreed, while 33.3% (15) strongly disagreed; with an overwhelming 46.7% (21) being not sure. Clearly, injuries caused by work equipment were not really seen as a significant cause of workplace accidents at Eskom. Sixth, while at least 22.2% (n=10) of the respondents strongly agreed that attacks by customers who have a grievance with the company. But most of the respondents (42%; n=19) and 35.5% (n=16) either strongly disagreed or was not sure that attacks by customers were a major safety issue for Eskom employees, respectively.

In Section C of the survey, all the suggested major causes of accidents for Eskom Employees were further explored, to seek opinions of what the respondents thought were the fundamental possible causes each. Beginning with perceptions of car accidents as a major cause of accidents (see Table 2), at 82.2% of people strongly agreeing, fatigue is seen as the major cause of car accidents; followed by poor road conditions (64.4%), speeding (58.1%) and distracted driving (53.3%) of people strongly agreeing. Only 13% of the respondents strongly agreed that faulty vehicles were a major cause of car accidents for Eskom employees.

Table 2: Perceptions of Root Cause of Car Accidents

Root Cause	Strongly Agree (%)	Strongly Disagree (%)	Not Sure (%)
Fatigue	82.2	6.7	11.1
Speeding	58.1	25.6	16.3
Poor road conditions	64.4	11.1	24.4
Distracted driving	53.3	26.7	20
Faulty vehicle	13.3	60	26.7

Second, as Table 3 shows, most respondents believed that not (properly) wearing protective gear while handling electricity was a major cause of electrocutions in the workplace, with 77.8% of the people strongly agreeing with this statement. This was followed by worker negligence at 68.9% of people strongly agreeing. At least 48.9% of the respondents strongly disagreed, and 22% were not sure that faulty devices in the workplace were a major cause of electrocution.

Table 3: Perceptions on Root Causes of Electrocution

Root Cause	Strongly Agree	Strongly Disagree	Not Sure
Not wearing protective gear	77.8	11.1	11.1
Faulty device	26.7	48.9	22.2
Worker Negligence	68.9	8.9	22.2

Third, as shown in Table 4, poor harnessing (55.6%), negligence (53.3%) had most people agreeing that these were the major causes of falling from heights as accidents in the workplace. This was followed by 44.4% of the respondents strongly agreeing that negligence was a major reason why falling from heights is a cause of accidents. At 51% strongly disagreeing, faulty equipment were not seen as a major reason why employees fall from heights.

Table 4: Perception on Root Causes of Falling Heights

Root Cause	Strongly Agree (%)	Strongly Disagree (%)	Not Sure (%)
Faulty equipment	20	51.1	28.9
Poor harnessing	55.6	13.3	31.1
Negligence	53.3	13.3	33.3
Improvising	44.4	17.8	37.8

Fourth, Table 5 shows that ‘no warning about possible danger’ (48.9%) and ‘nothing to protect yourself with’ (46.7%) had respondents strongly agreeing that they may be the root causes of employees being attacked by insects/wild animals/dogs, while in the work place. However, these perceptions were not strong either way, as at least 40% of the respondents were not sure that not having a warning about possible danger had to do with attack by insects/wild animals and dogs. Similarly, 28.9% and 24.4% of the respondents strongly disagreed or were not sure that having nothing to protect one’s self with, is a significant root cause of being attacked by insects/wild animals and dogs, respectively.

Table 5: Perception on Root Causes of Attacks by Insects/wild animals/dogs

Root Cause	Strongly Agree (%)	Strongly Disagree (%)	Not Sure (%)
No warning about possible danger	48.9	11.1	40
Nothing to protect yourself with	46.7	28.9	24.4

Fifth, as shown in Table 6, only 31.1% of the respondents strongly believed that faulty equipment was a major root cause of accidents caused by work equipment. Rather, 46.7% and 22.2% of the respondents respectively strongly disagreed or were not sure that faulty work equipment was a major cause of equipment-related injuries in the work place at Eskom. Instead, 57.8% of the respondents strongly agreed that employee negligence was a major root cause of equipment-related accidents.

Table 6: Perception on Root Causes of Injuries Caused by Work Equipment

Root Cause	Strongly Agree (%)	Strongly Disagree (%)	Not Sure (%)
Faulty equipment	31.1	46.7	22.2
Employee negligence	57.8	13.3	28.9

Sixth, respondents were asked to comment on what they thought were the root causes of physical attacks by customers. Table 7 shows that ‘customers caught stealing electricity’ emerged as a major cause of attacks by customers on Eskom employees, with 64.4% of the respondents strongly agreeing with that opinion. This was followed closely by 57.8% respondents strongly agreeing that ‘unresolved customer queries’ were one of the major cause’s attacks of Eskom employees by customers. With only 31.1% of the respondents strongly agreeing that the rudeness of Eskom employees was a major cause of attacks on employees, but 37.8% and 31% also strongly disagreeing and not sure of this fact, respectively, it is clear that being rude is not widely seen as an issue for this category of employee safety issue at Eskom.

Table 7: Perception on Root Causes of Physical Attacks by Customers

Root Cause	Strongly Agree (%)	Strongly Disagree (%)	Not Sure (%)
Unresolved Customer Query	57.8	13.3	28.9
Customer Caught Stealing Electricity	64.4	8.9	26.7
Being Rude to Customers	31.1	37.8	31.1

To conclude this section about what respondents thought were the root causes of the many accidents in the workplace at Eskom, it is clear that many of these causes have to do with the employees themselves, rather than what the organization is doing or not doing. For example, faulty equipment as a cause of several accidents received very low ‘strongly agreed’ responses from the respondents. Rather, employee fatigues, negligence, not following proper instructions, were among the most popular responses as a root cause of most accidents affecting employees. However, the well-known aggression of electricity users who are caught stealing electricity, or who believe that Eskom employees have not adequately dealt with their issues, are likely beyond the control of the employees.

4.4 Barriers to Adoption of Safety Measures by Eskom Employees

Given the goal of this study, which is to understand what barriers might be in existence to Eskom employees adopting safety policies, and thus having a healthy safety culture in the workplace, it was necessary to get an understanding from the employees about what they thought the barriers were. As in the case of the previous two sections (sections B and C), using a 3-point Likert Scale of ‘strongly agree’; ‘strongly disagree’ and ‘not sure’, respondents were given seven possible barriers to employee compliance with Eskom safety policies. These possible barriers were, like the possible responses in sections B and C above, gathered from a combination of preliminary conversations with employees at the Makhanda (Grahamstown) Eskom office, as well as from the secondary literature available to the researcher. This literature significantly includes material published by Eskom in various communications, including the annual report. Apart from the text in the discussion of each possible barrier, all the information

in this section is presented in the form of pie charts to allow for easy viewing. Where respondents did not answer a question, the pie chart displays a blank in the field.

The first proposition as a possible barrier to employees adopting safety measures of the company is 'poor understanding of safety policies'. Responses here were not as definitive, with 21 out of 45 respondents strongly agreeing and 19 strongly disagreeing, with five not being sure (see Figure 5). This means there were less than 50% respondents who felt strongly that employees do not follow safety policies and measures of the company because they do not understand them.

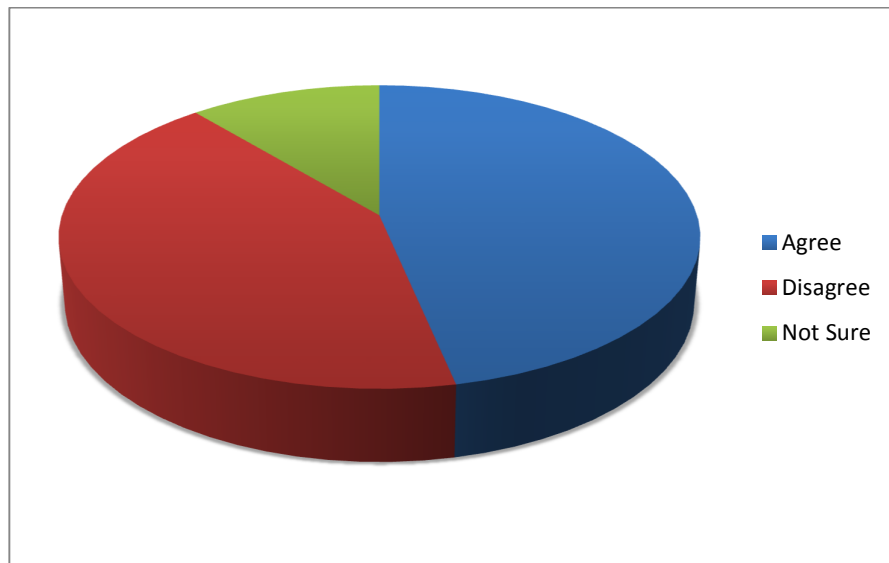


Figure 5: Poor Understanding of Measures

The second proposition about why Eskom employees do not adequately comply with safety policies in the workplace is 'poor training' on these policies and measures. An overwhelming majority of employees (31 out of 45) strongly disagreed that poor training received was a barrier (See Figure 6). This response could also be taken to mean that training on these policies does happen. Only nine respondents strongly agreed those poor training results in limited or no compliance to safety policies and measures by the employees.

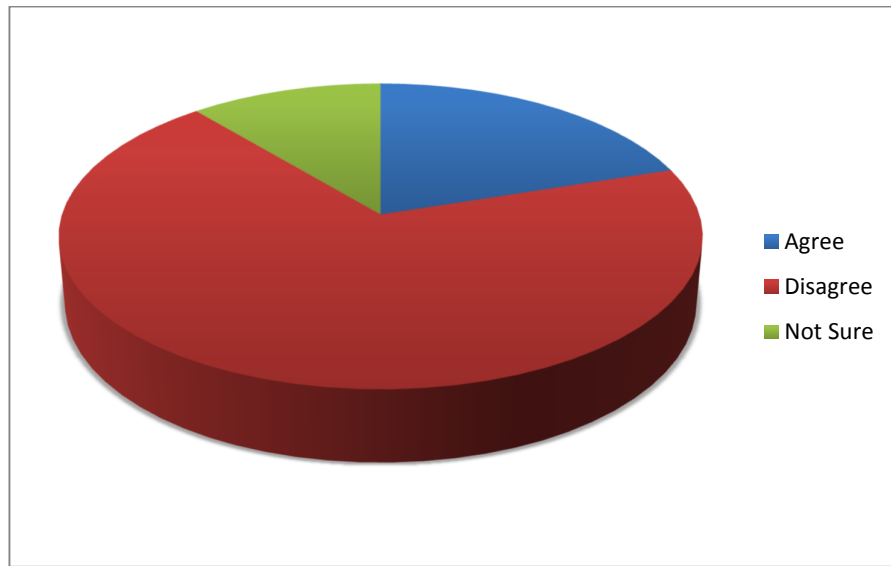


Figure 6: Poor Training

The third proposition about possible barriers to Eskom employees' compliance with safety policies and measures is 'poor communication about safety' by Eskom. Again, as in the above cases, the vast majority of the respondents strongly disagreed that poor communication about safety policies were responsible for the low uptake of these measures by employees (See Figure 7). Those who strongly disagreed made up the majority (32 out of 45), respectively with only 11 and two respondents strongly agreeing or were not sure about this proposition. This can also be taken to mean that the employees do not want to blame Eskom for poor communication, because they may be of the belief that the company does enough to communicate these to employees.

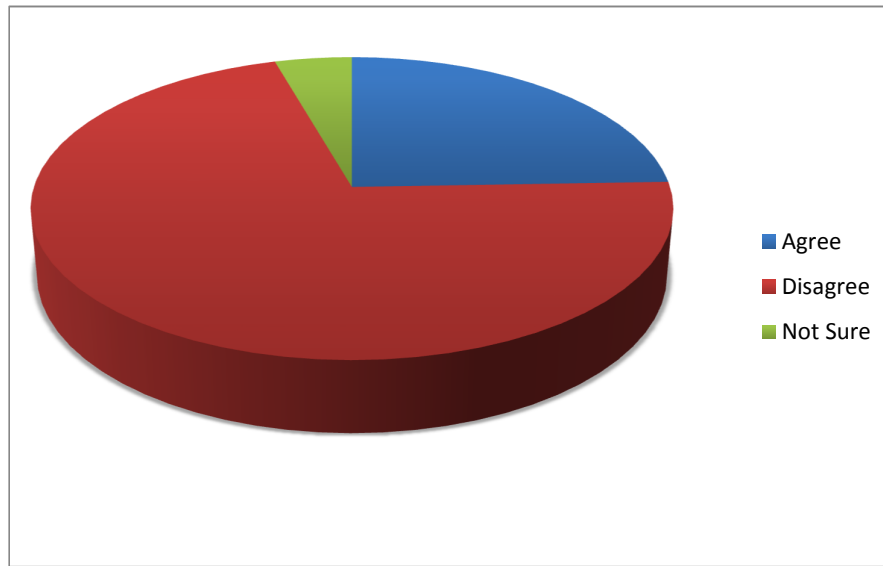


Figure 7: Poor Communication

The fourth proposition about what may be preventing Eskom employees from complying with safety policies in their workplace is ‘poor enforcement’ of violation of those safety policies and regulations by the employer. Similar to the sentiments above on this issue, Figure 8 shows that the majority of the respondents strongly disagree that Eskom’s poor enforcement of safety measures is responsible for poor compliance. Specifically, 25 out of 45 respondents strongly disagreed with poor enforcement as an issue, and only 14 strongly agreed, while six respondents were not sure.

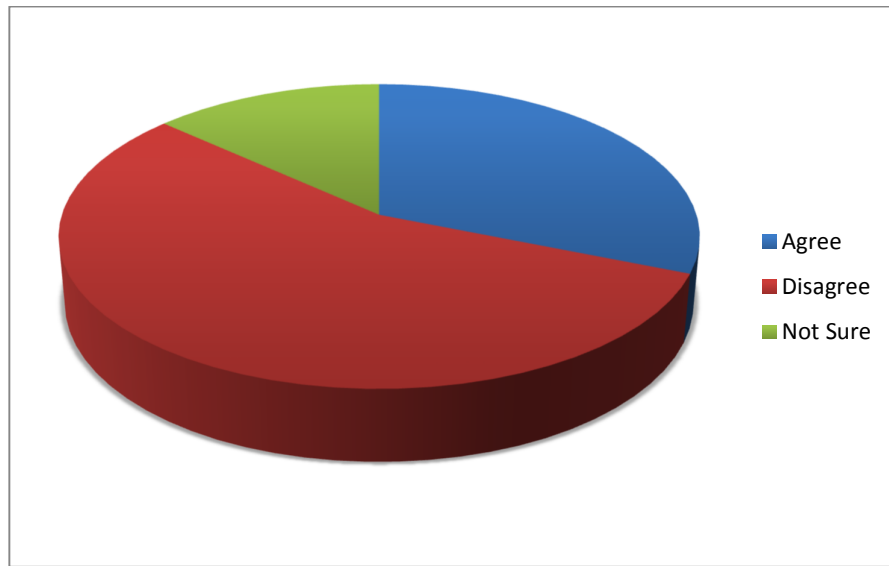


Figure 8: Poor Enforcement

The fifth proposition about why Eskom's safety policies and measures are poorly adopted by its employees is 'resistance against harsh enforcement' of these policies and measures by the company. As it is shown in Figure 9, unlike the propositions above, here the respondents were almost evenly split along the three 3-point Likert Scale responses, with 16 respondents strongly agreeing, 14 strongly disagreeing and 15 not sure. This may be taken to mean that there is something that could be explored further about the harshness of penalties imposed by Eskom, as those who strongly agreed with the proposition were in a slight majority, albeit insignificant when one looks across all the responses.

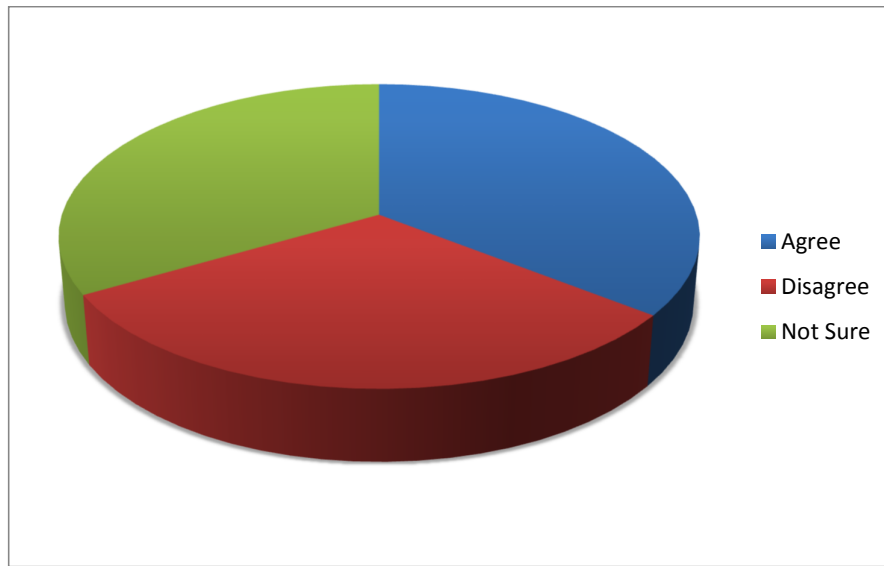


Figure 9: Resistance against Harsh enforcement of Safety Policies

The sixth proposition for limited compliance with Eskom safety policies and measures is the 'belief that safety is not a big problem' in the workplace at Eskom. As in the case of resistance to harsh enforcement of safety policies and measures, respondents were almost evenly split among those who strongly agreed (n=19) and those who strongly disagreed (n=18) that the belief that safety is not a problem is one of the major barriers to employee adoption of safety policies at Eskom (see Figure 10). Only eight respondents were not sure about this proposition. It is clear that this is another area that needs attention, as it is possible that employees indeed do not take safety issues as serious as the company might be taking them.

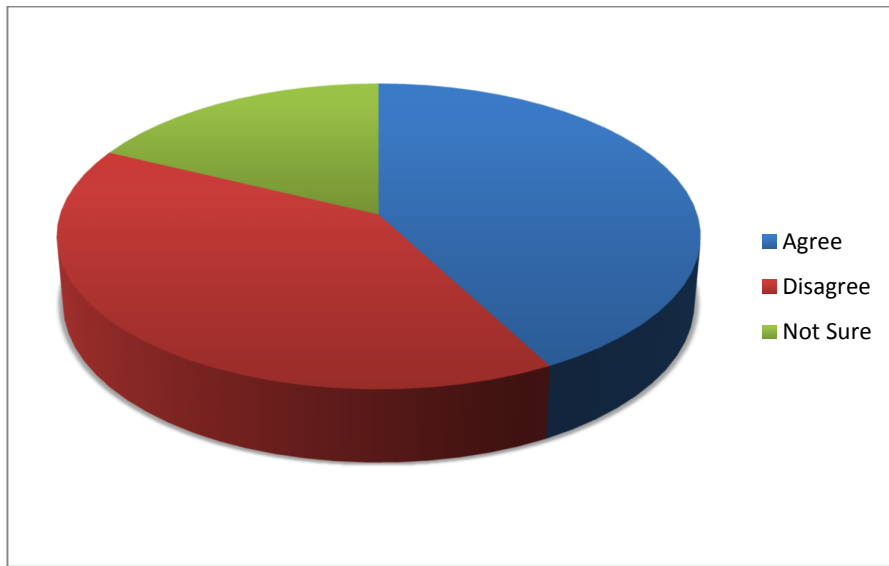


Figure 10: Belief that Safety is not a Big Problem

The seventh proposition about why Eskom employees might be reluctant or are slow in complying with the company's safety policies is the 'lack of safety gear/equipment/vehicles' that are required to do the job safely. Here, as shown in Figure 11, an overwhelming majority of respondents (36 out of 45) strongly disagreed that a lack of proper and safe equipment was a barrier to the adoption of safety measure and policies. There were only five and four respondents, respectively, who strongly agreed or were not sure about this proposition for poor compliance with Eskom's safety policies and measures. These responses are consistent with previous responses that appeared to cast only limited blame on the company for the safety challenges in the workplace.

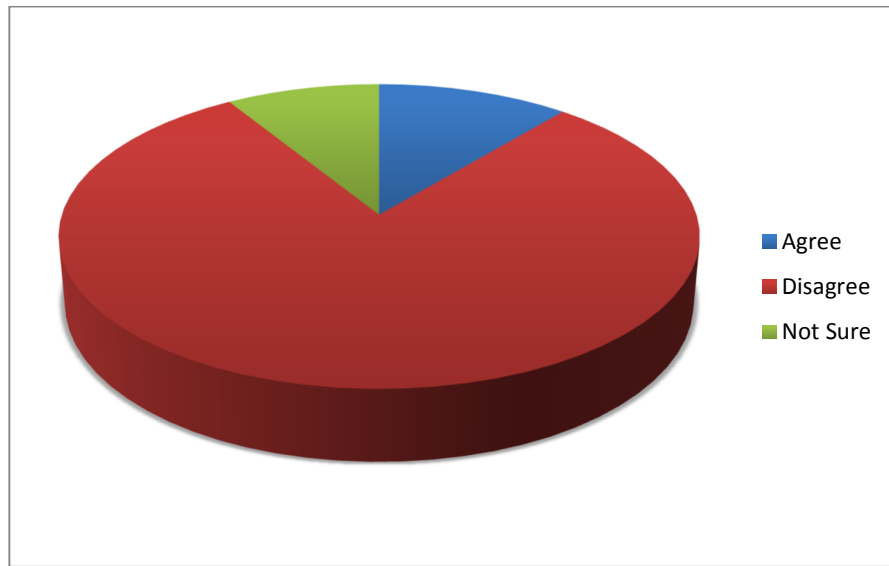


Figure 11: Lack of Safety Gear

To conclude this section, it can be argued that employees do not hold Eskom responsible for lack of compliance concerning safety policies. None of the propositions had an overwhelming majority of respondents strongly agreeing with it. Rather, there were several propositions that received the majority of responses where participants strongly disagreed that they were the barriers to safety policies and measures adoption by employees (e.g. lack of safety gear/equipment/vehicles). However, there were some cases where results were statistically similar between those who strongly agreed, strongly disagreed or were not sure about the propositions as barriers to adoption of safety policies and measures (e.g. resistance against harsh enforcement of safety policies and measures). This could mean these inconclusive responses are areas that need attention in future discussions about safety culture at Eskom. Additionally, the survey alone is not likely to reveal the real reasons why the respondents opted to respond in the way they did, that is mostly shifting the blame away from the company in most of the proposed motivations for the barriers to the adoption of safety policies and measures.

4.5 Relationship between Demographic Characteristics and Perceptions on Safety Issues

As alluded to in Chapter Three, frequency distributions are just one step of the analysis done for this study. This section moves the analysis to the next level, which is bivariate analysis, where two variables are put side by side to understand their relationship. It was decided early in the research that cross-tabulations/Chi-Squares would be suitable for such an analysis, partly because any more elaborate analysis would be unsustainable for such a low sample size. To do this analysis, all the demographic data in section A was cross-tabulated with data in section B (major common accidents) and section D (barriers to adoption of safety practices). Chi-Square tests, which were earlier described as not being a measure of the degree of a relationship between variables, but an estimate that the likelihood that some factor other than chance being responsible for the apparent relationship (Larson, 1969; Neuman and Robson, 2012), were therefore performed. In such tests, discussion only focuses on the relationships between variables where the Chi-Square is 5.99 or more and where the p-value is 0.05 or less (Neuman and Robson, 2012). Thus, for all the Chi-Squares that were less than 5.99 and p-values of higher than 0.05, the research accepted the Null Hypothesis, meaning that one has to agree that any difference between the populations is purely based on error, so there is no relationship. For this study, the research has only presented data findings where the Null Hypothesis can be rejected (5.99 or above Chi-Squares and p-value of 0.05 or less). The study therefore, uses the language of significance or no significance to describe these relationships. One of the reasons why the majority of the Chi-Squares that were run the researcher could not reject the Null Hypothesis, was that the sample size was small ($n=45$). In this section of bivariate analysis, the researcher, therefore only deals with cases where the Chi-Square and p-values allowed us to reject the Null Hypothesis. There were only six such cases. For the rest of the cross-tabulations, which are the majority, we had to accept the Null Hypothesis, partly due to the small sample size.

Table 8: Number of Respondents by Work Division and by Perception on Electrocution as a Major Cause of Accidents

N = 45 $\chi^2 = 8.62$ p = 0.01

Work Division	Strongly Agree (n)	Strongly Disagree (n)	Not Sure (n)	Total (n)
Customer Services	5	4	6	15
Field Services	21	7	2	30
Total	26	11	8	45

Thus, the first item generated in the cross-tabulation that was seen as significant was ‘the number of respondents by the work division and by perception on electrocution as a major cause of accidents affecting employees at Eskom. Though not very strong at 8.62, there was significant Chi-Square and p-value (0.01) resulting from a cross-tabulation of the above named variables (see Table 8). Of note in this case, is the fact that the majority of those who strongly agreed that electrocution is a major issue of concern (21 out of 26) were field staff who work with live electricity on regular basis. Secondly, as shown in Table 9, there a similar pattern on cross-tabulation for the number of respondents by work division and by perception on falling from heights as a major cause of accidents. There was a significant Chi-Square of 10.42 and p-value of 0.00, meaning that we can reject any possibility that the difference between the customer services and field services employee responses are purely based on error. To support this, Table 8 shows that 23 of the 27 respondents who strongly agreed that falling from heights was a major safety concern were field services staff. Again, this makes sense because they field services staff are the ones who are out and about climbing poles to install or fix electricity in the field.

Table 9: Number of Respondents by Work Division and by Perception on Falling from Heights as a Major Cause of Accidents

N = 45 $\chi^2 = 10.42$ p = 0.00

Work Division	Strongly Agree (n)	Strongly Disagree (n)	Not Sure (n)	Total (n)
Customer Services	4	5	6	15
Field Services	23	3	4	30
Total	27	8	10	45

The third cross-tabulation that has been included is that of the number of respondents by whether respondents hold supervisory role or not and by perception on attack by customers as a major cause of accidents. Though not highly significant at 6.31 for the Chi-Square and 0.04 for the p-value, this Chi-Square allowed us to reject the Null Hypothesis (see Table 10). Thus, of the nine respondents who strongly agreed that falling from heights was a major safety concern, six of them indicated that they have no supervisor role, compared to three who said they did. For this cross-tabulation two respondents had missing values for this question, making a total of 43.

Table 10: Number of Respondents by whether Respondents hold Supervisory Role or Not and by Perception on Attack by Customers as a Major Cause of Accidents

N = 43 $\chi^2 = 6.31$ p = 0.04

Supervisor or Not?	Strongly Agree (n)	Strongly Disagree (n)	Not Sure (n)	Total (n)
No	6	18	12	36
Yes	3	0	4	7
Total	9	18	16	43

Table 11: Number of Respondents by Years of Experience and by Perception on Poor Understanding of Safety Policies as a Major Barrier to Adoption of Safety Policies

N = 45 $\chi^2 = 6.95$ p = 0.03

Years of Experience	Strongly Agree (n)	Strongly Disagree (n)	Not Sure (n)	Total (n)
10 or more	6	12	4	22
Under 10	15	7	1	23
Total	21	19	5	45

The fourth set of variables that were included in the Chi-Square test and were significant, were number of respondents by years of experience and by perception on poor understanding of safety policies as a major barrier to adoption of safety policies. Table 11 shows that though not highly significant, the Chi-Square of 6.95 and p-value of 0.03 were enough for us to reject the Null Hypothesis, meaning that the differences in the responses of respondents based on years of experience were not based on error. Thus, of the 21 respondents who strongly agreed that poor understanding of safety policies is a major barrier to the adoption of safety policies and measures, 15 had work experience of less than 10 years, while only six had experience of more than 10 years. This might have to do with generational gap, with the more experienced not seeing much wrong with their own understanding of safety policies and measures.

The fifth set of cross-tabulation that this study considered the number of respondents by whether they handle electricity or not by poor training on safety policies as a major barrier to adoption of safety policies. Table 12 shows that the Chi-Square (9.61) and the p-value (0.01) are significant. Six out of eight respondents who strongly agree that poor training on safety policies is a major barrier to the adoption of safety policies and measures by Eskom employees. Conversely, there were 20 out of 31 who had answered 'no' to directly handling electricity and who strongly disagreed with this proposed barrier to the adoption of safety policies and measures by Eskom employees.

Table 12: Number of Respondents by whether they Handle Electricity or Not and by Poor Training on Safety Policies as a Major Barrier to Adoption of Safety Policies

N = 44 $\chi^2 = 9.61$ p = 0.01

Handling Electricity?	Strongly Agree (n)	Strongly Disagree (n)	Not Sure (n)	Total (n)
No	2	20	0	22
Yes	6	11	5	22
Total	8	31	5	44

Table 13: Number of Respondents by whether they have Ever Been Injured While Doing their Duties and by Lack of Safety Gear as a Major Barrier to Adoption of Safety Policies

N = 42 $\chi^2 = 19.95$ p = 0.00

Ever Injured?	Strongly Agree (n)	Strongly Disagree (n)	Not Sure (n)	Total (n)
No	2	34	4	40
Once	2	0	0	2
Total	4	34	4	42

The sixth and last significant Chi-Square test was that of number of respondents by whether they have ever been injured while doing their duties and by lack of safety gear as a major barrier to adoption of safety policies. A high Chi-Square of 19.95 and a p-value of 0.00 allow us to reject the Null Hypothesis, meaning that we can be comfortable that the differences in the opinions here are not due to an error. Of importance is the fact that all the 34 people who strongly disagreed that the lack of safety gear is a major barrier to adoption of safety policies, are people who have reported that they have never been injured on the job at Eskom.

To conclude this section, it needs to be highlighted that the small sample size limited the used of Chi-Square tests in this study. The six cases that had significant Chi-Squares were convincing in their display of differences between responses of people falling in different demographic profiles. The significance of some of these differences is discussed in detail in Chapter Five below. The next section of this chapter presents different ideas that the

respondents were asked to add to their questions, about how employee compliance to Eskom's safety policies and measures can be improved.

4.6 Respondent's Ideas on Improving Employee Compliance with Eskom Safety Policies and Measures

The respondents were given an option on whether to write down their ideas on what could improve employee compliance with safety policies and measures. In total, 21 respondents had one or more ideas on this topic, but for the most part, there were many suggestions that were similar. The researcher has decided to list these in bullet point form, rather than attempt to categorise them, but in cases where two or more people had a similar opinion, it will be listed only once. These paraphrased ideas include the following;

- The company should not be too obsessed with meeting deadlines, even to a point of over-working employees.
- Management is encouraged to be more precise on what they expect employees to do in order to comply with safety policies.
- Eskom needs to replace faulty gear and vehicles as needed.
- Provide incentives for employees who comply, or to encourage others to comply by offering incentives.
- Employees must feel that they have the 'right to refuse' to work in unsafe conditions.
- Recruitment of more employees to prevent current ones from being over-worked.
- As part of training about employee safety, Eskom should emphasize that safety policies and measures are about employee safety, not primarily just about what the company wants.
- There are too many managers, but a shortage of people doing work that has to be done.
- On-the job observation by supervisors/leaders.
- Encouraging employees to report near misses in terms of accidents.
- Employees should be discipline for not complying with safety measures by Eskom.
- "I believe Eskom does everything possible to train about safety, but self-discipline by staff lacks, which might lead to unsafe incidents".
- Limit overtime for employees.
- Safety statistics should be shared in all meetings with employees.
- Action should be taken against vehicle drivers who speed.
- Implementation of work stoppages once a month, to discuss safety.

- Rewards and recognition for compliance with safety policies.
- Eskom to allow more employee engagement in formulating safety policies.
- Practical application to demonstrate how they look like in practice, before they are implemented.
- Eskom should communicate safety policies to employees in the language they understand better.
- Unions should also educate their comrades about safety.
- Eskom to show videos of consequences of not complying with safety policies.
- Have more safety forums.
- Dismissal of employees who violate safety policies.

To conclude this section on ideas from the respondents about how to improve employee compliance to safety policies and measures, perhaps the most common themes had to do with four things. First, the suggestions are about Eskom providing incentives for compliance with safety policies. Second, there are suggestions relating to providing more training and education about safety, including reserving at least one day a month for this purpose. Third, some suggestions motivate for severe penalties for violators of safety policies. Fifth, Eskom is encouraged to not put so much pressure on employees. They are encouraged to alleviate fatigue in employees by hiring more people to do the jobs that are high pressure.

4.7 Conclusion

This chapter has discussed the findings of the case study of Eskom. This focused on the opinions of Eskom employees about safety issues in the workplace. Frequencies of the demographic data of the employees, particularly their division of work, years of experience, whether they have ever been injured at work, whether they handle electricity or not at work, whether they are in a supervisory position or not, as well as whether they do drive Eskom vehicles or not, were discussed and presented in pie charts. The next set of frequency distributions was that of employee perceptions about safety issues at Eskom, Makhanda (Grahamstown). This was presented as a discussion and in tables. The chapter next presented results of tests on the relationship between the demographic characteristics and different perceptions about safety issues. This was presented in the form of Chi-Squares. The last section

presented participant's perceptions about what they think could be done to improve employee's compliance to Eskom's safety policies in the workplace.

CHAPTER FIVE: DISCUSSION

5.1 Introduction

Thus far the thesis has laid out the main goal of the study, which is to understand the barriers to the adoption of safety policies and measures at Eskom (Chapter One); reviewed related literature on the importance of social sustainability and the need to safeguard the safety of employees, who, according to resource based theory (RBT) should be seen as a unique resource for Eskom (Chapter Two). Based on the research design explained in Chapter Three, Chapter Four presented findings of the study, particularly the perceptions of employees in regard to safety culture at Eskom. This present chapter builds on the findings presented in Chapter Four by unpacking those findings and making sense of them in view of other literature from within and outside Eskom, all related to safety culture.

Following this introduction, the next section discusses employee diversity that could and does affect on how people view safety culture at Eskom. The next section explores different employee perceptions of the main safety concerns and their root causes at Eskom. This is followed by a discussion on the perception of employees on what the barriers maybe to the adoption of safety policies and measures at Eskom. The next section reflects on how employee demographics can affect views on safety culture at Eskom. Before the last section of the chapter, which is the conclusion, there is a section that explores and contextualizes different employees' ideas about what could motivate employees to buy into the safety culture that Eskom so promotes on regular basis.

5.2 Employee diversity

According to Salkind (2010), understanding demographic characteristics of the population is important because it is more like presenting the broad picture of the people surveyed. In particular, demographic profiles in a study can help the researcher to get a sense of represent ability of the sample, which is useful for deciding whether the study findings can be generalized or not. The other importance of understanding demographic profiles is that they help to contextualize research participant's views relating to the study. in this present study it was important to understand certain facts about Eskom employees, as these could explain how they responded in some of the questions. These demographic characteristics included the division that a respondent worked in; their length of service in years; whether they have even been injured while performing their duties in the workplace; whether they ever drive the company's

vehicles; whether they physically handle electricity as part of their duties, and lastly, whether they are in a supervisory role or not.

Based on frequency distributions of demographic characteristics, it can be highlighted that the Makhanda (Grahamstown) office of Eskom has diversity that allows fair generalizations in this study. Some of the notables include the fact that there is a wide range of work experience, with the least experienced being two years and most experience being 35 years on the job. Second, a significant number of employees do drive Eskom vehicles and handle electricity with the office premises or outside the premises. Third, the majority of respondents who responded to the survey are field staff, which means they are more exposed to possibilities of injuries from different sources, including motor vehicles, electrocution, attacks by animals or customers and falling from heights when they climb to work on poles. The field staff includes technicians and engineers. Additionally, at least seven people are in supervisory positions. However, a significantly lower number of participants reported having ever experienced injuries at least once in the workplace in this Eskom facility. With this low number of injuries amongst the employees, there is no way of knowing exactly whether this can be generalized to other parts of the country. The low reporting of injuries may also be related to the perception that accident reporting by employees will effectively be an admission of guilt for not taking safety precautions.

5.3 Perceptions of Safety Concerns

The findings of this research, that is the perceptions of the respondents, are consistent with widely reported fact that vehicle accidents are a major concern for Eskom as an organization. Eskom (2018) reported three vehicle fatalities among its employees in 2017. Even though this is lower than other reports for earlier, such as in 2011, where six employees and 18 contractors of Eskom died from vehicle accidents (Accidents, 2011). This has been a trend over the last 10 years, where vehicle accidents have rivalled electrocutions in terms of numbers (See Table 14). In this study vehicle accidents emerged high, at about 89% of participants strongly agreed, compared to 58% people strongly agreeing that electrocution is a major safety issue for Eskom employee. In terms of the perceptions of the root causes for vehicle accidents, the top three issues blamed were fatigue (82%), poor road conditions (64%), and speeding (58%). This is consistent with what respondents thought were the root causes of the many other accidents in the workplace at Eskom.

Table 14: Fatalities from Workplace Accidents at Eskom (2007-2017)

YEAR	TOTAL FATALITIES	ELECTRICITY CONTACT FATALITIES	VEHICLE ACCIDENT FATALITIES	OTHER FATALITIES
2007	8	4	3	1
2008	17	5	8	4
2009	2	0	2	0
2010	7	3	0	4
2011	13	4	4	5
2012	19	4	2	13
2013	23	2	7	14
2014	10	3	4	3
2015	17	4	5	8
2016	10	3	2	5
2017	15	1	3	11

Source: This table was created from different reports released by Eskom, mainly the Annual Integrated reports of the relevant years.

The bottom line is that it is clear that many of these causes have to do with the employees themselves, rather than what the organization is doing or not doing. For example, faulty equipment as a cause of several accidents received very low ‘strongly agreed’ responses from the respondents. Rather, in addition to employee fatigue, negligence, not following proper instructions, was among the most popular responses as a root cause of most accidents affecting employees. However, the well-known aggression of electricity users who are caught stealing electricity, or who believe that Eskom employees have not adequately dealt with their issues, are likely beyond the control of the employees. This is something that Eskom might need to address. eCNA (2016) has reported that labour unions and Eskom employees were in an uproar about Eskom’s installation of drive-cameras in its cars, which the company argued was aimed at protecting the vehicle and to reduce road accidents. The employees and unions saw this differently, arguing that this was a way for Eskom to keep a close watch on workers and to victimize them through disciplinary actions (eNCA, 2016). The reason for mentioning this controversy is that, while admirable that Eskom seeks to curb vehicle accidents, it is important to view all of safety issues at the company with seriousness.

5.4 Barriers to Safety Culture

Based on the findings discussed in the previous chapter, it can be argued that employees do not hold Eskom responsible for lack of compliance concerning safety policies. None of the propositions had an overwhelming majority of respondents that strongly agreed with it. Rather,

there were several propositions that received majority of responses for participants who strongly disagreed that they were the barriers to safety policies and measures adoption by employees (e.g. lack of safety gear/equipment/vehicles). However, there were some cases whose numbers were close enough between those who strongly agreed, strongly disagreed or were not sure about the propositions as barriers to adoption of safety policies and measures (e.g. resistance against harsh enforcement of safety policies and measures). This could mean these inconclusive responses are areas that need attention in future discussions about safety culture at Eskom. Additionally, the survey alone is not likely to reveal the real reasons why the respondents opted to respond in the way they did, that is mostly shifting the blame away from the company in most of the proposed motivations for the barriers to the adoption of safety policies and measures.

5.5 Employee Demographics and Perceptions of Safety Concerns

The researcher decided to include a bivariate analysis. However, it needs to be highlighted that the small sample size limited the use of Chi-Square tests in this study. The six cases that had significant Chi-Squares (p-values of 0.05 or less and Chi-Squares of 5.99 or more) were convincing in their display of differences between responses of people falling in different demographic profiles. These included, first, respondents by work division and by perception on electrocution as a major cause of accidents. Of significance is the fact that the majority of those who strongly agreed that electrocution is a major issue of concern (21 out of 26) were field staff who work with live electricity on regular basis. Second, there was a similar pattern on cross-tabulation for the number of respondents by work division and by perception on falling from heights as a major cause of accidents. This is because, again, 23 of the 27 respondents who strongly agreed that falling from heights was a major safety concern were field services staff.

Third, in the case of respondents by years of experience and by perception on poor understanding of safety policies as a major barrier to adoption of safety policies; of the 21 respondents who strongly agreed that poor understanding of safety policies is a major barrier to the adoption of safety policies and measures, 15 had work experience of less than 10 years, while only six had experience of more than 10 years. This might mean that those with more experience had better understanding of how the company works, versus those with less experience. Fourth, in the case of respondents by whether they have ever been injured while doing their duties and by lack of safety gear as a major barrier to adoption of safety policies; all the 34 people who strongly disagreed that the lack of safety gear is a major barrier to

adoption of safety policies, are people whose response was that they have never been injured on the job at Eskom.

5.6 Employee Ideas on Promoting Safety Culture

In terms of the ideas of the respondents about how to improve employee compliance to safety policies and measures, the most common themes had to do with four main things. Firstly, the suggestions relate to Eskom providing incentives for compliance with safety policies. While not stated in the survey, these are likely to involve cash. Secondly, there are suggestions relating to providing more training and education about safety, including reserving at least one day a month for this purpose. Thirdly, some suggestions encourage a hard line, where they motivate for harsh penalties for people who violate safety policies and measures of the company. Fourthly, the respondents encourage Eskom to not put so much pressure on employees. The company is encouraged to address fatigue in employees by employing more people to do the jobs that are high pressure. Clearly, even though not all the respondents took the opportunity to share their own ideas, those who did were consistent enough in sharing the blame for a poor safety culture, to include the blame being on the employees.

5.7 Conclusions

This chapter has drawn from the findings of the study to discuss the perception of the survey respondents in the study. The discussion focused on the broader context of safety culture and barriers to its adoption. Additionally, the chapter aimed to organize the data into arguments that need to emerge from the research. Even though the sample of the study was small, there was enough sense of what the employees of the Eskom office in Makhanda (Grahamstown) think about workplace safety. It comes out clearly that car accidents are the company's and employees concern, but the employees also have many other concerns that they see as needing the company's attention (e.g. dealing with attacks on employees by customers; focusing on incentives rather than harsh enforcement for violators of safety policies). However, it is also clear that most employees do see safety as their responsibility as well.

CHAPTER SIX: CONCLUSION

6.1 Introduction

This thesis originates from the premise of the importance of sustainability in an organization's quest to meet its goals (See Scoones, 2007; Kepe, 2010; Haugh and Talwar, 2010; Burford et al, 2013; Adams, 2017). In particular, social sustainability (Weybrecht, 2014), which focuses on how people as a resource are central to sustainability, is seen as a crucial factor of production (Froeb et al, 2016). Human resource management in an organization, therefore, has a huge task of ensuring that employees of an organization, which according resource based theory (RBT) are a unique resource that needs nurturing and protection (Armstrong, 2001; Chadwick, and Dabu, 2009; Collings, and Wood, 2009). Amongst many responsibilities of human resource management in an organization, concerning advancing the goals of social sustainability is to consider the health and safety of human resources (Durai, 2010). Given the vast amount of literature that shows that for most industries, particular the manufacturing sector, the employees face numerous risks of injuries and deaths (Chupkam et al, 2008).

This is particularly so for the electricity industry, as this study shows. However, studies show that even in these sectors that have high risk of injuries and fatalities from a number factor, health and safety policies in the workplace should not necessarily focus on single factors. They should attempt to cover the broader areas exposing workers to the risks of death and injuries (Smallwood and Venter, 2012). Therefore, scholars in this field choose to talk about safety culture that includes everything in the workplace, and is seen as common sense awareness and practice about health and safety in general (Haghighi et al, 2017). However, safety culture in an organization is not automatic. Instead, it is something that develops and evolves over time, and is often motivated and enforced by leadership in an organization. Central to developing a safety culture in an organization, is a good understanding of what safety problems existed in the past; what safety problems exist in the present, and what caused them, as well as what could be done to deal with those causes.

The goal of this thesis, therefore, was to understand what barriers potentially exist for Eskom employees to understanding and adopting the company's safety policies and measures. A secondary aim was to explore different strategies for addressing these barriers. In order to get to the goal, it was important to; first, understand which aspects of Eskom's health and safety standards do employees have difficulty adopting. Second, it was important to investigate the

specific barriers to employees' non-adoption of health and safety standards, by understanding their perceptions of safety issues in the workplace. Third, based on the findings, the study aimed to propose recommendations for improving the adoption of safety policies and measures by employees of Eskom.

The approach to reaching the goal of the study involved a three-pronged approach. First, secondary literature was reviewed. This included literature from journals and books, as well as literature produced by Eskom (e.g. annual reports, policies, etc). Second, a survey of Eskom employees, focusing on the Grahamstown (Makhanda) office, and covering 45 people who were willing to participate, was conducted. Using a three point Likert-scale of strongly agree, strongly disagree and do not know, the survey focused on perceptions about the most common accidents and their root causes at Eskom. The survey also asked about what employees thought were the barriers to poor adoption of safety policies and measures, as well as what the employees suggest should be done to improve safety culture. Third, based on the findings of the survey, and drawing from the literature, the thesis proposes some recommendations for Eskom.

Following this introduction, the next section of this chapter presents a synopsis (summary) of the key findings. This is followed by a discussion of recommendations that Eskom could consider. The last section of the chapter presents the chapter conclusions.

6.2 Synopsis of key Findings

Several key findings emerged from the study. The first key finding is about the demographics of employees. The Makhanda (Grahamstown) office of Eskom has diverse employee demographics to allow for generalizations to other Eskom offices. In relation to this, there is a mixture of work experience that averages at 12 years, but with the most experienced person having 35 years on the job. The second significant thing about the demographics is that most of the employees do drive Eskom vehicles as part of their jobs. Third, the majority of respondents of the survey were field staff, which means they are more exposed to possibilities of injuries from different sources, including motor vehicles, electrocution, attacks by animals or customers and falling from heights when they climb to work on poles. Lastly, a significantly lower number of people have ever experienced injuries at least once in the workplace in this Eskom facility.

The second key finding is that, consistent with annual statistics and other policy documents published by Eskom, vehicle accidents emerged as one of the main causes of injuries and deaths, according to respondent's' opinions. As a major cause of these vehicle accidents, employees believed that fatigue, speeding, distracted driving and bad road conditions were the main causes. Even though electrocution emerged as a significant safety issue, again seen as being caused by negligence on the part of the employees, respondents were similarly concerned about verbal and physical attacks they are exposed from disgruntled customers, or those who were stealing electricity.

The third key finding was that there were no significant consistencies among the respondents about what the barriers to their adoption of safety policies in the workplace. But it was clear that there was less blame on Eskom as an organization for the poor safety culture in the workplace. Most respondents did not see poor work conditions, including inadequate safety equipment, lack of training about safety, and poor communication by Eskom, as the main barriers. Rather it became clear that the employees themselves do take some responsibility for poor compliance to safety policies, citing negligence, not taking safety seriously and general resistance to Eskom's harsh penalties to violations (e.g. poor driving record).

6.3 Recommendations

Eskom, despite some bad publicity relating to recent electricity supply and financial management challenges, is arguably one of the most conscious organizations when it comes to sustainability, particularly social sustainability. Very few can blame the company for its publicity under the 'Zero harm' slogan. This is practically all over Eskom premises and documents, meaning that nobody who can read can claim not to have seen or thought about what it means. Of course, Zero harm policy includes both the public and employees or contractors, making Eskom responsible for ensuring that there is zero injuries and fatalities. The literature makes it clear that safety culture in an organization is the responsibility of both the employees and the leadership/management (Roughton and Mercurio, 2002). In the literature on the subject (Fourcade, 2012; LeRouge and Garfield, 2013), it is clear that poor communication and training about safety, which is the responsibility of the organization's leadership, as well as negligence and resistance by the employees, are key barriers. This is why the researcher has divided these recommendations into two, beginning with motivating for

good leadership as a way of addressing non-compliance, and then dealing with practical suggestions as suggested by the respondents in this study.

6.3.1 The Role of Leadership and Management in Promoting Safety Culture

In motivating for leadership that is conducive for encouraging safety culture at Eskom, the researcher draws from leadership studies to make the following recommendations:

- *From transactional to transformative leadership* – with Eskom prioritizing incentive bonuses to encourage employees (transactional leadership), Stone-Johnson (2014) suggests that it is better to move towards transformative leadership, where leadership is not only linked to performance, but to justice and broader social context. With transformative leadership, ‘followers’ are viewed as potential leaders (Maak, 2007). When employees are viewed as potential leaders themselves, it is much easier for them to take safety into their own hands.
- *Toward Servant leadership* – based on Pless (2007), servant leadership would be best for Eskom, as it would mean the organization develops a vision that is in line with those of the stakeholder’s (e.g. employees) needs and goals. Inglesi and Pouris (2010) suggest that regular research to assess the vision of all stakeholders is the way to go for the company. It is then easier to develop a unified vision of safety culture.
- *Adopting many values of African leadership* – by merely making a strong effort of adopting many of African leadership values, such as consultation, interdependence, caring, humanity and collaboration, among others, Eskom could easily cultivate a new culture of trust and integrity amongst its employees, which is likely to be positive for safety culture (Khoza, 2007; Bolden and Kirk, 2009).
- *Stewardship* - drawing from Pless (2007), this researcher believes that Eskom leadership should play the role of stewards, where they protect the company’s resources, in this case the lives of its employees.
- *Leaders as citizens* – Eskom leadership, by integrating with its employees and other stakeholder; aware of their needs and having commitment that goes beyond the boundaries of profit making, could be on their way to responsible business leadership (See Pless, 2007. Additionally, when employees see themselves as co-citizens in the company, they are likely to view safety culture as not a top-down instruction to them, but as something that is of interest to all the stakeholders in the company.

6.3.2 Practical Considerations for Promoting Safety Culture at Eskom

In line with what has emerged in the literature, as well as what has emerged in this study, particularly from the recommendations made by the employees, below are leadership at Eskom could consider bullet points that list what, if it wants to improve safety culture in the organization. These are listed below:

- Educate employees that safety is about them as workers, rather than what the company just prefers to enforce as part of profit-making (see Welch et al, 2015).
- People are motivated by different incentives in all situations in life. This could be cash or simple praise in the form of awards. Employees themselves have suggested that instead of always being told that the penalty for violation of safety policies is this and that, it would be motivating to be given praise in the form of incentives when employees comply with safety policies.
- Employees suggest that unions be involved by the company in spreading the word about safety. Some employees, who already view directives from leadership with suspicion, would be more likely to take safety seriously if they knew that the unions are supportive of those moves.
- Concerning attacks of employees by customers, it is recommended that the company train all its employees on customer relations, including the ability to diffuse tense situations. Some of that training could include some skills in self-defence.
- Employees feel that much of safety discussions happen during work hours. The suggestion therefore is for safety only days at least once a month, even if it is half-a-day. This could bring focus to how much Eskom takes safety. As part of these safety discussions, employees could be encouraged to talk about near misses, that is not only about what went wrong. These discussions of near misses could be helpful for other employees to be able to avoid making similar mistakes.
- Given that vehicle accidents are high as a cause of safety concern, Eskom could consider long-distance, audio-visual conference meetings, where employees do not have to drive for hours to attend a meeting. Of course, those who have to drive (e.g. field service staff) should be able to do so.
- Eskom may need to consider conducting work-study research to see which job functions lead to fatigue and stress among employees. For those jobs, which obviously increases workplace risks of injuries and deaths, the company could consider remedies, including hiring more people.

6.4 Conclusions

To conclude, this study shows that Eskom does have safety issues that need attention. The very fact that Eskom releases statistics of injuries and fatalities, by certain categories, means that they are taking this issue seriously. Even though electrocution would have been expected to be high on the safety concern considerations, it appears that vehicle accidents are of concern to both the employees and the company's leadership. In addition to what Eskom is doing to improve safety at the company, it is clear that employees also need to take safety seriously. The recommendations given in this thesis will only remain recommendations if both employers and employees hesitate to do introspection to see what each could be doing wrong. In other words, this thesis is a modest attempt at highlighting the different opinions held by employees, since the employees do not get many opportunities to air their views. The bottom line is that neither do employees nor employers think death and injuries are good for anybody. This is why this researcher is hopeful that this will get better, not worse in terms of having a firm safety culture at Eskom as a workplace environment.

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APPENDIX A: QUESTIONNAIRE

Section A: Biographical Information

1. What is the division of Eskom that you work in?
2. How long have you worked for Eskom?
3. Have you ever been injured while on duty at Eskom over the last 10 years? Circle what applies. Yes: Once: Twice: Three times or more No.
4. Do you ever drive an Eskom vehicle for work? Yes: No:
5. Does your job involve handling electric wires?: Yes: No:
6. Are there colleagues who report to you as supervisor or manager? Yes: No:

Section B:

Using a 3-point Likert scale of “Strongly Agree”, “Strongly Disagree” and “Not Sure”, please provide your opinion on what the most common accidents for Eskom employees are, which are a great cause for concern for the company relating to health employee safety?: Circle one response per item.

- | | | | |
|--|----------------|-------------------|----------|
| 1. Car accidents in Eskom vehicles: | Strongly Agree | Strongly Disagree | Not Sure |
| 2. Contact with live electricity/electrocution | Strongly Agree | Strongly Disagree | Not Sure |
| 3. Falling from heights | Strongly Agree | Strongly Disagree | Not Sure |
| 4. Attack by insects/wild animals/dogs | Strongly Agree | Strongly Disagree | Not Sure |
| 5. Injuries caused by work equipment | Strongly Agree | Strongly Disagree | Not Sure |
| 6. Physical attack by customers | Strongly Agree | Strongly Disagree | Not Sure |

Section C:

Using a 3-point Likert scale of “Strongly Agree”, “Strongly Disagree” and “Not Sure”, please provide your opinion on what you think are the root causes of these accidents experienced by Eskom employees? Circle one response per item.

1. Car accidents in Eskom vehicles:

- | | | | |
|--------------------------------------|----------------|-------------------|----------|
| a. Fatigue | Strongly Agree | Strongly Disagree | Not Sure |
| b. Poor time-management (speeding) | Strongly Agree | Strongly Disagree | Not Sure |
| c. Poor road conditions | Strongly Agree | Strongly Disagree | Not Sure |
| d. Distracted driving (eating/phone) | Strongly Agree | Strongly Disagree | Not Sure |
| e. Faulty vehicle | Strongly Agree | Strongly Disagree | Not Sure |

2. Contact with live electricity/electrocution:

- | | | | |
|-----------------------------------|----------------|-------------------|----------|
| a. Not wearing protective gear | Strongly Agree | Strongly Disagree | Not Sure |
| b. Faulty device | Strongly Agree | Strongly Disagree | Not Sure |
| c. Simple carelessness on my part | Strongly Agree | Strongly Disagree | Not Sure |

3. Falling from heights:

a. Faulty equipment (e.g. ladder)	Strongly Agree	Strongly Disagree	Not Sure
b. Not harnessing properly	Strongly Agree	Strongly Disagree	Not Sure
c. Simple carelessness on my part	Strongly Agree	Strongly Disagree	Not Sure
d. Improvising	Strongly Agree	Strongly Disagree	Not Sure

4. Attack by insects/wild animals/dogs:

a. No warning about possible danger	Strongly Agree	Strongly Disagree	Not Sure
b. Nothing to protect yourself with	Strongly Agree	Strongly Disagree	Not Sure

5. Injuries caused by work equipment:

a. Faulty equipment	Strongly Agree	Strongly Disagree	Not Sure
b. Simple carelessness on my part	Strongly Agree	Strongly Disagree	Not Sure

6. Physical attack by customers:

a. Unresolved customer query	Strongly Agree	Strongly Disagree	Not Sure
b. Customers caught stealing electricity	Strongly Agree	Strongly Disagree	Not Sure
c. Being rude to customers	Strongly Agree	Strongly Disagree	Not Sure

Section D:

Using a 3-point Likert scale of “Strongly Agree”, “Strongly Disagree” and “Not Sure”, please provide your opinion on what you think are the barriers to employees adopting safety measures that are required by Eskom? ? Circle one response per item.

1. Poor understanding of safety policies	Strongly Agree	Strongly Disagree	Not Sure
2. Poor training about safety	Strongly Agree	Strongly Disagree	Not Sure
3. Poor communication about safety	Strongly Agree	Strongly Disagree	Not Sure
4. Poor enforcement of policies by Eskom	Strongly Agree	Strongly Disagree	Not Sure
5. Resistance against harsh enforcement	Strongly Agree	Strongly Disagree	Not Sure
6. Belief that safety is not a big problem	Strongly Agree	Strongly Disagree	Not Sure
7. Lack of safety gear/equipment/vehicles	Strongly Agree	Strongly Disagree	Not Sure

Section E:

Can you please list some ideas about how to improve employee compliance with Eskom’s safety measures?

- a.
- b.
- c.
- d.
- e.

THANK YOU

APPENDIX B

Recruitment message

Date:

Dear

My name is Nobubele Makholwane, an employee of Eskom in Makhanda (Grahamstown). I am currently enrolled as a student in the Master of Business Administration (MBA) at Rhodes University, Makhanda (Grahamstown).

As part of my academic requirements for the program I am required to conduct research on a value-adding topic that is preferably related to my place of employment. I have chosen to study health and safety at Eskom, particularly how employees understand, and comply with, it. I am writing to request your participation in the study, with the commitment that you will in no way be emotionally, legally and physically harmed by your participation.

This project research has been approved by Rhodes Business School Ethics Committee.

If you have questions or response about the study, please contact:

Enquiries: Nobubele Makholwane
Telephone: 0466023904
Email: MakholN@eskom.co.za

Supervisor: Evert Knoesen
Telephone: **0466038906**
Email: E.Knoesen@ru.ac.za

APPENDIX C

Informed Consent Agreement

Please read this consent agreement carefully before you decide to participate in the study.

You have been chosen to participate in this study in your capacity as an Eskom employee. The study intends to evaluate your understanding and perceptions of Eskom's health and safety policies. In particular, the study seeks to understand challenges relating to whether or not, and why Eskom employees have difficulties in adopting the organization's health and safety policies. All information will be treated confidentially and your anonymity will be guaranteed. I am the only person who will have direct access to the online feedback provided. This feedback will be used only for the purpose of this study and it will be shared with Eskom Senior Management in the Eastern Cape in summary form. In other words, no raw data will be shared with Eskom.

Please note that your participation in this study is voluntary and that the information provided here should help you to understand and consent to be part of this study. A copy of the final report can be made available to you on request via email, should it be required.

This survey will help to assess what drives the safety culture in Eskom. The objective is to collect information about values, beliefs, attitudes and patterns of behaviours that determine our commitment to occupational health and safety. It is important for you to be completely honest about your feelings. All responses will be treated in strict confidence and there is no need to put your name on the questionnaire. You also have the right to not answer questions you feel not comfortable with; as well as the right to withdraw from the study should you choose.

Time required: The questionnaire will take 15 – 20 minutes of your time.

Payment: You will receive no payment for participating in the study, but it is hoped that your feedback will contribute to the improvement of employee health and safety at Eskom.

Agreement:

I agree to participate in the research study described above.

Signature: _____ **Date:** _____