EVALUATION OF ENTERPRISE RISK MANAGEMENT CULTURE AT LESOTHO HIGHLANDS DEVELOPMENT AUTHORITY

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DECLARATION

I declare that the Field Study hereby submitted for the master's degree in business administration at the UFS Business School, University of the Free State, is my independent work and that I have not previously submitted this work, either as a whole or in part, for a qualification at another university or another faculty at this university. I also hereby cede the copyright of this work to the University of the Free State.

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Name: Tseko Molelekoa

Date: 21 November 2022

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ABSTRACT

A culture of Enterprise Risk Management (ERM) at Lesotho Highlands Development Authority (LHDA) is impacted by risk-behaviour factors, which are risk governance leadership and strategy, communication and people, accountability and staff involvement, risk competence and learning, the risk management process, performance management and decision making. The ability to develop a strong risk culture at LHDA helps the organisation to manage risks and opportunities and accomplish its strategic goals and objectives. A quantitative research method was used to gather data by means of closed-ended questionnaires. One hundred and twenty-seven (127) employees of the targeted 190 responded to the questionnaire, resulting in a response rate of 67%. Descriptive and inferential statistics were computed from the data collected and analysed in order to derive a meaningful conclusion.

The overall factors / findings that negatively influence risk culture at LHDA were lack of a good attitude towards receiving and handling bad news, lack of reward for staff escalating risk issues, risk management not being an agenda item for monthly branch meetings, lack of influence by CRPM for board decisions and LHDA not adapting to regulatory and environmental changes.

The research helped to evaluate the ERM Culture, and the recommendations were proposed based on recommended best practices that can be adopted to improve the ERM culture at LHDA. Periodic risk cultural awareness and monitoring, holding employees accountable for failing to manage their risks, periodic review of risk culture maturity and development of LHDA ERM culture framework were documented as some of the mitigation strategies that might bring about a positive change at LHDA.

Key words: Risk Culture, Organisational Culture, Enterprise Risk Management (ERM), COSO.

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LIST OF ABBREVIATIONS

APRA	–	Australian Prudential Regulation Authority
CE	–	Chief Executive
COSO-ERM	–	Committee of sponsoring organisation – Enterprise Risk Management
CPRM	–	Corporate Planning and Risk Management
CRO	–	Chief Risk Officer
ERM	–	Enterprise Risk Management
IFC	–	International Finance Corporation
IoDSA	–	Institute of Directors South Africa
IRM	–	Institute of Risk Management
IRMSA	–	Institute of Risk Management South Africa
ISO	–	International Organisation of standardization
KPI	–	Key Performance Indicator
KRI	–	Key Risk Indicators
LHDA	–	Lesotho Highlands Development Authority
LHWC	–	Lesotho Highlands Water Commission
LHWP	–	Lesotho Highlands Water Project
OC	–	Organisational culture
SORM	–	Senior Officer Risk Management
SPSS	–	Statistical Package for the Social Science
TCTA	–	Trans-Caledon Tunnel Authority
UFS	–	University of the Free State

CHAPTER 1: INTRODUCTION AND SCOPE OF THE STUDY

1.1 INTRODUCTION

This research study evaluated ERM Culture at the Lesotho Highlands Development Authority (LHDA). This chapter details historical information about the LHDA business operations, indicating the problem and outlining research questions that influenced the study. This chapter discusses the primary and secondary objectives, research methodology (research design, sampling strategy, data collection and ethical considerations), demarcation of the study and the conclusion.

1.2 BACKGROUND

The Treaty established the Lesotho Highlands Water Project signed on 24 October 1986 between the Governments of the Kingdom of Lesotho and the Republic of South Africa (Governments of Lesotho and South Africa,1986). The Treaty also sets out the governance structures required to implement the Lesotho Highlands Water Project on behalf of the Parties.

The Lesotho Highlands Development Authority's mandate is to deliver water to South Africa and generate electricity for Lesotho (Governments of Lesotho and South Africa, 1986). The other focus is on protecting the natural environment and disbursement of compensation to the affected communities (Lesotho Highlands Development Authority [LHDA], 2020).

The company's headquarters, which houses senior management, financial, human resources, social, and environmental staff, among others, is situated in Maseru, the capital city. Additionally, there are branches of Field Operations at Katse, Mohale, Muela, and Polihali.

According to LHDA (2020), the strategic plan includes the following:

Vision Statement: A world-class organisation in the development and management of water resources and electricity generation.

Mission Statement: To implement the Lesotho Highlands Water Project effectively and efficiently in accordance with internationally recognized standards by means of capable and engaged people.

Core Values: Caring, Professionalism, Execution, Teamwork, Communication & Customer focus.

The benefit and outcomes of the Lesotho Highlights Water Project Phase II are as follows.

- To unlock long-term socio-economic benefits for the two countries.
- To the equitable provision of a safe, reliable, and sustainable water supply infrastructure.
- To improve the livelihoods of the people of the two countries and stimulate the economic growth in the two countries.

This section deals with the risk definition and governance instruments utilised at LHDA after providing the background, Vision, Mission, and Core Values.

"Risk management is a coordinated activity to direct and control an organisation with regard to risk" (ISO 3100, 2018, p. 1). The LHDA Board, through its management, developed an Enterprise Risk Management Policy and Framework in 2013 (LHDA ERM Policy & Framework, 2021). The purpose of this policy and framework is to: create value for LHDA stakeholders, inculcate a culture of risk management in all LHDA business processes and operations, decision-making, resource allocation to achieve planned objectives, and establish a risk intelligence and culture throughout LHDA. Below are some insights into poor risk-related performance at LHDA.

Over the past 34 years, the LHDA has been implementing projects that comprise of a significant proportion of the LHDA budget. The Phase I project included the development of the Muela Hydropower station, the Katse Dam and tunnels, and the Mohale Dam and tunnels. Phase II of the LHWP (construction of Polihali Dam) started in 2013 at an estimated value of R11 billion, the completion of which was planned for 2022. However, this project is behind schedule and the project completion schedule has been changed to 2027 at an estimated cost of R32bn. Untimely decision-making, approvals, and delays in implementing risk mitigation action plans are just a few causes of delays in project implementation (LHDA Risk Reports, 2021). The goal of the ERM process is to protect the organisation's value while minimizing the impact on project costs and schedule overruns (LHDA ERM Policy & Framework, 2021).

IRMSA (2020) points out that in South Africa, the top risk is that leadership does not demonstrate moral-driven values and visionary leadership that will enable it to deal with current challenges. It further states that the top challenges affecting private and public sectors are the absence of ethical leadership and the lack of consequences for unethical behaviour. Therefore, this call to action will result in a risk-informed public and private sector where top executives embrace an enterprise-wide culture of integrated risk management to safeguard South Africa's future (IRMSA, 2020).

Furthermore, the LHDA risk reports highlight that due to delays in decision-making and slow implementation of risk mitigation activity plans, the majority of residual risk ratings did not alter over time. "Risk management cannot be successful unless the company's risk culture is strong" (Hopkin, 2018, p. 509). Also, the management audit reports indicate that some of the divisions have delays in the implementation of audit queries. These signify the risk culture weakness at LHDA. According to Robbins et al. (2016), organisational culture is defined as a shared system of meaning held by members of an organisation that sets it apart from others; the social glue that binds people and gives them a sense of identity (Robbins et al., 2016).

In the light of the above examples, it is evident that a weak risk culture might be a big contributor towards poor performance at LHDA. According to COSO-ERM (2018), the assessment of the risk culture and the awareness within the organisation should be done regularly. It can be deduced that the problem could include but is not limited to the application of risk management methods, risk leadership, risk skills, accountability and governance and risk resources. These pain points could contribute to the inability of the LHDA business to achieve its strategic objectives. From my discussion with the Head of Risk, it was noted that the risk management culture had not been evaluated since the launch of risk management at the LHDA in 2013. Therefore, this study seeks to evaluate the ERM culture at LHDA.

1.3 PROBLEM STATEMENT

The failures of Enron, Arthur Anderson, WorldCom, and Tyco International in the United States and others throughout the world can be ascribed to poor risk management cultures (Waddock, 2005). Therefore, any organisation that wishes to improve its performance must take risk culture seriously. The above-mentioned failed

enterprises demonstrate that organisations everywhere, including LHDA, must be resilient or have excellent risk management culture to play a crucial role as the engine of growth and good performance. This suggests that a strong organisational culture could help the organisation to achieve its strategic objectives.

Therefore, the absence of a positive risk culture will contribute to the organisation not realising its objectives (Abuzarqa 2019) and thus impacting the livelihoods and economic growth of the two countries, consequently tarnishing the LHDA image.

In addition, the LHDA management has recently expressed concerns over staff disengagement, a fragmented approach, and the use of risk management systems as a “tick-box exercise”. The management also surveyed organisational culture and climate to determine the underlying causes. The outcome indicated an employee satisfaction score of 46%, which clearly showed a weak LHDA culture. Organisational culture is derived from subunits of culture (Robbins et al., 2016). This implies that risk culture is a component of organisational culture. Another pain point is that lengthy approval processes often cause protracted decision-making processes, which lead to the slow implementation of risk mitigation measures. Therefore, it is critical to identify the cause of issues of risk culture at LHDA and potential solutions. As mentioned earlier, the failure to address risk culture could impede governments' efforts to stimulate economic growth.

From the problem statement, the following key research questions were raised:

- What is the existing literature on the Enterprise Risk Management Culture?
- What are the dimensions of Enterprise Risk Management Culture?
- What are the best practices to develop an effective risk management culture?
- What is the current status of risk culture at the LHDA?
- What initiatives can be implemented to improve the existing risk management culture at LHDA?

1.4 RESEARCH OBJECTIVES

1.4.1 Primary research objective

To evaluate the enterprise risk management culture at Lesotho Highlands Development Authority.

1.4.2 Secondary research objectives

The secondary objectives of the research are as follows:

- To conduct a preliminary literature review on Enterprise Risk Management Culture.
- To identify the dimensions of Enterprise Risk Management Culture.
- To determine the current status of the Enterprise Risk Management Culture at LHDA.
- To identity initiatives that can be implemented to improve the existing risk management culture at LHDA.

1.5 RESEARCH METHODOLOGY

1.5.1 Research design

The research used a positivistic view to ensure that the study is conducted with objectivity. "The positivist approach related to natural sciences research and includes empirical testing " (Brayman & Bell, 2014, p. 31).

A quantitative research design instead of a qualitative research design was used in this study, because "the quantitative research approach focused predominantly on numeric data to reveal the findings and testing the connection between the theory and research as deductive" (Brayman & Bell 2014, p. 31).

Data scale is "a technique or system or that divides individuals based on how they differ on the variables of interest to the study" (Sekaran & Bougie, 2016, p. 207). There are two data scaling methods: rating and ranking scales (Sekaran & Bougie, 2016). This research employed the Likert scale, a scale with numerous response categories that evaluate an object on a scale. The Likert Scale is a method for determining how strongly people agree or disagree with a statement (Sekaran & Bougie, 2016).

The whole sample was subjected to quantitative research only.

1.5.2 Sampling design

A purposive sample is defined as non-probability. When selecting people of a population to participate in a survey, researchers rely on their judgement (Greener 2008). According to Etikan (2019), a non-probability purposive sampling technique is based on a researcher's discretion and preference. The research respondents (Board and Employees) were individuals who satisfied the inclusion criteria stated below:

- Board and Audit and risk committee responsible for risk governance.
- All Executive, Management and Senior Officers are responsible for risk management processes and risk-related activities.
- Officers having acquired training in risk management and one year of risk management experience.
- Willing to participate in the study.

These individuals were purposely chosen because of their professional qualifications, jobs, and experience in risk management.

The company has a staff complement of 365 (the population). Out of 365 employees, 190 employees (6 executive, 15 managers, 55 senior officers and 104 officers) and 10 board members (the sample) were included in this study to assess the ERM culture, while the balance (185) of the employees (clerical, drivers, secretaries, labours, and officers' assistants) were excluded from the study, due to their lack of knowledge, involvement, and experience with risk management.

1.5.2 Data-collection methods

The data from the population were collected using questionnaires with closed-ended questions, concluding with an open-ended question. The questionnaires were distributed via Google Forms (electronic survey technology) to prevent multiple responses from the same participant. Google Forms is an online survey tool used to collect and analyse data (Cooper & Schindler, 2006). The participants were informed of their right to opt-out of the study and were provided with a link to the survey's informed consent material. The survey was distributed online, and the completion of the form served as confirmation of the participants' agreement.

The questionnaires were e-mailed to the sample. The objective and importance of the e-mail were stated clearly, and the respondents were assured of the confidentiality of their responses. Closed-ended questions aided respondents in making speedy selections by allowing them to choose from various options. In addition, closed-ended questionnaires make it easier for a researcher to code data for sequential analysis (Sekaran & Bougie, 2013). This study used a five-point Likert scale to assess how strongly respondents agreed or disagreed with a particular statement.

The database of current Lesotho Highlands Development Authority employees was obtained from the following branches:

- Finance
- Operations
- Corporate Services
- Social Development
- Environmental

The respondents were given two weeks to respond to the questionnaire.

1.5.3 Data analysis

Data coding is a method of utilising computer analysis tools such as Microsoft Excel (Greener, 2008). Data in a Microsoft (MS) Excel format were downloaded from Google Forms. The resulting data were transported to the Social Science Statistical Package (SPSS), which was used for data analysis. SPSS is a data management and analysis application designed to conduct statistical data analysis on various data sets (Sekaran & Bougie, 2013).

The results of this study are presented as descriptive analysis in the form of tables, bar graphs, and pie charts, among other formats. The categories and number of people who responded to each type are shown in the tables. In addition, the nominal and ordinal variables have been plotted using bar and pie graphs (Greener, 2008).

1.6 ETHICAL CONSIDERATIONS

According to the Code of Good Governance King IV (IoDSA, 2016), "*ethics refers to ethical values to decision making, conduct, and the relationship between the*

organisation, its stakeholder and society". An individual must display good conduct and ethics when conducting a research project. Ethical clearance was approved before the collection of data for this study.

The following ethical principles applied to this study:

1.6.1 Permission obtained to undertake a study

The researcher requested permission from the Human Resources Office of the LHDA. The Human Resources Manager notified the Chief Executive Officer before approving the study. The Human Resources Manager approved the research project with a written response. The relevant leadership approves any research before its commencement (Sekaran & Bougie, 2014).

1.6.2 Informed consent

Respondents were given the required information about their participation in the research study. The information provided highlighted the importance, purpose and benefits thereof. Greener (2008) suggests that informed consent is necessary for the participants to understand their role, the rationale for the research, the responsibility of the researcher and the use of the data collected from the participants.

1.6.3 Voluntary participation

The respondents were engaged voluntarily, and this enhanced their freedom when providing feedback on the questions asked. Any participants should be protected emotionally or physically from harm (Sekaran & Bougie, 2014). This implies that the researcher should be neutral and independent in order to avoid any stumbling blocks to the study's success.

1.6.4 Confidentiality and anonymity

All the respondents were treated professionally, with respect and with fairness. The data collected from the respondents would be kept confidential to ensure the integrity and privacy of the collected information. Anonymity would also be observed to ensure that no respondents indicate their names in their responses. Greener (2008) states that anonymity is vital for any research study. The information collected would be kept safe to avoid information leakage with LHDA employees.

Finally, the researcher would not influence respondents' decisions during the data collection process.

1.7 DEMARCATION OF THE STUDY

The study evaluated the ERM culture at the LHDA. The researcher targeted LHDA board members and employees, from officers to managers, in all four branches (Mohale Operations Branch, Katse Operations Branch, Polihali operation branch and Muela Operation Branch) and Maseru Head Office for analysis. The study focused on the field of risk management. The researcher was responsible for funding the study.

1.8 CHAPTER LAYOUT FOR THE STUDY

Chapter 1: A research proposal
Chapter 2: A literature review
Chapter 3: Research methodology
Chapter 4: Data analysis and interpretation
Chapter 5: Conclusion and recommendations

1.9 CHAPTER ONE SUMMARY

The study's primary objective was to evaluate a culture of ERM at LHDA. This chapter introduced the research study and further presented the introduction, background, problem statement and research questions, research objectives, methodology, ethical considerations, demarcation of the study, and layout. The following chapter will deal with the literature review on ERM Culture.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The power of culture serves to create internal unity and helps organisations adapt to changes in their environment (Robbins et al., 2016). They further explain that the power of culture helps people feel valued, resulting in a unified workforce, which also ensures that an organisation's resilience and optimum performance are met. Kotter (1995) emphasises that they are subject to degradation until new behaviours are rooted in social norms and shared values. Therefore, to ensure that organisations remain relevant and competitive over others, the organisation should aim for the right culture (Robbins et al., 2016). It is further affirmed that leaders should take sufficient time to ensure that the top management of the next generation personifies the new approach.

This chapter aims to discuss the definition of ERM, organisational and risk culture and its relevant concepts, as well as describe theories related to risk culture and the dimensions of ERM culture. Factors affecting risk culture are highlighted. Furthermore, this chapter also covers the recommended practices pertaining to risk culture. Every organisation aims to have the right culture to ensure optimal performance. Weak risk culture is a symptom that has not been resolved by management at LHDA. An organisation must put measures in place to ensure the continued improvement of organisational risk culture. Details of literature pertaining to risk culture will be discussed in the next section.

2.2 RISK MANAGEMENT

Traditionally, risk management was fragmented and reactive. "In 2004, COSO devised and introduced the Enterprise Risk Management – Integrated Framework to assist institutions in managing risks." (COSO, 2004, p. 4).

Risk is defined as an effect of uncertainty (positive and negative) on objectives (Zainudin et al., 2019; IRM, 2018; ISO 3000,2009). The authors further state that organisations are exposed to external and internal risk types that impact their operations. Generally, internal risks relate to risks that can be managed and mitigated

internally, while external risks fall outside the sphere of influence of the organisation (Zainudin, Samad & Altounjy, 2019).

Strategic corporate objectives can be achieved through risk management by identifying, assessing, evaluating, and managing risks (Bluden & Thirlwell, 2013). According to IRM (2018), the implementation of ERM involves all employees across the organisation. The governing body is accountable for risk governance (IoDSA, 2009). Further, “management is responsible for designing, implementing and monitoring the risk management processes”. “ERM provides a reasonable assurance that strategic objectives will be met. People and their behaviour determine the success of risk management systems” (COSO 2004, p. 37). Furthermore, the global financial crisis of 2008 was caused by a breakdown in risk culture rather than a lack of a risk management framework (Zainudin et al., 2019). The risk culture that the company displays in risk management employees’ behaviour and attitudes imply that people's behaviour influences the success of risk management systems (Bluden & Thirlwell, 2013). Therefore, organisations need to apply risk management protocols to mitigate uncertainty and create and protect stakeholder value.

The critical components of ERM will be discussed in the next section.

2.3 CRITICAL COMPONENTS OF RISK MANAGEMENT

“Risk management refers to risk architecture (principles, framework and processes) used for implementing risk management processes” (ISO 31000, 2018, p.4). These components have been proven to ensure effective implementation of risk management (ISO31000, 2018). Figure 2.1 highlights the three critical components of risk management:

- The principles: provide the basis and define risk management parameters.
- The framework: guides the entire risk management process.
- The process for managing risk focuses on risk identification, assessment, risk control, monitoring, and reporting.

The benefits of principles are described in Figure 2.1.

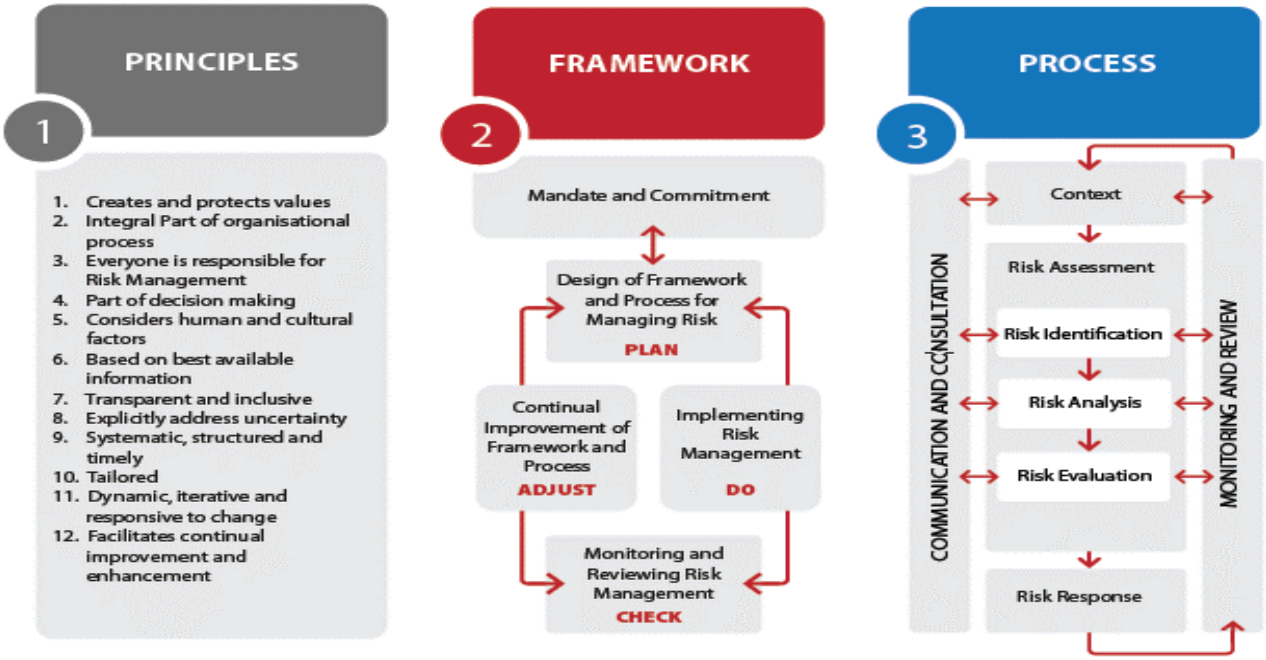

Figure 2.1: The relationship between the risk management principles, framework and process (ISO 31000:2018)

The above relationship is important, because the "risk management process is aligned with the organisational culture, structure, processes, and strategy" (ISO 31000, 2018, p. 9). Responsibility or risk ownership is critical to achieving this connection, as it ensures a consistent and proactive risk management approach across the organisation.

The lines of defence will be discussed in the next section.

2.4 THREE LINES OF DEFENCE

According to Hopkin (2018), the purpose of the lines of defence is to manage the risk within the risk tolerance levels, considering the cost and benefits analysis to reduce risk exposure. He further describes the role and responsibilities of lines of defence, as illustrated in Figure 2.2.

2.4.1 First line of defence

Management and staff

- Promote a risk culture.
- Set the risk appetite and tolerance limits.
- Allocate ownership of the risk management process.
- Implement risk management controls.

2.4.2 Second line of defence

Risk management and compliance functions:

- They have an oversight responsibility.
- Develop and coordinate an implementation risk management policy and framework.
- Monitor and report on risk management processes.

2.4.3 Third line of defence

Independent assurance – Internal Audit and External Audit:

- Provide an objective, independent assurance on governance processes, internal control system, and risk management processes.
- External audit provides assurance on financial statements.

The lines of defence define the roles and responsibilities of each line of defence, which is important for the implementation of a risk management process.

Figure 2.2: An adapted model of Three Lines of Defence
(Source: The Institute of Internal Auditors, 2013)

While risk ownership is key to risk implementation, the above authors suggest that

organisational culture is a crucial factor for effective risk management.

The next section will highlight the definition of OC.

2.5 ORGANISATIONAL CULTURE

2.5.1 Definitions

Organisational culture is defined as “the beliefs, attitudes, and behaviours that shape an organisation's social and psychological environment” (Schein, 2010; Alvesson, 2002. p. 3). Organisational culture (OC) is defined as a shared understanding maintained by members of the organisation that distinguishes it from others (Robbin et al., 2016). It defines reporting structures, employee contact, working processes, and procedures, and directly impacts organisational behaviour. Willcoxson and Millit (2000) define culture as a set of rules, beliefs, values, and attitudes that give each organisation its own identity. Cacciattolo (2014) found that organisational culture is not totally "uniform". As a result, no organisation picks a single culture, and complex organisations may have subcultures that overlap and clash.

The following section will discuss the characteristics of OC.

2.5.2 Characteristics of organisational culture

The characteristic of organisational culture may include one or more types of culture, depending on the organisation. The following are the organisational cultural characteristics, namely “innovation and risk-taking, attention to detail, outcome orientation, people orientation, team orientation, aggressiveness and stability” (Robbin et al., 2016, p. 609).

The diagram in Figure 2.3 depicts an organisation's cultural web:

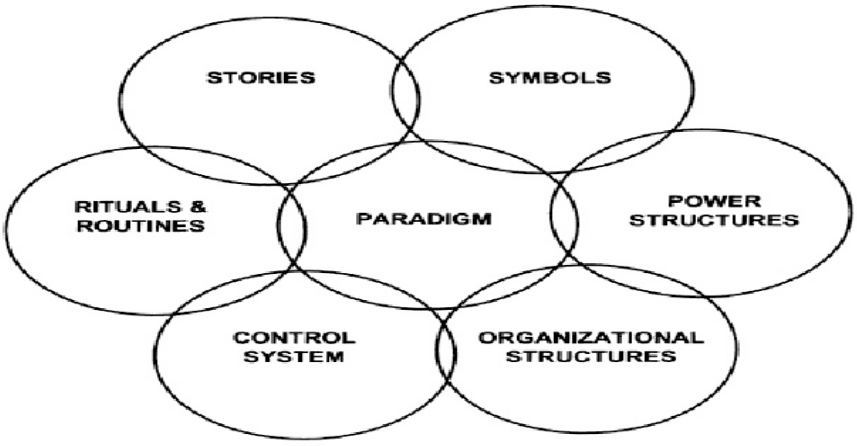

Figure 2.3: Cultural web of an organisation
(Source: Cacciattolo, 2014)

Schein (2010) claims that OC is evaluated using three levels of culture. These are three levels:

a) **Artefacts** – These include visible structures and processes and observed behaviour such as emotional displays, language, clothing codes, and office layout, which can be challenging to comprehend at times.

b) **Espoused beliefs and values** – An organisation's professed set of values and norms, which include ideas, aims, beliefs, aspirations, philosophies, and rationalisations, which may or may not be consistent with behaviour and other artefacts, strategies, goals, and ideologies.

c) **Underlying assumptions** – These are unchallenged, unconscious beliefs, perceptions, thoughts, and feelings that influence behaviour, perception, cognition, and feeling the unconscious ideas, perceptions, thoughts, and feelings of individuals inside organisations.

The above authors suggest that knowledge about the characteristics of risk culture is paramount in determining the suitable culture fit for the strategy.

Taylor (2010) claims that culture presents itself through behaviour or human performance due to a combination of elements such as beliefs, values, attitudes and artefacts. He also compares an organisation's culture to the layers of an onion, as seen in Figure 2.4.

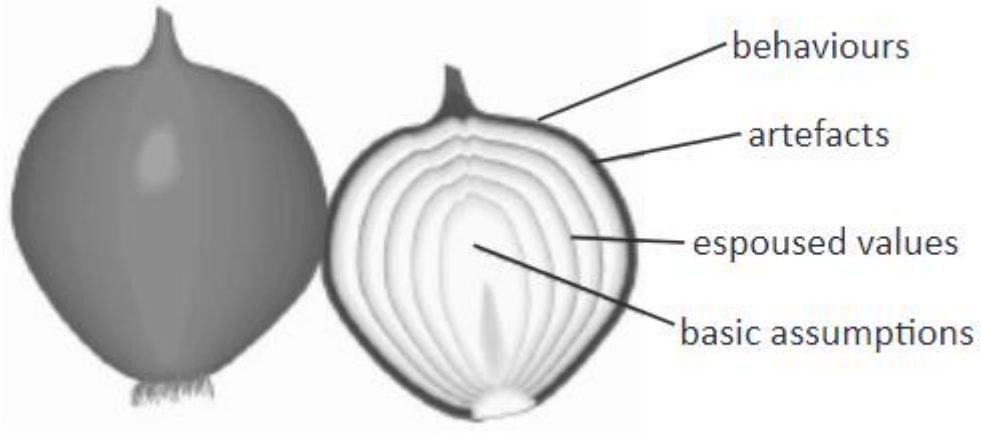

Figure 2.4: Schematic of safety-culture layers
(Source: By kind permission of Guldenmun, F Delft University Holland)

2.5.3 Types of organisational culture

The types and characteristics of a culture of risk are an extremely useful diagnostic tool for determining the maturity of the risk culture (Robbins et al., 2016, p. 609). Cameron and Quinn (2011) propose the framework of five categories and six characteristics of the culture of risk.

Table 2.1: Types and characteristics of risk culture

Type of Risk Culture	Characteristics of Risk Cultures					
	Dominant Characteristics	**Leadership**	**Management of Employees**	**Organisational Glue**	**Strategic Emphases**	**Criteria of Success**
Collaborative	Sharing risk information and participative, interactive risk management practices.	Guidance, mentoring, facilitation and support.	Risk management through teamwork and participation.	Risk management by loyalty, mutual trust and participation.	Risk management focuses on organisational members' skills and knowledge in managing risks.	Risk management is considered successful based on the development of human resources, teamwork, employee commitments and concerns for people.
Innovative	Dynamic and entrepreneurial risk management practices. Risk-taking organisational behaviour.	Entrepreneurship, innovation and risk-taking.	Risk management through individual risk-taking, innovation, freedom and uniqueness.	Commitment to innovation and development in risk management.	Risk management focuses on new resources, new challenges and prospecting for opportunities.	Risk management is considered successful based on unique or new services or processes.
Goal-oriented	Competitive and results-oriented risk management practices.	Results-oriented risk management practices.	Risk management through competitiveness, high demands and achievement.	Risk management for commitment to achievement and goal accomplishment.	Risk management focuses on meeting stretchable targets.	Risk management is considered successful based on improved performance against targets and competitive results.
Controlling	Governed by formal rule-oriented risk management practices.	Coordinating, organising, smooth-running efficiency.	Risk management through security of employment, conformity to rules and policies, predictability and stability in relationships.	Risk management by formal rules and policies.	Risk management focuses on permanence and stability in operations.	Risk management is considered successful based on efficiency and dependable delivery in performing one's tasks.

(Source: Adapted from Cameron and Quinn's (2011) framework of organisational culture)

Table 2.1 can be used as the tool to measure the level of the culture of risk relevant to each type of risk culture.

The next section will cover the dysfunctional aspects of risk culture.

2.5.4 Dysfunctional aspects of culture

Robbins et al. (2016) found that when shared values do not align with organisational effectiveness, they create a barrier to change. Employees who differ from the majority in terms of ethnicity, age, gender, or handicap become barriers to diversity. Warrick (2017) claims that an organisation may either bring out the best in individuals and create a great working atmosphere, or bring out the worst, causing stress and tension. High performance is linked to a strong culture, while bad performance is linked to a weak culture (Robbins et al., 2016). A strong risk culture necessitates ongoing vigilance and regular monitoring (Levy et al., 2015). Table 2.2 represents what leaders need to know about organisation culture.

Table2.2: Characteristic of high and low-performance cultures

High Performance Cultures	Low Performance Cultures
Leaders are skilled, admired, and build organizations that excel at results and at taking excellent care of their people and their customers	Leaders provide minimal leadership, are not trusted and admired, and do little to engage and involve their people
Clear and compelling vision, mission, goals, and strategy	Vision, mission, goals, and strategy are unclear, not compelling, not used, or do not exist
Core values drive the culture and are used in decision making	Core values are unclear, not compelling, not used, or do not exist
Committed to excellence, ethics, and doing things right	Lack of commitment to excellence, questionable ethics, and a reputation for doing what is expedient rather than what is right
Clear roles, responsibilities, and success criteria, and strong commitment to engaging, empowering, and developing people	Unclear roles and responsibilities and little interest in fully utilizing and developing the capabilities and potential of people
Positive, can-do work environment	Negative, tense, stressful, and/or resistant work environment
Open, candid, straightforward, and transparent communication	Guarded communication, reluctance to be open and straightforward, and consequences for saying things leaders do not want to hear
Teamwork, collaboration, and involvement are the norm	Top-down decision making with minimal teamwork, collaboration, and involvement
Emphasis on constant improvement and state-of-the-art knowledge and practices	Slow to make needed improvements and behind times in knowledge and practices
Willingness to change, adapt, learn from successes and mistakes, take reasonable risk, and try new things	Poorly planned change, resistance to change, minimal learning from successes and mistakes, and either risk averse or risk foolish

(Source adapted from Warrick, 2017)

The high-performing team committed to team cohesion and wiliness to adapt are some of the attributes of the high performing. Factors that create an organisational culture will be discussed in the next section.

2.6 FACTORS THAT CREATE AND SUSTAIN AN ORGANISATIONAL CULTURE

Several external and internal factors can affect OC (Warrick, 2017). Figure 2.5 affirms factors that impact organisational culture.

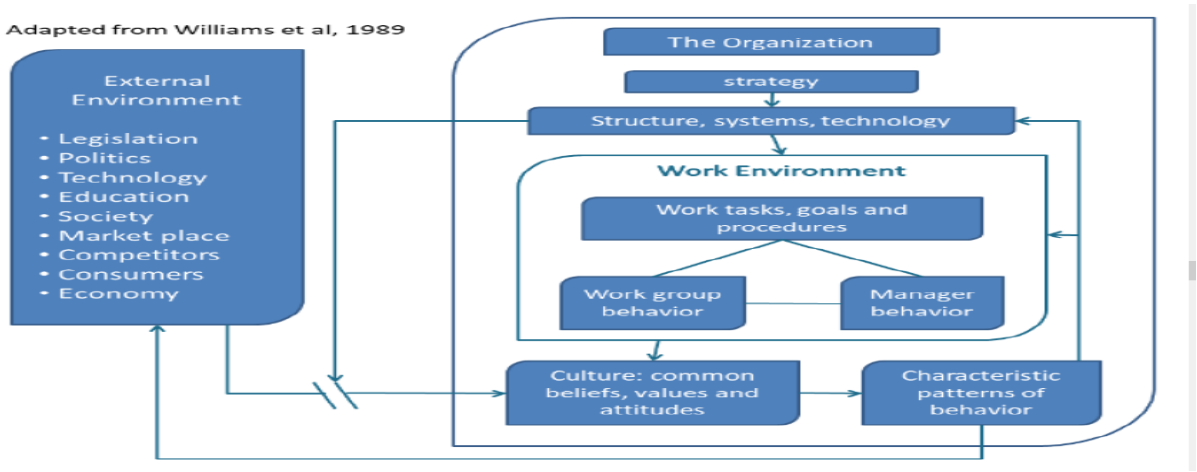

Figure 2.5: Organisational culture of external adaptation and internal integration (Source: Williams et al., 1989)

2.7 ENTERPRISE RISK MANAGEMENT AND DEFINITIONS OF RISK CULTURE

ERM is a process used by the board of directors, management, and other employees of an organisation to identify potential events that may have an impact on the strategy and manage risk in relation to the risk appetite of the organisation, in order to provide reasonable assurance that the desired objectives will be met (COSO, 2018, p. 2).

According to COSO (2004), “ERM is the culture, capabilities and practices, integrated with strategy-setting and performance, that organisations rely on to manage risk in creating, preserving and realising value. “The organisation's risk culture describes the overall behaviour, attitudes, and perception of every member on how to handle, manage, and communicate risk management information (COSO, 2018). Hopkin (2018) suggests that risk management is an integral part of organisational performance. COSO (2018) found that there is a relationship between risk and value,

components, principles, and structure. COSO (2018) further asserts that risk culture is reflected in the decision-making process.

Figure 2.6 shows that the risk culture is a product of the broader organisational culture.

Figure 2.6: IRM Risk Culture Framework
Source: IRM, (2012)

Weston, Conklin and Drobnis (2018) agree that risk is related to individual behaviour. They further state that culture refers to “tone at the top”, implying that management and directors must define and direct. The potential drivers of risk are the effectiveness of risk governance structures, including the Chief Risk Officer, Board Risk Committees, and Board (Sheedy & Griffin, 2018). Through the Board Risk Committee, the chief executive officer (CEO) appoints a chief risk officer (CRO) to assist with executing the risk management process. A good risk culture simply cannot exist unless the CEO forces it through assertive leadership and strategically positioned CRO (IRM,2012)

“Risk governance and culture sets the tone and reinforces the importance of ERM oversight” (COSO, 2018. p. 9). These are governance and culture principles that may be followed to ensure the implementation of ERM processes.

- Defining Desired Culture
- Exercises Board Risk Oversight
- Sets up Operating Structures
- Exhibits dedication to core values
- Recruit, develop and retain talented people

The sources quoted above agree that risk culture is the sum of all individual's or a group's attitudes and behaviours. It is critical for decision-making and supporting the organisation in achieving successful enterprise risk management.

The following sections will unpack the dimensions of risk.

2.8 DIMENSIONS OF ERM CULTURE

The Australian Prudential Regulation Authority [APRA] (2021) contests that dimensions of risk culture are not a prescriptive framework that must be adopted. APRA (2021) further shows that the dimensions framework explains how APRA measures risk culture. Each organisation should have its risk culture framework. This framework allows an organisation to consistently measure, monitor, and report on its risk culture (APRA, 2021).

Table 2.3 shows ten dimensions of risk culture that have been demonstrated in the APRA study to improve risk culture.

Table 2.3: APRA's risk culture ten dimensions

Risk Behaviours	Description
Leadership	The intended risk is instilled throughout the organisation by leaders at all levels actively championing risk management.
Decision-Making and Challenge	Across the entity, there is a clear commitment to consider varied viewpoints and receive constructive challenge.
Communication and Escalation	Risk issues are widely discussed across the entity, fostering a culture of openness, honesty and integrity.
Risk Capabilities	Skills, well-being, procedures, systems, and information promote effective risk management techniques and behaviours across the three lines of defence.
Alignment with Purpose and Values	The organisation's stated purpose and values encourage and support sound risk management approaches and behaviours.
Risk Culture Assessment and Board Oversight	The Board has a disciplined approach towards overseeing the risk culture evaluation in order to establish an opinion, identify desirable modifications, and ensure that actions are made to address these changes.
Risk Appetite and Strategy	All business and strategic decisions are aligned with the Risk Appetite statement.

Risk Behaviours	Description
Risk Governance and Controls	Effective risk management, policies, controls, and reporting are supported by proper risk frameworks.
Risk Responsibility and Accountability	All three lines of defence understand, accept and fulfil their risk-related responsibilities.
Performance Management and Incentives	Good risk management behaviour is rewarded, while bad risk management behaviour is punished.

(Source: Adapted table from APRA, 2021)

The above dimensions are confirmed useful for an adopted framework to measure any organisation's risk culture.

The factors influencing a culture of risk are discussed in the next section.

2.9 FACTORS CONTRIBUTING TO RISK CULTURE

Several studies conducted in the previous years by Osman and Les (2021), Yukl and Farder (2020) and Zainusin et al. (2019) suggest that factors impacting risk culture may include, but are limited to the following: leadership, staff engagement, learning, strategy, decision making, communication, performance management, accountability, ethics and induction.

These factors will be discussed in the next section.

2.9.1 Leadership

Leadership is about influence and relationships amongst the employees to achieve a specific task (Yukl & Garder, 2020). The leadership's commitment is a fundamental element to develop and embed a risk culture within the organisation. Also, effective leadership concerning direction, projects and the effectiveness and efficiency of operations is essential (Hopkin, 2018). Hopkin further promotes a high-risk-aware culture. This provides guidance, instils a shared vision and motivates the organisation towards a positive risk culture by measuring risk performance and providing an incentive to people who manage risk well (Zainudin et al., 2019). Osman and Lew (2021) found that the board is ultimately responsible for acceptable behaviour, pushing the organisation ahead by putting in place formal structures and processes, and holding people accountable. It is further reported ERM policies and frameworks drive

risk behaviour in their organisations. On the downside, IRM (2012) asserts the following potential risk culture shortcomings as a result of poor leadership:

- Inability to provide consistent guidance by the management.
- Lack of knowledge of corporate and business strategy.
- Insufficient corporate and business-wide alignment of objectives.

Finally, a director should be diligent in his or her duties and dedicate enough time to the company's activities (IoDSA, 2009). Organisations need involved and motivated staff to meet their strategic objectives.

Staff involvement is discussed in the next section.

2.9.2 All staff involvement

The importance of involving all stakeholders in the risk management process at all stages is critical. Everyone is a risk manager, with risk responsibility allocated to each individual, and everyone should be involved in risk identification, risk assessment, risk control, risk monitoring, and reporting, with risk management roles and duties defined and communicated (Zainudin et al., 2019).

Not all employees are engaged to drive risk behaviour, but failures present learning opportunities.

2.9.3 Learning

Leadership development programmes are used by leaders to enhance their abilities, earn the trust of their co-workers, and advance their careers (Gary & Yukl, 2012). There are many ways to do this, such as providing career guidance, informing people about available training, developing learning assignments, offering developmental coaching, identifying a group of members to mentor, hosting practice sessions or simulations, and allowing people to put their newly acquired skills to use in the workplace. A person's ability to adapt to change can only be improved through learning new skills (Yukl & Garder, 2020).

For effective risk management, employees' abilities must be improved through education and practice and integration into daily operations. It is vital to get knowledge from risk information and the emergence of risk events (Zainudin et al., 2019). There

must be a formal induction process for new employees to get them on board as members of the organisation (Robbins et al., 2016).

The above researchers suggest that leadership should learn from both triumphs and failures and use failures to learn the best ways to do business. Furthermore, leaders should spend more time listening, unlearning, and applying what they have learned.

This strategy will be discussed in further detail in the next section.

2.9.4 Strategy

A risk management strategy, policy, and framework provide a risk management direction and guide the risk implementation process (Zainudin et al., 2019). “The risk management framework is embedded within the organisation’s overall strategic and operational policies and practices” (ISO 31000, 2018). IoDSA (2016) points out that ERM links risk to strategy and performance. This link is determined through risk appetite and risk tolerance levels (COSO, 2018). Risk appetite is the amount of risk organisation is willing to take to pursue strategic objectives (ISO 31000, 2009). Risk owners must develop key indicators (KRI) based on their strategy and provide regular updates on KRI trends and the implementation of action to mitigate risk (Wong et al., 2021).

In its study IRM (2012), recommends three major concerns on risk culture challenges: Lack of management/board direction on risk culture (41%), lack of clear awareness of risk culture (37%), and a lack of transparency regarding risk embedding strategy (35%). All these challenges can lead to a weak risk culture.

The next section discusses how the risk culture influences the decision-making process.

2.9.5 Strategic decision-making

Risk culture is essential in making decisions (Osman & Lew, 2021). An organisation’s systems, structure, leadership, and culture are interconnected (Hartnell et al., 2019). Furthermore, organisational structure, which includes the degree of decision-making centralization, impacts corporate culture. A market culture, for example, favours decentralised decision-making. In the same way, a clan culture fosters relational leadership, and relational leaders in market and hierarchy cultures foster participatory

decision-making (Hartnell et al., 2019). The ability to assess and adapt to uncertainty in the environment is critical to strategic decision-making and organisational performance (Nelson, Adger & Brown, 2007). They further affirm that adaptation is a continual stream of behaviours, acts, decisions and attitudes that inform and reflect existing social norms and processes in all parts of life.

The CRO should be a suitably experienced individual with regular access to and interaction with the board, appropriate board committees, and executive management on strategic risk issues, ideally reporting to the CEO and sitting on the board (IRM,2012). Walker's (2009) recommendation supports this idea. Additionally, the board should ensure that the CRO is independent of the operations and has the appropriate profile within the company to implement an effective risk management process (IRM,2012). For example, a CRO was appointed in the Lehman Brothers case, although he was not included in several crucial decisions, like the fatal investment in Archstone (Wiggins and Metrick, 2015).

Osman and Lew (2021) found that to manage risk, leaders must make decisions promptly and efficiently. Their findings underscore the importance of risk culture in reducing risks and establishing a shared set of values among stakeholders and serving as a stimulus for ethical behaviour and strategic decision-making.

Accountability goes with powers vested in a person. This is discussed in the next section.

2.9.6 Accountability

Management at an operational and tactical level should be assigned risk responsibility (Althonayah et al., 2012). Mcging and Brown (2014) recommend that their KPI/KRIs relating to the level of risk culture should be incorporated in individuals' and team performance contracts or balanced scorecards. Regardless of the top-bottom or bottom-up approach, everyone in the organisation is responsible for managing risks under the spheres of their control (Mcging & Brown, 2014). IRM (2012) proposes the following adverse outcomes for accountability:

- Individual accountability objectives are unclear.
- Lack of policy understanding.
- Not paying attention to long-term goals.

- Inconsistent disciplinary actions.

The communication of risk information will be detailed and discussed in the next section.

2.9.7 Communication

Communication and sharing of risk information with openness and honesty to all stakeholders are necessary (ISO 31000, 2009). Mikes and Kaplan (2014) found that employees are more likely to speak out and share risk issues if senior management supports them in fostering a no-blame culture. It is further stated that employees can talk to their immediate supervisor about the present and emerging risks that are important to the company.

Building a risk culture can be supplemented with additional social and opinion-sharing meetings to enhance employee commitment through involvement (Dafikpaku & Eng, 2011). ISO 31000 (2009) found that risk information provided to all risk owners enables them to make an informed decisions. During meetings, seminars, and workshops, risk information is communicated using common risk language. A clear risk escalation procedure should be implemented (ISO31000, 2018). IRM (2012) points out that one of the most severe flaws in risk culture is a lack of risk awareness. “Poor communication is also said to include the following flaws” (Althonayah, Keith & Killackey, 2012, p.16):

- “A poor management attitude to receiving bad news”.
- “Insufficient risk management training and development”.
- “Inadequate risk resources and high employee turnover”.
- “Inconsistent enterprise-wide communication”.

“Effective risk management requires that employees at all levels understand the values of the institution’s risk culture, have the competence to perform their roles and be aware that they will be held accountable for their actions about the firm’s risk-taking behaviour” (Giles, 2015, p.105).

Finally, communication is not the only aspect that has an impact on risk culture; induction has a role as well.

2.9.8 Recruitment and Induction

IFC (2015) recommends that the recruitment process considers a potential board member or employee's risk management knowledge, current expertise and prior risk management experience. It is further stated that training pertaining to risk management culture should be included in the induction programmes for board members and employees to ensure that new employees and board members are fully informed about the organisation's risk management strategy.

Mcging and Brown (2014) suggest that the induction process ought to go beyond the recruitment process to ensure the KPIs for new staff and new staff are recruited to fit the desired culture. These activities will result in a favourable risk culture.

Performance management will be examined in the next section.

2.9.9 Performance Management

“Risk management is an integral part of management, embedded in the culture and practices, and tailored to the organisation’s business processes.” (ISO 31000, 2009; ISO 31000, 2018). King IV’s report highlights under Principle five (5) that risk management, business model, performance, sustainability, and strategy are inseparable (IoDSA, 2016). Abuzarqa (2019) concludes in his study that risk management influences risk culture, which reflects on strategy and performance as a combination of efficiency and effectiveness. The use of performance indicators and alignment of ERM with business planning is highly suggested (Althonayah et al., 2012). The organisation aligns its performance management systems towards prudent risk-taking by senior management and employees. The Key Risk indicators (KRIs) are identified for all critical risks and are used to monitor high-risk exposure (Hopkin, 2017; 2018). At the same time, performance management is an excellent instrument to assess the success of the risk culture and performance.

Ethical culture is another outcome of good corporate governance and is discussed further below.

2.9.10 Ethics and behaviour

The IoDSA (2016) code of good governance suggests that effective and ethical behaviour/culture is a fundamental corporate governance principle. This principle is

underpinned by integrity, competence, accountability and responsibility, fairness and transparency. Ethics define how the desired culture is maintained within an organisation. This refers to the ways of dealing with stakeholders, the clarity required to increase trust, and the method to which stakeholder management is responded. The Institute of Director South Africa Code of Good Governance suggests it is the responsibility of directors to act in good faith, in the best interests of the organisation and without any conflict of interest (IoDSA, 2016).

2.10 ERM CULTURE ALIGNMENT MODEL

According to Althonayah et al. (2012), the ERM culture alignment approach plays an integral part in ensuring consistency and value addition to the organisation. This model/alignment comprises four core elements: (1) ERM culture inputs, (2) ERM culture, (3) ERM culture outputs, and (4) cultural foundation. Figure 2.76 demonstrates the interaction of ERM elements.

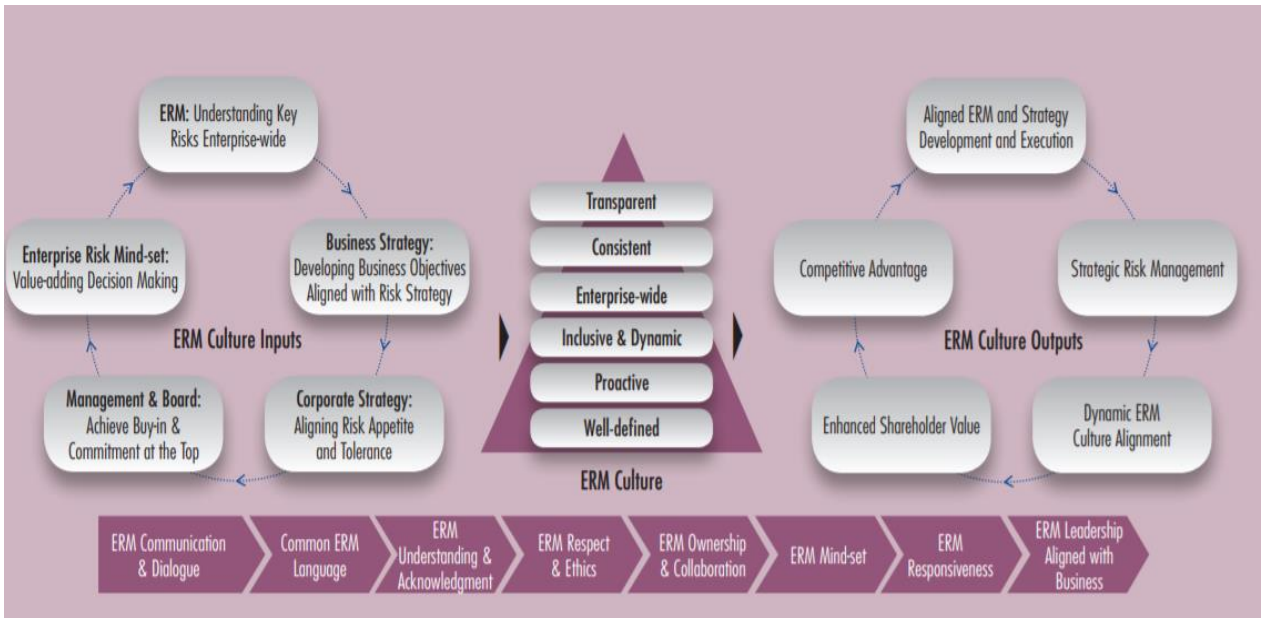

Figure 2.7: ERM culture alignment model
(Source: IFC,2015)

An ERM culture is at the heart of the risk management framework, as seen in the above model, which demonstrates that ERM culture inputs influence business results. Since ERM strategy must be aligned with company and business plans, enterprise risk culture awareness is essential (International Finance Corporation [IFC], 2015).

2.11 CULTURE CHANGE MODELS AND BEST PRACTICES

IFC (2015) proposes three stages for culture change: cultural awareness, cultural change, and cultural refinement. Figure 2.8 details factors of each area to produce the desired outcome.

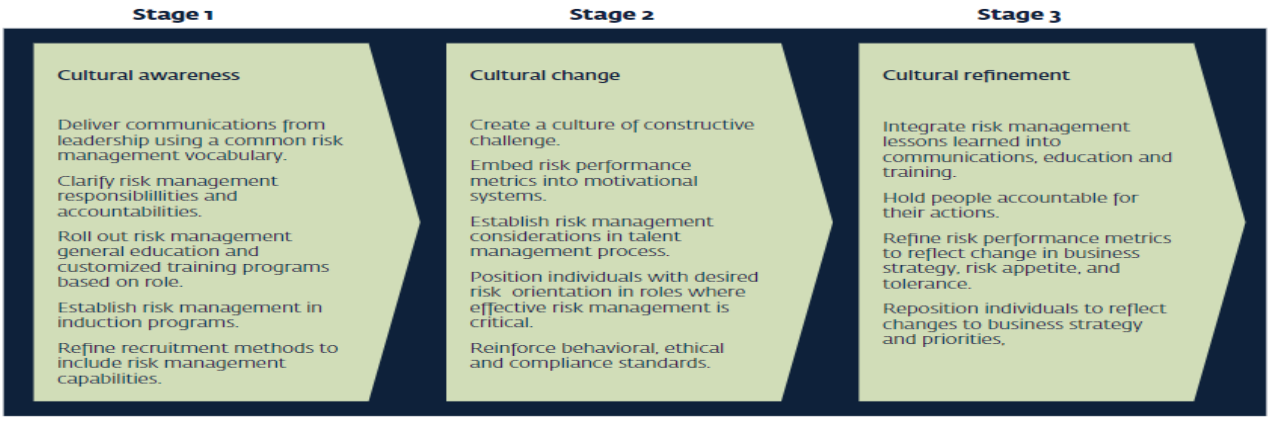

Figure 2.8: Achieving culture optimal risk

(Source: Adapted from Deloitte, Cultivating a risk intelligent culture, 2012)

As shown in the Figure 2.8, the three-cycle processes are to assess the existing condition of the organisation's risk culture, implement risk culture change to close the identified gaps and refine the culture through lessons learned and hold people accountable for their actions**.** The eight-step process model for leading change developed by John Kotter is designed to help leaders foster continuous improvement in their organisations and institutions (Kotter, 1995)**.**

2.12 RECOMMENDED BEST PRACTICES IN RISK CULTURE

The following are recommended best practices that have been confirmed to provide an effective risk culture (IFC, 2015):

- A shared vision, values, and ethics.
- The right tone at the top.
- Terms for risk management that everyone understands.
- Risk management principles should be used universally.
- Risk communications that are timely, transparent, and honest.
- Risk management accountability.

- Expectations for difficult risk management discussions.
- Risk reporting and whistle-blowing mechanism.

Hopkin (2018) implies that the organisation's risk culture reflects the quality of risk management operations and their integration within the organisation. The risk governance will be covered below.

2.13 RECOMMENDED BEST PRACTICES FOR RISK GOVERNANCE

Risk governance applies good governance principles to the identification, management and communication of risk (IFC, 2015). Creating risk policies and processes to make and implement risk-related decisions, it integrates the values of responsibility, participation, and transparency. Table 2.4 represents recommended six (6) best practices of risk governance (IoDSA, 2009).

Table2.4: Risk governance principles and recommended practices

	Governance Principles	**Recommended Practices**
1	Board is responsible for risk governance	"The board should disclose how it has satisfied itself with the risk management process".
		"The board should ensure the establishment and approval of risk management policy and plan".
		"The board should ensure the implementation of the risk management plan is regularly monitored".
2	The Board sets risk appetite and tolerance	"The board should set the risk tolerance limits annually".
		"Management should implement tolerance level'.
		"The board should monitor risks taken by management against the set limits".
3	The risk committee assists the board	"The board should appoint a Board risk committee".
		"The risk committee should be responsible in express its roles and authority in its terms of reference".

	Governance Principles	Recommended Practices
		"Members should have adequate risk management skills and experience to perform their function".
		"The board should evaluate its risk performance annually".
4	The Board ensures continual risk monitoring by management	"The board regularly measures risk progress reports against the risk management plan".
		"The board monitors changes in the external and internal environment".
		"The Board assesses the impacts of changes on the strategic risk register".
		"The Board ensures effective risk responses and processes".
		"The board analyse and learn lessons from changes and identify emerging risks".
5	An assurance on the effectiveness of risk management processes	"Board ensures implementation and monitoring of risk management plan".
		"Ensures risk management is an integral day-to-day activity in the organisation".
		"Board discloses the process in place to improve risk management maturity".
		"Internal Audit provides independent assurance on integrity risk management process".
6	Risk Disclosure	"Board discloses material losses and their impact on the strategic objectives".
		"Board reveals any present, imminent, or anticipated risk to the company's sustainability".
		"The board should also express the effectiveness of the company's risk management processes in the annual report."

(Source adapted from IoDSA, 2009, pp. 73-78)

Table 2.4 shows that the board of directors and top management must demonstrate dedication to their risk governance obligations, which impacts the organisation's risk culture. Effective risk governance is critical to developing the correct risk culture of the organisation (IFC, 2015). The theory of planned behaviour will be covered below.

2.14 THEORY OF PLANNED BEHAVIOUR

According to Wang et al. (2020), the Theoretical Model of Planned Behaviour is employed to analyse the factors that influence doctors' morale. This behavioural model has five features. A personal attitude is determined by whether one believes in the outcome or not. Secondly, subjective norms are the societal or subjective norms that an individual is subjected to when deciding on a given behaviour. Third, perceived behaviour control refers to interference based on an individual's expectations and past experiences. A person's willingness to engage in certain behaviours is also known as their desire to act.

Finally, behaviour is the final action taken by an individual. Behavioural intentions directly impact people's decisions to engage in various behaviours. The model is shown in Figure 2.9.

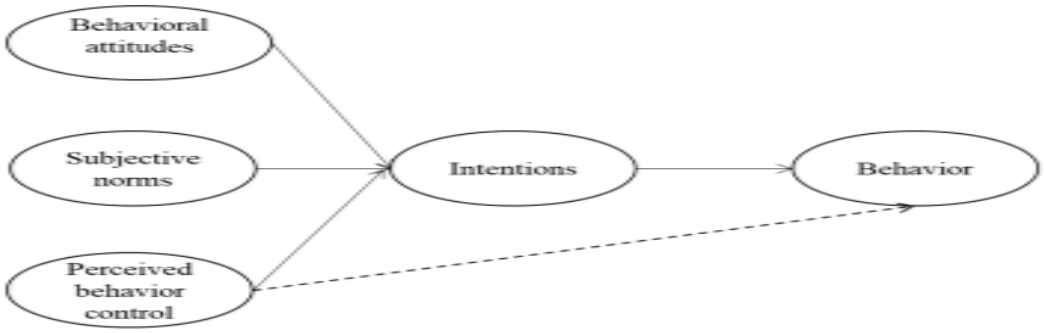

Figure 2.9: The Theory of Planned Behaviour
(Source: Wang et al., 2020, p. 249)

This theory shows that when one implements risk culture, attitudes and behaviour should be assessed as they both contribute to strong or weak risk culture.

The model of risk culture transformation will be discussed below.

2.15 MODEL FOR ERM CULTURE TRANSFORMATION

When it comes to a culture of risk management in an organisation, the mindsets and actions of the people that make up the organisation are the most important factors (Levy et al., 2015). Figure 2.10 shows a framework of risk culture, which has been proven to play an important role in improving risk culture. This framework is underpinned by mainly four dimensions, namely responsiveness, respect, transparency, and acknowledgement.

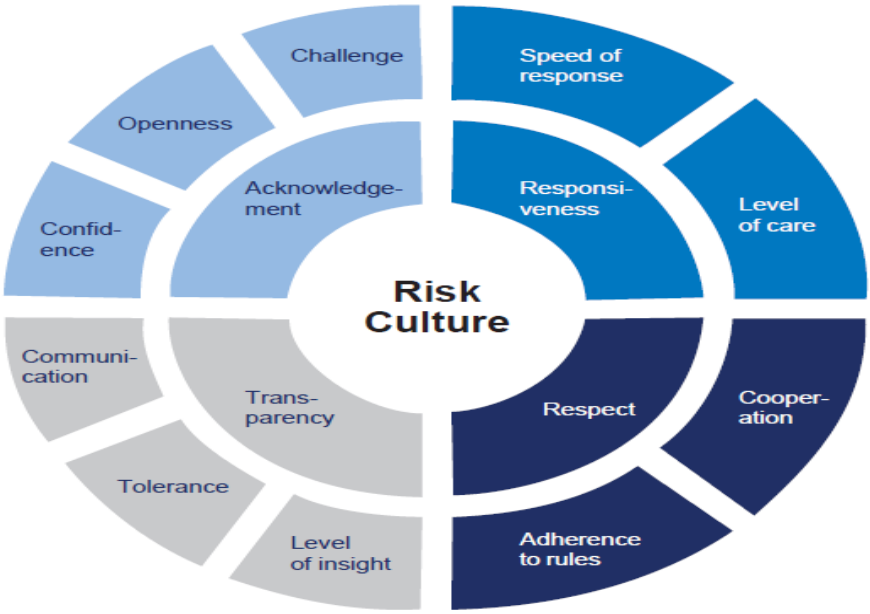

Figure 2.10: Risk culture framework focusing on the people side
(Source: McKinsey, 2015)

2.16 CHAPTER TWO SUMMARY

This chapter dealt with the definitions of ERM, organisational and risk culture, and related concepts, as well as risk culture theories and dimensions. Leadership, learning, communication, performance management, induction, ethics, and strategy were all examined in detail in this chapter. Moreover, the proven recommended risk culture practices were highlighted. Models of cultural change and planned behaviour were also exhibited. Finally, the model for ERM culture transformation was depicted, with a primary focus on people risk, and it covered the four main dimensions of respect, acknowledgement, responsiveness, and transparency.

The next chapter presents the research methodology.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The objective of this research was to evaluate ERM culture at LHDA. This chapter explains how the research methods/options were used to adequately achieve the research objectives and answer the research questions.

The research technique employed in this project is discussed in this chapter. It includes the research design, sampling strategy, data collection method, and data analysis. Finally, the chapter discusses ethical considerations in business research, which is a crucial field component.

3.2 RESEARCH DESIGN

Mackenzie and Knipe (2006) highlight positivism, interpretivism or anti-positivism, and pragmatism as the three research theoretical frameworks. The appraisal of each theory informs the theory selection process. Interpretivism is concerned with value-based social activity, while pragmatism is concerned with diverse realities. The positivist hypothesis is appropriate for this study since it assumes that the world is objective and that observers are independent; that they have shared aims based on facts rather than values; and that scientific investigation is involved (Saunders et al., 2007).

The research design is coordinated by data gathering, performing statistical analysis, and interpreting results (Knight, 2010). The research design is the strategy for answering the research questions. Bryman and Bell (2014) claim that a research design provides a framework for data gathering and analysis. The research design reflects choices made about various aspects of the research process (Bryman & Bell, 2014; Blumberg, Cooper & Schindler, 2005). This includes:

- How to express causal relationships among variables
- How to comprehend and explain behaviour in its specific social context
- Whether and how the results may be generalised to a wide group of individuals or organisations other than those directly involved in the inquiry

- What are the best ways to understand social phenomena, their linkages, and how they evolve?

The research design ensures that the acquired evidence clarifies the initial questions. Therefore, it is essential to describe the evidence type needed to address the research question. In addition, researchers frequently do surveys before considering which data are required to answer the research inquiries. Thus, it is critical to address study design issues early on, as failing to do this may lead to inconsistent decisions (Knight, 2010).

There are two types of research designs: qualitative and quantitative. Although both qualitative and quantitative designs can employ inductive and deductive research procedures, qualitative design tends to use inductive processes more frequently, whilst quantitative design tends to use deductive processes (Sekaran & Bougie, 2014).

The ERM culture at LHDA was evaluated using a quantitative research approach. First, the quantitative study looks at the description analysis. Cohen, Manion and Morison (2005) define quantitative research studies as phenomena utilising numerical data and statistical analysis. Quantitative research collects mathematical data to understand a phenomenon. Quantitative research is defined as realistic, revealing the current reality (Sekaran & Bougie, 2013). The researcher's job is to use research methodologies to find the phenomenon's truth. This suggests that the researcher will not be detached from the study. The procedures will increase impartiality and minimize researcher engagement.

Due to the following benefits, quantitative research was used in this study, as revealed by (Matveen, 2002):

- It provides a clear definition of the research problem.
- It stays true to the study's original goals, tests hypotheses, and establishes a causal link. Both the independent and dependent variables are specified in this variable specification.
- It obtains data with reliability through controlled observations, laboratory investigations, large-scale surveys, and other research manipulations, among other methods.
- It lowers or eliminates the need for subjective judgement.

- It enables researchers to keep track of the progress of their research subjects throughout time.
- It is also advantageous in large-scale research investigations.
- Statistical software helps you save time when you are examining data.

Quantitative research is well suited for our subject, although it has significant drawbacks:

- It fails to provide the researcher with context.
- The indirect application of knowledge may be problematic.

However, the highlighted benefits of quantitative research outweigh the drawbacks or risks.

The research design details different dimensions of the research design process. Quantitative research enables respondents to answer research questions and objectives easily and will cover a big population. The following section will discuss the sampling strategy.

3.3 SAMPLING STRATEGY

The sampling strategy describes selecting individuals, objects, or events to represent the total population (Sekaran & Bougie, 2016). This section defines the population, sample frame, sampling design, and sample size for this research (Sekaran & Bougie, 2016).

The sampling procedure starts with defining the population. A population is a set of units (Bryman & Bell, 2014). Sampling types can be probabilistic and non-probabilistic (Bryman & Bell, 2014; Sekaran & Bougie, 2016). Probabilistic sampling types refer to elements of the population that have the same probability as the selected subject. Non-probabilistic selection refers to the fact that members of a population do not have a pre-set chance of being chosen as a subject. In this study, a probability sampling design was used. A probability sampling design is utilised when the elements in the population have a non-zero and known probability of being subjects (Sekaran & Bougie, 2016). Sekaran and Bougie further suggest that there are two types of probability sampling designs: restricted and unrestricted sampling. Greener (2008) claims that probability samples are less prone to sampling errors and are more likely

to be considered representative. The size of the sample in probability sampling is determined by the variation in the population parameters under study and the estimating precision requirements (Cooper & Schindler, 2014).

Risk culture is complex and dynamic, and few people understand it (Gorzen-Mitka, 2018). As a result of their limited knowledge of risk management and involvement, office assistants, labours, drivers, and secretaries are excluded from the study. In contrast, officers, senior officers, managers, executive management, and board members (Audit and Risk board subcommittee [ARC]) understand ERM risk principles and participate in the risk management process. Hence, their perception, attitude, and behaviour produce a risk culture vital for ERM implementation.

Simple random sampling was used in this study because everyone has the chance to be selected as part of the sample size. The study included 180 employees (104 officers, 55 senior officers, 15 management and 6 executives) and 10 ARC and board members as the population. The data were gathered from Maseru, Katse, Mohale, Muela, and Polihali. Therefore, the same population was used to build the researcher's sample; hence the population size is 180 employees and 10 board directors.

The structure of data collection is presented in the next section.

3.4 DATA GATHERING

The data gathering procedure requires criticized knowledge of the population from which a sample is drawn (Morse, 1991).

3.4.1 Questionnaire

3.4.1.1 Open and closed questions

There are two types of research questions, namely open-ended and closed-ended questions. Open-ended questions allow respondents to respond in any way they like. Closed-ended questions provide respondents with a set of fixed options from which to choose. Closed-ended questions have the advantage of being pre-coded, making data processing for computer analysis much easier (Bryman & Bell, 2014; Skjott Linneberg et al., 2019). Closed-ended questions are forms of Likert scales that are frequently used to address closed questions.

3.4.1.2 Closed-ended questionnaires – Advantages

The following are some of the advantages of closed-ended e-mail questionnaires (Sekaran & Bougie, 2013):

- Access to broad geographic areas at a low cost.
- Incorporate tiny tokens of appreciation to encourage teamwork.
- Respondents have the freedom to react at their leisure, providing thoughtful responses.
- A high level of confidentiality is required.
- Because answers have a value, closed-ended questions are simple to evaluate statistically.
- Because closed-ended surveys need less time to complete and assess, they are a less expensive survey instrument.
- It is possible to contact difficult-to-reach respondents.
- The researcher is not biased, because the responses are in the respondents' own words.
- The results are more reliable because this method uses large samples.

3.4.1.3 Closed-ended questionnaires – Disadvantages

The disadvantages of closed-ended questionnaires include the following (Sekaran & Bougie, 2013):

- Response rates are often low, though 30% is acceptable.
- The researcher is not permitted to make inquiries.
- It is difficult for researchers to follow up on non-responses.
- Closed-ended questions may not reflect respondents' genuine feelings, since the possibilities are limited.
- Respondents cannot explain that they do not understand the question or do not answer.

3.4.2 Likert scale

Questions use statements, and answers agree or disagree to varying degrees. Likert scales typically have 0–10 rating options. However, smaller scales are possible (Bryman & Bell, 2014). A Likert scale is a psychometric scale with numerous

categories from which respondents can pick to express their views (Nemoto & Beglar, 2014). Likert-scale questionnaires have the following advantages: they can quickly gather data from large numbers of people; provide highly reliable person ability estimates; validate the interpretations made from the data; and can be combined with qualitative data-gathering techniques like open-ended questions (Nemoto & Beglar, 2014).

A five-point Likert scale was used so that it would be easy to investigate respondents' differences like motivation, anxiety, and self-confidence (Nemoto & Beglar, 2014). The researcher asked respondents to rate each statement on a five-point Likert scale: *strongly disagree* (e), *disagree* (d), *neither agree, nor disagree* (c), *agree* (b), or *strongly agree* (a).

3.4.3 Data distribution

Questionnaires were utilised for self-administered surveys as well as mail distribution. The study used two questionnaires. Questionnaire 1 included governance-related statements that were distributed to executive management, members of the board, and members of the Audit and Risk committee. The governance-related statements were omitted from Questionnaire 2, which was distributed to middle management, senior officers and officers. These questionnaires included three sections. The demographic information from the respondents was found in Section A. The questions in Section B assess the factors that contribute to LHDA's risk culture, while Section C represents an open invitation to respondents to advise the organisation on how to improve its risk culture.

The questionnaires were distributed via e-mail by the human resource officer to all respondents. Google Form was the online survey tool used for the collection and analysis of data (Cooper & Schindler, 2006). The survey link included informed consent information and participants were informed of their right to opt out of the study. The survey was administered on the internet and the completion of the survey was used as confirmation of participant consent. In addition, the questionnaire included a cover page outlining the purpose of the study and its importance to respondents. The questionnaire was also completed online. This mitigated the risk of COVID-19 and the risk of direct feedback from the respondents; thus, protecting the privacy of individual participants.

3.4.4 Reliability and validity

Reliability and validity are essential to ensure a successful research study (Campana, 2010). The degree to which measurements are repeated is referred to as reliability, which is sometimes also referred to as a measurement of consistency (Sekaran & Bougie, 2013; Drost, 2011.). As a result, by developing consistent questions in terms of form and asking the same questions repeatedly, the temporary stability test from one measurement session to the next is used to determine stability.

Validity is defined as the meaningfulness of the research factors. The term ‘validity’ relates to whether the findings are genuinely about what they claim to be about (Saunders, Philip & Thornhill, 2007).

Response rates, validity, and reliability can all be improved by doing the following:

- Create unique questions with care.
- Lay out the questionnaire form.
- Clearly explain the questionnaire's purpose.
- Conduct pilot testing.
- It is easy for planning and administration.

Validity is attained through two approaches, namely content and construct analysis (Drost, 2011) Content validity was tested or piloted through the head of Risk Management to confirm the details of all questions asked and their relevance within LHDA. Construct validity was tested using statistical procedures – results from presentation, discussing, and interpreting the scores aligned to questions. The ethical considerations will be discussed in the next section.

3.4.5 Statistical analysis

The research provided data by assigning a number to each respondent's response, allowing for easy database capture. Greener (2008) defines coding as a method of utilizing computer analysis tools such as Microsoft Excel. Data in a Microsoft (MS) Excel format were downloaded from Google Forms and the data were transposed to the Social Science Statistical Package (SPSS) that was used for data analysis. SPSS is a data management and analysis application designed to conduct statistical data analysis on various data sets (Sekaran & Bougie, 2013). The statistician expert used

Social Science Statistical Package (SPSS) and Excel to analyse the variables in this study.

The results of this study were presented as descriptive analysis in the form of tables, bar graphs, and pie charts, among other formats. The categories and number of people who responded to each type were shown in the tables. In addition, the nominal and ordinal variables were plotted using bar and pie graphs (Greener, 2008).

3.5 ETHICAL CONSIDERATIONS

Growther and Lancaster (2009) state that ethical issues in research include values for conducting research that must not be violated. Thus, the researcher must follow a set of ethical guidelines. They also suggest including ethical issues in the research plan, because they affect key aspects like data collection, data recording, analysis, and research findings. Research ethics aim to ensure that no-one is harmed or affected negatively by the research and that there is no infringement of privacy where there is a lack of informed concern (Cooper & Schindler, 2014). In addition, objectivity, confidentiality, and anonymity are ethical issues (Bryman & Bell, 2014).

The following ethical principles will apply to this study.

3.5.1 Obtain permission

Permission from an organisation to perform a research project is a component of appreciation in ethics (Rothstein et al. 2020). The researcher requested permission from the Human Resource Office. The letter requesting permission was written to the human resources manager, who informed the chief executive before authorising the study. The human resources manager authorized the research project with a written response. The relevant leadership approves any research. The relevant leadership approves any research before its commencement (Sekaran & Bougie, 2014). After receiving an official letter approving ethical clearance, the researcher distributed the survey questions for data collection. Crowther and Lancaster (2009) believe that the researcher and the participating organisation must agree on access to people and information.

Another ethical concern is informed consent.

3.5.2 Informed consent

According to Bryman and Bell (2014), the respondents must be fully informed about the research procedure. Rothstein et al. (2020) cite that respect for participants requires informed consent. Respondents were provided with all the necessary information regarding their involvement in the research study. The information provided the importance, purpose, and benefits thereof. Greener (2008) suggests that informed consent is necessary for participants to understand their role.

Voluntary participation will be discussed in the next section.

3.5.3 Voluntary participation

The respondents were engaged voluntarily; this enhanced their freedom when providing feedback on the questions asked. Any participant should be protected emotionally or physically from harm (Sekaran & Bougie, 2014). This implies that the researcher should be neutral and independent to avoid any stumbling blocks to the study's success. To avoid harm, discomfort, pain, shame, or loss of privacy, Cooper and Schindler (2014) recommend that any study be structured. The researcher did not use any fraudulent tactics to gather information. Participants were granted ample time and space to complete the questionnaires.

Confidentiality and anonymity are also required during the research**.**

3.5.4 Confidentiality and anonymity

Employees have a right to privacy and should be able to respond anonymously (Sekaran & Bougie, 2014). All the respondents were treated professionally, with respect, and with fairness. The data collected from the respondents were kept confidential to ensure the integrity and privacy of the collected information. Anonymity was also observed to ensure that the respondents did not indicate their names in their responses. Greener (2008) indicates that anonymity is a vital requirement for any research study. The information collected was kept safe to avoid any leakage with LHDA employees.

Finally, the researcher did not influence respondents' decisions during the data collection process.

Plagiarism will be discussed in the next section.

3.5.5 Plagiarism

Greener (2008) suggests reading and using peer-reviewed academic journal articles to improve precisely academic referencing. Greener (2008) defines plagiarism as the dishonest use of another person's original work as one's own. The researcher chose reputable sources and referenced them correctly. Turnitin software was used to show no plagiarism in the report.

3.5.6 Relationships and conflict of interest

Bryman and Bell (2014, p. 130) define "conflict of interest" as "a professional judgment of the other party regarding an interest is influenced by the other party". The researcher did not benefit from the study or its findings. By choosing participants outside of the researcher's department, and the fact that the employer did not fund the research, the researcher avoided a conflict of interest. It is also important to note that the researcher's relationship with the respondents is employee-employee. There are no subordinate research supervisors within the sample; thus, there was no conflict of interest.

The LHDA board's risk governance responsibility to design, implement and monitor risk management activities is delegated to Chief Executive (CE), who is assisted by the Corporate Planning Risk Management Branch Manager (CPRMBM), who acts as a risk manager/CRO. The CPRMBM reports to the Divisional Manager Corporate Services (DM:CS). SORM coordinates risk management activities/processes across LHDA business, and this function is separate from LHDA operations to maintain objectivity and independence. There are no subordinates whom SORM supervises. Finally, SORM facilitates risk management processes while risk owners identify and manage their respective risks (LHDA ERM Policy & Framework, 2020).

3.6 CHAPTER THREE SUMMARY

This chapter provided a detailed description of the research methodology. The research design, sampling techniques, data collection, data analysis, and ethical considerations were covered in this chapter. The research design was quantitative, and the sampling strategy used was simple random. The questionnaires were administered via e-mail by through human resource officer to all respondents. Google

Form tool was used for collection and the PSS program was used for data analysis. The relevant ethical values of research were observed.

The next chapter presents the data analysis and interpretation of findings.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

The main goal of this chapter was to put the research methodology outlined in Chapter 3 into practice. It served as the plan to achieve the research objectives and the hypothesis of the study. The survey questionnaires were distributed to Lesotho Highlands Development Authority's employees via email. The questions covered the objectives, which were to evaluate the ERM culture at LHDA, to identify the dimensions of ERM culture and to determine the current status of the ERM at LHDA and recommend remedial actions. The analysis and discussions evaluate major factors affecting the Risk culture within LHDA.

4.2 RESPONSE RATE

The information collected from the survey of Lesotho Highlands Development Authority's employees, included details of their credentials. One hundred and twenty-seven (127) employees (eight (8) Board and Executive Members and one hundred and nineteen (119) Branch Managers, Senior Officer and Officers) of the targeted 190 responded to the questionnaire, resulting in a response rate of 67%. Descriptive and inferential statistics were computed from the data collected and analysed in order to derive a meaningful conclusion.

4.3 ANALYSIS OF BIOGRAPHICAL INFORMATION

The biographical information of respondents is provided in this section, namely gender, race, position, area, age, experience, qualification and will be presented and analysed graphically.

4.3.1 Gender of respondents

Figure 4.1 provides a response rate per gender.

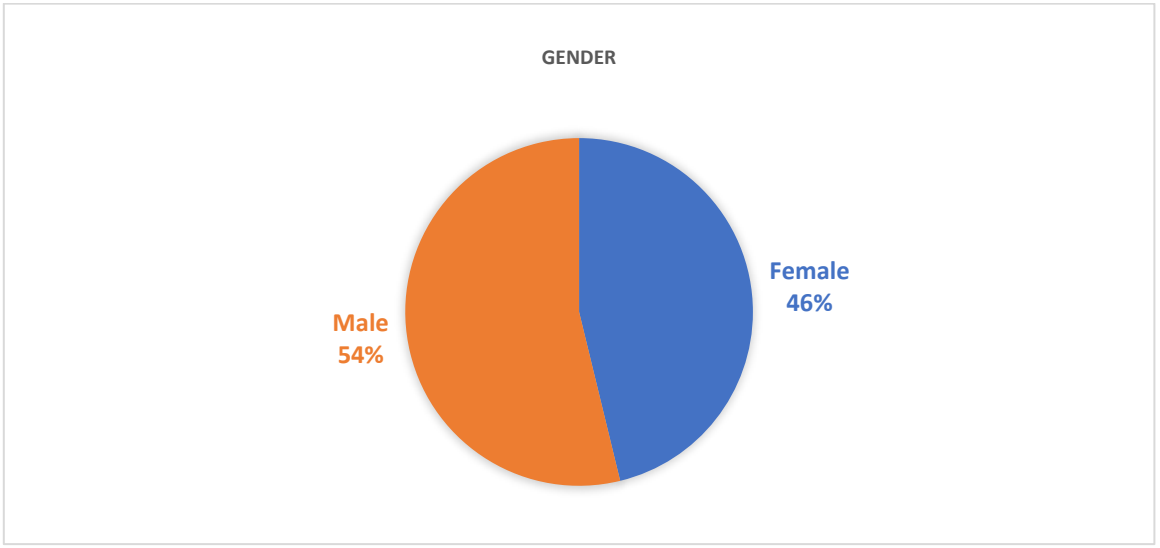

Figure 4.1: Sample of gender (Source: Researcher's own construction)

From Figure 4.1 it can be concluded that 54% of the sample consisted of males and 46% of females**.**

4.3.2 Age of respondents in the organisation

Figure 4.2 provides a response rate by tenure.

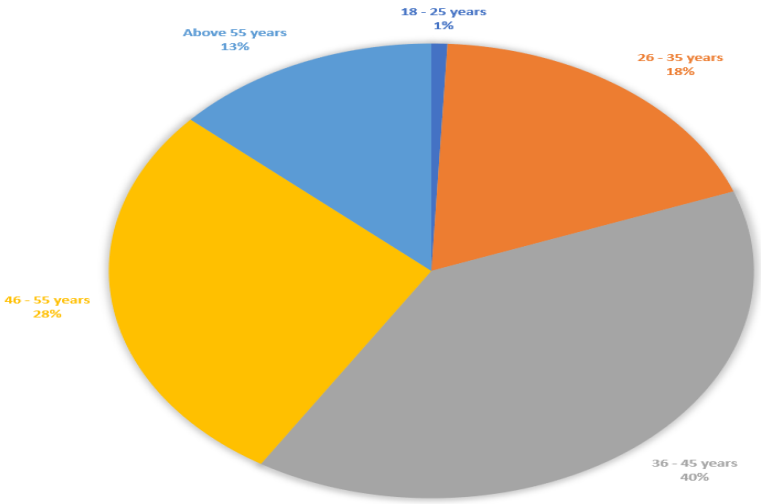

Figure 4.2: Sample by age (source: Researcher's own construction)

Figure 4.2 indicates that the majority of the respondents (40%) are between 36 and 45 years of age, while 28% of the respondents are aged between 46 and 55. Those above 55 years are 13%, while those younger than 35 years are 19%.

4.3.3 Analysis of operational sites

Figure 4.3 provides a response rate per site.

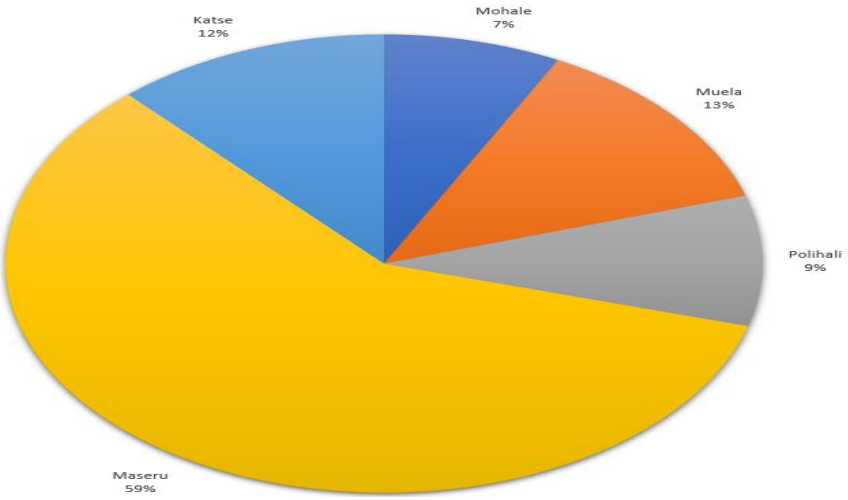

Figure 4.3: Response rate per site (Source: researcher's own construction)

The Maseru site produced the highest response rate at 59%, which could be attributed to the fact that Maseru site is the headquarters of LHDA and hosts a larger contingent of personnel, followed by Muela at 13% and Katse at 12%, while Polihali and Mohale produced the lowest response rate at 9% and 7% respectively. It implies that employees working at Maseru dominate the research population.

4.3.4 Experience of respondents

Figure 4.4 provides an analysis of tenure.

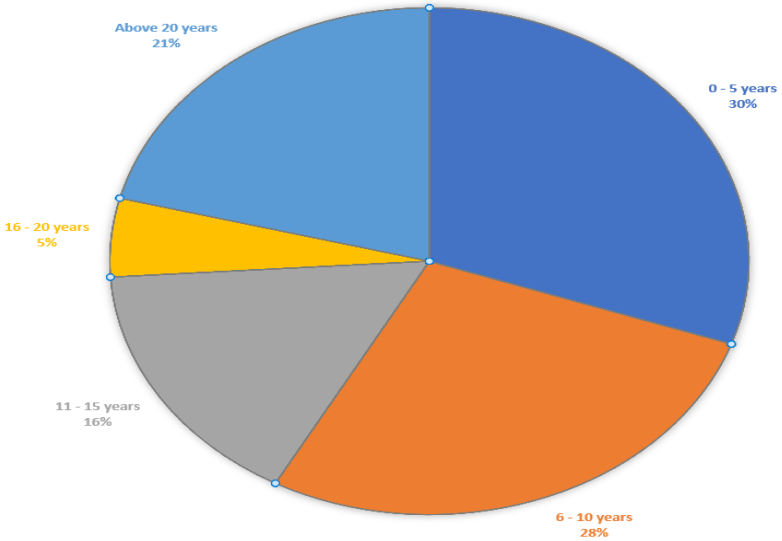

Figure 4.4: Analysis by tenure (Source: researcher's own construction)

Figure 4.4 indicates a greater number of respondents (30%) have worked for less than 5 years, 28% of the respondents have worked for LHDA between 6 and 10 years, and 21% have worked between 11 years and 20 years. It can be concluded that most people who worked at LHDA have below ten years of working experience.

4.3.5 Respondents by education

Figure 4.5 is a graphical representation of the sample of education.

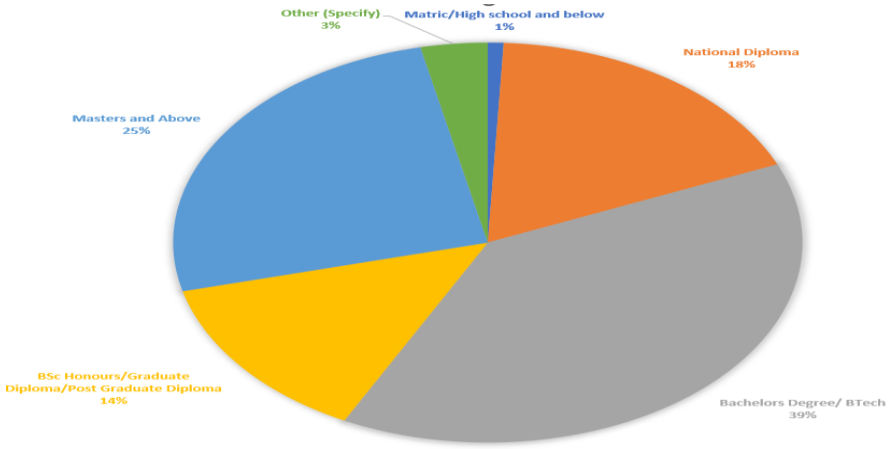

Figure 4.5: Sample of education (Source: researcher's own construction)

As depicted in Figure 4.5, the majority of employees (39%) have bachelor's degree qualifications, followed by master's degrees and above at 25% and diplomas at 18%. The lowest group at 14% holds a postgraduate diploma or honours degree.

4.3.6 Respondents by professional registration

Figure 4.6 presents respondents by professional registration.

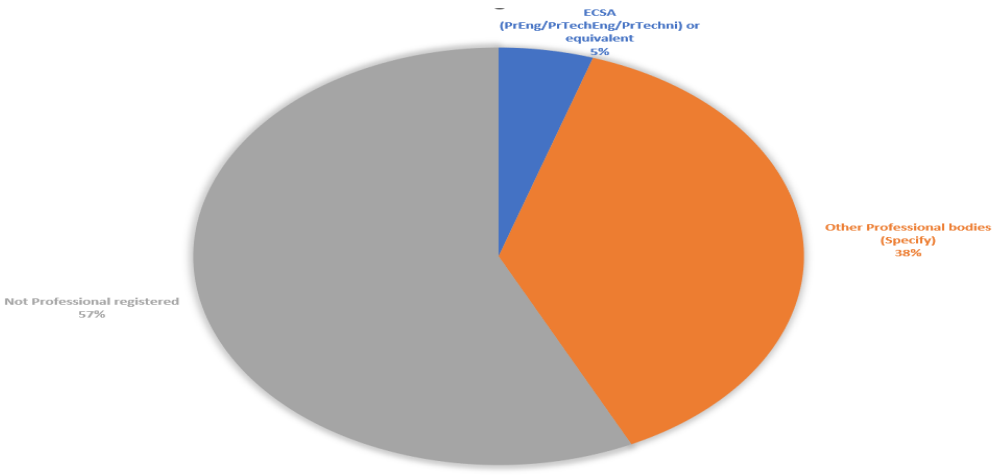

Figure 4.6: Sample professional registered (Source: researcher's own construction)

As depicted in Figure 4.6, it can be concluded that 57% of the respondents are not professionally registered, while 38% of respondents' professional bodies are not specified. The lowest professional registered (5%) are ECSA, PrEng or equivalent.

4.4 ANALYSIS OF DATA

4.4.1 Evaluation of ERM culture

The study focused on eight broad factors, namely Leadership and Strategy, People and Communication, Accountability and Employee Involvement, Performance Management, Risk Competence or Learning, Risk Management Processes and Decision Making, affecting ERM culture at LHDA. The information gathered under each broad factor was analysed using the SPSS software. Descriptive statistics were used to display the results.

4.4.1.1 Analysis of Risk culture based on governance (tone at the top)

The information based on governance factors was analysed.

Figure 4.7 represents the percentage distribution governance factors affecting ERM culture.

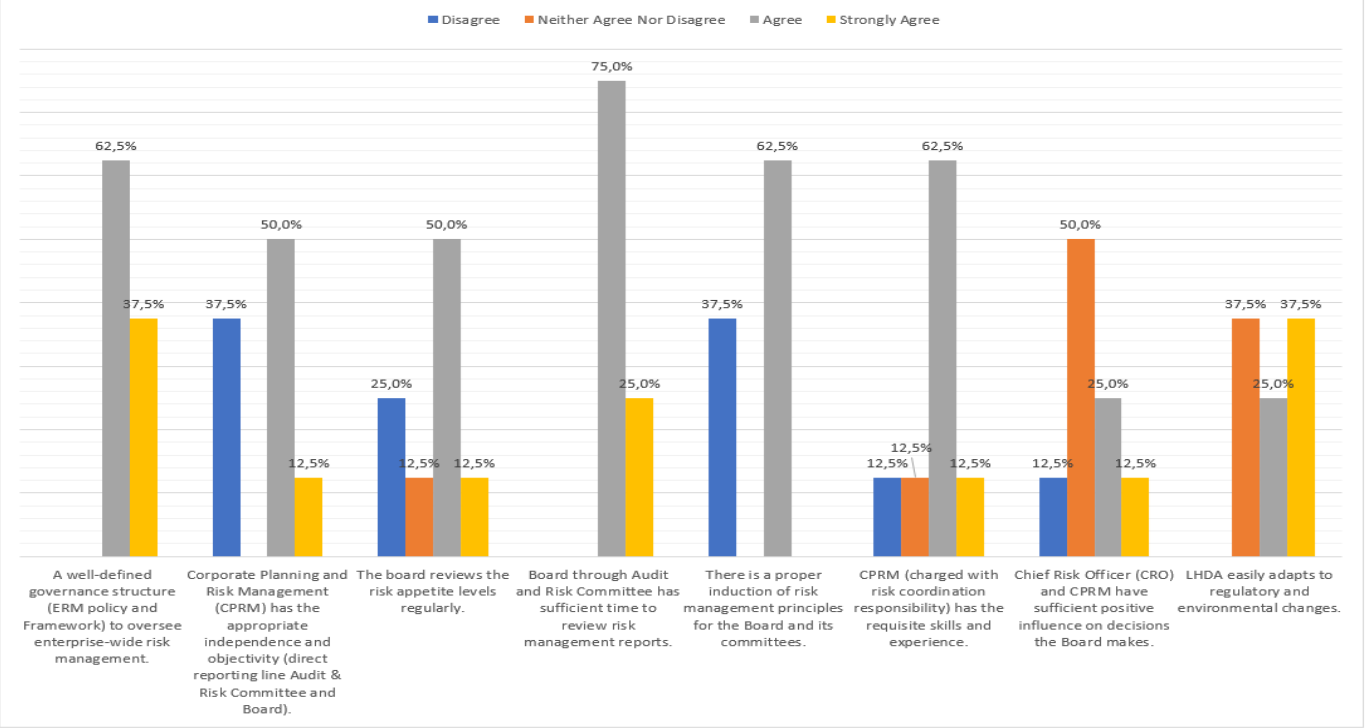

Figure 4.7: Governance factors affecting risk culture (Source: researcher's own construction)

Question 1.1: A well-defined governance structure (ERM policy and framework) to oversee enterprise-wide risk management

Regarding well-defined risk governance structure, figure 4.7 shows that 62.5% of the respondents agreed that there is a well-defined risk governance structure to oversee enterprise-wide risk management while 37.5% of the respondents strongly agreed.

Question 1.2: Corporate Planning and Risk Management (CPRM) has the appropriate independence and objectivity (direct reporting line Audit & Risk Committee and Board)

Evidence from Figure 4.7 shows that 50% of the respondents agreed that corporate planning and risk management has independence and objectivity, while 12.5% of the respondents strongly agreed. Again, 37.5.5% of the respondents disagreed regarding the objectivity and independence of CPRM.

Question 1.3: The board reviews the risk appetite levels regularly

Figure 4.7 indicates that 50% of the respondents agreed that the board reviews the risk appetite levels regularly, while 25% of the respondents disagreed with the statement. Moreover, about 12.5% of the respondents neither agreed nor disagree and strongly agreed with the statement.

Question 1.4: Board through Audit and Risk Committee has sufficient time to review risk management reports

Regarding the adequate time for the board to review risk reports, figure 4.7 shows that 75% of the respondents agreed that the board has sufficient time to review risk management reports, while 25% strongly agreed with the statement.

Question 1.5: There is a proper induction of risk management principles for the Board and its committees

Figure 4.7 shows that 62.5% of the respondents agreed that the proper induction of risk management principles for the board and its committees, while 37.5% of the respondents disagreed with the statement.

Question 1.6: CPRM (charged with risk coordination responsibility) has the requisite skills and experience

Pertaining to the requisite skills and experience of CPRM, figure 4.7 shows that 62.5% of the respondents agreed CPRM has the requisite skills and experience., while 12.5% strongly agreed, disagreed and neither agreed nor disagreed with the statement.

Question 1.7: Chief Risk Officer (CRO) / CPRM have a sufficient positive influence on decisions the Board makes

Evidence from figure 4.7 indicates that 50% of the respondents neither agreed nor disagreed that CPRM has a sufficiently positive influence on decisions the board makes, 25% of the respondents neither agreed nor disagreed with the statement, while 12.5% of the respondents strongly agreed and disagreed with the statement.

Question 1.8: LHDA easily adapts to regulatory and environmental changes

According to Figure 4.7, 37.3% of the respondents strongly agreed and neither agreed nor disagreed that LHDA easily adapts to regulatory and environmental changes, while 25% of the respondents agreed with the statement**.**

From the above analysis, a great number of respondents (Board and Executive Management) agree with most of the governance statements ranging from 1.1 to 1.5. In contrast, the board and management were neutral about the positive influence of CPRM / CRO on the decisions the board makes and unsure about how easy it was for LHDA to adapt to a changing environment.

4.4.1.2 Analysis of Risk culture based on Leadership and Strategy

The information based on leadership and strategy factors was analysed.

Figure 4.8 represents the percentage distribution leadership and strategy factors affecting Risk culture.

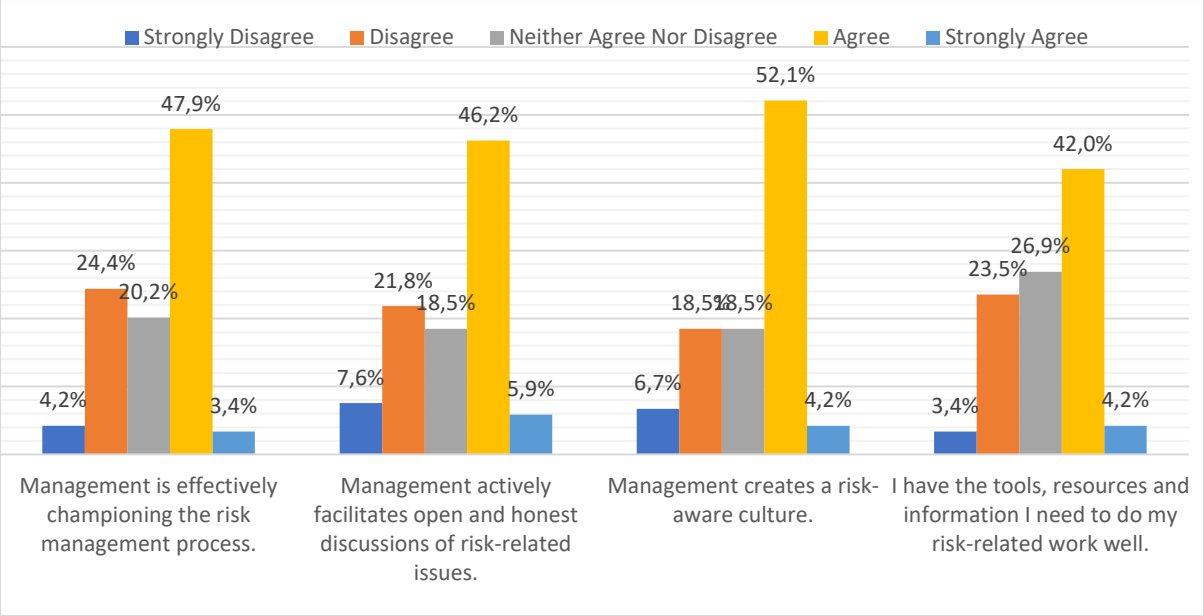

Figure 4.8: Leadership and strategic factors affecting Risk culture (Source: researcher's own construction)

Question 2.1: Management is effectively championing the risk management process

Figure 4.8 indicates that 4.2% of respondents strongly disagreed that management is effectively championing the risk management process, while 24.4% of the respondents disagreed with the statement, 47.9% of respondents agreed with the statement and 3.4% respondents strongly agree with the statement.

Question 2.2: Management actively facilitates open and honest discussions of risk-related issues

Regarding open and honest discussions figure 4.8 show 7.6% of respondents strongly disagree that management actively facilitates open and honest discussions of risk related issues, 21.8% of respondents disagreed with the statement, 46.2% with the statement and 5.9% of respondents strongly agree with the statement.

Question 2.3: Management creates a risk-aware culture

52.1% of respondents agreed that management creates a risk-aware culture, while 4.2% strongly agreed with the statement, and 6.7% strongly disagree with the statement that management creates a risk-aware culture.

Questions 2:4 I have the tools, resources, and information I need to do my risk-related work well

Lastly, 42% of the respondents agreed that resources are available to implement risk management, while 4.2 % of respondents strongly agreed that resources are available. On the other hand, 3.4% of the respondents strongly disagreed that they have the resources, tools and information to do risk-related work well and 23.5% of the respondents disagreed with the statement.

Finally, it is concluded that employees agree with the following factors: effective risk management process, open and honest communication, risk awareness culture and risk management resources allocation.

4.4.1.3 Analysis of risk culture based on communication and people

The information based on communication and people was analysed.

Figure 4.9 represents the percentage distribution of communication and people factors affecting Risk culture.

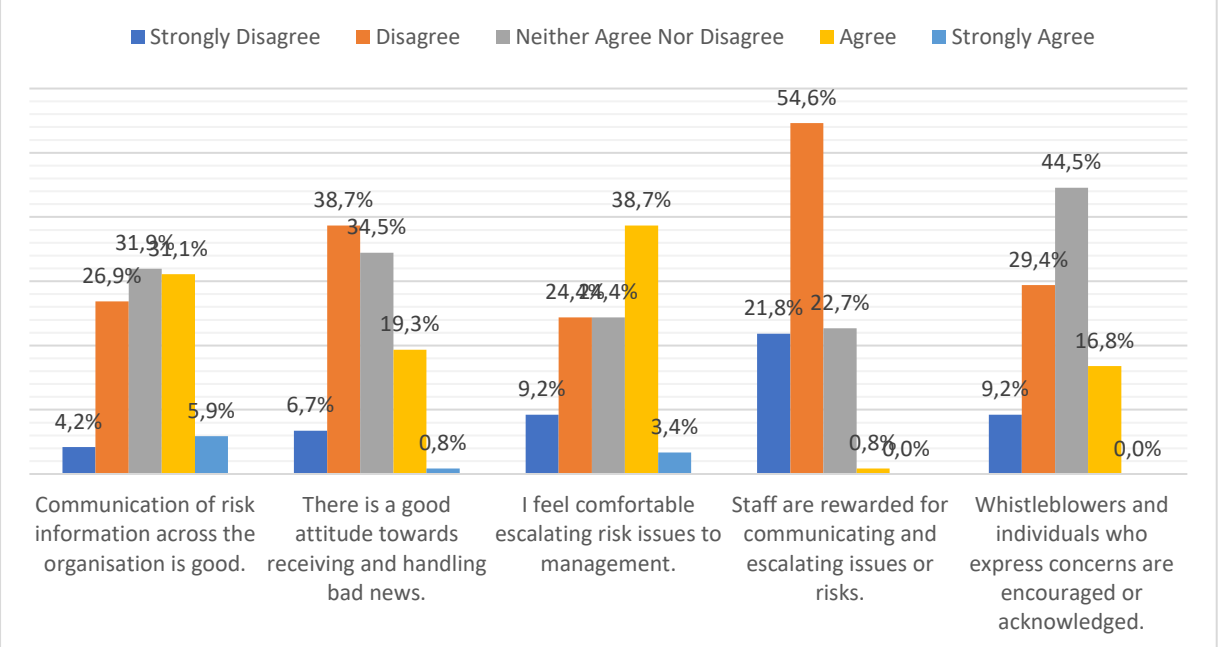

Figure 4.9: Communication and people factors affecting Risk culture (Source: researcher's own construction)

Question 3.1: Communication of risk information across the organisation is good

From Figure 4.9 it is evident that 31.1% of respondents neither agreed nor disagreed that there is the communication of risk information across the organisation is good while 26.9% of respondents disagreed with the statement

Question 3.2: There is a good attitude towards receiving and handling bad news

Figure 4.9 depicts that 38.7% of the respondents indicated that they disagreed that good attitude towards receiving and handling bad news, while 34.5% of respondents neither agreed nor disagreed with the statement.

Question 3.3: I feel comfortable escalating risk issues to management

It is further deduced that 38.7% of the respondents agreed that they feel comfortable escalating risk management information to management. In comparison, 34.4% of the respondents disagreed, and neither disagreed nor agreed with the statement.

Question 3.4: Staff are rewarded for communicating and escalating issues or risks

Furthermore, 54.6% disagreed that there is no reward for sharing risk management information, while 22.7% of the respondents neither agreed nor disagreed with the statement. 21.8% of respondents strongly disagreed with the statement.

Question 3.5: Whistle-blowers and individuals who express concerns are encouraged or acknowledged

Finally, 44.5% of the respondents neither agreed nor disagreed that issues of whistle-blowers are discussed and encouraged, while 29.4% of the respondents disagreed with the statement.

It can be deduced that most respondents are not rewarded for communicating and escalating risk issues and were dissatisfied with an attitude towards receiving and handling bad news. On the other hand, most respondents neither agreed nor

disagreed with whistle-blowers and individuals expressing concerns are encouraged and acknowledged.

4.4.1.4 Analysis of Accountability and Staff Involvement

The information based on accountability and Staff involvement factors was analysed.

Figure 4.10 represents the percentage distribution of accountability and staff involvement factors affecting Risk culture.

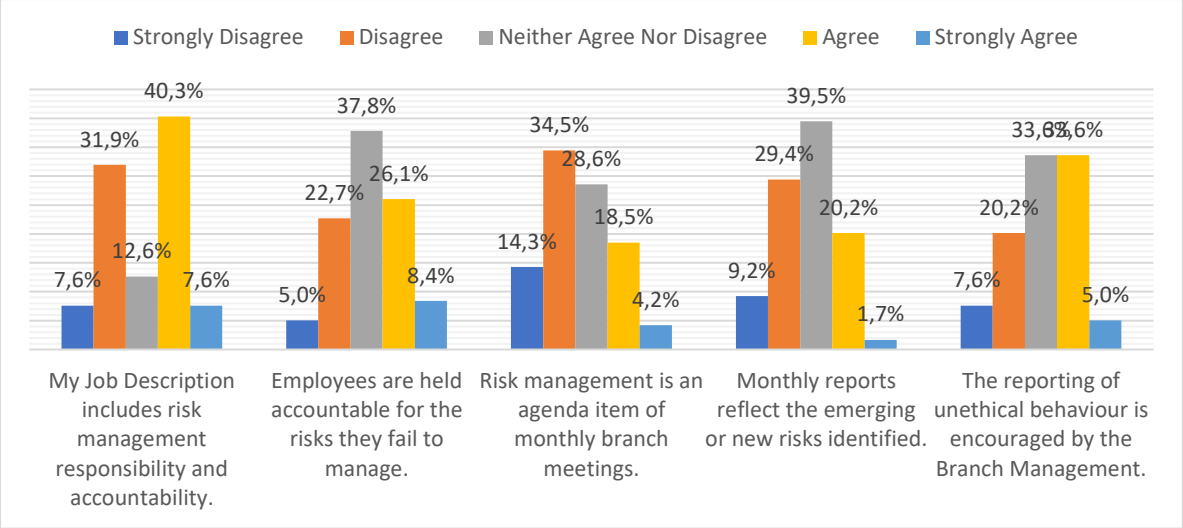

Figure 4.10:Accountability and staff involvement factors affecting Risk culture

Question 4.1: My job description includes risk management responsibility and accountability

According to Figure 4.10, 40.3% of the respondents agree that their job profile includes risk management. However, 31.9% of the respondents disagreed with the statement, while 7.6 % of the respondents both strongly agreed and disagreed with the statement.

Question 4.2: Employees are held accountable for the risks they fail to manage

According to Figure 4.10, 37.8% of the respondents neither agreed nor disagreed that employees are held accountable for risks they failed to manage, while 22.7% of the respondents disagreed with the statement. Again, 26.1% of the respondents agreed with the statement.

Question 4.3: Risk management is an agenda item of monthly branch meetings

Figure 4.10 shows that 34.5% of the respondents did not agree that risk management is an agenda item in branch management meetings, while 28.6% of the respondents neither agreed nor disagreed with the statement.

Question 4.4: Monthly reports reflect the emerging and new risks

Figure 4.10 indicates that 39.5% of the respondents neither agreed nor disagreed that monthly reports reflect emerging and new risks, while 29.4% of the respondents disagree.

Question 4:5: Reporting of unethical behaviour is encouraged by branch managers

Finally, 33.6% of the respondents agreed and neither agreed nor disagreed with the statement, while 20.2% of the respondents disagreed that reporting unethical behaviour is encouraged by the branch managers.

From the analysis, it is concluded that most of the respondents agreed that risk management activity is included in their job description, while the majority of respondents neither agreed nor disagreed that they are held accountable for their failure to manage risk, monthly reports reflecting emerging or new risks identified. However, the majority of respondents disagreed that risk management is on the agenda at their monthly meetings and on reporting unethical behaviour they neither agreed nor disagreed.

4.4.1.5 Analysis of Risk Performance Management

The information based on performance management factors was analysed.

Figure 4.11 presents the percentage distribution of performance management affecting Risk culture.

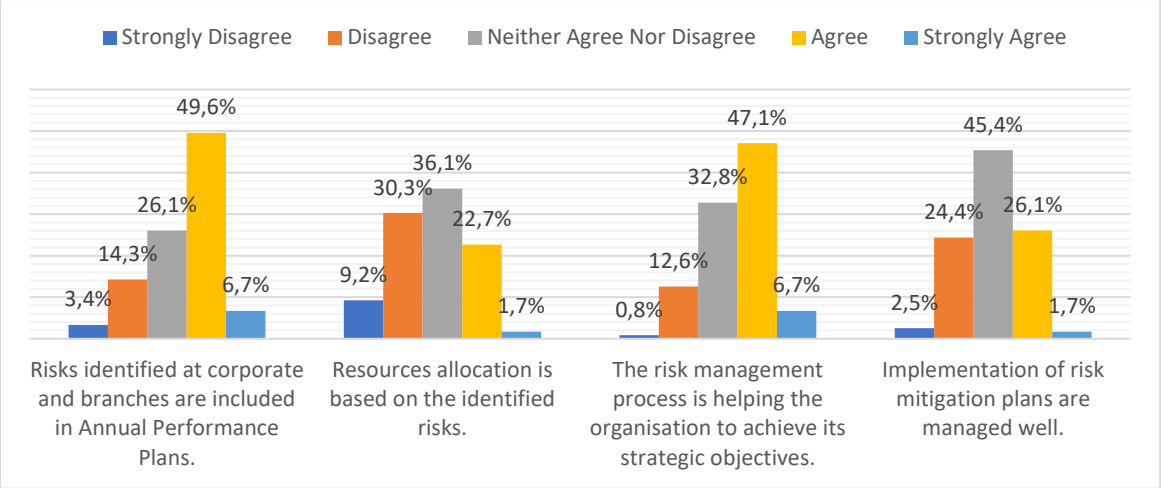

Figure 4.11: performance management factors affecting Risk culture

Question 5.1: Risk identified at corporate, and branches are included in the Annual Performance Plan

The results in Figure 4.11 show that 49.6% of the respondents agreed that the risks identified are included in the annual performance plans, followed by 26.1% of the respondents who neither agreed nor disagreed with the statement.

Question 5.2: Resource allocation is based on the identified risks

Of the respondents, 36.1% neither agreed nor disagreed that resource allocation is based on the identified risks, followed by 30.3% of the respondents who disagreed with the statement. Of the respondents, 22.7% agreed with the statement.

Question 5.3: The risk management process is helping the organisation to achieve its strategic objectives

Regarding risk management process figure 4.11, 47.1% of the respondents agreed that the risk management process is helping LHDA to achieve its strategic objectives, followed by 32.8% of the respondents who neither agreed nor disagreed with the statement.

Question 5.4: Implementation of risk mitigation plans is managed well

Finally, 49.4% of the respondents neither agreed nor disagreed that the implementation of risk mitigation plans is well managed, while 26.1% agreed with the statement and 24.4% disagreed with the statement.

It is concluded that the majority of respondents agreed that risks identified at corporate, and branches are included in annual performance plans, and a risk management process helps LHDA to attain its strategic objectives, while many of the respondents neither agreed nor disagreed about risk-based allocation of resources and implementation of mitigation plans.

4.4.1.6 Analysis of Risk Competence/Learning

The information based on risk competence factors was analysed.

Figure 4.12 presents the percentage distribution of risk competence factors affecting Risk culture.

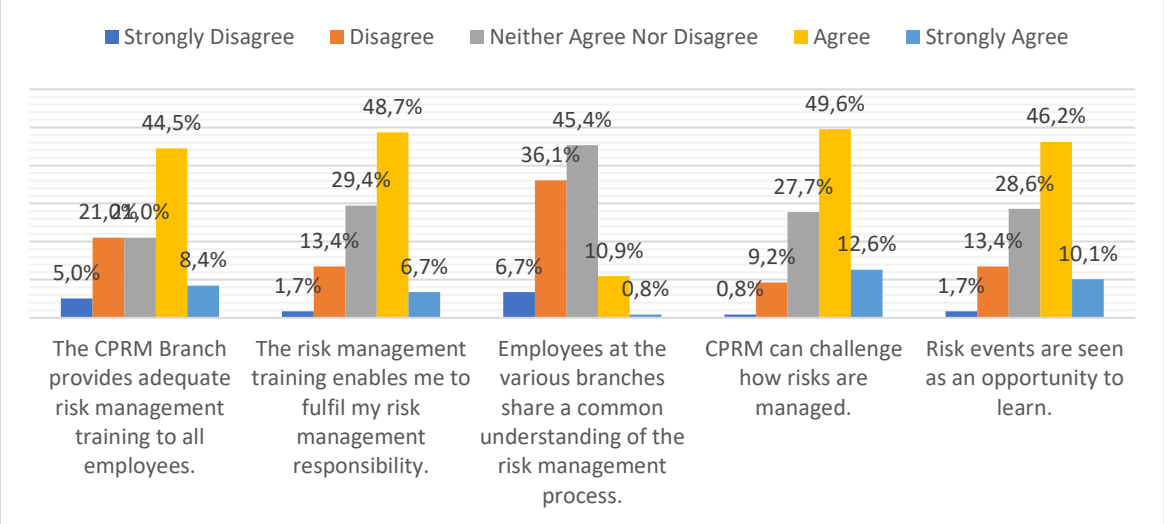

Figure 4.12: Risk competence/learning factors affecting Risk culture

Question 6.1: The CPRM branch provides adequate risk management training to all employees

As depicted in Figure 4.12, 44.5% of the respondents agreed that CPRM branch provides adequate risk management training to all LHDA employees, and 21% of the respondents neither agreed nor disagreed and disagreed with the statement.

Question 6.2: The risk management training enables me to fulfil my risk management responsibility

Figure 4.12 shows 48.7% of the respondents agreed that risk management training enables them to fulfil their risk management responsibilities, and 29.4% of the respondents neither agreed nor disagreed with the statement.

Question 6.3 Employees at the various branches share a common understanding of the risk management process

Of the respondents, 45.4% neither agreed nor disagreed that LHDA employees share a common understanding of the risk management process. In contrast, 36.1% of the respondents disagreed with the statement.

Question 6.4: CPRM can challenge how risks are managed

The results show that 49.6% of the respondents agreed CPRM challenges how risk is managed, followed by 27.7% of the respondents who neither agreed nor disagreed with the statement.

Question 6.5: Risk events are seen as an opportunity to learn

Figure 4.12 show that 46.2% of the respondents agreed that risk events are seen as an opportunity to learn, while 27.7% neither agreed nor disagreed with the statement.

From the analysis, it can be deduced that the majority of respondents agreed most factors, namely adequate risk management training and risk management enabling respondents to fulfil their responsibility, CPRM challenging the assumptions of the risk management process, and risk seen as the opportunity of learning, while the majority of respondents neither agreed nor disagreed with common sharing of risk management across all branches.

4.4.1.7 Analysis of Risk Management Processes.

The information based on risk management process factors was analysed.

Figure 4.13 presents the percentage distribution of risk management process factors affecting Risk culture.

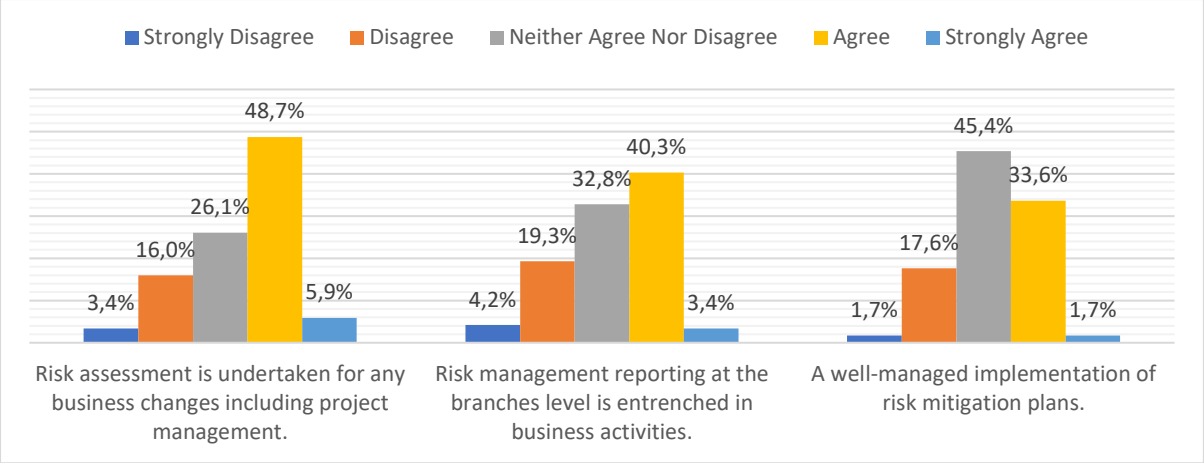

Figure 4.13: Risk management process affecting Risk culture

Question 7.1: Risk assessment is undertaken for any business changes, including project management

Figure 4.13 indicates that 48,7% of the respondents agreed that risk assessment is undertaken for any business changes, followed by 26.1% who neither agreed nor disagreed with the statement.

Question 7.2: Risk management reporting at the branch level is entrenched in business activities

Of the respondents, 40.3% agreed that risk management reporting is entrenched in business activities, followed by 32.8% of respondents who neither agreed nor disagreed with the statement.

Question 7.3: A well-managed implementation of risk mitigation plans

The results show that 45.4% of the respondents neither agreed nor disagreed that the implementation of risk mitigation plans is well managed, while 33.6% of the respondents agreed with the statement, while 17.6% disagreed with the statement.

From the above analysis, it can be deduced that from risk management process factors, risk assessments are made for any change, reporting of risk management is entrenched in LHDA business activities, and the majority neither agreed nor disagreed that risk mitigation plans are implemented well.

4.4.1.8 Analysis of decision-making processes.

The information on decision-making factors was analysed.

Figure 4.14 presents the percentage distribution of decision-making factors affecting Risk culture.

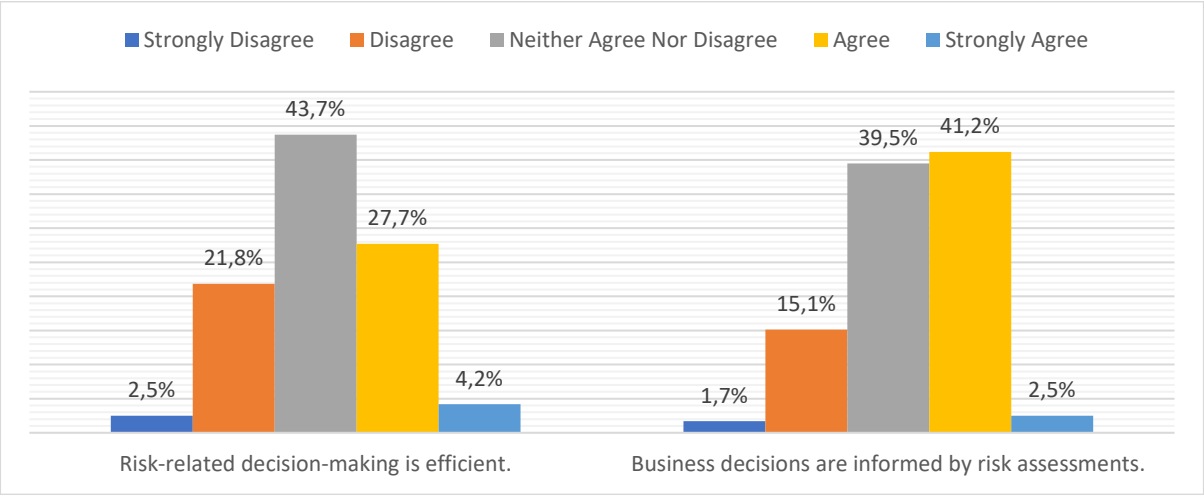

Figure 4.14: Decision-making affecting Risk culture

Question 8.1: Risk-related decision-making is efficient

Figure 4.14 shows that 43.7% of respondents neither agreed nor disagreed that risk-related decision making is efficient, 27.7% agreed, and 21.8% disagreed with the statement.

Question 8.2: Business decisions are informed by risk assessments

Of the respondents, 41.2% agreed that business decisions are informed by risk assessments, while 39.5% neither agreed nor disagreed with the statement, and the minority of respondents 15.1% disagreed with the statement.

Finally, it is concluded that the majority of the respondents (43.7%) neither agreed nor disagreed with efficient risk-related decision-making and 41.2% of respondents agreed that risk assessments were made for business decisions.

4.4.2 Inferential statistics

This section discusses and determines whether the average value of a particular risk behaviour factor is equal to 3 or not. The value of 3 is the midpoint between 2 levels of agreement, i.e. *disagree* or *agree*. If the average value of risk behaviour factor is less than 3, it means that the respondents disagree that the risk behaviour factor

considered is one of the main causes of risk culture at LHDA. Moreover, if the average value is greater than 3, then majority of the respondents agreed. The test undertaken in this study was the One-sample T-test.

4.5.1 T-test: Risk behaviour factors

The *p*-value was used for this test and compared to the significance level of 0.05 (5%). If the tested average value is different from 3, the *p*-value will be less than 0.05, indicating that the mean is significantly different from 3. Conversely, if the tested average is equal to 3 (i.e. not different from 3), the *p*-value will be greater than 0.05.

Table 4.1: T-test risk behaviour factors

Factors of risk behaviour	Mean	t statistic	p-value	Mean Difference
Leadership & strategy	3,229	3,239	0,002	0,229
People & Communication	2,701	-5,241	0,000	-0,299
Accountability & Staff involvement	2,933	-1,136	0,258	-0,067
Performance Management	3,164	2,798	0,006	0,164
Risk Competence/Learning	3,304	5,460	0,000	0,304
Risk Management process	3,244	3,631	0,000	0,244
Decision-making	3,185	2,903	0,004	0,185

Source: Researcher's own construction

From Table 4.1, the *p*-value for "Leadership & Strategy" is 0,002, which is less than 0,05. This indicates that the average level of agreement for this factor statistically differs from 3. The mean difference is 0,229, which shows that the average level of agreement is greater than 3. This implies that the respondents significantly agreed that leadership and strategy are not one of the main causes of risk culture at LHDA.

The *p*-value for "Accountability & Staff Involvement" is 0,258, which is greater than 0,05. This indicates that the average level of agreement for this statement does not statistically differ from 3. This means that the respondents neither agreed nor disagreed that the factor of accountability and staff involvement is one of the main causes of risk culture at LHDA.

The *p*-value for "People & Communication" is 0,000, which is less than 0,05. This indicates that the average level of agreement for this factor statistically differs from 3.

The mean difference is -0,229, which shows that the average level of agreement is greater than 3. Because of the negative mean difference, this is an implication that communication is one of the main causes of risk culture at LHDA.

The *p*-value for “Performance Management" is 0,006, which is less than 0,05 and the mean difference is 0,164. This indicates that the average level of agreement for this factor is statistically differs from 3. This means that the respondents’ performance management is one of the main causes of risk culture at LHDA. Moreover, the *p*-value and mean difference are 0,000, which is less than 0.05 and 0,304, respectively for risk competence. This indicates that the level of agreement for this factor statistically differs from 3 and shows that the average level of agreement is greater than 3. This is an implication that the respondents indicated that the competence factor is not one of the main causes of risk management at LHDA.

The *p*-value and mean difference for “Risk management process” are 0.000<0,05 and 0,244. This indicates that the average level of agreement factor statistically differs from 3 and the average level of agreement is greater 3. It suggests that the respondents agree that the risk management process factor is one of the main causes of risk culture at LHDA.

Finally, the *p*-value and mean difference for “Decision-making” is 0,004 and 0,184, meaning that the decision-making factor statistically differs from 3, while the average level of agreement is greater 3. This implies that the majority of respondents agreed that the decision-making factor is not one of the main causes of risk culture at LHDA.

4.5.2 T-test gender

In this section, the two gender groups (male and female) are compared to determine the level of agreement for females and males s, in order to see if these two groups considered the same factors of risk behaviour as main causes of risk culture. The approach used was to discuss only the significant ones and/or where the results differed between the males and females. The independent samples t-test is used.

Table 4.2: T-test gender

Factors of risk behaviour	Gender	Mean	t statistic	df	p-value	Mean Difference
Leadership & strategy	Female	3,241	2,268	54	0,027	0,241
	Male	3,219	2,293	63	0,025	0,219

Factors of risk behaviour	Gender	Mean	t statistic	df	p-value	Mean Difference
People & Communication	Female	2,749	-2,969	54	0,004	-0,251
	Male	2,659	-4,388	63	0,000	-0,341
Accountability & Staff involvement	Female	2,931	-0,863	54	0,392	-0,069
	Male	2,934	-0,760	63	0,450	-0,066
Performance Management	Female	3,150	1,802	54	0,077	0,150
	Male	3,176	2,125	63	0,037	0,176
Risk Competence/Learning	Female	3,353	4,415	54	0,000	0,353
	Male	3,263	3,375	63	0,001	0,262
Risk Management process	Female	3,248	2,344	54	0,023	0,248
	Male	3,240	2,783	63	0,007	0,240
Decision-making	Female	3,245	2,577	54	0,013	0,245
	Male	3,133	1,550	63	0,126	0,133

Source: Researcher's own construction

From Table 4.2, the *p*-values under "People & Communication for females and males" are both less than 0,05, i.e. 0,004 and 0,000, respectively. This indicates that the average level of agreement for this factor statistically differs from 3 for both males and females. The mean difference for females is -0,251 and for males -0,341. This means that both males and females significantly disagreed that people and communication is one of the main causes of a culture of risk at LHDA.

The *p*-values under "Leadership and Strategy for females and males" are both less than 0,05, i.e. 0,027 and 0,025, respectively. This indicates that the average level of agreement for this factor statistically differs from 3 for both males and females. The mean difference for females is 0,241 and for males is 0,219. This means that both females and males significantly agreed that leadership and strategy are some of the main causes of risk culture at LHDA.

The p-values under "Risk competence/learning for females and males" are both less than 0,05, i.e. 0,000 and 0,001, respectively. This means that the average level of agreement this factor statistically differs from 3 for both females and males. The mean difference for females is 0,353 and for males is 0,262. This means that both females and males significantly agreed that risk competence is one of the main causes of risk culture at LHDA.

The *p*-values under "Risk Management Process for females and males" are both less than 0,05, i.e. 0,023 and 0,007, respectively. This means that the average level of

agreement this factor statistically differs from 3 for both females and males. The mean difference for females is 0,248 and for males is 0,240. This means both females and males agreed that the risk management process is one of the main causes of risk culture at LHDA.

The *p*-values for females under “Decision-making" is 0,013, which is less than 0,05 and for males is 0,126, which is greater than 0,05. This indicates that the average level of agreement for males does not statistically differ from 3, while the average level for females differs from 3. The mean difference for females is 0,245, which shows that the average level of agreement is greater than 3. This implies that the female respondents significantly agreed that decision-making is one of the main causes of risk culture, whilst males neither agreed nor disagreed on this.

The *p*-values for females under” Performance Management” is 0,077, which is greater than 0,05 and for males is 0,037, which is less than 0,05. This indicates that the average level of agreement for females statistically differs from 3, while the average level for males differs from 3. The mean difference for males is 0,176, which shows that the average level of agreement is greater than 3. This implies that male respondents significantly agreed that performance management is one of the main causes of risk culture, whilst the females neither agreed nor disagreed.

Lastly, both males and females were neutral on whether the factor “Accountability & Staff Involvement” is one of the main causes of risk culture at LHDA. This is indicated by the average values were not statistically different from 3.

4.5.3 T-test of risk behaviour factors for age

In this section, the two age groups were compared between 18 to 45 years and above 45 years, while some age categories were combined so that there could only be two age groups with comparable sample sizes. The two age groups were 18 to 45 years and above 45 years.

Table 4.3: T-test age

Factors of risk behaviour	Age	Mean	t statistic	df	p-value	Mean Difference
Leadership & strategy	18 - 45 years	3,254	2,604	69	0,011	0,254
	Above 45 years	3,194	1,908	48	0,062	0,194
People & Communication	18 - 45 years	2,726	-3,269	69	0,002	-0,274
	Above 45 years	2,665	-4,759	48	0,000	-0,335

Factors of risk behaviour	Age	Mean	t statistic	df	p-value	Mean Difference
Accountability & Staff involvement	18 - 45 years	2,969	-0,400	69	0,691	-0,031
	Above 45 years	2,882	-1,316	48	0,194	-0,118
Performance Management	18 - 45 years	3,171	2,034	69	0,046	0,171
	Above 45 years	3,153	1,994	48	0,052	0,153
Risk Competence/Learning	18 - 45 years	3,306	3,781	69	0,000	0,306
	Above 45 years	3,302	4,227	48	0,000	0,302
Risk Management process	18 - 45 years	3,181	1,825	69	0,072	0,181
	Above 45 years	3,333	4,159	48	0,000	0,333
Decision-making	18 - 45 years	3,193	2,115	69	0,038	0,193
	Above 45 years	3,173	2,054	48	0,045	0,173

Source: Researcher's own construction

From Table 4.3, for "Leadership & Strategy", the respondents aged 18 to 45 years have a *p*-value of 0.011, which is less than 0.05, with a mean difference of 0.254, whilst the *p*-value for those aged above 45 years is 0.062, which is greater than 0.05. This indicates that the respondents aged 18 to 45 years significantly agreed that leadership and strategy are some of the main causes of risk culture at LHDA, while those aged above 45 years neither agreed nor disagreed. For the risk management process, the respondents aged 18 to 45 years were neutral on the cause of risk management on risk culture, while those aged above 45 years significantly agreed that risk management causes risk culture. This is indicated by *p*-values of 0.072 (>0.05) and 0.000 (<0.05), respectively. Moreover, respondents aged 18 to 45 years have a *p*-value of 0.046 and a mean difference of 0.171 for performance management, while those aged above 45 years have a *p*-value of 0.052 and a mean difference of 0.153. This means that the 18 to 45-year-olds agreed that performance management is one of the main causes of rick culture at LHDA, while those above 45 neither agreed nor disagreed (i.e. mean = 3).

For "People & Communication", the *p*-value for the 18 to 45-year-old group is 0.002 and is 0.000 for the above 45-year-old group, with mean differences of -0.274 and -0.335, respectively. This indicates that the averages for the two groups statistically differs from 3, because the mean differences are negative. This means that both groups (aged 18 to 45 years and above 45 years) significantly disagrees that people and communication are one of the main causes of risk culture at LHDA.

The *p*-value for both age groups is 0.000 for “Risk Competence”. The 18 to 45-year-olds have a mean difference of 0.306 and those above 45 years have a mean difference of 0.302. This is an indication that both age groups significantly agreed that risk competence is one of the main causes of risk culture at LHDA.

Furthermore, the *p*-values for 18 to 45 years under “Decision-making” is 0,038, which is less than 0,05; for above 45 years, the *p*-value is 0,045, which is also less than 0,05. This indicates that the average agreement level for age 18 to 45 years and above 45 years statistically differs from 3. The mean differences for 18 to 45 years and above 45 years are 0.193 and 0.173, respectively, which shows that the respondents generally agreed that decision-making is one of the main contributors to risk culture.

However, the *p*-values under “Accountability & Staff Involvement” for above 45 years and 18 to 45 years are both greater than 0,05, i.e. 0,691 and 0,194, respectively. This means the average level of agreement for both age groups is not statistically different from 3 and both age groups were neutral on whether accountability and staff involvement are some of the factors that cause risk culture at LHDA.

4.5.4 Test: Operational site

In this section, the two groups of operational sites were compared between others Mohale, Muela, Polihali & Katse) and Maseru. Some site categories were combined so that there could only be two sites with comparable sample sizes. The two sites were Others (Mohale, Muela, Polihali & Katse) and Maseru. The approach was to look at the level of agreement for the respondents in Maseru and for those at the other sites separately, in order to determine if these two groups considered the same risk behaviour factors as main causes of a culture of risk at LHDA.

Table 4.4: T-test operational site

Factors of risk behaviour	Operational site	Mean	t statistic	df	p-value	Mean Difference
Leadership & strategy	Other (Mohale, Muela, Polihali & Katse)	3,270	2,637	48	0,011	0,270
	Maseru	3,200	2,065	69	0,043	0,200
People & Communication	Other (Mohale, Muela, Polihali & Katse)	2,612	-4,227	48	0,000	-0,388
	Maseru	2,763	-3,276	69	0,002	-0,237

Factors of risk behaviour	Operational site	Mean	t statistic	df	p-value	Mean Difference
Accountability & Staff involvement	Other (Mohale, Muela, Polihali & Katse)	3,012	0,157	48	0,876	0,012
	Maseru	2,877	-1,459	69	0,149	-0,123
Performance Management	Other (Mohale, Muela, Polihali & Katse)	3,153	1,677	48	0,100	0,153
	Maseru	3,171	2,229	69	0,029	0,171
Risk Competence/Learning	Other (Mohale, Muela, Polihali & Katse)	3,290	3,305	48	0,002	0,290
	Maseru	3,314	4,327	69	0,000	0,314
Risk Management process	Other (Mohale, Muela, Polihali & Katse)	3,313	3,213	48	0,002	0,313
	Maseru	3,195	2,131	69	0,037	0,195
Decision-making	Other (Mohale, Muela, Polihali & Katse)	3,163	1,662	48	0,103	0,163
	Maseru	3,200	2,377	69	0,020	0,200

Source: Researcher's own construction

From Table 4.4, the *p*-values under "Risk Competence & Learning" for Maseru and Other (Mohale, Muela, Polihali and Katse) were both less than 0.05, i.e. 0,002 and 0,000, respectively. This means that the average level of agreement for both sites statistically differ from 3. On the other hand, the mean differences for Maseru and other sites (Mohale, Katse, Muela and Polihali) are 0,290 and 0,314, respectively, meaning that the average level of agreement is greater than 3. This indicates that the majority of respondents at Maseru and other sites agreed that risk competence and learning caused the risk culture at LHDA.

The *p*-values under "Leadership & Strategy" for Maseru and other operational sites (Mohale, Katse, Muela and Polihali) are both less than 0.05, i.e. 0.011 and 0.043, respectively. This means the average levels for all state sites statistically differ from 3. The mean differences for Maseru and Other (Mohale Katse, Muela and Polihali) are 0.200 and 0.270, respectively, meaning that the average degree of agreement is greater than 3. Therefore, most of the respondents on those stated locations agreed that leadership and strategy caused a risk culture at LHDA.

The *p*-values under “People & Communication” for Maseru and Others (Mohale, Katse, Muela and Polihali) are 0,000 and 0,003, which are less than 0,05. The mean differences between Maseru and Other (Mohale, Katse, Muela and Polihali) are -0,388 and -0.237, respectively. This indicates that the averages for the two groups statistically differ from 3, because the mean differences are negative, and thus both groups (aged 18 to 45 years and above 45 years) significantly disagreed that people and communication are some one of the main causes of a culture of risk at LHDA.

Moreover, respondents working at Maseru have a *p*-value of 0.029 and a mean difference of 0.171 for performance management, while other operational sites (Mohale, Muela, Katse and Polihali) have a *p*-value of 0.100 and a mean difference of 0.153. This means that the Maseru respondents significantly agreed that performance management is one of the main causes of a culture of risk at LHDA, while those at other operational sites neither agreed nor disagreed (i.e. mean = 3).

In addition, respondents working at Maseru and Others (Mohale, Muela, Katse and Polihali) have a *p*-value of 0,037< 0.05 and 0,002 < 0,005, respectively for risk management process, which means that the average level of agreement for both operational sites statistically differ from 3. The mean differences for Maseru and Other (Mohale, Muela, Katse and Polihali) are 0,195 and 0,313, respectively, indicating that both groups significantly agreed that the risk management process is one of the main causes of a culture of risk at LHDA.

The *p*-values for females under “Decision-making” is 0,103, which is greater than 0,05 for Other (Mohale, Muela, Katse and Polihali) and for Maseru it is 0,020, which is less than 0,05. This indicates that the average level of agreement for Maseru statistically differs from 3, while the average level for other sites (Mohale, Muela, Katse and Polihali) does not differ from 3. The mean difference for Maseru is 0,200, which shows that the average level of agreement is greater than 3. This implies that the Maseru respondents significantly agreed that decision-making is one of the main causes of a culture of risk, whilst respondents from other operational sites (Mohale, Muela, Katse and Polihali) neither agreed nor disagreed.

Finally, the *p*-values under "Accountability & Staff Involvement” for Maseru and for Other (Mohale, Muela, Katse and Polihali) are greater than 0,05, i.e. 0,149 and 0,879, respectively. This means that average level of agreement for both age groups does

not statistically differ from 3 and both operational sites are neutral on whether accountability and staff involvement are some of the factors that cause a culture of risk at LHDA.

4.5.5 T-test: Experience

In this section, the comparison was between the experience of the groups. Some experience categories were combined so there could only be two experience groups with comparable sample sizes. The two experience categories are 0 to 10 years and above 10 years.

The level of agreement for the respondents with experience of 0 to 10 years and for those with experience of above 10 years was looked at separately to determine if these two groups could consider the same factors of risk behaviour as the main causes of a culture of risk.

Table 4.5: T-test experience

Factors of risk behaviour	Experience	Mean	t statistic	Df	p-value	Mean Difference
Leadership & strategy	0 – 10 years	3,228	2,355	68	0,021	0,228
	Above 10 years	3,230	2,228	49	0,030	0,230
People & Communication	0 – 10 years	2,733	-3,391	68	0,001	-0,267
	Above 10 years	2,656	-4,184	49	0,000	-0,344
Accountability & Staff involvement	0 – 10 years	2,977	-0,320	68	0,750	-0,023
	Above 10 years	2,872	-1,287	49	0,204	-0,128
Performance Management	0 – 10 years	3,217	2,986	68	0,004	0,217
	Above 10 years	3,090	0,932	49	0,356	0,090
Risk Competence/Learning	0 – 10 years	3,328	4,557	68	0,000	0,328
	Above 10 years	3,272	3,068	49	0,004	0,272
Risk Management process	0 – 10 years	3,280	3,253	68	0,002	0,280
	Above 10 years	3,193	1,801	49	0,078	0,193
Decision-making	0 – 10 years	3,283	3,409	68	0,001	0,283
	Above 10 years	3,050	0,515	49	0,609	0,050

Source: Researcher's own construction

From Table 4.5, for "Leadership & Strategy", the respondents with 0 to 10 years' experience have a p-value of 0.021, which is less than 0.05, with a mean difference of 0.228, whilst the *p*-value for those with experience above 10 years is 0.030, which is less than 0.05. This indicates that the respondents, both with experience over 10 years and between 0 and 10 years, significantly agreed that leadership and strategy are

some of the main causes of a culture of risk at LHDA. For risk management process, the respondents with experience above 10 years are neutral on the cause of a culture of risk at LHDA, while those with experience of 0 to 10 years significantly agreed that risk management causes a culture of risk at LHDA. This is indicated by *p*-values of 0.078 (>0.05) and 0.002 (<0.05), respectively. Moreover, respondents with experience of 0 to 10 years have a *p*-value of 0.04 and a mean difference of 0.271 for performance management, while those with over 10 years' experience have a *p*-value of 0.356 and a mean difference of 0.090. This means that those with 0 to 10 years' experience significantly agreed that performance management is one of the main causes of culture of risk, while those above 10 years of experience neither agreed nor disagreed (i.e., mean = 3).

For "People & Communication", the *p*-value for 0 to 10 years of experience is 0.001 and 0.000 for above 10 years' experience, with mean differences of -0.267 and -0.344, respectively. This indicates that the averages for the two groups statistically differs from 3, because the mean differences are negative, which means that both groups (0 to 10 years and above 10 years) significantly disagreed that people and communication are some of the main causes of culture of risk at LHDA.

The *p*-values for 0 to 10 years' experience and above 10 years' experience is 0.000 and 0,004, respectively for risk competence. The 0 to 10 years group has a mean difference of 0.280 and those above 10 years have a mean difference of 0.272. This is an indication that both age groups significantly agreed that risk competence is one of the main causes of culture of risk at LHDA.

Furthermore, the *p*-values for 0 to 10 years under "Decision-making" is 0,001, which is less than 0,05; for above 10 years it is 0,609, which is greater than 0,05. This indicates that the average level of agreement for 0 to 10 years statistically differs from 3, while above 10 years does not statistically differ. The mean difference for 0 to 10 years and above 10 years are 0.283 and 0.050, which shows that the respondents with less than 10 years' experience agreed that decision-making is the main contributor to a culture of risk, whilst respondents above 10 years neither agreed nor disagreed that decision-making is one of the main causes of a culture of risk management at LHDA.

However, the *p*-values under "Accountability & Staff Involvement" for 0 to 10 years and above 10 years of experience are both greater than 0,05, i.e. 0,750 and 0,204, respectively. This means the average level of agreement for both age groups does not statistically differ from 3 and both groups were neutral on whether accountability and staff involvement are some of the factors that cause a culture of risk at LHDA.

4.5.6 T-test: Qualifications

In this section, the comparison is between the different qualifications. Some qualifications categories were combined so that there could only be two groups with comparable sample sizes. The two qualifications categories are a bachelor's degree/BTech and below plus a BSc honours/graduate diploma/postgraduate diploma and above.

The level of agreement for the respondents in Maseru and for those at other sites was examined separately to see if these two groups could consider the same factors of risk behaviour as main causes of a culture of risk at LHDA.

Table 4.6: T-test qualifications

Factors of risk behaviour	Qualifications	Mean	t statistic	df	p-value	Mean Difference
Leadership & strategy	Bachelor's degree/BTech & below	3,272	2,899	68	0,005	0,272
	BSc honours/equivalent & above	3,170	1,571	49	0,123	0,170
People & Communication	Bachelor's degree/BTech & below	2,742	-3,288	68	0,002	-0,258
	BSc honours/equivalent & above	2,644	-4,327	49	0,000	-0,356
Accountability & Staff involvement	Bachelor's degree/BTech & below	2,951	-0,678	68	0,500	-0,049
	BSc honours/equivalent & above	2,908	-0,923	49	0,360	-0,092
Performance Management	Bachelor's degree/BTech & below	3,246	3,440	68	0,001	0,246
	BSc honours/equivalent & above	3,050	0,516	49	0,608	0,050
Risk Competence/Learning	Bachelor's degree/BTech & below	3,348	5,028	68	0,000	0,348
	BSc honours/equivalent & above	3,244	2,647	49	0,011	0,244
Risk Management process	Bachelor's degree/BTech & below	3,382	4,682	68	0,000	0,382
	BSc honours/equivalent & above	3,053	0,490	49	0,626	0,053
Decision-making	Bachelor's degree/BTech & below	3,210	2,557	68	0,013	0,210
	BSc honours/equivalent & above	3,150	1,481	49	0,145	0,150

Source: Researcher's own construction

Table 4.6 shows that the *p*-values under leadership and strategy for those with a bachelor's degree and below and BSc honours/equivalent and above are 0.005 (<0.05) and 0.123 (>0.05), respectively. This shows that the average level of agreement for BSc honours/equivalent and above is statistically not different from 3 while the average level of agreement for bachelor's degree and below is statistically different from 3. The mean difference for a bachelor's degree/BTech and below is 0.170, which shows that the average level of agreement is greater than 3. This is an implication that the respondents with a bachelor's degree qualification and below significantly agree that leadership and strategy are some of the main causes of a culture of risk at LHDA, whilst those with a BSc honours and graduate diploma or above neither agreed nor disagreed.

The *p*-values under "Communication & People" for both qualification groups (bachelor's degree and below as well as BSc honours/equivalent and above) are less than 0.05, i.e. 0.002 and 0.000, respectively. This means the average level for both qualification groups is statistically differs from 3, with mean differences of -0.258 (bachelor's degree/BTech & below) and -0.356 (BSc honours/equivalent & above), respectively. This means the average degree of agreement is greater than 3 for both groups. Because the mean differences are negative, this indicates that the majority of the respondents for both groups significantly disagree that communication and people are some of the causes of a culture of risk at LHDA.

The *p*-value under performance management for respondents with a bachelor's degree and below is 0.001 (<0.05) and for those with an honours degree and above is 0,608 (>0.05). The mean difference for those with a bachelor's degree and below is 0.246. This indicates that the average level for respondents with a BSc honours/equivalent degree and above does not statistically differ from 3, while for the bachelor's degree and below differ from 3. Therefore, the majority of the respondents with a bachelor's degree or lower agree that performance management is one of the main causes of a culture of risk management, while respondents with an honours degree and above neither agree nor disagree that performance management is one of the causes of a culture of risk management.

Moreover, respondents with bachelor's degree and below had a *p*-value of 0.000 and a mean difference of 0,348 for risk competence, while respondents with an honours degree and above had a *p*-value of 0.011 and a mean difference of 0.244. This means they both significantly agreed that risk competence is one of the main causes of a culture of risk for Maseru.

In addition, respondents with a bachelor's degree and below had *p*-values of 0,000 (<0.05), while those with a BSc honours/equivalent qualification and above had a *p*-value of 0,626 (>0.05) for the risk management process. This indicates that the average level of agreement is statistically different from 3 for respondents with a bachelor's degree and below, and not statistically different from 3 for those with a BSc honours/equivalent and above. Thus, the respondents with a bachelor's degree and below significantly agreed that the risk management process is one of the main causes of a culture of risk at LHDA, whilst the respondents of BSc honours/equivalent qualification neither agreed nor disagreed.

The *p*-values for bachelor's degree and above under "Decision-making" is 0,013, less than 0,05 and for honours and below 0,145, which is higher than 0,05. This indicates that the average level of agreement for bachelor's degrees and below is statistically different from 3, while for the BSc honours/equivalent and above it is not different from 3. The mean difference for a bachelor's degree above is 0,210, which shows that the average level of agreement is greater than 3. This implies that respondents with a bachelor's degree and below, significantly agreed that decision-making is one of the main causes of a culture of risk, whilst the BSc honours/equivalent and above and neither agreed nor disagreed.

Finally, the *p*-values under "Accountability & Staff involvement" for bachelor's degree and below respondents and BSc honours/equivalent and above respondents are both greater than 0,05, i.e. 0.500 and 0,360, respectively. This means the average level of agreement for both groups are not statistically different from 3. The mean difference are bachelor's degree and below and BSc honours and above -0,049 and -0,0802 respectively. Both groups significantly neither agreed nor disagreed that accountability and staff involvement are some of the factors that cause a culture of risk at LHDA.

4.5.7 T-test: Professional registration

In this section, the comparison is between the registered and non-registered respondents. Some categories were combined so that there could only be two (2) groups with comparable sample sizes.

The level of agreement for the professionally registered respondents and those not professionally registered was examined separately to establish if these two groups could consider the same factors of risk behaviour as the main causes of the culture of risk.

Table 4.7: T-test professional registration

Risk behaviour factors	Professional registration	Mean	t-statistic	Df	p-value	Mean Difference
Leadership & Strategy	Registered	3,186	1,650	50	0,105	0,186
	Not registered	3,261	2,875	67	0,005	0,261
People & Communication	Registered	2,706	-3,346	50	0,002	-0,294
	Not registered	2,697	-4,007	67	0,000	-0,303
Accountability & Staff involvement	Registered	2,957	-0,465	50	0,644	-0,043
	Not registered	2,915	-1,105	67	0,273	-0,085
Performance Management	Registered	3,172	2,039	50	0,047	0,172
	Not registered	3,158	1,945	67	0,056	0,158
Risk Competence/Learning	Registered	3,318	3,419	50	0,001	0,318
	Not registered	3,294	4,276	67	0,000	0,294
Risk Management process	Registered	3,255	2,354	50	0,023	0,255
	Not registered	3,235	2,750	67	0,008	0,235
Decision-making	Registered	3,245	2,491	50	0,016	0,245
	Not registered	3,140	1,669	67	0,100	0,140

Source: Researcher's own construction

Table 4.7 indicates that the p-values under "Leadership & Strategy", focusing on registered and not registered professionals are 0.105 > 0.05 and 0.05 = 0.05 respectively. This means that the average level of agreement for registered and unregistered professionals does not statistically differ from 3. The mean difference for registered and unregistered professionals is 0.186 and 0.261, respectively, which shows that the average level of agreement is higher than 3 for registered professionals. The respondents for registered and unregistered professionals were both neutral that people and communication are some of the main causes of a culture of risk at LHDA.

The *p*-values under “Communication & People” for registered and unregistered professionals are both less than 0.05, i.e. 0.02 and 0.000, respectively. This means the average level for both professionals statistically differ from 3. The mean differences for registered and unregistered professionals are -0,294 and -0.303, respectively. This means the average degree of agreement is less than 3 for both groups. This indicates that the majority of the respondents significantly disagreed that communication and people are some of the causes of a culture of risk at LHDA.

The *p*-values under “Performance management” for registered and unregistered were 0,047 (<0.05) and 0,056 (>0.05), respectively. The mean differences for professionally registered and unregistered respondents are 0,172 and 0,158, respectively. This indicates that the average level for professionally registered respondents statistically differs from 3, while for the unregistered, it is not different from 3. Therefore, the majority of the registered respondents agreed that performance management is one of the main causes of risk management culture, while the unregistered neither agreed nor disagreed.

Moreover, registered respondents had a *p*-value of 0.001 and a mean difference of 0.318 for risk competence, while unregistered had a p-value of 0.000 and a mean difference of 0.294. This means they both significantly agreed that risk competence is one of the main causes of a culture of risk for Maseru,

For the process of risk management, registered and unregistered respondents have *p*-values of 0,023 and 0,008, respectively, which are lower than 0,05. This means that the average level of agreement for both groups statistically differs from 3. The mean difference for registered and unregistered persons are 0,255 and 0,235, respectively, while both groups significantly agreed that the risk management process is one of the main causes of the culture of risk at LHDA.

The *p*-values for professionally registered respondents under “Decision-making” is 0,016, less than 0,05. For professionally unregistered respondents it is 0,100, which is higher than 0,05. This indicates that the average level of agreement for registered respondents statistically differs from 3, while for the unregistered, it is not different from 3. The mean difference for registered is 0,245, which shows that the average level of agreement is higher than 3. This is an implication that registered respondents

significantly agreed that decision-making is one of the main causes of risk culture at LHDA, whilst the unregistered neither agreed nor disagreed.

Finally, the p-values under "Accountability & Staff involvement" for registered and unregistered professionals are both greater than 0,05, i.e.0.644 and 0,274, respectively. This means that the average level of agreement for both groups does not statistically differ from 3. The means difference both registered and unregistered professionals are -0,043 and -0,085, respectively. This means the respondents neither agreed nor disagreed that accountability and staff involvement are some of the factors that cause risk culture at LHDA.

4.5.8 T-test: Position

In this section, the comparison was between the different positions/levels. Some position categories were combined so that there could only be two (2) groups with comparable sample sizes. The two (2) position groups are the senior officer and the branch manager and officers.

The level of agreement for the respondents in Maseru and for those at other sites was separated in order to establish whether these two (2) groups could consider the same factors of risk behaviour as main causes of a risk culture at LHDA.

Table 4.8: T-test position

Risk behaviour factors	Position	Mean	t statistic	df	p-value	Mean Difference
Leadership & strategy	Senior Officer & Branch Manager	3,231	2,133	52	0,038	0,231
	Officer	3,227	2,420	65	0,018	0,227
People & Communication	Senior Officer & Branch Manager	2,709	-3,559	52	0,001	-0,291
	Officer	2,694	-3,831	65	0,000	-0,306
Accountability & Staff involvement	Senior Officer & Branch Manager	2,951	-0,477	52	0,636	-0,049
	Officer	2,918	-1,201	65	0,234	-0,082
Performance Management	Senior Officer & Branch Manager	3,057	0,598	52	0,553	0,057
	Officer	3,250	3,462	65	0,001	0,250
Risk Competence/Learning	Senior Officer & Branch Manager	3,226	2,525	52	0,015	0,226
	Officer	3,367	5,260	65	0,000	0,367
Risk Management process	Senior Officer & Branch Manager	3,195	1,720	52	0,091	0,195
	Officer	3,283	3,526	65	0,001	0,283
Decision-making	Senior Officer & Branch Manager	3,170	1,881	52	0,066	0,170
	Officer	3,197	2,198	65	0,031	0,197

Source: Researcher's own construction

Table 4.8 shows that the *p*-values under "Risk Management Process" for Branch Managers and Officers and officers are 0.091 (> 0.05) and 0.001 (< 0.05), respectively. This means that the level of agreement related to Senior Officer and Branch Manager is not statistically different from 3, while relating to officers statistically differs from 3. The mean difference for officers is 0.283, which shows that the average level of agreement is greater than 3. This implies that most officers agreed that the risk behaviour factor (risk management process) is one of the main causes of risk culture at LHDA, whilst senior officers and branch managers are neutral on this.

The p-values under "Communication & People" for Senior Officers and Branch Managers and Officers are both less than 0.05, i.e., 0.001 and 0.000, respectively. This means the average level for all positions statistically differs from 3. The mean differences for Senior Officers and Officers are 0,231 and 0,277, respectively. This means the average degree of agreement is greater than 3 for both groups. Thus, most of the respondents for both groups significantly agree that communication and people are one of the causes of risk culture at LHDA.

The *p*-values under "Performance Management for Senior officers and Branch Managers and Officers are 0,553 and 0,001, which are higher than 0.05 and less than 0,05, respectively. The mean differences for senior officer and branch managers and officers are 0,057 and 0,250, respectively. This indicates that the average level for a Senior Officer and Branch Manager does not statistically differ from 3, while for Officers it differs from 3. Therefore, most of the officer respondents agreed that performance management is one of the main causes of a culture of risk, while the Senior Officer and Branch manager respondents neither agreed nor disagreed.

Moreover, Senior Officer and Branch Manager respondents have a *p*-value of 0.015 and a mean difference of 0.226 for risk competence, while Officers have a *p*-value of 0.000 and a mean difference of 0.367. This means that they both significantly agreed that risk competence is one of the main causes of rick culture for Maseru,

In addition, Senior Officer and Branch Manager and Officer respondents have p-values of 0,091 and 0,001, which are higher than 0,05 and less than 0,05, respectively for risk management process, which means that the average level of agreement for Senior

Officer and Branch Manager does not statistically differ from 3, whilst for officer, respondents are statistically different from 3. The mean difference for registered and unregistered are 0,195 and 0,283, respectively. This means that officer respondents significantly agreed that the risk management process is one of the main causes of the culture of risk at LHDA, whilst the senior officer and branch manager respondents neither agreed nor disagreed that the risk management process is one of the main causes of a culture of risk at LHDA.

The *p*-values for Senior Officer and Branch Manager under “Decision-making” is 0,066, which is more than 0,05 and for officer it is 0,031, which is less than 0,05. This indicates that the average level of agreement for Senior Officer and Branch Manager is not statistically different from 3, while for the officer it does not differ from 3. The mean difference for Senior Officer and Branch Manager and Officer is 0,170 and 0,197, respectively, which shows that the average level of agreement is more than 3. This is an implication that officer respondents significantly agree that decision-making is one of the main causes of risk culture, whilst the Senior Officer and Branch Manager neither agreed nor disagreed.

Finally, the *p*-values under "Accountability & Staff involvement” for Senior Officer and Branch Manager respondents and Officer respondents are both greater than 0,05, i.e.,0.636 and 0,234, respectively. This means that the average level of agreement for both groups were not statistically different from 3. The mean differences for Senior Officer and Branch Manager are -0,049 and -0,082, respectively. Both groups neither agreed nor disagreed that accountability and staff involvement are some of the factors that cause risk culture at LHDA.

4.4 INTERPRETATION OF DATA/RESPONSES TO QUESTIONS

In general, the study results indicate that under leadership and strategy factors, an effective risk management process is critical in promoting and providing a positive culture of risk at LHDA. The risk management policy and framework provide direction and guide LHDA to achieve its strategic objectives. Furthermore, the board and management's direction and transparency must be embedded in the strategy formulation and implementation. This is confirmed by most respondents, who agreed

that all the factors of risk behaviour under leadership and strategy. The integration of risk management and performance matters for LHDA is supported by the King IV Code of Good Governance, IS0 31000 risk management standard and COSO-ERM.

From a governance point of view, the board and executive management were satisfied with most of the governance risk culture factors, including risk governance instruments, regular reviews, as well as an adequate amount of time for reviewing the risk reports and the competence of the risk management team. Effective risk management processes, policies, controls, and reporting are supported by proper risk frameworks, which LHDA seems to have, and implementing these governance instruments will help LHDA to achieve its strategic objective. In contrast, the LHDA board and management were neutral about the positive influence of CPRM / CRO on the board's decisions and unsure how easy it was for LHDA to adapt to a changing regulatory environment. The theory stated in Table 2.2 of Chapter 2 indicates that the willingness to change, adapt, learn from successes and mistakes, or take reasonable risks and new things is paramount to business resilience and sustainability.

From the communication and people's point of view, most respondents were not rewarded for communicating and escalating risk issues and disagreed that there is bad attitude within LHDA towards receiving and handling bad news. Excellent risk management behaviour should be incentivized, while bad risk culture behaviour should be punished. This will promote a strong culture of risk management at LHDA. Moreover, most respondents neither agreed nor disagreed whether whistle-blowers and individuals expressing concerns were encouraged or acknowledged and communicated risk across the business of LHDA. Sharing of risk information with all stakeholders is central to implementing risk management, and this will eliminate a no-blame culture, as supported by theory. Effective communication on emerging risks and new risks reduces negative attitudes towards receiving bad news.

Under risk performance management, the majority of respondents agreed that adequate risk management training leads to a strong culture of risk management and risk management enables respondents to fulfil their responsibility. CPRM coordinates risk management, challenges risk assumptions and instils an innovative way of working. Most respondents also confirmed that risk is seen as an opportunity to learn.

On the other hand, most respondents neither agreed nor disagreed with the common sharing of risk management across all LHDA branches.

In respect of risk competence or learning, most respondents were satisfied that risks identified at the corporate and branch level are included in annual performance plans and that a process of risk management helps LHDA to attain its strategic objectives. In contrast, the majority of respondents neither agreed nor disagreed with the risk-based allocation of resources and the implementation of mitigation plans. This implies that it was difficult to form an opinion on this statement.

Pertaining to the risk management process, the majority of respondents agreed that risk assessments are performed for any change and reporting of risk management is entrenched in LHDA business activities. This is supported by the theory that the culture of risk management is integral to organisational performance. In contrast, the majority neither agreed nor disagreed with the good implementation of risk mitigation plans. However, non-implementation of risk mitigation plans leads to project and business activities implementation delays, leading to cost overruns.

With regard to the decision-making process, the majority of the respondents (43.7%), neither agreed nor disagreed with efficient risk-related decision-making, and 41.2% of respondents agreed that risk assessments are made for business decisions. This will ensure that LHDA adapts to the changing environment and creates value for all stakeholders.

4.6 CHAPTER FOUR SUMMARY

In this chapter, the findings from the research study were presented, analysed and discussed. Firstly, respondents' demographic information was uploaded on Google Forms producing data on tables and charts to display the empirical findings, and then data were analysed as indicated above.

The qualitative analysis unveiled exciting points in all aspects of the risk culture, ranging from a lack of a good attitude towards receiving and handling bad news. The lack of risk management as a standing item on the agenda was one of the critical areas that resulted in most of the risk issues not being communicated at the branch level, denying all staff to communicate risk issues, including handling bad news.

The analysis of the responses suggests that many participants agreed or strongly agreed with most of the category statements. However, a high number of respondents neither agreed, nor disagreed in most cases, which points to the fact that there is much to be done to improve the risk culture at LHDA.

To create value for all stakeholders, LHDA Management should increase risk awareness in the workplace, involve staff, and emphasise the integration of risk management. Recommendations for the improvement of the LHDA risk culture are provided in the next chapter.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

In this chapter, the gaps identified in Chapter 4 are connected. In addition, the recommendations that are linked with the literature from Chapter 2 are presented in this chapter, as well as the analysis and interpretation of data, the limitations encountered during the research process, and conclusions drawn from the findings based on the research's objectives.

5.2 MAIN CONCLUSIONS

5.2.1 Chapter One: Introduction and scope of the study

The study's primary objective was to evaluate ERM culture at the LHDA. As illustrated in Chapter 1, the first secondary objective was to conduct a literature review on the ERM Culture. The second was to identify the various dimensions of the ERM culture. The third secondary objective was to determine the status of the ERM culture at LHDA and the fourth second objective was to identify initiatives that could be implemented to improve the existing culture of risk management at LHDA.

This chapter discussed the background of the study and statement of the problem, the research objective stated earlier and the research questions. The chapter further detailed brief research methodology, design, sample size, data collection methods, data analysis, ethical considerations, and demarcation of the study. The layout concluded this chapter and conclusion.

5.2.2 Chapter Two: Literature review

Chapter 2 presented a literature review on theories, definitions, and concepts of the risk culture, and the dimensions of risk culture, factors affecting risk culture, and the recommended practices for risk culture. Finally, cultural change models, planned behaviour, and risk culture frameworks were covered.

5.2.3 Chapter Three: Research methodology

This chapter detailed a clear methodology that explained how the research methods/ options were used to achieve the research objectives stated in Chapter 1 and addressed the research questions adequately.

The research technique employed in this project was discussed in this chapter, which included the research design, sampling strategy, data collection method, and data analysis. The closed-ended questionnaires, with a five-point Likert scale ranging from *strongly disagree* to *strongly agree* were uploaded on Google Forms and distributed to 190 respondents. The data collected from the respondents were analysed by the Statistical Package of Social Science (SPSS). The inferential and descriptive statistics, for example, T-test, mean*, p*-values and standard deviation were used to analyse the data from the respondents. Finally, the chapter discussed ethical considerations in business research.

5.2.4 Chapter Four: Conclusions on the empirical finding

The findings of the study under each risk behaviour factor were as follows:

5.2.4.1 Demographic information of respondents

This section started by unpacking respondents' information, covering gender, age, education, educational qualification, and work experience. The findings revealed that the pool of respondents were 54% male and 46% female, which shows that more males than females participated. Of the respondents, 40% were aged between 36 and 45 years of age, 28% were aged between 46 and 55 years, and 19% were younger than 35 years. Of the 127 respondents, 39% have bachelor’s degree qualifications, followed by master’s and higher qualifications at 25%. Of the respondents, 57% were not professionally registered, while 38% were registered with professional bodies.

5.4.2.2 The findings of the study under each factor of risk behaviour are as follows:

A. Communication and people

- There is a bad attitude towards receiving and handling bad news.
- Staff are not rewarded for communicating and escalating issues or risks.

- Whistle-blowers and individuals who express concerns are not encouraged or acknowledged.

B. Performance management

- Resources allocation is not based on the identified risks.

C. Accountability and staff involvement

- Risk management is not an item on the agenda of monthly branch meetings.

D. Governance

- A Chief Risk Officer (CRO) / CPRM have no positive influence on decisions the Board takes.
- LHDA does not easily adapts to regulatory and environmental changes**.**

The details of each risk factor will be presented in the next section.

5.4.2.3 Communication and people

Figure 4.9 depicts that 54.6% of the respondents disagreed that there is no reward for communication and escalating issues or risks, while 21.8% strongly agreed with the statement.

Out of 127 respondents, 38.7% indicated their dissatisfaction regarding attitude towards receiving and handling bad news. In contrast, 34.5% of the respondents neither agreed nor disagreed with an attitude of receiving and handling bad news.

The majority of respondents (44.5%), neither agreed nor disagreed that whistle-blowers or individuals who express their concerns are encouraged or acknowledged, while 29.4% of the respondents disagreed that whistle-blowers and individuals who express their concerns are encouraged or acknowledged.

As depicted in chapter 4 section 4.4.2, the one sample t-test results showed that the average level of agreement is greater than 3. This is an implication that the respondents significantly disagreed that people and communication factor is one of the main causes of risk culture at LHDA. In contrast, the theory does not support this statement as stated in chapter 2. It was indicated that risk information dissemination fosters a culture of openness, honesty and integrity.

5.4.2.4 Performance management

Figure 4.11 depicts that 30.3% of the respondents disagreed with resource allocation based on the identified risks, while 36.1% of the respondents neither agreed nor disagreed with resource allocation based on the identified risks. From chapter 4, section 4.4.2, the one sample t-test results revealed that the overall group analysis under performance management statistically differs from 3. This suggests that the respondents generally agree that performance management is one of the main causes of risk culture at LHDA. This is supported by chapter 2 (Section 2.9.9) which stated that the organisation aligns its performance management systems towards prudent risk-taking by senior management and employees and that performance management is an excellent instrument to assess the success of the risk culture.

5.4.2.5 Accountability and staff involvement

Figure 10 indicates that many respondents (34.5%) disagreed that risk management is an item on the agenda of their monthly branch meetings. According to chapter 4, section 4.5.1 analysis, the majority of respondents agreed that risk management activities are part of their job descriptions, while the majority of respondents were neither in agreement with nor opposed to the idea that they are held responsible for their failure to manage risk, monthly reports reflecting emerging or new risks identified. However, the majority of respondents disputed that risk management is discussed at their monthly meetings, and they were split on whether or not reporting unethical behaviour should be discussed.

According to chapter 4, section 4.4.2, one sample t-test results from different groups such as gender, age, operational site, experience, qualification, professional registration revealed that the *p*-values for "Accountability & Staff Involvement" are greater than 0,05 for all the groups. This shows that the average level of agreement for this statement does not statistically differ from 3. This concludes that the respondents neither agreed nor disagreed that the factor of accountability and staff involvement is one of the main causes of risk culture at LHDA.

5.4.2.6 Governance

As depicted in figure 4.7, the majority of respondents (37.5%), neither agreed nor disagreed whether LHDA easily adapts to regulatory and environmental changes. In addition, the majority of respondents (50%) neither agreed nor disagreed whether CRO/CPRM have a sufficiently positive influence on the decisions the Board makes.

The results in Chapter 4 show that the LHDA has a risk culture with many different facets. These findings are in line with the literature reviewed in Chapter 2 (Section 2.97), which stated that a culture of effective risk management necessitates that employees at all levels comprehend the institution's values of its culture of risk, possess the necessary skills to carry out their roles, and conscious of the fact that they will be held accountable for their actions regarding the organisation's risk-taking behaviour. Therefore, to ensure a strong culture of risk, it is concluded that most respondents concur that risk competence and a risk-aware culture are crucial behavioural variables. However, there are some exceptions. Most respondents neither agree nor disagree with some statements, for example, whether whistle-blowers and individuals expressing concerns are encouraged and acknowledge and communicate risk across the LHDA business. Also, whether employees are held accountable for the risk they fail to manage and whether monthly reports reflect the emerging or new risk identified. In addition, many respondents provided neutral responses to the majority of the questions, which typically implies that LHDA's risk culture is still in its infancy.

5.3 RECOMMENDATIONS

It is important to note that risk culture change is a journey that needs management attention like any change management process. Based on the findings of this study, to improve the LHDA risk culture, the proposed recommendations and conclusions are presented as follows:

5.3.1 Communication

The findings show that raising risk issues through communication is not rewarded. Chapter 2 Figure 2.1 outlines risk responsiveness, which is supported by the speed of response and level of care dimension. Table 2.3, showing the dimensions of risk behaviour suggests rewarding and setting an example for good risk management

behaviour while penalising poor risk management behaviour. It is further stated in Chapter 2 (Section 2.9.9) that risk management is an essential component of a strategy, business model, and performance management. Therefore, it is recommended that the best risk managers/risk owners be recognised and rewarded to strengthen the risk culture within LHDA. According to Chapter 2 (Section 2.9.6), job descriptions and performance contracts for individuals should include risk performance indicators or key risk indicators.

It also revealed that the majority of respondents concurred that there was a poor attitude about receiving and handling bad news. Communication and sharing of risk information with transparency and honesty, as well as management support without a culture of finger-pointing, are essential, according to Chapter 2 (Section 2.9.7). Additionally, a risk escalation procedure should be developed and implemented. This will also motivate people and encourage learning from mistakes. To improve risk conversations, management should create a risk communication plan for LHDA.

5.3.2 Performance management

Figure 4.11 depicts that 30.3% of the respondents disagreed with resource allocation based on the identified risks, while 36.1% neither agreed nor disagreed with resource allocation based on the identified risks. It is recommended that the risk assessment process should be aligned with change management processes, project management, resource allocation, policy formulation and implementation and business process re-engineering or documentation and performance management.

5.3.4 Accountability and staff involvement

Figure 10 indicates that many respondents (34.5%) disagreed that risk management is an agenda item of their monthly branch meetings. Chapter 2 (section 2.9.2) recommends that all stakeholders be involved in the risk management process. Therefore, risk management should be a standing agenda item for all branches' meetings. Leaders or management should role-model risk management thinking and actively and regularly discuss risk and management issues with their staff because everyone is responsible for managing risks under their control. The risk culture should be considered when developing strategic plans and performance targets.

5.3.5 Governance

The result of the study revealed that the majority of respondents were unsure whether CRO/CPRM had a sufficiently positive influence on the board's decisions. Chapter 2 (section 2.9.5) recommends that the CRO be independent of LHDA operations and interact with the board, appropriate board committees, and executive management on strategic risk issues, ideally reporting to the CEO and sitting on the board. Additionally, the board should ensure that the CRO has the appropriate risk management skill and competence to drive a strong risk culture and protect the independence of all assurance providers.

According to Figure 4.7, most respondents (37.3%) were neutral on whether LHDA easily adapts to regulatory and environmental changes. Chapter 2 (section 2.11) and (section 2.13) recommended:

a) Periodic risk cultural awareness and monitoring.
b) Cultural changes: enforce ethical behavioural and compliance to standards.
c) Cultural refinement by incorporating risk management lessons learned into communications, education, and training.
d) Hold employees accountable to embed company values into their actions.
e) The board should also express the effectiveness of the LHDA’s risk management processes in the annual report.
f) The board should periodically assess the risk culture maturity through an external independent quality assurance provider.
g) Management should develop the LHDA ERM culture framework.

Finally, Chapter 2 (section 2.14) states that behaviour is the final action taken by an individual, and behavioural intentions directly impact people's decisions to engage in various behaviours. To improve the risk culture at LHDA, it is recommended that attitudes and behaviour (value system) should be assessed periodically as they contribute to both a strong or a weak risk culture and staff members should be provided with regular risk feedback.

5.5 LIMITATIONS OF THE STUDY

The questionnaires were e-mailed to the employees of the Lesotho Highlands Development Authority. It should be emphasised that certain employee working at Polihali and Katse spend most of their time in the field and did not have access to their e-mails. It is possible that they would have a different view of the organisation's risk culture if all participated.

The other limitation was the culture of respondents not reading their e-mails. All the operational sites were followed up on through the secretaries to notify the respondents to view their e-mails. Some respondents could access their e-mails, while others could not complete the survey forms.

During the study, there was uncertainty about management responses to some of the employee’s salary adjustment grievances, which may have led to a lack of responses from other respondents and some opting not to participate.

5.6 CONCLUSION

In conclusion, the state of ERM culture at the LHDA has been determined by this research study. A literature review on ERM culture was used as the basis of all recommendations suggested. The study results will be shared with management, who may decide to implement the recommendations. Therefore, ERM culture's adverse effects could be avoided at work and curbed in places where they are already evident. Addressing risk culture based will increase the LHDA's operational effectiveness and efficiency, remove obstacles, and ensure that the LHDA's strategic goals are met. Since this was the first ERM culture study conducted at LHDA, further ERM culture research projects will go deeper into the subject and shed more light on its important aspects of it.

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7. APPENDICES

APPENDIX A: QUESTIONNAIRE 1 INCLUDING GOVERNANCE QUESTIONS

Section A: Demographic Information

1.1 Please indicate the Operational Site that you belong to:

Operation Branch/Site	Tick Applicable
Mohale	
Muela	
Polihali	
Maseru	
Katse	

1.2 Please indicate your years of work experience in the LHDA:

Years of work experience at LHDA	Tick Applicable
0 to 5 years	
6 to 10 years	
11 to 15 years	
16 to 20 years	
20 years and Above	

1.3 Please indicate your level of highest qualification:

Highest Qualification	Tick Applicable
Matric/High school and below	
National Diploma	
Bachelors Degree/ BTech	
BSc Honours/Graduate Diploma/Post Graduate Diploma	
Masters and Above	
Other (Specify)	

1.4 Please indicate your professional registration status:

Professional Registration	Tick Applicable
ECSA (PrEng/PrTechEng/PrTechni) or equivalent	
SACPCMP (PrCPM/CM) or equivalent	

Professional Registration	Tick Applicable
ASAQS (PrQS) or equivalent	
Other Professional bodies (Specify)	
Not Professionally registered	

1.5 Please indicate your position or level:

Position	Tick Applicable
Board Member	
Member of Audit Committee	
Executive Management	
Branch Manager	
Senior Officer	
Officer	

Section B: Factors affecting Risk culture at Lesotho Highlands Development Authority

This section explores the factors affecting Risk culture at LHDA.

To what extent do you agree with the following statements? Please indicate your answers using the 5-point Likert scale where:

1. Strongly Disagree (SD)
2. Disagree (D)
3. Neither Agree Nor Disagree (NAD)
4. Agree (A)
5. Strongly Agree (SA)

Risk Behaviour Factor	Code	The following factors are the main causes of risk culture at LHDA	SD	D	NAD	A	SA
Risk Governance or (Tone at the Top)	1.1	A well-defined governance structure (ERM policy and Framework) to Oversees enterprise-wide risk management.	1	2	3	4	5
	1.2	Corporate Planning / Risk Management (CPRM) has the appropriate independence and objectivity (direct reporting line Audit & Risk Committee and Board).	1	2	3	4	5
	1.3	The board reviews the risk appetite levels regularly.	1	2	3	4	5
	1.4	The Board, through the Audit and Risk Committee, has sufficient time to review risk management reports.	1	2	3	4	5
	1.5	There is a proper induction of risk management principles for the Board and its committees.	1	2	3	4	5
	1.6	CPRM (charged with risk coordination responsibility) has the requisite skills and experience.	1	2	3	4	5
	1.7	Chief Risk Officer (CRO) / CPRM have sufficient positive influence on decisions the Board makes.	1	2	3	4	5
	1.8	LHDA easily adapts to regulatory and environmental changes.	1	2	3	4	5
Leadership & Strategy	2.1	Management is effectively championing the risk management process.	1	2	3	4	5
	2.2	Management actively facilitates open and honest discussions of risk-related issues.	1	2	3	4	5
	2.3	Management creates a risk-aware culture.	1	2	3	4	5

Risk Behaviour Factor	Code	The following factors are the main causes of risk culture at LHDA	SD	D	NAD	A	SA
	2.4	I have the tools, resources and information I need to do my risk-related work well.	1	2	3	4	5
People & Communication	3.1	Communication of risk information across the organisation is good.	1	2	3	4	5
	3.2	There is a good attitude towards receiving and handling bad news.	1	2	3	4	5
	3.3	I feel comfortable escalating risk issues to management.	1	2	3	4	5
	3.4	Staff are rewarded for communicating and escalating issues or risks.	1	2	3	4	5
	3.5	Whistle-blowers and individuals who express concerns are encouraged or acknowledged.	1	2	3	4	5
Accountability & staff Involvement	4.1	My Job Description includes risk management responsibility and accountability.	1	2	3	4	5
	4.2	Employees are held accountable for the risks they fail to manage.	1	2	3	4	5
	4.3	Risk management is an agenda item of monthly branch meetings.	1	2	3	4	5
	4.4	Monthly reports reflect the emerging or new risks identified.	1	2	3	4	5
	4.5	The reporting of unethical behaviour is encouraged by the Branch Management.	1	2	3	4	5
Performance Management	5.1	Risks identified at corporate, and branches are included in Annual Performance Plans.	1	2	3	4	5
	5.2	Resources allocation is based on the identified risks.	1	2	3	4	5

Risk Behaviour Factor	**Code**	**The following factors are the main causes of risk culture at LHDA**	**SD**	**D**	**NAD**	**A**	**SA**
	5.3	The risk management process is helping the organisation to achieve its strategic objectives.	1	2	3	4	5
	5.4	Implementation of risk mitigation plans are managed well.	1	2	3	4	5
Risk Behaviour factor	Code	The following factors are the main causes of risk culture at LHDA	SD	D	NAD	A	SA
Risk Competence /Learning	6.1	The CPRM Branch provides adequate risk management training to all employees.	1	2	3	4	5
	6.2	The risk management training enables me to fulfil my risk management responsibility.	1	2	3	4	5
	6.3	Employees at the various branches share a common understanding of the risk management process.	1	2	3	4	5
	6.4	CPRM can challenge how risks are managed.	1	2	3	4	5
	6.5	Risk events are seen as an opportunity to learn.	1	2	3	4	5
Risk Management processes	7.1	Risk assessment is undertaken for any business changes including project management.	1	2	3	4	5
	7.2	Risk management reporting at the branches level is entrenched in business activities.	1	2	3	4	5
	7.3	A well-managed implementation of risk mitigation plans.	1	2	3	4	5
Decision-making	8.1	Risk-related decision-making is efficient.	1	2	3	4	5
	8.2	Business decisions are informed by risk assessments.	1	2	3	4	5

Section C: Advice on managing the LHDA Risk Culture

If you were to advise the management of LHDA on the three (3) most important issues to address in order to manage or improve risk culture, what would it be?

……
……
……
……

Would you please make sure that you have not skipped any of the questions in all sections?

I Thank You!!!

APPENDIX B: QUESTIONNAIRE 2 EXCLUDING GOVERNANCE QUESTIONS

Section A: Demographic Information

1.6 Please indicate the Operational Site that you belong to:

Operation Branch/Site	Tick Applicable
Mohale	
Muela	
Polihali	
Maseru	
Katse	

1.7 Please indicate your years of work experience in the LHDA:

Years of work experience at LHDA	Tick Applicable
0 to 5 years	
6 to 10 years	
11 to 15 years	
16 to 20 years	
20 years and Above	

1.8 Please indicate your level of highest qualification:

Highest Qualification	Tick Applicable
Matric/High school and below	
National Diploma	
Bachelor's degree/ BTech	
BSc Honours/Graduate Diploma/Post Graduate Diploma	
Masters and Above	
Other (Specify)	

1.9 Please indicate your professional registration status:

Professional Registration	Tick Applicable
ECSA (PrEng/PrTechEng/PrTechni) or equivalent	
SACPCMP (PrCPM/CM) or equivalent	
ASAQS (PrQS) or equivalent	
Other Professional bodies (Specify)	
Not Professionally registered	

1.10 Please indicate your position or level:

Position	Tick Applicable
Board Member	
Member of Audit Committee	
Executive Management	
Branch Manager	
Senior Officer	
Officer	

Section B: Factors affecting Risk culture at Lesotho Highlands Development Authority

This section explores the factors affecting Risk culture at LHDA.

To what extent do you agree with the following statements? Please indicate your answers using the 5-point Likert scale where:

6. Strongly Disagree (SD)
7. Disagree (D)
8. Neither Agree Nor Disagree (NAD)
9. Agree (A)
10. Strongly Agree (SA)

Risk Behaviour Factor	**Code**	**The following factors are the main causes of risk culture at LHDA**	**SD**	**D**	**NAD**	**A**	**SA**
Leadership & Strategy	2.1	Management is effectively championing the risk management process.	1	2	3	4	5
	2.2	Management actively facilitates open and honest discussions of risk-related issues.	1	2	3	4	5
	2.3	Management creates a risk-aware culture.	1	2	3	4	5
	2.4	I have the tools, resources and information I need to do my risk-related work well.	1	2	3	4	5

Risk Behaviour Factor	Code	The following factors are the main causes of risk culture at LHDA	SD	D	NAD	A	SA
People & Communication	3.1	Communication of risk information across the organisation is good.	1	2	3	4	5
	3.2	There is a good attitude towards receiving and handling bad news.	1	2	3	4	5
	3.3	I feel comfortable escalating risk issues to management.	1	2	3	4	5
	3.4	Staff are rewarded for communicating and escalating issues or risks.	1	2	3	4	5
	3.5	Whistle-blowers and individuals who express concerns are encouraged or acknowledged.	1	2	3	4	5
Accountability & staff Involvement	4.1	My Job Description includes risk management responsibility and accountability.	1	2	3	4	5
	4.2	Employees are held accountable for the risks they fail to manage.	1	2	3	4	5
	4.3	Risk management is an agenda item of monthly branch meetings.	1	2	3	4	5
	4.4	Monthly reports reflect the emerging or new risks identified.	1	2	3	4	5
	4.5	The reporting of unethical behaviour is encouraged by the Branch Management.	1	2	3	4	5
Performance Management	5.1	Risks identified at corporate, and branches are included in Annual Performance Plans.	1	2	3	4	5
	5.2	Resources allocation is based on the identified risks.	1	2	3	4	5
	5.3	The risk management process is helping the organisation to achieve its strategic objectives.	1	2	3	4	5
	5.4	Implementation of risk mitigation plans are managed well.	1	2	3	4	5

Risk Behavior factor	Code	The following factors are the main causes of risk culture at LHDA	SD	D	NAD	A	SA
Risk Competence /Learning	6.1	The CPRM Branch provides adequate risk management training to all employees.	1	2	3	4	5
	6.2	The risk management training enables me to fulfil my risk management responsibility.	1	2	3	4	5
	6.3	Employees at the various branches share a common understanding of the risk management process.	1	2	3	4	5
	6.4	CPRM can challenge how risks are managed.	1	2	3	4	5
	6.5	Risk events are seen as an opportunity to learn.	1	2	3	4	5
Risk Management processes	7.1	Risk assessment is undertaken for any business changes including project management.	1	2	3	4	5
	7.2	Risk management reporting at the branches level is entrenched in business activities.	1	2	3	4	5
	7.3	A well-managed implementation of risk mitigation plans.	1	2	3	4	5
Decision-making	8.1	Risk-related decision-making is efficient.	1	2	3	4	5
	8.2	Business decisions are informed by risk assessments.	1	2	3	4	5

Section C: Advice on managing the LHDA Risk Culture

If you were to advise the management of LHDA on the three (3) most important issues to address in order to manage or improve risk culture, what would it be?

……
……
……
……

Would you please make sure that you have not skipped any of the questions in all sections?

I Thank You!!!

APPENDIX C: REQUEST FOR PERMISSION TO CONDUCT STUDY AT LHDA

Lesotho Highlands Development Authority

P.O. Box 7332, Maseru 100, Lesotho • Tel: (+266) 22 246 000 / 22 311 280 / 522 52000 • Fax: (+266) 22 310 665 • Email: lhwp@lhda.org.ls

TO: Chief Executive

CC: Human Resources Manager

THRU : CPRM Branch Manager

SIGNED: R. Motšoeneng

Date: 25/02/2022

FROM: Senior Officer Risk Management

SIGNED: T. Molelekoa

Date: 25/02/2022

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT LHDA

I kindly request permission to conduct a research study within the Lesotho Highlands Development Authority (LHDA). I am a Master of Business Administration (MBA) student at the University of the Free State (UFS). Relevant details for this request are as follows:

a) **Title of the research project**: Enterprise Risk Management Culture at the (LHDA);
b) **Principle researcher and contact number(s)**: Tseko Molekoa, +266 62237999;
c) **Study leader(s) name and email**: Deon Barnard, BarnardGP@ufs.ac.za;
d) **Purpose of the study**: To evaluate ERM culture at LHDA

RESEARCH OBJECTIVES

PRIMARY RESEARCH OBJECTIVE

To evaluate the enterprise risk management culture at Lesotho Highlands Development Authority.

SECONDARY RESEARCH OBJECTIVES

The secondary objectives of the research are as follows:

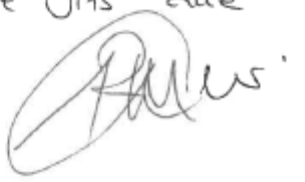
- To conduct a preliminary literature review on Enterprise Risk Management culture.
- To identify the dimensions of Enterprise Risk Management culture.
- To determine the current status of the Enterprise Risk Management culture at LHDA.
- To identify initiatives that can be implemented to improve the existing risk management culture at LHDA.

As a result of the above, I am requesting permission from the LHDA to perform the aforementioned research. This will entail data collecting from several LHDA data sources, as well as data collection through interviews and any other techniques considered essential. I wish to emphasise that any information gathered will be kept strictly confidential to ensure the integrity and privacy of the collective. Finally, anonymity will be maintained to ensure that all the respondents do not indicate their names on their responses.

The study will take place after approval, which is expected to be not later than April 2022.

Your prompt response would be highly appreciated.

Approval is granted on condition that lhda will have access to the outcome of the study. Also Credit must be given where it is due



APPENDIX D: APPROVAL LETTER TO CONDUCT STUDY AT LHDA

CONFIDENTIAL

Lesotho Highlands Development Authority

P.O. Box 7332, Maseru 100, Lesotho • Tel: (+266) 22 246 000 /22 311 280 /522 52000 • Fax: (+266) 22 310 665 • Email: hrwp@lhda.org.ls

REF : HR/384/22/CO
FILE : HR/00/14

07 APRIL 2022

The Ethical Clearance Committee
University of the Free State
205 Nelson Mandela Dr
Park West
Bloemfontein 9301
South Africa

Dear Sir/Madam

PERMISSION TO CONDUCT RESEARCH WITHIN THE LHDA

Mr. Tseko Molelekoa (2020116444) has requested permission from the LHDA Chief Executive to conduct his Master of Business Administration (MBA) research within the LHDA. He stated that his goal will be "Enterprise Risk Management Culture at LHDA." He has been granted permission to collect information from relevant parties and interview employees who are willing to participate in his research.

The LHDA believes that the study will benefit the organization and hence will be provided with the necessary assistance to ensure completion of his research project.

Yours sincerely

M. RAMAFIKENG (Mr.)
HUMAN RESOURCES MANAGER

APPENDIX E: LETTER FROM LANGUAGE EDITOR

CORNELIA GELDENHUYS

✆**083 2877088**

corrieg@mweb.co.za

13 November 2022

TO WHOM IT MAY CONCERN

Herewith I, **Cornelia Geldenhuys (ID 521114 0083 088)** declare that I am a qualified, accredited language practitioner and that I have edited the following master's dissertation:

EVALUATION OF ENTERPRISE RISK MANAGEMENT CULTURE AT LESOTHO HIGHLANDS DEVELOPMENT AUTHORITY

by

TSEKO ISAAC MOLELEKOA

All changes were indicated by track changes and comments **for the author(s) to verify, clarify aspects that are unclear, make the necessary adjustments and finalise.** The editor takes no responsibility in the instance of this not being done. The document remains the final responsibility of the author(s).

.....

C GELDENHUYS

MA (Lin) cum laude, MA (Mus), HOD, HDL

Accredited member/Geakkrediteerde lid, SATI, Membership/Lidmaatskap: 1001474 (A/E-E/A)
Full member/Volle lid, Professional Editors Guild (PEG, Membership GEL001)
Mediterranean Editors and Translators (MET: Membership 02393)
European Association of Scientific Editors (EASE: Membership 5523)