DIMENSIONS AND UNDERLYING CRITERIA OF A RISK MANAGEMENT CULTURE FOR A FINANCIAL INSTITUTION: A SOUTH AFRICAN PERSPECTIVE

by

MAMOTLATSO MASHILA TEFFO

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SUPERVISOR: PROF J YOUNG

CO-SUPERVISOR: DR NJ GODI

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DECLARATION

Name: Mamotlatso Mashila Teffo

Student number: 50485458

Degree: MCom in Business Management

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I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.

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DATE

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ABSTRACT

An organisational ability to assess its risk management culture has increased due to the rapidity of change within the organisation that require a founded risk management culture to facilitate improved decision-making capability. To navigate through the challenges and ensure business continuity, it became apparent that organisations should establish a risk management culture framework. It is because of this background that the study aimed to identify the dimensions and the underlying criteria of a risk management culture that organisations can utilise to assess and establish a risk management culture for an organisation. For this study, a risk management culture is regarded as a generic concept that covers all risk types.

The study involved a review of the literature and empirical research on the dimensions and underlying criteria of a risk management culture framework from a South African financial institution. Survey data was collected to identify the discrepancy between the confirmed dimensions and underlying criteria of a risk management culture and how they are being implemented within the organisation. Although some of the suggested dimensions and underlying criteria were not yet fully implemented, the descriptive and inferential results showed that the majority of them were considered relevant and crucial for a risk management culture framework for an organisation. In order to utilise industry best practice and to guarantee a sound risk management culture to support the attainment of organisational objectives, the study also confirmed the risk dimensions and underlying criteria to embed a sound risk management culture framework needed for effective risk management.

KEYWORDS: risk management framework; risk management culture; risk governance; risk management process; risk identification; risk monitoring; risk management strategy; code of conduct; risk management standards; risk management culture framework; risk management principles

NAGANWAGO

Bokgoni bja mokgatlo bja go hlahloba setšo sa yona sa taolo ya kotsi bo oketšegile ka lebaka la lebelo la phetogo ka gare ga mokgatlo wa o nyaka setšo sa taolo ya kotsi seo se theilwego go nolofatša bokgoni bjo bo kaonafetšego bja go tšea diphetho. Go sepelasepela ka gare ga ditlhohlo le go netefatša tšwelopele ya kgwebo, go ile gwa bonagala gore mekgatlo e swanetše go hloma tlhako ya setšo sa taolo ya kotsi. Ke ka lebaka la setlogo se moo nyakišišo e bego e ikemišeditše go šupa ditekanyo le dikelo tša motheo tša setšo sa taolo ya kotsi tšeo mekgatlo e ka di šomišago go sekaseka le go hloma setšo sa taolo ya kotsi go mokgatlo. Bakeng sa nyakišišo ye, setšo sa taolo ya kotsi se tšewa bjalo ka kgopolo ya kakaretšo yeo e akaretšago mehuta ka moka ya dikotsi.

Thuto e be e akaretša tshekatsheko ya dingwalo le nyakišišo ya diphihlelelo ka ga ditekanyo le dikelo tša motheo tša tlhako ya setšo sa taolo ya kotsi go tšwa go setheo sa Afrika Borwa. Tshedimosho ya nyakišišo e kgobokeditšwe go šupa go se dumelelane magareng ga ditekanyo tše di tiišeditšwego le dikelo tša motheo tša setšo sa taolo ya kotsi le ka fao di phethagatšwago ka gona ka gare ga mokgatlo. Le ge e le gore tše dingwe tša ditekanyo tše di šišintšwego le dikelo tša motheo ga se tša hlwa di phethagatšwa ka botlalo, dipoelo tša tlhalošo le tša go dira phetho di bontšhitše gore bontši bja tšona di tšewa e le tše di lebanego le tše bohlokwa go tlhako ya setšo sa taolo ya kotsi go mokgatlo. Gore go šomišwe mokgwa wo mokaone wa go netefatša setšo se se kwagalago sa taolo ya kotsi go thekga phihlelelo ya maikemišetšo a mokgatlo, nyakišišo e tiišeditše gape ditekanyo tša kotsi le ditekanyetšo tša motheo tša go tsenya tlhako ya setšo sa taolo ya kotsi ye e kwagalago yeo e nyakegago bakeng sa taolo ya kotsi ye e šomago gabotse.

VOORWOORD

‘n Organisasie se vermoë om ‘n risikobestuurskultuur te evalueer, het toegeneem as gevolg van die vinnige veranderende omstandighede wat ‘n gevestigde riskikobestuurskultuur vereis om ‘n verbeterde besluitnemingvermoë te fasiliteer. Om die uitdagings te bestuur en besigheidskontinuïteit te verseker, het die noodsaaklikheid van ‘n risikobestuurskultuur vir ‘n organisasie bevestig. Dit is teen hierdie agtergrond dat hierdie studie poog om die dimensies en die onderliggende kriteria van ‘n risikobestuurskultuur te identifiseer en aan te wend om ‘n organisasie se riskiobestuurskultuur te evalueer. Vir die doeleindes van hierdie studie word ‘n risikobestuurskultuur as ‘n generiese konsep beskou, wat vir alle risiko tipes geld. Hierdie studie bestaan uit ‘n literatuur en empiriese navorsing om die dimensies en onderliggende kriteria van ‘n risikobestuurskultuur raamwerk vir ‘n Suid Afrikaanse finansiële instelling te bepaal. Informasie is deur middel van ‘n vraelys ingesamel om die verskille tussen die bevestigde dimensies en onderliggende kriteria vir ‘n risikobestuurskultuur te bepaal en hoe dit tans deur organisasies geïmplementeer word. Alhoewel van die voorgestelde dimensies en onderliggende kriteria nog nie ten volle geïmplementeer was nie, dui die beskrywende en inferensiese resultate dat die meerderheid as relevant en krities vir ‘n organisasie se risikobestuurskultuur beskou kan word. Om in staat te wees om die beste praktyk van die industrie te aanvaar en om ‘n risikobestuurskultuur te verseker vir die bereiking van besigheidsoelwitte, het die studie die dimensies en onderliggende kriteria vir ‘n risikobestuurskultuursraamwerk vir effektiewe risikobestuur, bevestig.

LIST OF ABBREVIATIONS AND ACRONYMS

BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BSI	British Standards Institution
CIMA	Chartered Institution of Management Accountants
COSO	Committee of Sponsoring Organisations
IMF	International Monetary Fund
IRM	Institute of Risk Management
ISO	International Standards Organisation
KRI	Key Risk Indicators
OECD	Organisation for Economic Co-operation and Development
RCSA	Risk and Control Self-assessment
RIMS	Risk and Insurance Management Society
SFA	Strategic Focus Area

KEY TERMS DEFINITION

Ethical behaviour	This is the moral code that informs staff member's conduct as well as what is right and wrong.
Key Risk Indicators (KRI)	These are metrics that organisations employ to provide early warning of rising risk exposures.
Risk and Control Self Assessments (RCSA)	This is a process that assesses operational risks and the effectiveness of controls
Risk management culture	This is the organisations norms and attitudes on risk awareness, risk taking, and risk management.
Risk management standards	These are guidelines that serve as the basis for evaluating the effectiveness of the risk management process.
Risk incidents	These are events that may harm or have the potential to harm an organisation.
Scenario Analysis	This is a method that enables experts to introspect prospective future occurrences and forecast possible outcomes.
Strategic Focus Area (SFA)	These are areas that organisations need to focus on to achieve their objectives.

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CHAPTER 1
INTRODUCTION AND STUDY ORIENTATION

1. 1 INTRODUCTION

A risk management culture is becoming topical following a shift towards a more focused approach to risk management, lately, due to major risk incidents such as the Covid-19 pandemic. Karen and Allen (2014:173) highlighted that a culture change is challenging and there may be frequent relapses. New ways of doing things occasioned by the Covid-19 pandemic such as people frequently working from home have impressed upon the organisation to be better prepared to respond to any setbacks that may occur (Karen & Allen, 2014:173). The Hong Kong Institute of Bankers (2013) suggested that the financial sector should breed a proper risk management culture across the entire organisation for an effective risk management function and as such staff members will come forward and report any potential risks that may have been ignored or missed.

A well-defined and founded risk management culture determines the successful implementation of the risk management framework, Young (2018:60) argued that the risk management culture determines the approach of an organisation to risk management. Although some organisations within the financial sector might be at an advanced stage regarding the implementation of a risk management culture, this might not be the case for all organisations. Therefore, this study aims to use one financial institution to answer the research question: what are the dimensions and underlying criteria for embedding a risk management culture in an organisation in the financial sector of South Africa?

To be able to answer the research question, it is imperative to determine the background of a risk management culture thereby also initiating the literature review for this study.

1.2. BACKGROUND TO THE LITERATURE REVIEW

The literature review is based on existing literature detailing the importance of having a sound risk management culture within an organisation. The study included the values, standards and principles that were implemented in the past and thus will assist the organisation in determining the appropriate channels on how the risk management culture should be founded and heightened in the organisation. This study also explored the importance of establishing the dimensions and a set of underlying criteria to embed a risk management culture as a critical component of a risk management framework. The identified dimensions and underlying criteria added value to the organisation. As such, this section briefly dealt with literature review which served as a platform to identify the appropriate dimensions and underlying criteria for a risk management culture framework. Rowley and Slack (2004:32) suggested that the literature review has a significant role in assisting the research with:

- Assisting with the identification of the topic, hypothesis, and question.

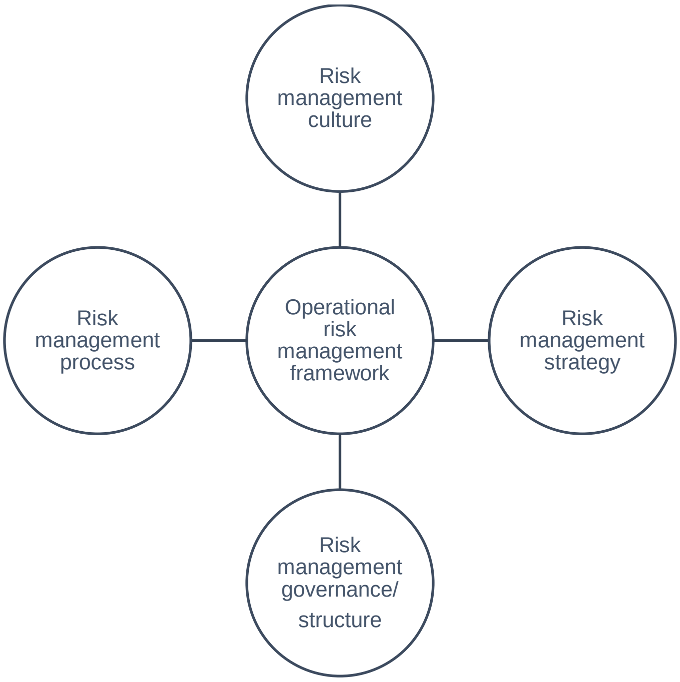
- Understanding the theory and the terminology.
- Identifying the research methodology that may be utilised.
- Examining and explaining the result.

A literature review demonstrates the author's knowledge of the topic (Randolph, 2009) and it also forms the foundation of the research (Webster & Watson, 2002). In determining the dimensions and the underlying criteria of a risk management culture within organisations the literature review was instrumental. As such, the study is based on a literature review that will provide a platform to identify the dimensions and underlying criteria of a risk management culture as an integral part of a risk management framework.

1.2.1 Risk management framework

Sparrow (2000) argued that risk management is the conscious and systematic realisation of the treatments of risks including opportunities that may arise from those risks. According to the Basel Committee of Banking Supervision (BCBS) (2019:762), operational risk is defined as the "risk of loss resulting from inadequate or failed internal processes, people, systems and external factors". Blunden and Thirwell (2013: 297) argued that risk management culture form part of the operational risk management framework and that risk management culture is a good benefit to operational risk management. Chamoun, Denevet, Manzarena and Matai (2019) suggested that risk management culture should be established by top management to advocate for the required standards for establishing a sound risk management within the organisation. The risk management culture should be incorporated within the risk management framework as the risk management framework serves as an indicator to organisations on how to identify, measure and monitor the exposure to risks (Blunden & Thirwell, 2013: 297). A desired risk management culture is the one that staff members and the organisation embrace and actively demonstrate as the right thing to do (Generally Acceptable Compliance Practices (GACP), 2019:23). Mestchian, Makarov and Mirzai (2005) argued that operational risk management should ensure success of the business and value creation. Young (2018: 42) mentioned that when a risk management framework is being developed, it is fundamentally important to include the components as shown in Figure 1.1 below in order to ensure that the risk management framework spans across the entire organisation. The components of the operational risk management framework are illustrated and explained in Figure 1.1 below.

Figure 1. 1 Components of an Operational Risk Management Framework (OMRF)



Source: Adapted from (Young, 2018)

The components of the ORMF will be discussed in section 2.3 of the dissertation. The next section details the benefits of a risk management culture within an organisation.

1.3 BENEFITS OF A FOUNDED RISK MANAGEMENT CULTURE

Hull (2012) emphasised that management should continuously monitor the risks in the organisation to ensure that there is no occurrence of the identified risk events. Management is ultimately responsible for the culture of the organisation hence it is important for management to set the tone by living according to the set values and standards of the organisation (GACP, 2019:23). Blunden and Thirlwell (2013: 295) emphasised the benefits of embedding a risk management culture in the organisation as follows:

- Managing risk becomes natural without being instructed. Staff members can identify and manage risks independently in their daily activities.
- Staff members become honest and transparent and report on risks without fear of victimisation.
- Risk is recognised and acknowledged in daily operational activities.
- There is continuous learning of risk management.
- Risk management becomes encouraged and valued when organisations have a sound risk management culture.

Establishing a sound risk management culture will result in effective and adequate management of risk within the organisation. The next section explains principles of a risk management culture.

1.4 PRINCIPLES OF A RISK MANAGEMENT CULTURE

Establishing a risk management culture should be managed with discipline (Levin & Gottlieb, 2009). Algozzine, Robert, Audette, Marr and Algozzine (2005) emphasised that there should be a collaborative effort and systematic thinking with a clear purpose when an organisation is embedding a risk management culture. Parsons (2022) suggested that if the organisations comply with the below risk management culture principles, this should add value to effective risk management.

- Risk management assists in the ability to make decisions in advance.
- Risk management provides adequate means and ability to adapt to changing circumstances.
- Risk management allows for open communication inside the organisation and between departments.
- Risk management is an integral part of all decision-making processes.
- Risk management is continuously improved, the continuous improvement of risk. (These will be discussed in more detail at a later stage).

Gutshwa (2016) argues that a matured risk management culture allows for better positioning of risk management in the organisations. This means that when the risk management principles are recognized and used in the process of managing risk, the organisation is in a better place to root the right risk management culture across. The next section presents the problem statement informing this study.

1.5 PROBLEM STATEMENT

Many global risk incidents such as the covid-19 pandemic caused an increased need for effective risk management within the organisations due to the new ways of working. Emphasis has been placed on organisations to have an approach for effective risk management. Young (2018:60) emphasised that when organisations embed the new ways of managing the risks, all staff members need to change the way they do things, and the approach depends on the organisation's risk management culture. Furthermore, top management should ensure that the principles for a risk management culture are in place for effective risk management. However, it seems that to ensure an effective risk management culture, there are a certain degree of vagueness around the concepts in terms of the dimensions and underlying criteria of such a culture. Therefore, the research question for this study is: what are the dimensions and underlying criteria for a risk management culture in an organisation within the financial sector? This research question will be dealt with by means of a literature review and an empirical analysis to identify the dimensions and underlying criteria of a risk management culture. The empirical research will be conducted according to the Research Onion Approach by Saunders and Tossey (2012), with the aim to identify the dimensions and underlying criteria of a risk management culture for a South African financial institution. Due to the seemingly differences in the risk management cultures of organisations, this study will be limited to one financial organisation which could be used as a platform for similar research for other organisations. In addition, the focus of this study will be on a generic approach to a risk management culture and not on a specific risk type *per se.* Although some of the concepts will be derived from the literature on operational risk, it is envisaged that the result of the research will be applicable to all risk types. The research objectives that will support the research are dealt with in the next section.

1.6 RESEARCH OBJECTIVE

The purpose of the study is to determine the dimensions and underlying criteria of a risk management culture for a financial organisation. The below primary and secondary objectives have been derived for the purpose of this study.

1.6.1 Primary objective

The primary objective is to determine the dimensions and the underlying criteria of a risk management culture.

1.6.2 Secondary objectives

In support of the primary objective, the following secondary objectives have been identified:

- To provide a detailed literature review on the concept of a risk management culture to the dimensions and underlying criteria.
- To empirically confirm the importance of the identified dimensions and underlying criteria of a risk management culture and to determine the current applicability thereof in a financial institution from a South African perceptive.
- To use the analysed data as a platform to make recommendations on embedding risk derive management culture.

To achieve the empirical objective of this study, the research methodology that was followed was briefly discussed in the next section.

1.7 RESEARCH METHODOLOGY

Naidoo (2011) argued that research is a structured enquiry into the community with the aim of validating and clarifying the knowledge that exist and gathering new knowledge. A quantitative method will be used for the purpose of this study. Sukamolson (2007) explained that quantitative research is the presentation of numbers with the purpose of exploring an observation with a goal of determining and explaining the phenomena that the observation indicates. Davies (2020) suggested that it is preferable to have a large number of participants in quantitative research for better results. Sukamolson (2007) further identified the advantages of using a quantitative approach as follows:

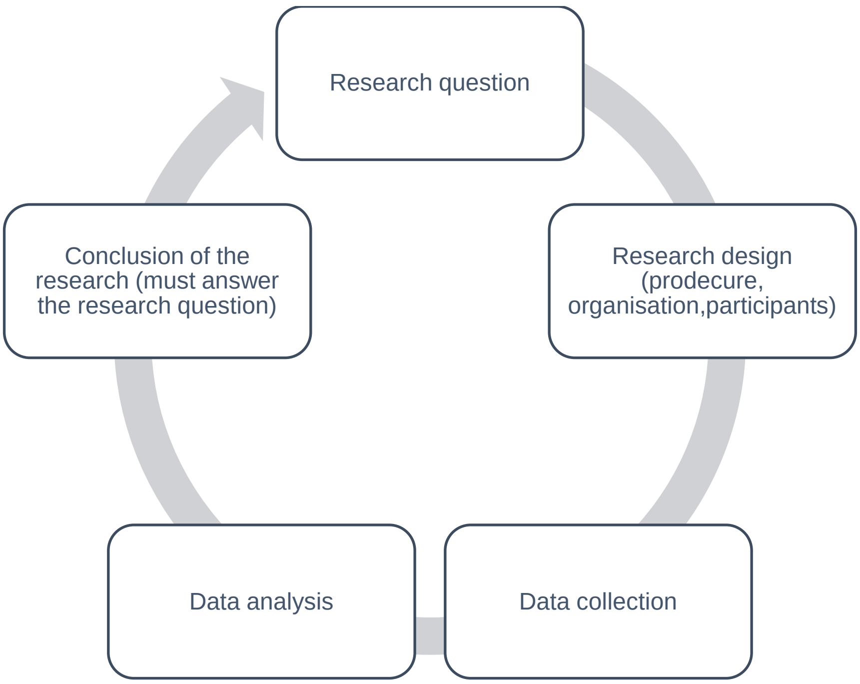
- Monitors the trends and the number of occurrences.
- The results can be condensed into statistics.
- The research can compare the results between different groups.
- Able to answer a question such as, how often a similar theme occurs and how many times does it occur.
- It can also indicate the attitude of respondents.

For the purpose of this study, the quantitative approach will be used to benefit from the above-mentioned advantages thereby creating a strong foundation for the conclusions and recommendations. The next section highlights the research approach that will be used for the purpose of the study.

1.7.1 Research approach

Davies (2020) argued that once the research question has been identified, it is fundamental to design the research approach. Figure 1.2 illustrates the research approach that was followed for the study in determining the dimensions and underlying criteria for embedding a risk management culture in a financial institution.

Figure 1. 2. Research approach



Source: Adapted from (Davies, 2020)

Figure 1.2 shows a research approach consisting of five stages which will be followed in satisfying the objectives of this study. The first step consists of the research question which the study will be fashioned to give an answer to. In this study the research question is what are the underlying dimensions and criteria for a risk management culture within an organisation. The second step will highlight the quantitative method which will be used for this particular research. A South African financial institution and selected staff members will be used for the purpose of the research. The third step entails data collection by means of a questionnaire-based survey. The fourth step encompasses data importation from excel to Statistical Package for the Social Sciences (SPSS). According to Zyl (2014:304), data imported from excel spreadsheets to SPSS is reliable and accurate. The questionnaire will entail Likert scale questions that will be analysed according to descriptive analysis by means of Microsoft excel and SPSS. The fifth step concludes the research which will be based on the findings of the descriptive analysis and will form the basis for final recommendations in order to add value to the body of knowledge regarding a risk management culture.

Alsghaier, Akour, Shehabat and Aldiabat (2017) suggested that collecting data assist organisations to be more agile and improve the organisational strategies. Shirinda (2018: 31) advises that the purpose of the study should be clearly understood, and goals defined when collecting data as such assist in determining the quality of the research. The next section demonstrates how data collected will be measured and tested to extract meaning for a quality study.

1.7.2 Data measurement

Zyl (2014: 109) mentioned that data measurement is the task of measuring the results of values. The outcome of the results is significant as it concluded the study and provide recommendations based on the outcome. The Likert scale was used to analyse the results of the study. Golafshani (2003) argues that the objective of reliability and validity is to test and evaluate the quality of the research and argument which is supported in Cummins & Gullone (2000) were it is stated that the basic factors for the Likert scale should be reliability and validity. Reliability and validity will be discussed in the next section below.

1.7.3 Reliability and validity

Reliability and validity will be considered as a standard for considering the quality of the study. Reliability occurs when the same test is performed several times to confirm its reliability (Zyl, 2014: 118). Reliability will be quantified by summarising the outcome of the feedback from different questionnaires that were received back from participants (Christmann & Van Aelst, 2005). The questionnaires were peer reviewed by independent persons to ensure that the content is valid. Gliem and Gliem (2003) advised that when a Likert scale is used, the Cronbach's alpha coefficient must be used to ensure consistency. Therefore, Cronbach's Alpha Coefficient was used to test the reliability of the questionnaire.

1.7.4 Target population

The population that was targeted are the staff members of one financial institution from a South African perspective. There are lines of defence in the organisation that is involved in risk management as stipulated in Young (2018: 59):

- First line: Business management.
- Second line: Risk management.
- Third line: Audit (internal).

All the lines of defence formed part of the study due to the following:

- the first line of defence as they deal with day-to-day operations within the financial institution,

- the second and third line of defence as they provide advice, guidance, recommendations and oversight to the first line of defence.

The purpose of the empirical research is to establish and attest the applicable dimensions and underlying criteria of a risk management culture in a financial institution. As the lines of defence are required to manage the risk, it is vital to determine the dimensions of the risk management culture that has been rooted in the organisation. Although there are various sampling methods such as quota sampling, expert sampling, snowball sampling and cluster sampling as suggested in Etikan & Bala, (2017), Zyl, (2014: 101) explained that a stratified sample is effective when the profile of the participants matches with the questions that will be used to conduct the study which seems ideal for this particular study. Etikan and Bala (2017) advises that reliance can be placed on a stratified sample to provide the desired results and as such a stratified sample was used for the purpose of the research.

1.7.5 Data analysis

The feedback (data) received from the participants was exported to Microsoft Excel and SPSS for analyses. Descriptive statistics were used to analyse the feedback from the participants and to confirm the dimensions and underlying criteria of a risk management culture in the financial institution. Zyl (2014: 163) advises that the mean is the most common method used for similar kind of studies and as such, the mean was used to calculate the average of the scores.

1.8 ETHICAL CONSIDERATIONS

Walther and Pawley (2015) mentioned that ethical considerations have a significant role in determining the quality of the research. Bernard, Ellen, and Connell (2005) suggested that research should consider whether the study is likely to inconvenience any participant and cause any potential harm to the participants and/or any person/ organisation that may be impacted by the study. An ethical clearance was applied for the study from the University of South Africa and approval to conduct the study was obtained from the gate keeper. Taking into consideration the above, the following ethical principles were considered.

1.8.1 Informed consent

The participants were required to complete and sign the informed consent declaration form prior to completing the questionnaires. The participants completed the questionnaires willingly and anonymously. Randolph, Barros, Paul and Clayton (1996) suggested that the informed consent declaration form should address the below:

- Transparency on the information to be disclosed.
- The understanding of the information to be disclosed.
- The competency to provide feedback.
- The participation is voluntarily.

These ethical considerations areas were well covered in the informed consent utilised for this study.

1.8.2 Avoidance of harm

All information gathered for this study was protected and the research ensured that the participants are not harmed. Pemberton (2015) emphasised that any potential harm should be taken seriously, and the questionnaires were anonymously responded to.

1.8.3 Deception

Carson (2010) defined deception as intentionally enforcing someone to believe something that is false. Deception was avoided in the study and respondents were kept anonymous.

1.8.4 Privacy, confidentiality, and anonymity

All staff members that participated in the survey were anonymous and will remain anonymous. Questionnaires received back will not be shared with any unauthorised external party. Randolph (2009) emphasised that when data for the research is treated with privacy, confidentiality and anonymity, the study will have integrity. Elgesem, Enjolras, ESS, Larsson, Luders, Prabhu, Segadal, Staksrud and Steen (2015) suggested the following factors to be considered when collecting data from participants:

- Protect the integrity of the individuals.
- Maintain the quality of the data obtained through concealing information.

These factors were strictly considered and implemented in this study.

1.8.5 Coercion, incentives, and sensitive information

All subjects of the study participated voluntarily. No participants were remunerated for the purpose of the study and the participants were informed prior to partaking in the research. The research acknowledged and protected the sensitivity of some of the information.

1.9 LIMITATIONS AND DELIMITATIONS

The research is limited to the participants that are involved in managing operational risk within the financial institution. The research was limited to the responses received back from participants. The questionnaires provided data that answered the research question: what are the dimensions and the underlying criteria for embedding a risk management culture in the organisations, from a South African perspective? As such the research is limited to operational risk and excludes other risk types such as credit and market risk and limited to one financial organisation which could be used as a platform for similar research for other organisations.

1.10 STRUCTURE OF THE STUDY

The study consists of 6 chapters which are are summarised as below.

Chapter 1: Introduction

This chapter introduces the principles of a risk management culture in the financial institution, based on the components of a risk management framework. A brief literature review, problem statement, research objectives, research design/methodology, ethical consideration, limitations, and delimitations were also included in the chapter.

Chapter 2: Literature review on risk management culture

This chapter presented a literature review on risk management with the aim to identify the dimensions and the underlying criteria of a risk management culture. The literature embraced the primary and secondary objectives of the study and influenced how the questionnaire was designed.

Chapter 3: Dimensions and underlying criteria of a risk management culture

This chapter outlined the literature on the dimensions and the underlying criteria of risk management culture in an organisation. In addition, the chapter provided an overview of the title, purpose, and objectives of the study, a pathway to the conclusions.

Chapter 4: Research methodology

This chapter provided the detail on the research methodology that was used to empirically confirm the dimensions and the underlying criteria of a risk management culture and provided a platform to discuss the current applicability of such leading to recommendations.

Chapter 5: Analysis of findings

This chapter focused on presenting, analysing, examining and interpreting the results from the survey to confirm the dimensions and the underlying criteria in founding a risk management culture within the financial institution which was instrumental in making final conclusions and recommendations regarding this study subject matter.

Chapter 6: Conclusions and recommendations

This chapter consisted of a summary of the study. Conclusion and recommendations were formulated based on the results of the survey to determine the dimensions and the underlying criteria of a risk management culture in an organisation.

1.11 ACCESS TO RESEARCH CONTEXT

All feedback received back from the participants was treated with confidentiality and that included both the consent forms and responses. The contents of the research paper and attachments thereto are privileged and confidential, it may not be copied, disclosed and/or distributed to any other person and may only be used by the institution for evaluation purposes of the student's studies and any research paper may not, in any way, be used, published, copied or distributed without prior consent from the gate keeper.

CHAPTER 2
LITERATURE REVIEW ON RISK MANAGEMENT CULTURE

2.1 INTRODUCTION

This chapter presents the literature review on risk management with the aim to identify the dimensions and the underlying criteria of a risk management culture for financial institutions. The literature review is guided by the primary and secondary objectives of the study focused on determining the dimensions and the underlying criteria of a risk management culture for a financial institution. In addition, the literature review will serve as a platform for the empirical research and analysis. A logical starting point for this review, is to deal with an understanding of operational risk management which can be regarded as a starting point for the various applicable concepts of risk management for this study.

2.2 UNDERSTANDING OPERATIONAL RISK MANAGEMENT

According to the BCBS (2019:762), operational risk is defined as the "risk of loss resulting from inadequate or failed internal processes, people, systems and external factors". Haubenstock (2002) stated that operational risk is an intentional or accidental loss to the organisation due to failure of processes, humans, systems, and external events. In agreement, Torre-Enciso and Barros (2013) stated that operational risk is an indirect or direct loss which is attributed by failure of processes, humans, systems, and external events. Kenett and Ranaan (2011) explained operational risk management as the uncertainty of an event occurring which may cause damage to the organisation. Based on the above, it seems that operational risk safeguard organisations from losses incurred as a result of inadequate or failure of processes, people, systems, and external factors.

Valsamakis *et al,* (2010) stated that since operational risk covers a wide range of the risk exposures, organisations should ensure to utilise a definition which best suits business operations. In accordance, Haubenstock (2002) suggested that every organisation should have a framework which defines operational risk. Organisations should have a definition of operational risk which is aligned to the business operations (Chatered Institution of Management Accountant (CIMA) (2008). Based on these views, it can be deduced that an important principle for risk management is that an organisation should have an approved and recognised definition for operational risk. Furthermore, the definition for operational risk that will be used for this study is as in BCBS (2019:762) which clearly identifies the attributing factors/causes for operational risk: processes, people, systems, and external events.

According to the British Standards ISO 31000 (2018), the purpose of risk management is to achieve an organisation's objectives through integrating the types of risks into manageable tasks. Due to these contributions, it may seem critical to establish an operational risk management framework which facilitates how operational risk management should be implemented in the organisation. Young (2018: 42) recommended that an operational risk management framework should consist of several components: risk management culture, risk management strategy, risk management structure, and risk management process. These components are supported in Blunden and Thirwell (2018: 49) who stated that the operational risk management framework should consist of the governance structure, strategy and the risk management process. BCBS (2019: 771) stated that organisations should have the operational risk function which designs, document and implement the strategy, governance and the risk management process of the organisation. It can be assumed that an organisation should develop and implement an acceptable operational risk management framework with the components of culture, strategy, governance, and risk management as it promotes effective risk management within the organisation. Therefore, it is apparent that a risk management culture should form an integral part of a risk management framework. The next section highlights the components of an ORMF as indicated by (Young 2018, 42).

2.3 COMPONENTS OF THE OPERATIONAL RISK MANAGEMENT FRAMEWORK (ORMF)

The components of the ORMF will be explained below.

2.3.1 Risk management culture

A sound risk management culture in an organisation enhances effective risk management and assist with assessing, escalating, and addressing emerging risks before they occur (Chamoun *et al*, 2019). Therefore, it seems essential that an organisation should ensure that a risk management culture is rooted in the organisation. According to Hull (2012), a risk management's primary function or responsibility of risk management is to understand the risks that the organisation is pursuing and the risks that are likely to emerge in the future. Therefore, it seems important that an organisation should know all the risks that could affect the organisation and should ensure that all risks are assessed and managed. Blunden and Thirwell (2013: 295) argued that operational risk, in most cases, results from human failures. As such, it seems crucial that the root causes of such risks are identified and remediated. Valsamakis, Vivian and Du Toit (2010: 138) argued that human failure incidents may be as a result of processing errors, fraud and key man dependencies hence there should be values and principles in place for managing operational risks. In spite of the human failure incidents and other operational failures, effective risk management is driven by a good risk management culture (Chamoun *et al*, 2019: 7). According to BCBS (2019:536), senior management should play a leading role in ensuring that the risk management culture is integrated in the organisation. Young (2018: 42) suggested that the risk management culture within the operational risk framework should ensure that there are principles in place for managing and embedding a risk management culture in the organisation. The next section will explain the importance of having a risk management strategy in place to manage the risks.

2.3.2 Risk management strategy

Haubenstock (2001) suggested that it is important to ensure that the business objectives are identified in order to achieve the strategy of the organisation. Young (2018: 43) argued that risk management strategies and business strategies should always be in alignment, which is supported by Janakiraman, (2008) asserting that business strategies ought to be correlated with operational risk management strategies. A successful business has a strategy in place (Mestchian, Makarov & Mirzai, 2005). Wade and Springs (2008) advised that organisations should have a strategy in place on how the risk should be managed and mitigated. Dimitris (2004: 14) argued that although operational risk should be strategic, elements of analytics should be included in managing operational risk. Haubenstock (2001) further advised that a strategy serves as an important component in the operational risk framework. Valsamakis *et al,* (2010: 17) suggested that the following risk strategies to control the risks should be included in the operational risk management framework:

- Risk avoidance: refer to avoiding the risk by not taking part of such activity that may potentially give rise to that risk.
- Risk acceptance: refer to accepting to take on the risk which has low impact on the business.
- Risk mitigation: refer to identifying suitable controls to mitigate the risks.
- Risk finance: refer to transferring the risk to a third party, such as insurance.

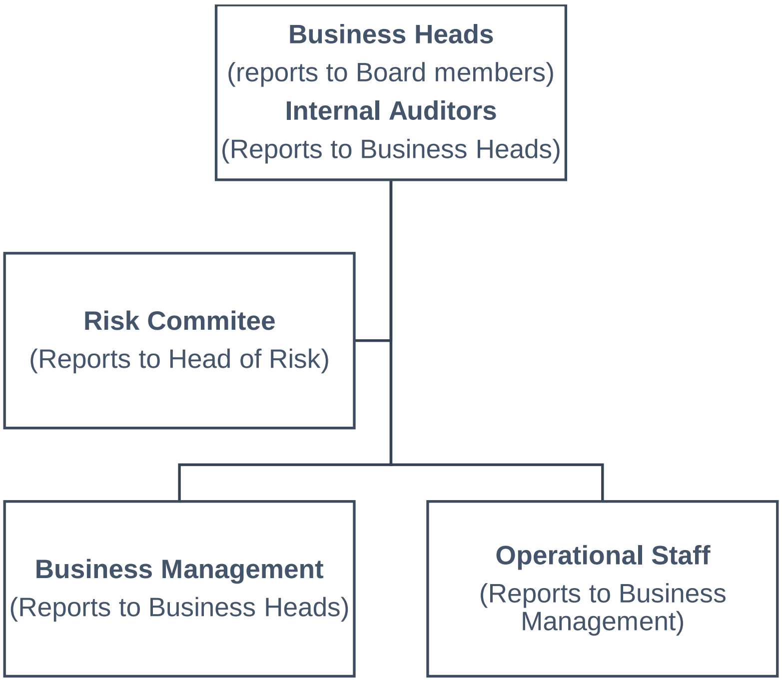
An operational risk framework should have a strategy in place that demonstrates the approach that the organisation will take to manage the risks (Haubenstock, 2001). Young (2018: 42) suggested that the risk strategy within the operational risk framework should include the purpose, mission, and objectives of the organisation. The next section details the importance of having a risk governance/structure in the organisation to manage the risk effectively.

2.3.3 Risk governance/structure

According to King IV (2016: 128), governance is the practice by the governing body advocating for an effective supervision towards achieving an ethical culture. Furthermore, principle 11 of King IV (2016: 41) states that in order to achieve an ethical culture, the governing body must engage in governance, which is the practice of effective oversight. Young (2018: 42) mentioned that the risk management governance of an organisation should include the structure of how operational risk should be managed. Therefore, operational risk within the organisations should be reported through appropriate governance structures and forums.

The risk governance structure should be structured as in Figure 2.1 below to ensure that operational risk is managed and reported effectively through the right channels.

Figure 2. 1 Risk Governance/ structure



Source: Adapted from (Young, 2018: 49)

A brief explanation of the roles and responsibilities is highlighted below.

The internal auditors provide oversight, assurance, and audit processes in the organisation. The risk committee provide oversight, assurance, guidance, recommendations, and advisory services to the organisation. The business heads are accountable and responsible for all processes within the organisation and rely on the business management to drive the strategy. The business managements are accountable and responsible for day-to-day activities within the organisation and reports to the business heads and the operational staff members are responsible for day-to-day activities within the organisation and reports to business management.

Haubenstock (2001) argued that it is important to ensure that the risk governance/structure outlines clear roles and responsibilities which indicate how operational risk will be managed. Young (2018: 42) suggested that the risk governance/structure within the operational risk framework should include the governance structure for managing operational risk. The following section details the three lines of defence governance model as an important element within the risk governance/structure for effective risk management.

2.3.3.1 Three lines of defence governance model

According to the Institute of Internal Auditors (2020), the three lines of defence governance model is effective when it is modified to fit the needs of the organisation and its objectives. The three lines of defence governance model clarifies roles and responsibilities to comprehend knowledge of risk management and control (COSO, 2015). Luburic, Perovic and Sekulovic (2015) highlighted that the three lines of defence should include business line management (1st line), risk management function (2nd line) and internal audit (3rd line) for effective risk management. The roles and responsibilities of the lines of defence are identified and explained in Luburic *et al*, (2015) as:

- Business line management (1st line): these are the risk owners within the organisation accountable for establishing and maintaining efficient internal controls.
- Risk management function (2nd line): the risk management function is responsible for creating a methodology for risk management, supporting the first line of defense during the risk identification and monitoring processes, and reporting to management.
- Internal audit (3rd line): offer independent assurance that an organisations risk management, governance, and internal control procedures are in place and working properly.

The three lines of defence should be adaptive because it understands the significance of roles and how they are coordinated (Institute of Internal Auditors, 2020). Therefore, it seems important for organisations to apply the three lines of defence governance model when implementing the risk management culture as it allows for effective risk management within the organisation. The next section explains the importance of incorporating the risk management process in the operational risk framework and what it aims to achieve.

2.3.4 Risk management process

Blunden and Thirwell (2013: 47) argued that a clear definition of the risk management process is necessary since the operational risk management framework makes the governance structure more feasible. Haubenstock (2001) posited that the operational risk management framework should clearly be understood as it assists with managing the risks in daily activities. Young (2018: 47) advised that the risk management process is the integration of procedures, processes, policies, and the practicality of applying such. Furthermore, Young (2018: 47) explained that the different activities of the risk management process should be included in the operational risk management framework as indicated below.

- Identification: this activity relate to identifying the risk and assessing the impact and probability of the exposures.
- Evaluation: this activity refer to assessing the severity and frequency of the risk.
- Control: this activity refer to identifying suitable controls to mitigate and prevent the impact of the risk.

- Financing: this activity relates to how losses should be recovered, example insurance and staff incentives pools.
- Monitoring: this activity relate to providing assurance on the effectiveness and adequacy of the controls and procedures in place.

Haubenstock (2001) highlighted that it is important to ensure that risk is reported for all risk types in the organisation. This will assist in assessing the trends of the risks and identifying appropriate measures to treat the risks. Monitoring operational risk should be an ongoing process as this will enhance the risk management culture (Young, 2018:139). Hendriks and Hefer-Hendriks (2015: 363) argued that the risks should be reported to the Heads of the Department demonstrating the effectiveness of controls and as such it makes sense that the Head of Departments should remain abreast of what is going on within their respective departments. However, it seems important that the operational risk factors, as per the adopted definition, should also be understood so as to embed a risk management culture within the organisations.

2.4 OPERATIONAL RISK FACTORS

Young (2018: 23) suggested that there are four underlying factors which management may consider when managing operational risks: people, systems, processes and external factors. Blunden and Thirwell (2013: 9) stated that the operational risk factors may assist organisations to manage the events and their impact which seem fundamental in managing losses in the organisation. Valsamakis *et al,* (2010: 136) explained the operational factors as explained below.

- People: operational risk incidents within organisations may emanate from people such as human errors (example: oversight, processing errors and negligence), internal fraud, capacity constraints and failure to follow due process which may results in operational failures (Valsamakis *et al,* 2010: 136).
- Systems: systems have an impact on operational risk as they influence how operations are carried out within the organisations. System issues such as network (connectivity issues) and system time out may negatively impact operations and as such, systems should be monitored (Valsamakis *et al,* 2010: 136).
- Process: processes are important in assisting the organisations to achieve its strategic objectives. Processes should be clear, understood and properly documented. This will assist in mitigating and preventing the organisations from having incidents related to process failures (Valsamakis *et al,* 2010: 136).
- External factor: External risk factors emanate externally from the organisation and refer to exposures that may have a significant impact on operations (Valsamakis *et al,* 2010: 136). An example of an external factor incident are pandemics such as covid-19 which may lead to losses of critical staff members, and this may have a negative impact on operations.

Due to the pandemic, non-essential staff members were working from home which may result in extra cost for internet (Wi-Fi) connections to be able to work remotely, which may have not been part of the initial departmental forecast (budget).

Based on the above explanation, it can be deduced that it is significant to have knowledge of the internal and external operational factors in order to understand the impact that these factors may have on the organisation. If the organisation has an effective risk management culture, this may result in proper management of the operational internal risk factors. The following section illustrates how operational risk can be implemented within organisations.

2.5 IMPLEMENTING OPERATIONAL RISK MANAGEMENT WITHIN ORGANISATIONS

According to Power (2005), operational risk can be regarded as a new discipline to manage operational risk exposures by organisations. Yang, Hsu, Sarker and Lee (2017) suggested that managing operational risk should be strategically significant in order to achieve the objectives of the organisation. Valsamakis *et al,* (2010: 134) mentioned that operational risk management assists in identifying the risks that the organisation may be exposed to. Furthermore, IX (2014) stated that the management of operational risk should ensure that the resources are used effectively and adequately and the below mentioned should be considered when managing operational risk:

- The organisational strategy and the governance structure.
- The organisational three lines of defence.
- The risks that the organisations may be exposed to.
- The business continuity plans in place.
- The method of how information is shared (transparency of reporting and forums in place to discuss operational risk related matters).

Based on the above, it seems significant for organisations to identify the components needed to manage operational risk. It appears that the organisations should have a well organised structure, strategy, and roles and responsibilities for the lines of defence should be clearly articulated to ensure that the risks are well managed. Furthermore, the organisations should have a view of all the risks that impacts them and how business should be able to continue as normal in cases of disruptions. In support of this, information should be shared in an appropriate manner to ensure effective risk management.

Young (2018: 28) stated that although organisations have no direct control of some of the risks (risks due to external factors), it is important to pro-actively manage the risks before they occur. Due to this statement, it may be assumed that it is important for organisations to establish an approach that will be used to manage the risk due to internal and/or external factors. In support of this, risk management should assist organisations to detect, classify, and quantify risks before managing and controlling them (IntechOpen, 2018). It seems important for organisations to identify how the risks should be managed in an organisation. The BCBS (2019:782) inferred that operational risk should be managed per category as listed below:

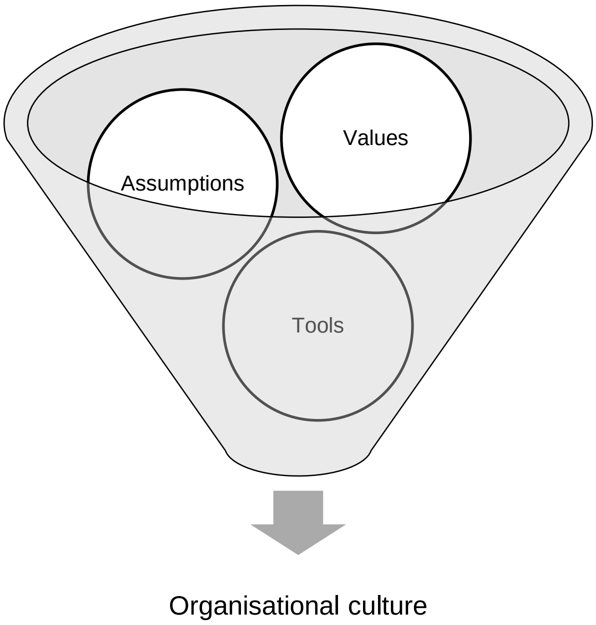
- Internal fraud: this refer to fraud which was perpetuated internally within the organisation and may lead to losses.
- External fraud: this refer to fraud which emanated from outside the organisation and may lead to losses.
- Employment Practice and Workplace safety: this refer to incidents that may arise relating to occupational health safety issues and may give rise to claims.
- Client, Products and Business Practice: this refer to incidents that may arise relating to the products offered by the organisation and may lead to losses.
- Damage to physical assets: this refer to incidents that were due to natural and non-natural events and may lead to losses.
- Business Disruptions and System Failure: this refer to incidents resulting in failed continuation of business operations and system failures.
- Execution, Delivery and Process Management: this refer to an occurrence due to transaction processing errors and may lead to forfeitures.

These categories are known to be Basel III categories and in accordance with them, it seems significant to quantify operational risk events to manage operational risk effectively. The proposal is supported in Araz, Choi, Olson and Salman (2020) who stated that the usage of data for analytical purposes is beneficial for managing operational risk. Such a position may be referenced through sourcing data for different Basel III categories (mentioned above) to manage operational risk effectively and adequately. According to the Committee of Sponsoring Organisation of the Treadway Commission (COSO) (2017: 88), the ability to apply judgement based on the availability of data serves as a crucial principle in operational risk management as it may serve as evidence. It may be deduced that the availability of data as the underlying criteria for embedding the risk management culture is crucial within the organisation to embed a risk management culture. The following section demonstrates how a risk management culture fits into the organisational culture which seems fundamental in rooting it within organisations.

2.6 ORGANISATIONAL CULTURE VERSUS OPERATIONAL RISK MANAGEMENT CULTURE

This section entails unpacking the organisational culture as an important component to determine how effective the risk management culture will be rooted within the organisation. The organisational culture revolves around people and their understanding of the objectives of what the organisation aims to achieve (Maull, Brown & Cliffe, 2001). People within the organisation may perceive the organisational culture through their experiences (Sempane, Rigger & Roodt, 2002). Parker and Bradley (2000) argued that the organisational culture within the organisation may consist of three dimensions as illustrated in Figure 2.2.

Figure 2. 2 Dimensions of an organisational culture



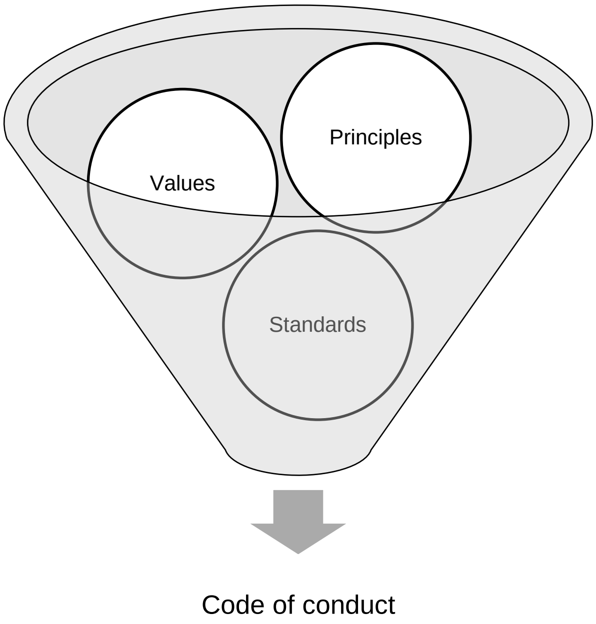
Source: Adapted from (Parker & Bradley, 2000)

The figure illustrates the first dimension as assumptions which refer to people within the organisation assuming how things are meant to be done. It is also an indication that there are no guidelines and standards in place that sets out the direction of how things should be done (Parker & Bradley, 2000). The second dimension is values which refer to standards and norms that the organisation has set in place to abide by. The third dimension refer to tools that have been put in place to drive the culture within the organisation such as systems and frameworks. Based on figure 2.2, it can be deduced that the dimensions of an organisational culture (values, tools and assumptions) are the foundation of establishing the risk management culture within the organisation. The organisational culture is often blamed for poor implementation of the risk management culture (Protiviti, 2012). This is supported in Bozaykut-Buk (2017) stating that the organisation should take advantage of the organisational culture and build on to establish the required risk management culture within the organisation. Therefore, it seems that the organisational culture should enable the implementation of a risk management culture within the organisation.

It seems critical for organisations to envisage the risk management culture that they desire to have. Chamoun *et al*, (2019) highlighted that a risk management culture is defined as the ability to manage operational risk effectively and identify the emerging risks before they occur. According to Protiviti (2012), a risk management culture refer to the ethics, personal behaviour and personal propensity for risk. The definition for the risk management culture that will be used for this study is from Bozaykut-Buk (2017) who highlighted that a risk management culture refer to the standards, norms and values for identifying, managing, and evaluating risks. BCBS (2011) concurs and stated that a risk management culture reflects the principles founded in the organisation to manage operational risk. Therefore, it seems imperative for organisations to have a set of principles for embedding a risk management culture.

Although there may be different dimensions of how organisational culture is perceived, management should enforce the desired risk management culture within the organisation (Milne, 2007). According to the BCBS (2019: 536), management should take a leading role in driving the desired risk management culture. This view is supported in GACP (2019:23), stating that management should be responsible for the risk management culture of the organisation. Furthermore, Willcoxson and Millett (2000) mentioned that an organisation should set the desired risk management culture through a set of values, standards and principles. In addition, the organisations should have a set code of conduct to protect themselves against any setbacks and promote ethical behaviour amongst staff members (Popescu, 2016). Based on the above regarding how the organisational culture is perceived, it may be assumed that organisations should establish a framework which focuses on the values, standards, principles and the code of conduct required to establish a risk management culture. Based on the aforementioned views on the dimensions of a risk management culture and its dimensions, four dimensions can be derived for the purposes of this study: value of risk management, risk management principles, risk management standards and a code of conduct for risk management. These dimensions are illustrated in Figure 2.3 below.

Figure 2. 3 Dimensions of a risk management culture



Source: Adapted from (Willcoxson & Millett, 2000)

The dimensions of the risk management culture will be explained in the next sections.

2.6.1 Values as dimension for a risk management culture

Figure 2.3 shows that values are the first dimension for a risk management culture and these refer to the process of producing work of quality through weighing the costs and the benefits (Smith & Taylor, 2007). According to COSO (2019: 8) organisations are required to determine and understand the values which they are established to achieve. Young (2018: 61) recommended the following criteria for adding value to effective risk management:

- The availability of relevant and reliable information.
- The timeous and systematic response to risks.
- The ability to perform trends analysis in monitoring and tracking risks.
- The ability to identify measures to recover losses incurred, for example insurance.
- The ability to track, monitor and report on the risk through the usage of key risk indicators.
- The ability to report on the risks (transparency and disclosures) to the required governance forums.

Blunden and Thirlwell (2013: 295) added that when value is created within the organisations, the encouragement of managing the risks becomes meaningful. This view is supported in the contributions of the Institute of Risk Management (IRM) (2002), proposing the following values for organisations to prioritise when establishing a risk management culture:

- Enables the organisations to meet their strategic objectives.
- Proactively identifies and manages the risks before occurrence.
- Improves the risk management processes within the organisation.
- Strengthens the organisational governance.
- Assists in making reliable business decisions.
- Promotes the adequacy and efficacy of the internal risk management controls.

It seems that value serves as an important risk management dimension to establish a risk management culture. Understanding and implementing the values seems crucial in assisting the organisation to achieve its strategic objective. In addition, organisations should ensure to have the risk appetite and risk tolerance that will assist the organisations to achieve their strategic objective (Risk and Insurance Management Society (RIMS), 2012). According to The Global Fund (2018), a risk appetite refer to the amount of risk that an organisation is willing to take for it to reach its strategical objectives. The above contribution is supported in COSO (2020) stating that the risk appetite should be linked to the organisational strategy. The risk appetite takes into consideration the amount of the risk that an organisation intends to take on, using risk-return trade-offs (RIMS, 2012). For organisation to understand the concept and implementation of the risk appetite, the following should be in place as according to Deloitte (2015):

- A strong risk management culture.
- An effective change management process.
- A robust risk function that is independent.
- Buy in from management.

Hillson and Murray-Webster (2011) suggested that organisations should be able to ask themselves the question: what level of risk is excessive and how much can the organisation tolerate? According to RIMS (2012), risk tolerance refer to the degree of uncertainty that an organisation is willing to take on across the board or more specifically for a single business area, risk category or an endeavour. The risk tolerance differs to the risk appetite due to the below listed parameters as according to COSO (2020):

- The risk tolerance pertains to important goals.
- The risk tolerance provides direction to staff members performing day-to-day operations throughout the organisation.
- The risk tolerance aids in the comprehension of the risk appetite.

According to Deloitte (2014), risk tolerance focuses on the risks that are just tolerated and not taken actively by the organisations. Hillson and Murray-Webster (2011) suggested that the Board should be equipped with the right knowledge for understanding the risk tolerance of the organisation and the assessments of the risks should be on-going as the risks may change over time. Based on this discussion, it may be assumed that the organisations should know their risk appetite and tolerance levels so that they can plan their affairs accordingly, which will in-turn add value to the organisation.

As per the above, it seems that organisations could benefit from implementing a risk management culture based on implementing values as a dimension for founding a risk management culture within the organisation. As such, the following underlying criteria for values as a dimension of a risk management culture were derived:

- Risk management should create value.
- Risk management should be part of an organisational strategy.
- Risk management should form part of the strategic management process.
- Risk management should use available reliable data.
- Risk management should ensure that the risks are clearly reported.
- Risk management should ensure clear reporting lines to governance forums.
- Risk management should ensure the quantification of the operational risk factors.
- Risk management should ensure that the risk appetite and risk tolerance of the organisation are clearly understood.

The underlying criteria for values as a dimension of risk management culture will be discussed further in the next chapter.

2.6.2 Principles as a dimension for a risk management culture

The second dimension of a typical risk management culture, as shown in Figure 2.3, is the principles for managing risks. A risk management principle is defined as a set of rules put in place by organisations to effectively manage operational risk (Olechowski, Oehmen, Seering & Ben-Daya, 2016). Luburic (2017) suggested that the operational risk management principles allow organisations to make the right decisions for the organisation and that operational risk management should be strategical and timeous. Truslow (2003) recommended the following principles for an effective risk management culture:

- The internal processes within the organisation to manage the risk exposures should be beneficial to internal and external stakeholders, for example staff members, clients, and shareholders.
- The risk is owned by the business units and the risk owners are held accountable and responsible.
- The risk owners should know the risks that are impacting the business.

- The internal processes in place should be understood to allow for a seamless approach in managing the risks. This may be achieved through continuous training and promoting awareness.

Stanciu (2021) suggested that the risk management principles should clearly outline how operational risks within an organisation should be identified, analysed, monitored and reported. The suggestion is supported in BCBS, (2019: 1602) stating that operational risk should include an approach that assists organisations to identify, assess, track, evaluate and report on the risks. Luburic (2017) stated that the risk management principles facilitate the continuous improvement of operational risk within the organisation. According to COSO (2017: 89), the risk management culture of an organisation demonstrates how the risks are identified and assessed, and as such, it seems that risk management principles may assist to effectively manage the risks faced by organisations. In addition, Olechowski *et al,* (2016) recommended that the following risk management principles could be adopted by an organisation to establish an effective operational risk management practice:

- Operational risk management should have a significant role in creating value for the organisation. This will assist in brand creation and making the organisation to be trusted by all stakeholders.
- Operational risk management should form part of the integral organisational process and assist in the decision-making process. It should also assist in addressing any uncertainty and enforcing mitigating actions to address any gaps which may have been identified within the internal processes. The argument is supported in COSO (2017:86) where it is stated that decisions made are as a result of the established risk management culture of the organisation.
- Operational risk management should promote honesty, transparency and inclusivity within the organisation. It should also consider the current culture of the organisation to implement the desired risk management culture.

According to the BCBS (2011), the Board of directors and the senior managers should take the lead in driving the risk management culture within the organisation. It can be argued that establishing a governance committee to oversee the business function is important to implement a risk management culture. To establish a risk management culture, it seems significant to identify the principles that contribute to a typical operational risk management culture.

According to BCBS (2019: 1145), it is fundamental to embed a risk management culture in the organisation as operational risk may be used as a mechanism to manage the risk exposures. Manetje and Martins (2009) stated that there may be challenges experienced by organisations when adapting to the new way of working or embedding new processes within organisations. It seems that the management of operational risk may come with challenges as some staff members may be resistant to change. According to Kemp and Dywer (2001), a consistent approach to an operational risk management culture is ideal for the effectiveness of the organisation in terms of managing the risks. Kuhn and Youngberg (2002) mentioned that having the right risk management culture founded in the organisation will assist to foresee the future, which could potentially affect the organisation. As such, it can be deduced that an operational risk management culture should be founded and relevant according to the needs of an organisation in order to predict the future that could potentially affect the organisation. This assumption is supported in BCBS (2019: 1145) where it is stated that the risk management culture should be rooted effectively within the organisation to be able to manage the risks. Truslow (2003) suggested that for organisations to have a strong risk management culture there should be a solid governance structure and solid principles that the organisation abides by. As a result of the above discussion, it seems that organisations would benefit from establishing a risk management culture, with principles as a dimension for establishing a risk management culture. The risk management principles would assist organisations to manage the risks effectively. The following underlying criteria for principles as a dimension for a risk management culture were derived from the discussion above.

- Risk management should form part of the organisational integral processes.
- Risk management should be utilised in making business decisions.
- Risk management should address any uncertainty.
- Risk management should be systematic and timeous.
- Risk management should be customised to fit business purpose.
- Risk owners should be in place for accountability and responsibility.
- Risk management training should be continuous.

The underlying criteria for principles as a dimension of a risk management culture will be discussed in detail in the preceding chapter. The standards, as another dimension of a risk management culture will be explained in the next section.

2.6.3 Standards as a dimension for a risk management culture

The third dimension of a typical risk management culture is standards. According to the ISO (2018), it is important to understand the organisational context and the standards that are adopted by organisations. It may be assumed that standards set for organisations serves as an important component to embed the desired risk management culture.

As per the discussion above, it seems significant that having the right risk management standards in the organisation is the foundation to establish the desired risk management culture. The standards that may be put in place to ensure effective risk management may include the frameworks, policies and standard operating procedures which will provide guidance and direction on how tasks/duties should be executed. The argument is supported in the IRM (2002) which stated that the standards inform the process of how risk management should be carried out within the organisations. Therefore, it seems significant for organisations to have risk management standards that informs how risk management should be carried out within an organisations.

According to the COSO (2017:20), the Board of directors and the senior managers should set the direction in establishing the right risk management culture through setting strategies and enforcing implementation. The GACP (2019: 92) recommended that a governing body should be established in the organisation to monitor and lead the organisational functions. Based on the discussion above, it seems that organisations should have standards in place that will provide guidance and shed light on how risk should be managed. As a result, the below underlying criteria for standards as a dimension for a risk management culture were derived.

- Risk management should be conceptualised in policies, frameworks, and standard operating procedures.
- Risk management tone should be set by Senior Managers.
- Risk management should be continuously improved and use best practice.

The underlying criteria for standards as a dimension of a risk management culture will be discussed in the following chapter. The next section explains the code of conduct as a dimension for a risk management culture within the organisation.

2.6.4 Code for conduct

According to the Blue Mountain City Council (2008), there should be a code of conduct within the organisations that sets out how staff members should conduct themselves. The Board of directors and senior managers should lead the organisations effectively and ethically by means of an established code of conduct that is continuously reviewed and maintained by all staff members (King IV, 2016: 81). As such, it seems that a code of conduct is an essential dimension to ensure the embedding of the right risk management culture. In addition, it seems essential that establishing the code of conduct is necessary to lay down the foundation of the attitudes/behaviours required to implement the sound risk management culture. According to the Blue Mountain City Council (2008), the underlying criteria for a code of conduct include the following:

- Integrity.

- Honesty.
- Accountability.
- Impartiality.
- Selflessness.
- Respect.
- Ethical behaviour.

A detailed explanation of the underlying criteria for a code of conduct, as a dimension of a risk management culture will be explained in the next chapter.

2.7 CHAPTER CONCLUSION

A sound risk management culture is important for organisations to manage the risks that may impact them in a proper manner. However, it seems important for organisations to embed the right dimensions that are required to establish a risk management culture. Understanding the organisation's strategy and objectives seems significant to pursue the risk management culture embedment journey. Considering the operational risk factors is important in order to manage the risks efficiently and effectively. An organisation should have a plan in place that clearly demonstrates the approach that will be taken to found a sound risk management culture.

It seems important to determine the dimensions of a risk management culture in order to enforce the desired risk management culture within the organisation. Organisations should ensure that the dimensions required to establish a risk management culture are identified and implemented accordingly. The dimensions required to improve the risk management culture that were identified in the study are values, principles, standards, and the code of conduct. In order to implement these dimensions, all staff members have a role to play, nonetheless, senior management should have a leading role and provide support to staff members where necessary.

The first dimension of a risk management culture is values which relate to what the organisations associate themselves with. Understanding the organisation's strategic objective seems important in determining what the organisation's goals are, what it aims to achieve and its values. The staff members should ensure that they understand and acknowledge the organisational strategic objective. It is important for the staff members mandates to be aligned to the strategic objective. The usage of data allows organisations to manage and report the risks better. There should be governance forums to report all risks impacting the organisation and keep management well informed of the risks within their business units. The organisations should also determine their risk appetite and risk tolerance for their organisations. In addition, there should be a process in place of how the risks will be managed and quantified. Based on this discussion, it seems important that understanding the value for risk management is crucial in establishing the right risk management culture within the organisation.

The risk management principles, as the second dimension of a risk management culture, play a crucial role in embedding the desired risk management culture within the organisation. The principles are associated with the concepts that the organisations should abide to in order to establish a risk management culture. This then highlights the importance of embedding risk management principles within the internal business processes. Understanding the risk management principles and utilising them in the business, such as making business decisions and integrating them within the integral processes will benefit the organisation. It seems important that the risks should be managed systematically and timeously in order to manage risk effectively. The risks should be clearly defined and articulated properly with the purpose of managing the risks according to business needs. In addition, risk management should use data, and this will promote honesty, transparency and address any uncertainties. The risks should have owners for accountability and responsibility while embedding risk management culture.

The third dimension is standards which seems important for organisations to have while driving the organisation to the required risk management culture. The standards set will also be beneficial in assisting the organisations to meet its strategic objectives. The standards embrace the frameworks, policies and procedures which guide and provides direction on how things should be done within the organisation. Therefore, it seems crucial for organisations to develop a risk management policies, frameworks and standard operating manuals which will enforce the establishment of the desired risk management culture. The risk management policy, frameworks and procedure manuals should improve the culture through promoting effective risk management. Furthermore, senior managers should lead by example through complying and ensuring staff members also comply to the set framework, policies operating procedure manuals and training should be provided to staff members continuously to promote an effective risk management culture. It may be deduced that standards are important dimensions to embed the risk management culture within the organisation.

The last dimension is the code of conduct, which seems fundamental in driving the organisations to the required risk management culture. The code of conduct has a significant role in encouraging a certain behaviour that is required and must be adopted while embedding an effective risk management culture. The staff members should ensure to produce work of integrity through managing the risks effectively. Having tools (such as the code of conduct) in place is crucial as it complements the processes required to establish the desired risk management culture. The next chapter unpacks the underlying criteria of the dimensions of a risk management culture which were derived from chapter 2.

2.8 CHAPTER SUMMARY

In this chapter literature review discussions were focused on the organisational culture as the foundation to establish a risk management culture. Furthermore, the chapter identified what are the dimensions and underlying criteria for a risk management culture within an organisation. The dimensions and underlying criteria of a risk management culture will be discussed further in the preceding chapter. Based on the discussion, it seems that all dimensions and the underlying criteria are ideal to found an effective risk management culture within organisations.

CHAPTER 3

DIMENSIONS AND UNDERLYING CRITERIA OF A RISK MANAGEMENT CULTURE

3.1 INTRODUCTION

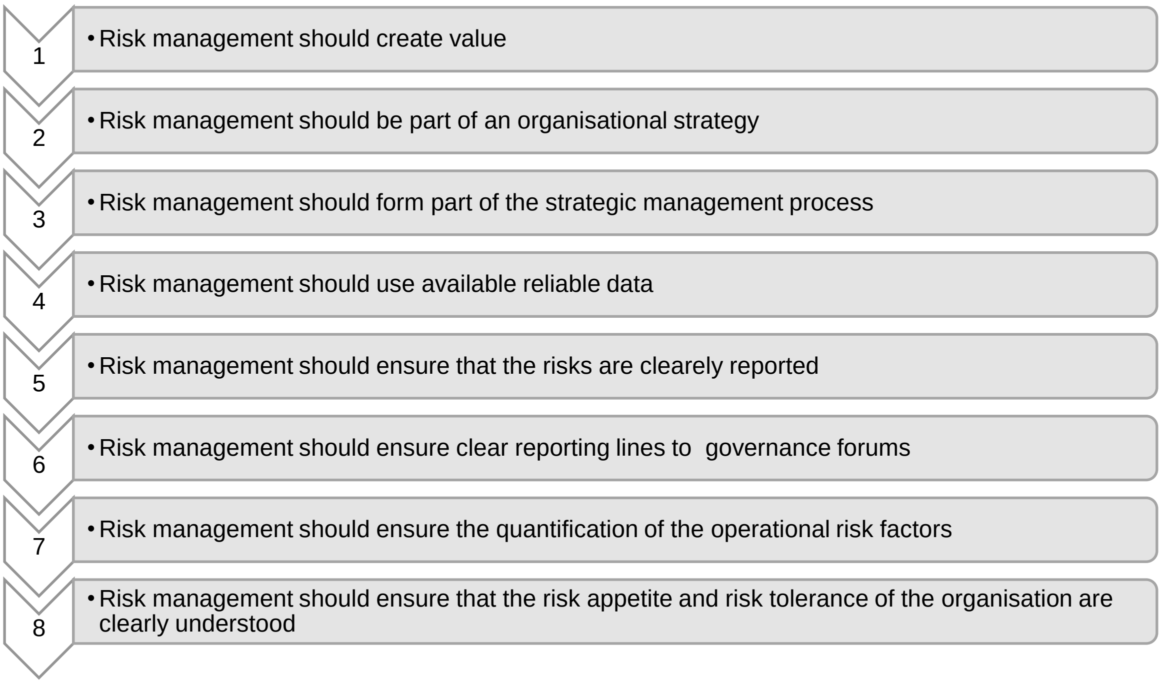
Chapter 2 dealt with the literature on operational risk management with the aim to identify the dimensions and the underlying criteria of a risk management culture. However, it can be assumed that the founding of a risk management culture will be established over a period of time, and it is not an immediate process. Therefore, this chapter continues with literature review discussions that are focused on the underlying criteria of the dimensions of a risk management culture to ensure the progressive development and implementation of a sound risk management culture.

According to Kuhn and Youngberg (2002), organisations should have a tool (framework) in place that will work towards creating an acceptable culture within the organisation. The availability of such a framework will enable the organisation to have a sound risk management culture which may benefit the organisation to effectively manage any risk event that may occur, such as the financial crisis (Bozaykut, 2017). Agyekum (2015) supports the idea in stating that an organisation with a sound risk management culture will have the capacity to manage the risks that impacts it. According to Wieczorek-Kosmala (2014), understanding the risk management criteria to determine the risk management culture may allow for the implementation of adequate and effective measures to establish a sound risk management culture. In addition, Proenca and Borbhina (2017) posited that a risk management culture should be rooted in a structured way. As such, it can be assumed that organisations should adopt a framework that will ensure that the dimensions and the underlying criteria for a risk management culture are adopted and implemented accordingly. The section below explains the underlying criteria of values as a dimension for a risk management culture.

3.2 THE UNDERLYING CRITERIA OF VALUES AS A DIMENSION FOR A RISK MANAGEMENT CULTURE

This section will unpack the underlying criteria for values as a dimension of a risk management culture which were derived from the previous chapter. The criteria provides an overview of the significance of organisations having values for risk management to embed the right risk management culture. It seems important for organisations to understand the value that risk management brings to the organisation, as such, the section below will endeavour to clarify and explain the significance of the underlying criteria of values as a dimension of a risk management culture. Figure 3.1 is a conceptualisation of the underlying criteria driving values as a dimension of risk management.

Figure 3. 1 The underlying criteria for values



Source: Author's own interpretation

The ensuing section unpacks the underlying criteria of values as a dimension of risk management.

3.2 1 Risk management should create value

Mestchian *et al,* (2005) suggested that an organisation's primary objective should be to obtain success which should be driven by ensuring value to the organisation. These values should benefit organisations in a sustainable manner to ensure that the business operates efficiently and effectively (King IV, 2016:23). Furthermore, the organisations should convey the value of risk management throughout the organisation (McKinsey & Company, 2015). Janakiraman (2008) recommended that the organisational strategy should be aligned to the business strategy with the aim of creating value. It may be assumed that the organisations need to understand the values that the internal processes are intended to achieve. Therefore, it can be deduced that the management of risks must add value which seems like an essential criterion for establishing a sound risk management culture. Furthermore, this should also add to the defining of realistic business strategies. The following section provides an overview of the underlying criterion for risk management being part of an organisational strategy.

3.2 2 Risk management should be part of an organisational strategy

According to Mantere (2014) organisational strategy refer to a long-term plan that details how an organisation will use its resources to support its operations. Burns (2011) highlighted that risk management should support the organisational strategy. In support of these arguments, risk management should form part of the strategy setting of the organisation in order to identify any emerging risks that may occur and have a negative impact to achieving the strategy (Najjaar, Yasseen & Small, 2017). Guliyeva (2020) stated that considering risk management when the strategy is drafted will assist the organisation to achieve its strategic objectives. Bensaid, Ishak and Mustapa (2021) highlighted that integrating risk management within the strategy assist organisations to meet its strategic objectives. Mantere (2014) stated that the organisational strategy has a direct impact on all staff members. Bozaykut (2017) recommended that risk management should be valued in the organisation in order to embed an acceptable risk management culture. Agyekum (2015) argued that senior management should lead by example through valuing and appreciating the risk management culture. In response, Bozaykut (2017) stated that the organisational strategic objective should be aligned to the risk management culture that the organisations desires to have. Based on the above, it can be deduced that including risk management in the formation of the strategic objectives opens a platform to establish a risk management culture within the organisation and as such it is a crucial underlying criterion for rooting the right risk management culture within the organisation. The next section highlights risk management forming part of the strategic risk management process as an underlying criterion to establish a sound risk management culture.

3.2.3 Risk management should form part of the strategic management process

Risk management should be incorporated into the organisation's strategic management process (COSO, 2020). Asadi (2015) highlighted that if organisations do not consider their risks when developing strategies, the organisation may likely suffer losses or impairments. Wallace and McClure (2012) highlighted that for an organisational strategy to work as desired, the below strategic focal point wheel should be in place and executed accordingly.

Figure 3. 2 Strategic focal point wheel

Source: Adapted from (Wallace & McClure, 2012)

The strategic focal point wheel illustrates the following:

- Strategic planning: this refer to organisations unpacking the different options that they have and choosing the best option that is suitable for the organisation.
- Making the strategy work: this refer to implementing the strategy based on daily operations.
- Project management (change): This refer to the organisation having the right tools (e.g systems and controls) to ensure that the strategy is attainable.
- Strategic risk management: this refer to the organisation closely monitoring the implementation of the strategy and identifying if there are any risk exposures that may emanate and have a negative impact on the organisation achieving their strategic objectives.

Risk management should be integrated within the strategic management process (Shire of Northampton, 2019). Based on the above discussion, it seems that incorporating risk management into the strategic management process is important to establish the right risk management culture within the organisations and as such, this underlying criterion of the dimensions of a risk management culture is important to embed the right risk management culture within organisations. The section below unpacks the importance of using available data for risk management purpose as an underlying criterion to embed a risk management culture within the organisations.

3.2.4 Risk management should use available reliable data

Organisations should be able to track and monitor operational risk systematically through the usage of data (BCBS, 2019: 771). Gathering appropriate data to monitor and track operational risk is fundamental as it assists organisations to detect and monitor the risks before occurrence and also identify potential emerging risks (EijFinger, 2010). Araz *et al,* (2020) recommended the usage of data analytics in operational risk management as it enhances the control environment. Furthermore, organisations should use data to identify any emerging risks (Infolock, 2017). IX (2014) added that operational risk should be managed and tracked through data and thresholds settings. According to Pecek and Kovacic (2019), organisations should learn from their past mistakes in order to prepare for the future and this could be achieved through gathering data to perform the trend analysis. Therefore, it seems important for organisations to employ the usage of data to prevent losses (Chernobai, Rachev & Fabozzi, 2007). Akrani (2012) posited that using data serves as a good indicator to identify the probabilities and likelihood of the risks occurring. Based on the discussion, it can be assumed that using data for managing operational risk is an important criterion to root a sound risk management culture. The next section outlines the significance of clearly reporting the risks (for example, to management and governance forums) to avoid confusion as an important criterion to embed the risk management culture.

3.2.5 Risk management should ensure that the risks are clearly reported

According to PWC (2011), risk reporting drives the communication and reignite the value that the risk function provides in the organisation. Dominquez and Gamez (2013) highlighted that reporting on the risks provides information on any uncertainties and risk exposures that may have an impact on the organisation. Reporting on the risks that are accurate and complete is the foundation of establishing a sound risk management culture (BCBS, 2013). According to the Association of Chattered Certified Accountants (2014), the principles of reporting on the risks are as detailed below.

- The risk reports should be clear and understandable.
- The risk reports should be comprehensive and include all the risks.
- The contents of the risk report should not be outdated.
- There should be consistency in reporting the risks.
- The risk reports should be provided as per the agreed timelines.

Based on the above, it seems significant to report on the risks as it allows for effective risk management. The position is supported by the United Nations on Trade and Development (2017) which advocated that reporting on the risks allow organisations to make informed decisions, considering the risks and their implications which seems important in establishing a risk management culture. The section below highlights the importance of reporting the risk in governance forums as a significant underlying criterion to embed a sound risk management culture.

3.2.6 Risk management should ensure clear reporting lines to governance forums

Burns (2011) highlighted that risk monitoring and escalation to the proper management levels are essential components of effective risk management. Nevertheless, reporting on the risk to governance forums is dependent on how risk management has been rooted within the organisation (PWC, 2011). A good governance forum for risk management constitutes of the risk owners, managers, executives, and the board (Latin American Development Bank, 2012). The governance forums ensure adequate risk management which reduce operational risks and enhances organisational performance (Bensaid *et al*, 2021).

Risk owners, management, and staff members should be skilled and knowledgeable about reporting risk issues. Risks that cannot be resolved at one level are conveyed to the next level using the mechanism of escalation to guarantee that every attempt is taken to reduce the risk.

- Reporting of risk should be timeous: this means that it is important to raise the risks as soon as possible so that a resolution can be adopted.
- Reporting of the risks should be documented: this implies that every risk must be documented, as a necessity, in risk registers or risk action plans. It is encouraged to write an email in cases of verbal escalation of the risks.

According to Najjaar *et al*, (2017), reporting on the risks to governance forums allows for the identification of a suitable method that enables important key risks within the organisation to be monitored and mitigated. Caraiman and Mates (2020) highlighted that governance forums ensure that the organisation does not take risks that could hinder it from accomplishing its strategic objectives. It may be deduced that reporting on the risks to governance forums, is an important underlying criterion to embed the sound risk management culture as it ensures that the key risks are identified, managed, and tracked which may be detrimental to the organisation if not monitored appropriately. The section below highlights the importance of quantifying the operational risk factors to ensure effective risk management which seems fundamental to establish the right risk management culture within the organisation.

3.2.7 Risk management should ensure the quantification of the operational risk factors

Risk management assist organisations to manage the risks (Neary, 2014). To achieve effective operational risk management, it is important to understand the underlying risk factors and ensure regular, consistent reporting of exposures to management (BCBS 2019: 780). It seems that organisations should have a procedure in place which provides guidance on how operational risk factors should be quantified. The fundamental factors under quantifying the operational risk factors are explained below.

Key Risk Indicators (KRI): According to COSO (2010), the KRI refer to the metrics put by organisations to provide early warning signals for the occurrence of the risks. Kumar (2021) highlighted that having the KRI metrics in place is very essential as it assists organisations to identify emerging risks before occurrence and ensure that there are actions plans in place to manage the emerging risks. It is ideal to have thresholds embedded within the KRI process as this will assist in determining the risk appetite of the organisation (Brink & Leipoldt, 2022). Based on the above, it seems crucial to have KRI process in managing the operational risk factor as this will ensure effective risk management and contribute to establishing the right risk management culture within the organisation.

Scenario analysis: According to Airmic (2016) scenario analysis refer to alternate perspectives on what likely future events might occur. It is important for management to determine which elements should be considered when performing scenario analysis (Zurich, 2017). In addition, the impact of the scenario should be evaluated to determine the organisational exposure (Dutta & Baabel, 2014). Berg (2014) highlighted that organisations should have a process in place for dealing with an uncertain future that may negatively impact the organisation. Based on the above, it seems that having a scenario process within the operational risk factors is a crucial underlying criterion for a risk management culture as it will assist the organisations to be better prepared for the unknown future events,

Risk and Control Self Assessments (RCSA): According to ORX (2020) the purpose of the RCSA is to make it possible for an organisation to manage and keep track of its key operational risks and controls, thus lowering the probability that unfavorable occurrences would occur. The RCSA is used to evaluate an organisation's controls' performance (Deloitte, 2014). The controls within the RCSA should be detailed enough to make it possible for organisations to identify any exposures to the risks (Risk Business International, 2013). It can be posited that the RCSA is an important tool to assess the risks and evaluate the effectiveness of the controls to manage vulnerabilities. And as such, having the RCSA within the operational risk factors as the underling criterion for risk management seems significant to establish a sound risk management culture within the organisation.

Risk incidents management: According to Olzak (2017) a risk incident refer to insignificant/significant occurrence that may cause hinderances to the organisations. It is important for staff members to log critical incidents immediately on the centralized database/system to ensure that the issues are resolved before the organisation can be severely impacted (University of South Australia, 2021). According to the National Disability Services (2021), an acceptable risk incidents management process should include the following:

- Identification of action plans to prevent/mitigate the risk exposure.
- Continuous training for staff members to ensure compliance with the risk incidents management process.
- Centralized database to store risk incidents, this will also assist in performing a trend analysis to identify recurring themes.
- Timeous reporting of the risk incidents.
- Taking lessons from risk incidents occurred and improve controls to prevent the occurrence.

Evans (2019) stated that organisations should identify the risk mitigation strategies that can be put in place to manage risk incidents, such as risk transfer, risk acceptance and risk avoidance. In support of this, it is advisable for organisations to have financial protection against risk incidents to recover losses in cases of disastrous events, for example, insurance (Department of international Development, 2016). Sturgess (2016) highlighted that organisations should have financial protection against losses. Based on the above, it seems that having a risk incidents management process within the operational factors is a crucial underlying criterion to have a sound risk management culture as this will assist in managing incidents and prevents future reoccurrence of those incidents. The next section explains the importance of risk appetite and risk tolerance as an underlying criterion to establish the risk management culture within the organisation.

3.2.8 Risk management should ensure that the risk appetite and risk tolerance are clearly understood

Risk appetite refer to the overall level of risk that a business is willing to accept in order to achieve its strategic goals (The Global Fund, 2018) and risk tolerance refer to the willingness of an organisation to accept the risk, for example, in their investments typically in the form of a potential loss of capital (Sivarajan, 2018). The statements which define the risk appetite and the risk tolerance level for the organisation should be clearly articulated and understood by the staff members (Institute of Risk Management, 2017). The risk appetite and risk tolerance determine how much risk is the organisation willing to take (Australian government, 2016). In support of these arguments, organisations should be able to differentiate between the risk appetite and the risk tolerance and ensure there is no confusion (RIMS, 2012). The section below highlights the difference between the risk appetite and the risk tolerance.

Source	Risk appetite	Risk tolerance
ISO Guide (2009) Risk management vocabulary	The quantity and kind of risk that an organisation is willing to take on or hold onto.	The willingness of the organisation to accept the risk after risk mitigation in order to achieve its goals.
COSO (2009) Strengthening Enterprise Risk Management for Strategic Advantage	A general statement of the level of risk that an organisation wants to accept in pursuing its objective.	Reflects the allowable range of results for particular performance indicators associated with the goals the institution is trying to meet.
BSI 31100 (2008) Risk management	Amount and kind of risk that an organisation is willing to take on, accept, or tolerate.	The organisations willingness to take on risk after risk mitigation in order to meet its goals.
Dean and Giffin (2009), What's Your Risk Appetite	The ultimate amount of risk exposure that an organisation is prepared to tolerate or keep based on risk-reward trade-offs.	The overall level of risk an organisation is willing to take.

Source	Risk appetite	Risk tolerance
ECIIA and FERMA, (2011) Guidance on the 8th EU Company Law Directive, article 41	The degree of risk that the organisation is prepared to accept.	The greatest risk that an organisation can tolerate while maintaining controls.

Table 3. 1 Difference between the risk appetite and risk tolerance

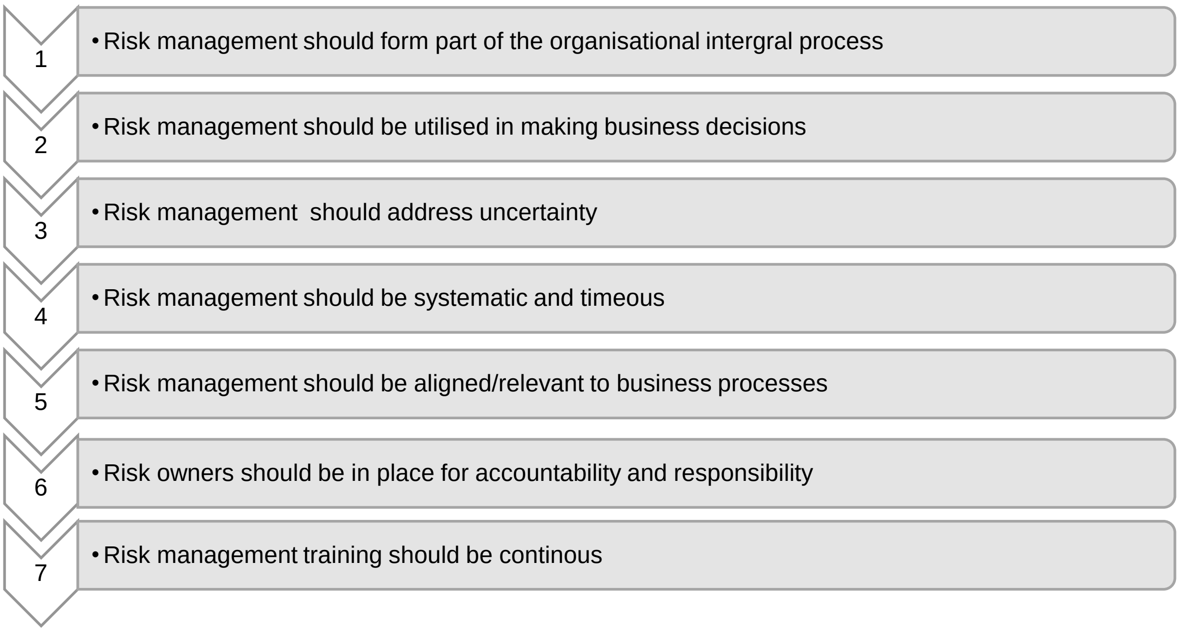
Source: Adapted from (RIMS, 2012)

According to COSO (2020) as supported in Varadi (2015), risk appetite should be the core in making business decisions and organisations should consider taking the risks if the returns are justifiable. Hasani (2014) stated that the creation of effective earnings, is risk management's ultimate objective. As such, it is critical for the risk appetite to be measured and be set by people of higher powers such as the Board (The Global Fund, 2018). Risk appetite should be aligned to the goals that the organisation is aiming to achieve (ECIIA & FERMA, 2011). Organisations should evaluate their business models and strategic hazards when determining the risk appetite (IRM, 2017). With regards to the risk tolerance, it should be aligned with the organisational performance and determined by people with higher powers such as the executives within the organisation (COSO, 2020). Organisations should define what their risk tolerance is (ECIIA & FERMA, (2011). Based on the above discussion, it seems crucial for organisations to understand how the value dimension and its underlying criteria are crucial to found sound risk management and implementation within the organisation. The section below narrates the underlying criteria of principles as a dimension to implement a risk management culture.

3.3 THE UNDERLYING CRITERIA OF PRINCIPLES AS A DIMENSION FOR A RISK MANAGEMENT CULTURE

The fundamental criteria for principles as a dimension of a risk management culture, which were obtained from the previous chapter, will be explained in this section as it seems clear that a sound risk management culture must be supported by a set of principles. The section provides an overview of how important it is for organisations to have criterion for principles of risk management in order to instill the proper risk management culture. The risk management principles are the fundamentals which promotes a strong risk management culture within the organisations (Deloitte, 2012). MacGregor and Calkin (2016) highlighted that risk management principles are necessary to bring about change within the organisation and increase the likelihood of the organisation in building a good risk management culture. Each of these principles, identified in Figure 3.3 below will be elaborated on to explain the dimension to ensure a sound knowledge base and understanding of each criterion according to existing literature.

Figure 3. 3 The underlying criteria for principles



Source: Author's own interpretation

The section below highlights the underlying criteria for principles as a dimension for risk management culture.

3.3.1 Risk management should form part of the organisational integral processes

According to ISO 31000 (2009), a risk management process should not be isolated from the internal processes but should be integrated and aligned with the strategy of the organisation. The integration view is supported in COSO (2017: 53) asserting that managing operational risk should be integral in order to achieve the organisation's goals and strategy. Risk management should be integrated into the internal processes to assist organisations to achieve their goals (CIMA, 2008). According to Uzoamaka, Ifeoma and Amakor (2013), integrating risk management into business process management will benefit the organisation by shielding it from losses, unforeseen risk exposures, and reputational damage. In support of this, integrating risk management into the organisational processes will ensure that the risks do not negatively impact the organisation (Federal Office for Civil Protection, 2014). Therefore, it is clear that operational risk management should be included in the planning, controlling and monitoring of internal processes within the organisation (BCBS 2019: 528). As such, it seems that if risk management is founded within the internal processes, an organisation is in a better position to achieve its desired objectives and strategies which could add to an effective organisational risk management culture. It may be deduced that having risk management within the organisational integral processes is important to establish a risk management culture and can be regarded as an important criterion of the principles dimension for a risk management culture. The next section explains the significance of including risk management in the decision-making process which will be possible if the right risk management culture is founded within organisations.

3.3.2 Risk management should be utilised in making business decisions

According to COSO (2017), the decisions made within the organisations are because of the established risk management culture. Radoica (2017) argued that the decisions made based on facts result in proper management of the risks. This is supported by Jackson (2010) who mentioned that integrating risk management within the internal processes adds value in the decision-making process for the organisations. According to ISO 31000 (2019), risk management can assist organisations to make risk-based and informed decisions and set priorities. Mill (2001) also confirmed that risk management is crucial for decision-making. Md.Sum (2013) highlighted that risk management assist organisations to make well informed decisions. In addition, Hopkins (2010) recommended that organisations should have tools in place that assist in making decisions. Based on the aforementioned, it seems clear that risk management should form a platform to make risk-based informed decisions. In addition, it seems that decisions made without proper considerations of the risks involved and its impact may potentially be harmful and be an obstacle to establish the risk management culture within the organisations. Therefore, embedding the principles of a risk management culture should assist organisations to manage the risks associated with the decisions. The next section details how risk management may address uncertainty within the organisations which may be possible if right risk management culture is established.

3.3.3 Risk management should address uncertainty

According to ISO 31000 (2019), risk management can address any uncertainty that may arise within the organisation. Benke, Hamilton and Lowell (2007) suggested that risk management should deal with managing hazards within organisations. Organisations should have proper controls in place to mitigate risk exposures (Organisation for Economic Co-operation and Development (OECD), 2014). In support of this, risk management assist the organisation to identify the potential for unfavorable events, which could enable management to be proactive in creating risk control measures (Jedynak & Bak, 2020).

Due to this statement, it may be assumed that proper management of operational risk may result in detecting potential risks and any uncertainties which may occur. Ursula (2013) mentioned that the manner of how the risks is responded to and addressed within organisations is dependent on the organisational risk management culture. According to Abdo (2017), it is important to understand the risk context and perform an analysis on the risks to address any uncertainties. The inability to address any risk uncertainties may have damaging consequences for an organisation (Mills, 2001). This could mean that to address the risk uncertainties, the risks should be clearly articulated and explained, including understanding the probabilities and likelihood of the occurrence of such risks (Thomas, Bratvold & Bickel, 2013). Based on the discussion, it may be deduced that proper risk management may assist in addressing any uncertainties within organisations and thus is an important underlying criterion to implement a risk management culture. The next section explains the importance of dealing with risk in a systematic and timeous manner when aspiring to embed the right risk management culture within the organisation.

3.3.4 Risk management should be systematic and timeous

According to BCBS (2019: 714), organisations should have a documented approach on how risk should be managed. The systematic and timeous approach to risk management is important as it puts risk related matters into perspective when implementing a risk management culture (Mills, 2001). This approach should be applied consistently and effectively as it will contribute to an organisation's success (ISO 31000, 2009). Akrani (2012) recommended that having a systematic and timeous operational risk management process assists organisations to not be negatively impacted by any external factors. Renault, Agumba and Ansary (2016) highlighted that lack of timely and systematic risk management will make it difficult for the organisation to achieve its objectives. EijFinger (2010) stated that there should be good control measures in place that assist organisations to manage operational risk exposures in a systematic and timeous manner. It seems that having a systematic approach to operational risk management and the ability to respond to risk events in a timely manner could benefit organisations as this will prevent, mitigate and detect any potential risks before occurrence. Based on the above, it may be deduced that having the ability to deal with the risks in a systematic and timeous manner is crucial to establish the right risk management culture. The following section details the importance of aligning the risks according to business needs to establish a risk management culture.

3.3.5 Risk management should be aligned/relevant to the business processes

The management of risk should be aligned to an organisational risk profile in order to effectively manage the risks (ISO 310000, 2009). According to Jones (2016), the knowledge of risk management is important when managing the risks that are relevant to business processes. Sterc, Storga, Rohde and Marjanovic (2014) stated that the risk management culture within an organisation determines the approaches that an organisation may choose to manage the risks. The United States Agency International Developments (USAID) (2014) suggested that organisations should have risk management plans in place which will protect the organisation from incurring any risks. In order to achieve this, an organisation should have the right risk management culture as this will assist in aligning the risks according to the organisational needs (Institute of Management Accountant, 2007). Furthermore, aligning the risks to business processes enables proper risk management (Asian Development Bank, 2014). Based on the above, it may be deduced that managing the right risks risk to fit business needs is important to establish a risk management culture within the organisation. The next section deals with the importance of having risk owners within the organisation for accountability and responsibility when founding a risk management culture.

3.3.6 Risk owners should be in place for accountability and responsibility

A risk owner refer to a person with the responsibility and power to control the risk (Saskatchewan, 2021). According to Young and Jones (2017), organisations should ensure that all the risks identified have ownership as this will ensure that the risks are managed effectively and there is accountability and responsibility. In support of this, risk owners are held accountable and responsible for the risks they manage (Risk Management Capability, 2012). To ensure accountability and responsibility, the risk owners should be senior managers, and the risk committee forums should ensure that they participate and answer for the risks they manage (OECD, 2014). In support of this, organisations should clearly specify who the risk owners are for that particular business unit for accountability and responsibility (Parole Board for England and Wales, 2008). Furthermore, organisations should be able to ask themselves the following questions pertaining the risk owners as cited in Parole Board for England and Wales (2008).

- Are there risk owners assigned throughout the risk management process?
- Do those who have been given risk ownership have the power and capacity to carry out their obligations?
- Is the risk ownership assessed on an on-going basis?
- Do the residual risks identified, if any, have mitigating action plans and risk owners assigned to ensure that the issues are resolved?
- Are the risks allocated to the appropriate persons?

Peter and Gjerdrum (2011) highlighted that it is important for organisations to have risk owners as this will assist the organisations to achieve its goals whilst managing any threats that may potentially harm them. It can be deduced that for an organisation to manage the risks efficiently and effectively, there should be risk owners in place who are held accountable and responsible for the risks they own and as such, this seems important when establishing a sound risk management culture within the organisations. The next section highlights the significance of continuously training staff members regarding risk management to stay relevant.

3.3.7 Risk management training should be continuous

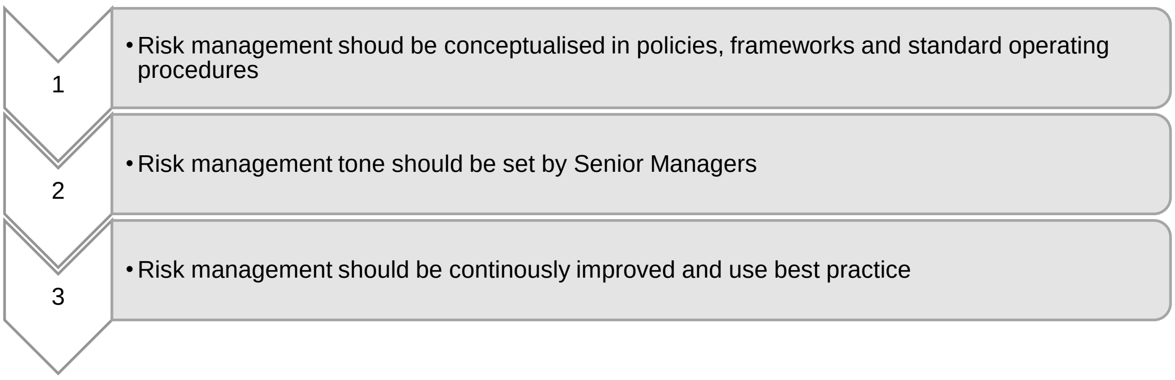
According to Burns (2011), there should be continuous risk management training to support and help staff members in managing the risks within the organisation. Najjaar *et al,* (2017) highlighted that organisations should ensure that the staff members are continuously trained and equipped with the right/skills and competencies to manage the risks. Furthermore, risk management training offers systematic approaches to identify, assess, and manage risks in order to lessen their detrimental effects on the organisation (Mustaffa, Isa & Preece, 2022). The training of staff members regarding risk management is crucial as it assist organisations to address the risk during uncertain periods and embedding the right risk management culture within the organisation (PWC, 2017).

According to Thompson, MacGregor and Calkin (2016), the risk management principles are significant to bring change and improve an organisation's risk management culture. This is supported by Luko (2013) through stating that the risk management principles should be clearly articulated and understood by staff members in order to manage risk properly. Hopkin (2012) recommends that organisations should ensure proper compliance to the risk management principles as this will enable successful risk management within the organisation. It seems that if the risk management principles are rooted properly, the organisation will be fit enough to manage the risks in an appropriate manner and embed the right risk management culture. The next section explains the underlying criteria of standards as a dimension for a risk management culture.

3.4 THE UNDERLYING CRITERIA OF STANDARDS AS A DIMENSION FOR A RISK MANAGEMENT CULTURE

This section will provide an overview of the underlying criteria for standards as a dimension for a risk management culture that were identified in the previous chapter. According to ISO 31000 (2018), risk management standards foster a culture of risk management where staff members and stakeholders appreciate the need to manage risks. It seems that organisations should employ standards that will assist them to establish a sound risk management culture. The ensuing underlying criteria will be explained and clarified to ensure a clear and broader understanding of the criteria when establishing a risk management culture.

Figure 3. 4 The underlying criteria for standards



Source: Author's own interpretation

The section below explains the underlying criteria of standards as a dimension for a risk management culture.

3.4.1 Risk management should be conceptualised in policies, framework, and standard operating procedures

According to Mohd- Rahim, Zainon and Loo (2020), risk management should be conceptualised to establish its context within the organisations. In response to that, organisations should have policies and procedures in place that conceptualise risk management (Young, 2010). Effective implementation of such policies and procedures may be achieved through promoting awareness, for example training sessions with staff members. Risk management policies, frameworks, and standard operating procedures assist organisations to establish operational guidelines for staff members (Global Partnership for Education (2019). According to Raheja (2018), the policies, frameworks and procedure documents are very important in the organisation as they provide guidance on how business should be conducted. This is supported by OECD (2014) through stating that the policy and procedure guidelines describe how the business should be managed. Furthermore, the risk management policies, frameworks and procedures make it possible to manage and address the risks and opportunities, and improve business processes (Meiryani, 2018). According to OECD (2014), the risk management policies and frameworks should ensure that the internal controls are adequate and effective to minimise exposure to business-related hazards. The policies, frameworks, and procedure documents should clearly articulate the roles and responsibilities of the staff members and gets approved by the seniors in the organisations, for example managers (Mutual, 2016). Based on the discussion, it seems that having the frameworks, policies, and procedure manuals is essential in the organisation as they guide the staff members to perform their duties in a described manner with the aim of achieving the organisational strategic objective, Furthermore, such documents should be readily available to staff members at all times for ease of referrals. It can be deduced that setting the standards of how risk management culture should be founded must be documented (for example in policies, frameworks) and implemented accordingly to establish a risk management culture within the organisations. The section below explains the underlying criterion of embedding a risk management culture through managers leading by example.

3.4.2 Risk management tone should be set by senior managers

According to Mckinsey and Company (2010) organisations should have an approach for risk management were seniors, such as management and executives identifies the top or major risks affecting the performance of the organisation, promote risk-informed choices, provide a risk dialogue among the management team, and enable adequate risk oversight by the board. In support of this, this approach will assist the management to identify the key risks which may have a negative impact to the organisations strategy (Elarif, 2014). The management should lead by example and esure compliance to the internal risk managemnet policies and frameworks (OECD, 2014). In support of this, a top-down approach were management lead by example makes effective risk management possible (McKinsey & Company, 2015). Based on the discussion, it seems that organisations should ensure the management is equiped with the right risk management skills and knowledge to enforce the required risk management culture and such constitutes crucial underlying criterion to implement a sound risk management culture within the organisation. The next section highlights the importance of continously improving on risk management to remain abreast and ensure a sound risk management culture within the organisation.

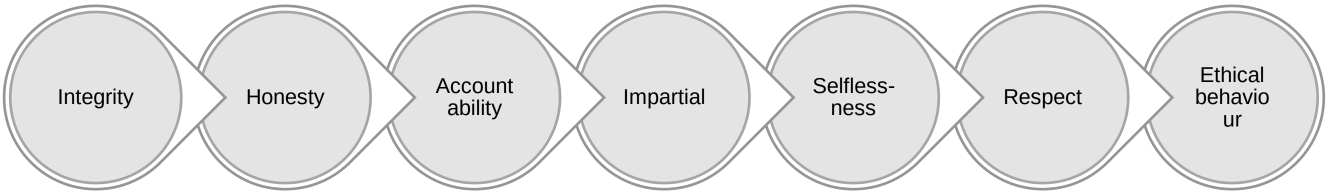
3.4.3 Risk management should be continuously improved and use best practice

According to the OECD (2014), the organisastion's Board of directors must ensure that internal control and processes are effective for risk management and are suitable given the size and kind of the organisations's activities. In addition, organisations should ensure pro-active risk management (Benta, Podean & Mircean, 2011). Management should ensure that the organisation is operating with best practice and provide assurance to the board that the risks are management effectively (BCBS, 2011). Using the best practice within the organisations strenghthens the organisations process, in addition, organisations should conduct benchmarking exerices and researches to stay abreast (KPMG, 2007). Furthermore, continous improvement of risk management allows for better management of the risks (Tenterfield Shire Council, 2020). It seems that organisations should be pro-active when managing the risks and ensure alignment with the best practices globally to have a sound risk managemnet culture within the organisation. In addition, organisations should ensure that the underlying criteria for standards as a dimension for a risk management culture are well understood and implemented accordingly to embed the right risk management culture within the organisation. The underlying criteria for dimensions of the code of conduct as a base to establish a risk management culture will be explained in the next section.

3.5 THE UNDERLYING CRITERIA OF THE CODE OF CONDUCT AS A DIMENSION FOR A RISK MANAGEMENT CULTURE

This section explains the underlying criteria for the code of conduct as a dimension for a risk management culture. The dimension was listed in the previous chapter and discussion ensures as to how it can be a platform to implement the code of conduct as a dimension for a risk management culture. It is important for organisations to determine the right attitudes and behaviours that staff members should possess for organisations to be successful in achieving its business objectives. The section below provides an overview of the underlying criteria of the code of conduct as a dimension which seems essential to establish a sound risk management culture within the organisation.

Figure 3. 5 The underlying criteria for the code of conduct



Source: Adapted from (Blue Mountains City Council, 2008)

According to Popescu (2016), establishing the code of conduct within organisations promotes ethical behaviour and prevents any wrong doings by staff members. This is supported by Singh (2017) in that having the code of conduct within the organisation exhibit an ethical culture. Furthermore, Singh (2017) recommends that the code of conduct should be clearly articulated which will allow staff members to understand the ethical behaviours and the conduct that is required. It is recommended that all breaches of the code of conduct should be escalated to the right channels, such as the ethical committee (Blue Mountain City Council, 2009). Blue Mountains City Council (2008) further stated that embedding the code of conduct allows factors such as integrity, honesty, selflessness, impartialness, respect and accountability, ethical behaviour to reign within the organisation. Each of these factors will be dealt with in order to determine if it can be regarded as a criterion for the dimension of the code of conduct as it relates to a risk management culture.

Integrity: According to Hubert (2018), integrity refer to executing the given tasks effectively, responsibly, adequately and taking into consideration the organisation's interest. Noelliste (2013) encourages continuous integrity training and awareness sessions for staff members as this will result in the organisation being the most preferred and admired by staff members and the society at large due to the good reputation it has established. It seems that when staff members exercise their duties to the best of their abilities and follow the code of conduct, the work produced by staff members will have integrity. In support of this, the code of conduct assists staff members to carry out their duties with integrity while putting the risk management culture into practice (Singh and Prasad, 2017). Risk management should be ingrained throughout the organisation and staff members should act with integrity in their dealings (Petroleum Geo-Services, 2021). Given the importance of integrity within the organisation, having integrity may in turn assist the organisation to have the right morals needed to embed the required risk management culture.

Honesty: According to Rose- Ackerman (2001), honesty refer to the ability to tell the truth and uphold the truth. McDonald and Goodman (2020) recommend that honesty and trust should be interlinked as they both have a significant role in making the organisation a trusted organisation from its competitors. Kashyap and Iveroth (2020) stated that honesty and transparency enable a culture of risk management, promotes accountability and ownership for the risks, and allows for effective risk control. Based on the discussion, it may be assumed that honesty is connected to trust and as such, when staff members within the organisation are honest in their dealings, this will result in the organisation being a trusted organisation by both internal and external stakeholders. This may be achieved through following the guidance from the code of conduct framework. It seems that honesty in staff members may enforce staff members to manage the risks better, through their transparency and ability to point out risk related issues/concerns and make it possible for organisations to establish a risk management culture.

Accountability: Merchant and Otley (2007) suggest that organisations should hold their staff members accountable for their actions related to the execution of their duties and the role of the organisation. Brandsma and Schillemans (2012) recommend organisations to have consequence management plans in place for non- accountability as this will influence the future conduct of staff members. Bovens (2005) stated that accountability promotes good governance within organisations. Based on the above, it may be assumed that organisations should have a code of conduct in place to enforce accountability and responsibility, in addition, holding staff members accountable and responsible for managing the risks may serve as an important underlying criterion for the code of conduct as dimension to implement a risk management culture within the organisations.

Impartial: According to Samara and Arenas (2015), organisations should treat all staff members equally and fairly. This is supported by Cropanzamo, Goldman and Forger (2003) through stating that if fairness is not applied in the organisations, this may lead to low morale and sabotage. Lau and Sardesai (2012) suggest that senior managers should ensure impartialness is enforced within the organisations to ensure fair treatment amongst all staff members. Based on the above arguments, it may be assumed that the code of conduct should enforce impartial treatment amongst staff members within the organisations and this will increase work productivity and serve as a base to manage the risks better while implementing a sound risk management culture within the organisation.

Selflessness: Hassell, Archbold and Stichman (2010) argue that there should be good interaction amongst staff members as this will strengthen stakeholder relationships. Gautier (2019) encourages ethical behaviour as an important value that organisations should demonstrate. Walton (2008) suggests that selflessness is important as it prevents toxicity within the organisations. This could mean that when organisations are considerate and compassionate, this will create a good atmosphere for the staff members to work in and as such it seems significant to incorporate such a factor within the code of conducts which will promote managing the risks fairly and equally based on their severity and impact when founding a risk management culture.

Respect: Lee Smith (2014) argues that elements of bullying, discrimination and harassment should be greatly discouraged in organisations as it may lead to stress, anxiety, and low productivity (Vartia & Maarit, 2014). Senior managers should ensure that staff members work together to ensure that everyone is treated with the utmost respect (Costello, Clarke, Gravely, D Agostini-Rose & Puopollo 2011). It may be assumed that organisations that have respect as one of the core factors within the code of conduct, may increase productivity whilst creating a good atmosphere for staff members to work in. This means that having respect, as an underlying criterion for the code of conduct may encourage staff members to perform their duties efficiently, manage the risks to the best of their abilities and align themselves to the organisation’s objective while rooting a sound risk management culture.

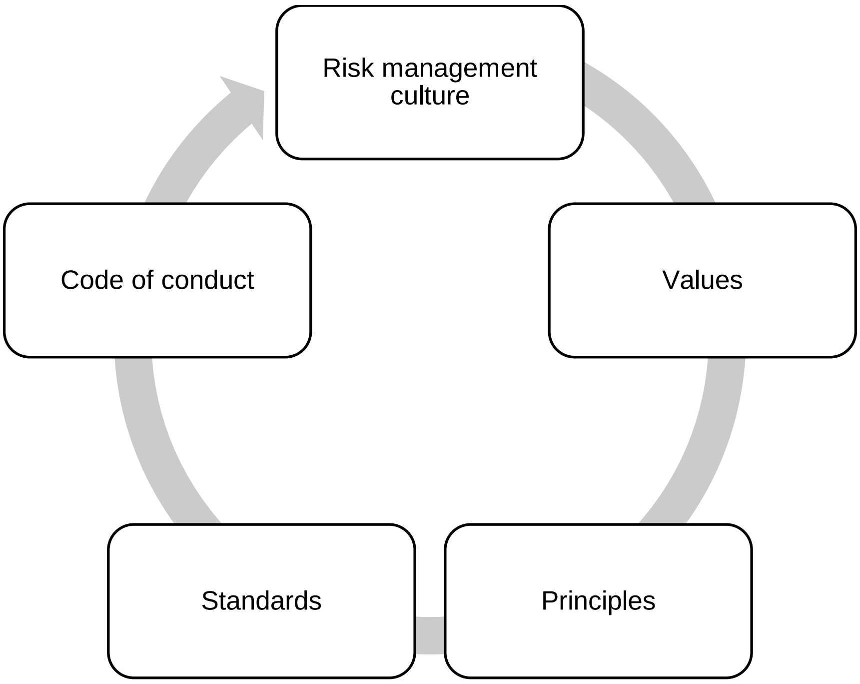
Ethical behaviour: According to Emery (2016) ethical behaviour enforce managers to make informed decisions which positively benefit the organisations. Keiper, Berry and Richey (2020) highlighted that unethical behaviours within an organisation may be as a result of the staff members backgrounds, for example, previous job roles by managers and staff members. In response to that, Mitchell, Reynolds and Trevino (2019) emphasised that organisations should prioritise ethics, encourage ethical employee behaviour, and curtail unethical behaviour. Sims (2014) highlighted that it is important to set the required tone and enforce an atmosphere of the right ethical behaviour to set the sound culture within the organisation. Popescu (2016) highlighted that the code of conduct prevents unethical behaviour from staff members. It seems that establishing the right organisational culture with the right ethical behaviours may serve as a platform to embed the sound risk management culture as such the ethical behaviour as an underlying criterion for the code of conduct is ideal to embed a sound risk management culture within the organisation.

According to King IV (2016), establishing the code of conduct will give rise to an ethical risk management culture and an effective risk control environment. The code of conduct should include honesty, responsibility, impartiality, selflessness, respect, and ethical behaviour as they are crucial to outline how staff members should conduct themselves (Popescu, 2016). Singh and Prasad (2017) noted that staff members that abide by the organisation's code of conduct adhere to the standards and rules while striving to accomplish the organisation's goals. The senior managers should be strongly influential in embedding the code of conduct with the aim of producing the desired results (The Institute of Directors in New Zealand, 2013). In addition, it seems significant for the code of conduct to be effective in order to drive the right attitudes required in establishing the right risk management culture. Based on the above arguments, it can be derived that the code of conduct is an important tool to assess the risk management culture within the organisations. The section below provides an overview of the interlinking underlying criterion across the aforementioned dimensions to embed a risk management culture.

3.6 THE INTERLINK BETWEEN THE DIMENSIONS

The Figure 3.6 below demonstrates how the dimensions are interlinked based on the underlying criteria for a risk management culture.

Figure 3. 6 Interlink of the dimensions



Source: Author's own interpretation

Based on the discussions in this literature review, it can be understood that some underlying criterions cut across the broader spectrum of the risk management culture indicating that these dimensions of a risk management culture are aligned and serve the same purpose of establishing a sound risk management culture within organisations. The Table 3.2 below illustrate the underlying criterion that are cutting across different dimensions, derived from the literature discussions.

Values	Principles	Standards	Code of conduct
Risk management should create value	Risk management should form part of the organisational integral processes	Risk management should be conceptualised in policies, framework, and standard operating procedures	Integrity
Risk management should be part of an organisational strategy	Risk management should be utilised in making business decisions	Risk management tone should be set by Senior Managers.	Honesty
Risk management should form part of the strategic management process	Risk management should address uncertainty	Risk management should be continuously improved and use best practice	Accountability
Risk management should use available reliable data	Risk management should be systematic and timeous	N/A	Impartial
Risk management should ensure that the risks are clearly reported	Risk management should be aligned/relevant to the business processes	N/A	Selflessness
Risk management should ensure clear reporting lines to governance forums	Risk owners should be in place for accountability and responsibility	N/A	Respect
Risk management should ensure the quantification of the operational risk factors	Risk management training should be continuous	N/A	Ethical behaviour

Values	Principles	Standards	Code of conduct
Risk management should ensure that the risk appetite and risk tolerance of the organisation are clearly understood	N/A	N/A	N/A

Table 3. 2 The underlying criterion that are interlinking across the dimensions of a risk management culture (highlighted green)

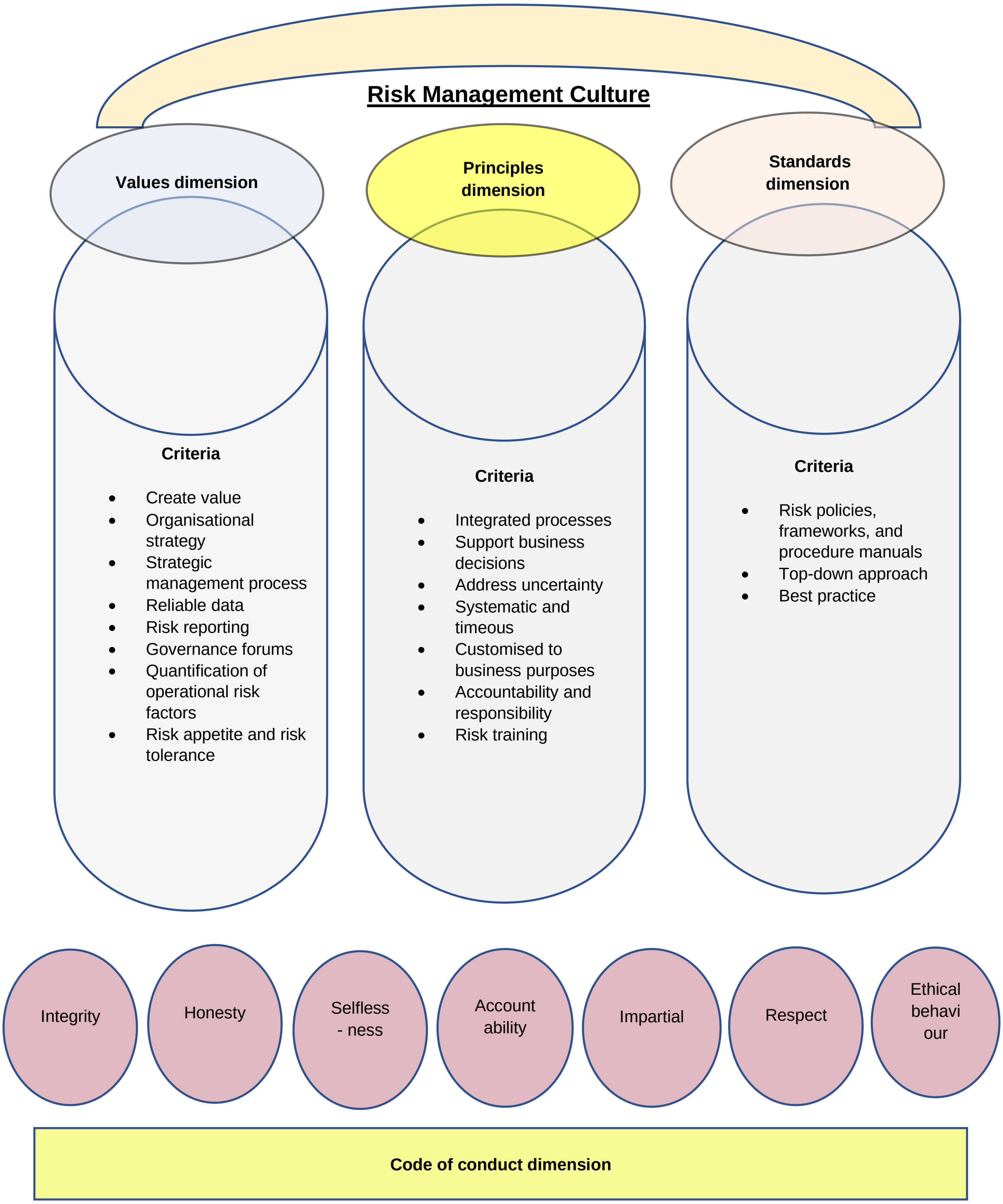
Source: Author's own interpretation

Table 3.2 demonstrate how the underlying criterions across the dimensions (values, principles, standards, and the code of conduct) are interlinked. It can be assumed that the dimensions are interrelated in such a way that they pursue the same purpose to establish a risk management culture which seems empirical for the purpose of the study and seeks to identify and confirm the applicability of such dimensions and the underlying criteria for organisations to establish risk management culture. The next section provides an overview of a typical risk management culture framework derived from chapter 2 and chapter 3 which seems suitable for organisations.

3.7 FRAMEWORK FOR A RISK MANAGEMENT CULTURE

Literature review discussions show that it is essential to have a framework in place to serve as a guide to embed a risk management culture in an organisation. Accordingly, the framework should constitute several dimensions underlying a risk management culture: the value of risk management; the principles for risk management; the standards for risk management; and a code of conduct. Each of these dimensions were subjected to a more in-depth literature review discussions leading in the identification of underlying criteria for each of the dimensions. The literature, furthermore, indicated that there are some of these criteria that are applicable to more than one of these dimensions. Therefore, a framework for a risk management culture can be illustrated as in Figure 3.7 below.

Figure 3. 7 Risk management culture framework



Source: Author’s own interpretation

Figure 3.7 illustrates the required dimensions and underlying criteria to establish a typical sound risk management culture in organisations. It is evident in Figure 3.7 that the risk management culture framework should include the values, standards, principles, the code of conduct and their underlying criteria as the foundation to establish the right risk management culture within the organisation. Jonker, Popova, Sharpanskykh, Treur and Yolum (2012) highlighted that organisations should develop and adapt a framework that support their business operations in implementing the desired risk management culture within the organisations. This means that organisations should have a risk management culture framework designed to fit the organisation's operations in order to establish a risk management culture as such, Figure 3.7 encompasses the dimensions and underlying criteria to embed a risk management culture is poised to found a sound risk management culture within the organisation. The pursuing section concludes chapter 3.

3.8 CHAPTER CONCLUSION

The literature review derived the meaning of the underlying criteria for risk management which are essential for the organisation to have and assess themselves in the process of establishing a sound risk management culture. The literature review also highlighted the importance of having a risk management culture which will serve as an enabler/platform for organisation to embed the risk management culture. Based on the literature review, the below pointers seem essential for organisations to consider.

- It is fundamental for the organisation to have a defined risk management culture as this will enable them to affirm their standing and abide to the status quo.
- The underlying criteria of the risk management culture should clearly be understood, communicated, and implemented accordingly throughout the organisation.

The literature review demonstrated the importance of managers in leading by examples through living by the bank values, standards and following the set procedures and guidelines to have the right risk management culture which should be supported by an effective risk management function. The literature review ended with highlighting the linkage of the dimensions which demonstrated the same purpose across the dimensions of establishing a risk management culture and the importance of having a framework on the dimension of a risk management culture, which should include values, principles, standards, and the code of conduct. The literature review chapter explained basis of the title, purpose and the objectives of the study which was a critical platform to empirically test and confirm the dimensions and the underlying criteria for an effective risk management culture. The next chapter discusses the research methodology that will be followed for the purpose of the study.

3.9 CHAPTER SUMMARY

Chapter 3 dealt with a literature review of the underlying criteria to establish a sound risk management culture within the organisation. The chapter provided an insight of what the underlying criteria are and how they fit into the broader picture of having the right risk management culture within the organisation. All these dimensions are fundamental for organisations to have while founding the desired risk management culture.

CHAPTER 4
RESEARCH METHODOLOGY

4.1 INTRODUCTION

The previous chapters discussed the literature review and highlighted the risk management culture framework for establishing a risk management culture. This chapter provides detail on the research methodology to be used to empirically confirm the dimensions and underlying criteria of a risk management culture and to determine the current applicability thereof to lead to the findings and recommendations. The chapter begins by clarifying the research design and represented by the research onion then ends with data analysis and population.

4.2 RESEARCH DESIGN

According to Vogt, Gardner and Haefelle (2012) research design refer to the methodology that will be used to construct research. Shinde, Yakkaldevi, Dalvi and Yakkaldevi (2015) stated that a research design refer to the plans, procedures and the steps that the research will use during the research process. Maxwell (2012) argued that a research design should have an interactive model which includes goals, methods of research, framework that is conceptualised, research questions and how validity and reliability will be tested. The research should be designed in such a way that it will be able to answer the research question and obtain new knowledge (Marczyk, DeMatteo & Festinger, 2005). Furthermore, the researchers should be able to ask themselves the following questions when constructing the research design (Vogt *et al*, 2012).

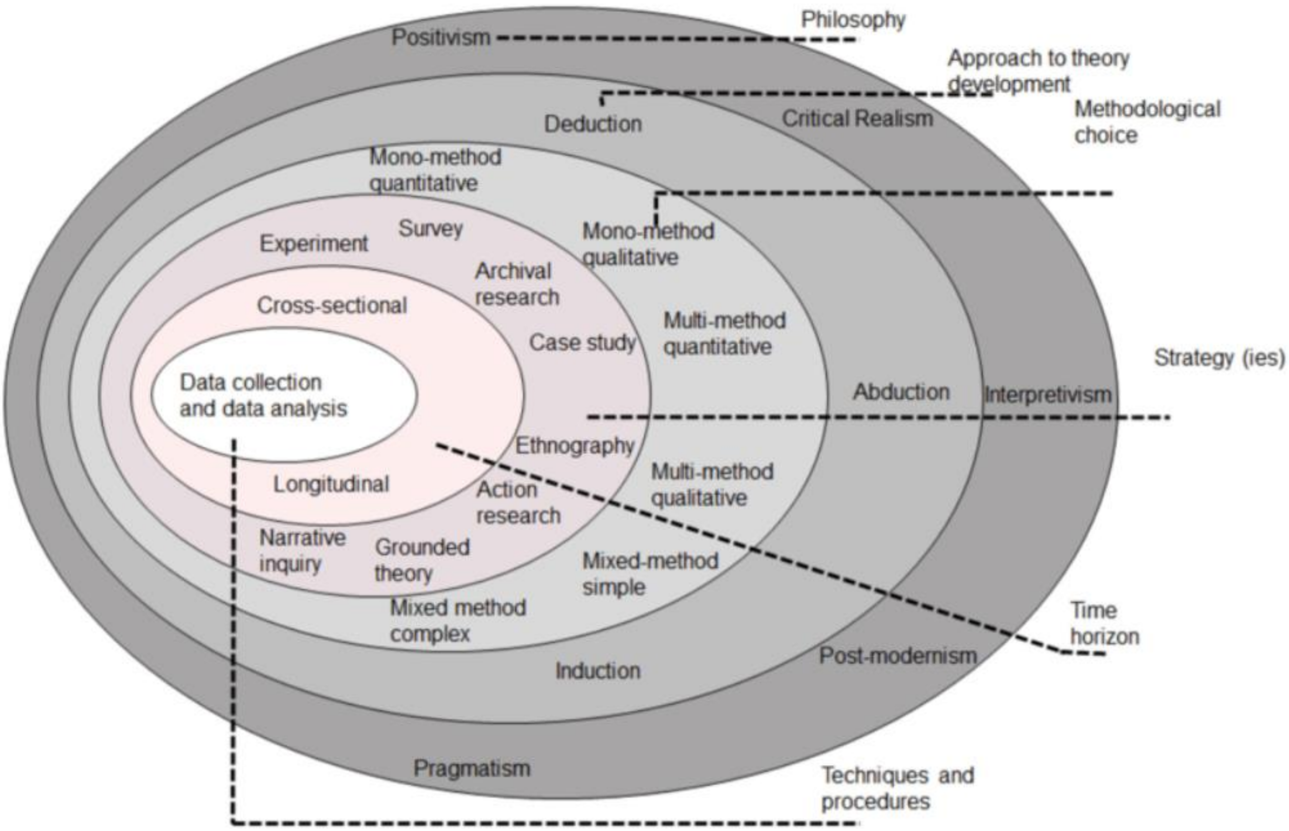
- How will the research be conducted?
- Which evidence do I need to obtain to answer the research question?
- Who will be the participants and how will data be collected?

Vogt *et al,* (2012) suggested that a research study should be structured in a proper manner and include analysis, ethics, measurement and sampling. Marczyk, DeMatteo and Festinger (2005) argued that the research design should ensure to attain new knowledge through exploring and experimenting through the evidence obtained for research process. Based on the above discussion, it is evident that a research must have a strategy in place on how the research study will be conducted. Such a strategy could follow the structure of a research onion which refer to a model that may be used to design a methodology to be used for a research strategy and process (Melnikovas, 2018). The next section deals with the research onion that may be used in a research study.

4.3 RESEARCH ONION

Melnikovas (2018) mentioned that a research onion can be used for a research process. In this regard Sahay (2018) stated that it is important to outline the research processes before embarking on the research study. Melnikovas (2018), furthermore, emphasised that the research onion is frequently employed to create the theoretical framework for the research. Zefeit and Mohamad (2012) explained that when conducting research, it is necessary to continuously use a variety of layers and methodologies. In support of this, Abdelhakim and Badr (2021) mentioned that the research onion have different layers such as, Philosophy (e.g., positivism), approaches (either inductive or deductive), methodology (e.g., case study), choices or the type of methods utilised (e.g., mono method), time horizon (e.g., longitudinal), and techniques and procedures which make up the layers of the research onion (these is inclusive of data collection and data analysis techniques). Saunders and Tossey (2012: 160) illustrated the research onion as indicated in Figure 4.1 below.

Figure 4. 1 Research onion



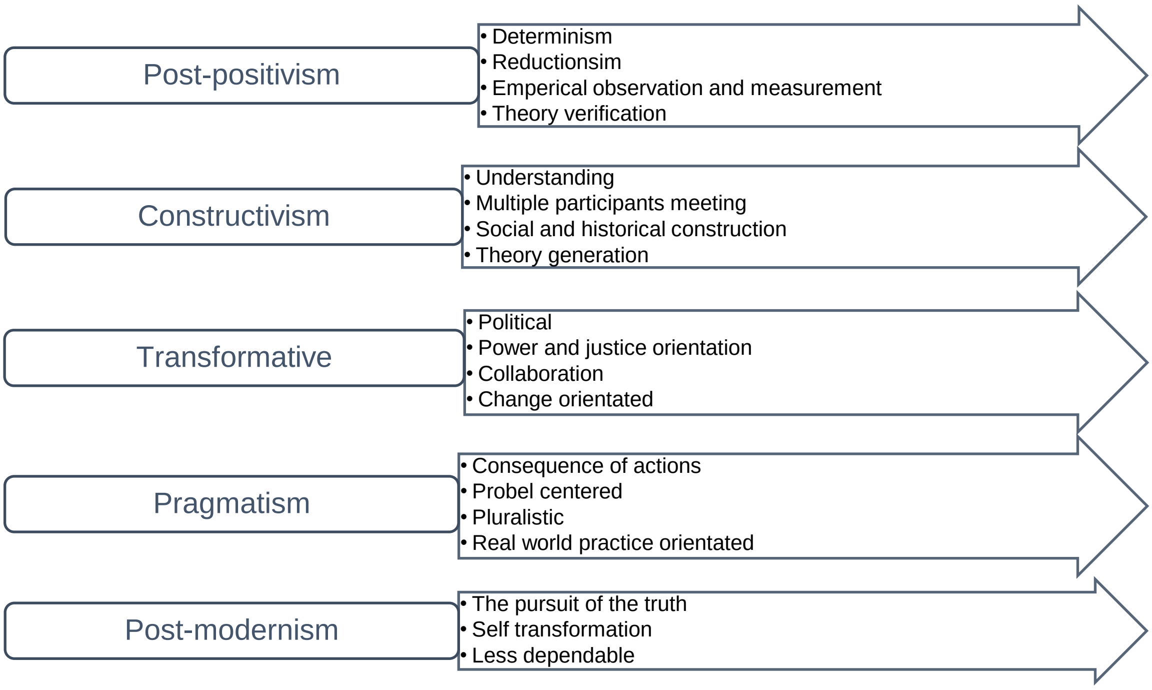
Source: Adapted from (Saunders & Tossey, 2012)

The above Figure 4.1 depicts the main layers of the research onion which are dealt with in the ensuing sections.

4.3.1 Philosophy

According to Williamson (2007) philosophy refer to understanding the basis (foundation) of the research such as ethics and values. Henry (2013) argued that philosophy serves as a medium to convey and interpret the basis of the research. The researchers discern philosophy to be the knowledge, facts, and accuracy of the research (Gemma, 2018). Fullerton (2005) suggested that philosophy should revolve around investigations to pursue knowledge. In Shinde *et al,* (2015) contributed that there are different research philosophies that the researcher may opt to use. The research philosophies are discussed below.

Figure 4. 2 Research philosophies



Source: Adapted from (Shinde *et al*, 2015)

The choices for research are explained in the next sections.

- Post-positivism: According to Shinde *et al,* (2015), post- positivism is scientific research that emphasises the truth of the research and that the truth must be found. Fox (2008) in support stated that post- positivism emphasises the significance of observing knowledge growth and understanding and measuring the phenomena of the truth. Gemma (2018) highlighted that post- positivism can be seen as an empiricism progression. Furthermore, Shinde *et al,* (2015), stated that this also determines the effect and reduces ideas to form new ideas with the aim of testing the variables and theories and measures the observations. Therefore, it seems that the post-positivism emphasises the research's veracity and the need to find the truth.

- Constructivism: According to Shinde *et al,* (2015), constructivism has a tendency of believing the participants understand the world through socialising and interactions. Such an assertion is supported in Ankrah (2016) stating that constructivism relates to the people reflecting the world as per their experiences. Mogashoa (2014) suggested that people construct knowledge and understanding by themselves based on their own experiences. In a nutshell, people discover knowledge through their experiences (Freitas, 2016). Based on the discussion, it seems that knowledge is not only obtained from education alone, but knowledge can also be acquired through experiences and social interactions.

- Transformative: this type of research focuses on the participants that have been previously marginalised (Shinde *et al,* (2015). Crockett, Downey, Firat, Ozanne and Pettigrew (2013) argue that the transformative research is based around the social welfare. Mertens (2017) highlighted that transformational research should have a goal, centred around the society and the participant and the evolvement throughout the years. The transformative research offers therapeutic benefits and changes with time, it also allows participants to be vulnerable (Custer, 2014). Therefore, it seems that the transformative research offers therapy to the previously marginalised people.
- Pragmatism: this research method revolves around the situation, actions, and the impact (consequences) of those actions (Shinde *et al*, 2015). Kaushik and Walsh (2019) argued that pragmatism method research more than one reality which can make way to an empirical enquiry and the pragmatism research method does not rely on the truth and reality as a standalone concept. Maarouf (2019) suggested that the pragmatism research method is good for mixed method research (quantitative and qualitative) as it addresses different assumptions. Eklund, Staam and Liebermann (2019) recommends the pragmatism research method as it distinguishes between the truth and what is functional in research. Based on the discussion, it seems that pragmatism research is ideal for a mixed method research as it considers various factors such as, situation, behaviour, and effect which can be quantified and qualified.

- Post-modernism: According to Elaati (2016), post modernism denoted the philosophical, intellectual, financial, and technological schools theories and currents that emerged following linguistics, semiotics, and structuralism. Farhan (2019) argues that post-modern people are generally at ease with the idea that different people will reach conflicting judgments about the same topic and that all of them have nonetheless reached the truth. Post-modernism promotes relativism and pluralism, rejects absolute values and specific beliefs, and views human identity as a social construct (Forghani, Keshtiaray & Yousefy, 2015). Based on the discussion, it seems that the post-modernism research believes that human identity is a social construct and favours relativism and pluralism.

This study will be based on post-positivism and pragmatism as they hinge the study on the assumption about the truth, situation, and circumstances. Accordingly, an assumption that research is based on facts offers better results (Saunders, 2009). This study poses the question:

what are the dimensions and the underlying criteria of a risk management culture? The study can relevantly answer the research question utilising the post-positivism philosophy. The next section deals with the second layer of the research onion which is theory development.

4.3.2 Theory development

According to Melnikovas (2018), selecting the approach to develop a theory is dependent on the research design philosophy. Ito (2018) highlighted that comprehending and understanding a phenomenon is the foundation to develop a theory for research. Russ and Fiorelli (2010) suggested that a theory should be conceptualised as a method to develop a research approach. Melnikovas (2018) further mentioned that there are elements under the theory development which are explained below.

- Deduction: this means that an existing theory serves as the foundation for the research, which is followed by the posing of a question or hypothesis and the gathering of facts to support or refute it (Melnikovas, 2018). Barney and Saleem (2008) indicated that a deduction approach starts with the broad and concludes with the detailed. Soiferman (2010) argued that the easiest way to articulate arguments based on laws, regulations, or other generally accepted concepts is through deduction. The deduction approach uses quantitative methods to create or test theories or hypotheses (Alrajeh, 2012). Therefore, it seems that deduction approach revolves on existing theory then followed by the formulation of a query or hypothesis and the collection of data to support or reject it.
- Induction: means that in order to develop a theory, the research begins with observation and data collecting before going on to description and analysis (Melnikovas, 2018). Barney and Saleem (2008) highlighted that an induction approach focuses on transitioning from the particular to the general. Alrajeh (2012) argued that the induction approach develops theory using qualitative methods as a result of data analysis. Inductive reasoning is the best way to provide arguments based on experience or observation Soiferman (2010). Based on the discussion, it seems that the induction approach discerns before collecting data.
- Abduction: this means that following the observation of an empirical phenomenon, research is conducted to arrive at a best guess or conclusion based on the information at hand (Melnikovas, 2018). According to Alrajeh (2012), the abduction approach make use of both the deduction and induction approach and it continuously switches between the theoretical and empirical dimensions of analysis. Therefore, this means that in order to reach a best guess or conclusion based on the available data, research is done after an empirical phenomenon has been seen.

For this research study, a deduction approach was used due to the nature of the study which aims to determine the dimensions and the underlying criteria of a risk management culture that are derived from the relevant literature. In order to examine the dimensions and the underlying criteria of a risk management culture, an empirical study was done to evaluate the literature that already exist which is pertinent to the risk management culture. Data was collected and analysed to link the findings to the empirical research (deduction approach). The next section discusses the different methodologies for research.

4.3.3 Methodological choice

According to Melnikovas (2018), the type of research is derived from the aim of the research and the research question. Sahay (2018) stated that there are different research approaches which are the quantitative approach, qualitative approach and the mixed method approach. According to Creswell (2014), a method should be selected that will be appropriate for the research namely qualitative, quantitative, and mixed methods. Walliman (2011) stated that there should be a technique of how the research will be conducted. MacDonald and Headlam (2006) highlighted that it is a research requirement to either count items or talk to the participants in any study. The section below aims to clarify the different methods for research.

4.3.3.1 Qualitative research

Hancock, Ockleford, Windridge (2009) argues that the qualitative research is focused on interpreting the social phenomena. The argument is supported in Khan (2014) where it was stated that the qualitative research method is based on enquiring and understanding the processes through human social interaction. Jackson, Drummond, Camara (2016) highlighted that the qualitative method is focused on human interactions and seeks to interpret their experiences.

The qualitative research methods concern the following concepts:

- Ethnography: refer to the research method that focuses on how people portray themselves and revolves around anthropology (Hancock *et al,* 2009). Genzuk (2003) stated that the ethnography research focuses on sociology and anthropology. Naidoo (2012) highlighted that the ethnography research rely on social interaction, beliefs and behaviours over a specified period of time. This may indicate that the ethnographic research depends on people and their well-being to be able to conduct the study.
- Grounded theory: refer to the research method that is centered around establishing a new theory, taking into consideration the data collected and analysed about a particular phenomenon (Hancock *et al,* 2009). In concurrency, Khan (2014) stated that the grounded theory rely on a theory derived by means of data collection and analysis. Based on the

above, it seems that the grounded theory is developed via the collection and analysis of data.

- Interpretative phenomenological analysis: According to Smith and Osborn (2007) the interpretative phenomenological analysis research method explores meaningfully how participants are making sense of their social surroundings. Hancock *et al,* (2009) stated that the interpretative phenomenological analysis research methods strive to understand the experience of the people participating in the research study. Based on the above, it may be assumed that the interpretative phenomenological analysis research method deals with the participants experiences and how they perceive the world based on their experiences.
- The conversation analysis research method: this method rely on the conversations with the participants of the research study and makes use of transcripts and recordings (Hancock *et al,* 2009). Seedhouse (2004) emphasises that the conversation analysis research method allows for one person to speak and facilitate the conversation which should lead to a construction discussion. Based on this, it seems that the conversation analysis requires the interviewer to drive the discussions to obtain all the required information needed for the study.
- The narrative analysis research method: this method places reliance on the participants experiences and stories (Hancock *et al,* 2009). Ntinda (2020) stated that the narrative analysis research method unpacks the story as told by the participants using their own words. The narrative analysis research method appears to unravel the participants stories exactly as told by them.

The next section explains quantitative method as another method to conduct research.

4.3.3.2 Quantitative method

According to Querios, Faria and Almedia (2017), a quantitative method collects quantifiable data through the usage of samples from a specified population. Eyisi (2016) stated that the use of a quantitative method for research can assist with saving resources and time. This is supported by Apuke (2017) through stating that the quantitative method is efficient in analysing and interpreting the results from the data collected from participants in research. Eyisi (2016) recommended the use of a quantitative method as it makes it possible to generalise the results. Apuke (2017) suggested surveys for quantitative research as they use questionnaires to measure the population's characteristics. According to SAGE (2016), there are steps that should be followed when conducting a survey research study and these steps are listed as follows:

- Topic identification: the research must identify a topic of the investigation (study).

- Literature review: the research must identify the suitable strategies that will be used to conduct the study and guide the development of the survey questions.
- Population: the research must identify the targeted population that is relevant to the proposed study.
- Data collection: the research must identify the appropriate tools that will be used to collect data that is relevant for the proposed study.
- Cover letter: the research must draft a cover letter that will be shared with the participants, the cover letter should detail the purpose and the benefits of the study.
- Pilot testing: the research should select few people to test the completion of the questionnaire before the official distribution, this is to ensure that the questions are understood and identify the time that will be required to complete the survey.

Apuke (2017) highlighted that a quantitative research method focuses on analysing and quantifying variables to produce results. Fischler (2010) stated that, in quantitative research, the research asks focused, narrow questions, uses statistics to analyse this data, and carries out the investigation in an impartial manner. The next section highlights the mixed method as another method that may be utilised to conduct research.

4.3.3.3 Mixed methods

According to Vogt *et al*, (2012) the mixed methods blend both the quantitative and qualitative methods, for example, mixing both interview and survey answers together. The argument is echoed in Doyle, Brady and Byrne (2009) they stated that the mixed method is an interesting method as it combines both the qualitative method and quantitative method to form a single study. Shrestha and Giri (2021) suggested that the mixed method is unique as it makes its own assumptions for the philosophies and inquiry methods. Venkatesh, Brown, Sulivan (2014) argues that it is important to understand the appropriateness of the mixed method for a proposed study.

4.3.3.4 Difference between qualitative, quantitative, and mixed method research

According to Hancock *et al,* (2009), the differences between the three methods are as shown in Table 4.1 below.

Qualitative research	**Quantitative research**	**Mixed method**
Focusing on the different perceptions from the people.	Focuses on the trends from the survey.	Concentrates on people's various viewpoints and survey trends.

Qualitative research	Quantitative research	Mixed method
Considers the complexity around a typical situation.	It is very precise.	Considers the intricacy of a typical circumstance and accuracy.
It does not manipulate the variables and considers the behaviour of the people.	It manipulates the behaviour of some variables.	It considers people's behaviour and can manipulate the factors.
It takes into consideration the description and interpretation which may develop new meaning.	It concentrates on the causes and their effects.	It considers descriptions and interpretations that could lead to new interpretations and focus on the root cause.
It is flexible and systematic.	The process of the research must be laid down in the initial stage.	It is methodical and research methodology must be established in the beginning.

Table 4. 1 Qualitative, quantitative and mixed method research differences

Source: Adapted from (Hancock *et al*, 2009)

Based on the aforementioned, the quantitative method is regarded as the most suitable for this study for the following reasons:

- it is precise; and
- makes ease of reference when interpreting the results.

The quantitative method will be utilised for the purpose of the research. The next section deals with the strategy as the next layer of the research onion.

4.3.4 Strategy

According to Sahay (2018), strategy refer to the research design to be used for the research purpose. Melnikovas (2018) suggested that there are three types of research strategies namely the descriptive strategy, normal strategy and explorative strategy.

- Descriptive strategy: make use of surveys to collect information on a variety of topics,

- Normal strategy: investigates how the future will be or how it should be and identifies ways that may be used to reach the future.
- Explorative research: a methodology that looks into research problems that have not been thoroughly examined before.

Based on the discussion, it seems significant for the research to determine the strategy before the research can be conducted. According to Nassaji (2015) a descriptive strategy enables facts to be analysed and aids in the development of a profound comprehension of the study. As such, the study will be based on a descriptive strategy which will assist in identifying and confirming the dimensions and the underlying criteria of a risk management culture.

4.3.5 Time-horizons

Sahay (2018) recommended that the research must outline timelines of the research and ensure to conduct the research according to those timelines. Melnikovas (2018) suggested that the research may have short, medium, or long timelines depending on the type of research. For the purpose of this study, data will be collected on a once-off basis which is relevant to a short time horizon.

4.3.6 Techniques and procedures

The last layer of the research onion is the techniques and procedures which are considered crucial in a research study. According to Melnikovas (2018) it is important for the research to identify the techniques that will be used to conduct the research (such as surveys or interviews). The indication is that the researcher should know the type of techniques that will be used to conduct the research and the types of sampling involved. According to Mohsin (2016), sampling refer to a small number of people taken from the population to conduct the research study. Parveen and Showkat (2017) alluded to the same stating that a sample refer to the selection of preventatives from the identified population. According to Tadehoorst (2016) there are two types of sampling techniques which is the probability sampling and the non- probabilities sampling as shown in Figure 4.3 below.

Figure 4. 3 Probability and non-probability sampling

Non- probability sampling

- Quota sampling
- Snowball sampling
- Judgement sampling
- Convenience sampling

Probability sampling

- Simple random
- Stratified random
- Cluster sampling
- Systematic sampling

Source: Adapted from (Taherdoost, 2016).

The samplings techniques are explained in the next section.

4.3.6.1 Non-probability sampling

According to Tadehoorst (2016), non-probability sampling refer to case study research such as the qualitative research. Mohsin (2016) suggested that the non-probability sampling is associated with non-random sampling. Omair (2014) argues that the non-probability sampling should not be a representative of the population as this may result in bias. The elements of the participants cannot be estimated in the sample with the non- probability sampling (University of Central Arkansas, 2013). Mohsin (2016) listed the below as the characteristics of the non-probability sampling.

- The participants are not randomly selected.
- The population does not need to be defined or precised.
- The population may be both generic and non-generic.
- It is well positioned for generation of new ideas and exploratory research.

Furthermore, Tadehoorst (2016) identifies the strengths and weaknesses for such sampling techniques as listed below.

Technique	Strengths	Weaknesses
Convenience sampling	It is not expensive, saves time and very convenience.	There is no representation of sample, and the selection is bias.
Judgement sampling	It is not expensive, saves time and good for exploratory research.	Generalisation is not allowed, and it is subjective.

Technique	Strengths	Weaknesses
Quota sampling	Allows for sample to be controlled for some characteristics.	There is no assurance and selection are bias.
Snowball sampling	It can estimate characters that are rare.	It does consume a lot of time.
Simple random sample	It is understood easily, and the results can be projected.	It is expensive and there is no assurance of the participants.
Systematic sampling	It is easier to implement, and the sample can be increased.	Representatives can be decreased.
Stratified sampling	All the precisions and the important sub-populations can be included.	It is not feasible and expensive.
Cluster sampling	It is cost-effective and not difficult to implement.	It is challenging to compute and interpret the results.

Table 4. 2 Strengths and weaknesses for such sampling techniques

Source: Adapted from (Taherdoost, 2016)

Parveen and Showkat (2017) highlighted that the non-random sampling method does not select the sample randomly from the population but includes a judgement. Brick (2014) indicated that the non-probability sampling often encounters errors with measurement. The challenge faced with this method is that its outcomes cannot be generalized over the population (Parveen & Showkat, 2017). The next section discusses probability sampling.

4.3.6.2 Probability sampling

According to Tadehoorst (2016), probability sampling means that all items within the population have equal chances of forming part of the sample. Omair (2014) stated that all the participants in the population should have the probability of being included in the sample. Mohsin (2016) stated that a probability sampling means random sampling or a representative sampling. According to the University of Central Arkansas (2013), probability sampling allows the research to indicate the elements of the participants that forms part of the sample. Mohsin (2016) listed the below as the characteristics of the probability sampling.

- It requires population that is clearly defined.
- It is very precise.
- It is random sampling and/or sampling that is representative.
- It requires a sample to be extracted from the population.

Parveen and Showkat (2017) recommended the probability sampling to be used for quantitative research since it is the simplest random method to use. Based on the aforementioned detail on the sampling methods, the stratified sampling method will be used for this study as it allows all participants to have an equal chance of being included in the stratum. The below section indicates the process that will be used to collect data.

4.3.6.3 Data collection

Kabir (2016) refer to data collection as the process of obtaining and measuring information or data received from participants in a research study. Furthermore, such a process has a significant role in answering the research question in empirical research. Parveen and Showkat (2017) suggested that data collected should be obtained from the right participants. The data collected assist in gathering important information that will assist in evaluating and concluding the research (Unicef, 2014). Data that is collected through a quantitative method (such as surveys) does not take time, however, this is dependent on the type of the research design (SAGE, 2016). Kabir (2016) suggested that there are two methods of collecting data for quantitative research: the primary data and secondary data.

Primary data is the data that was received at first hand and has not been used previously. The data is deemed authentic and reliable. An example of such data is data received from surveys or interviews. Secondary data is the data which has already been used (such as published) previously. An example of such data is the data published in literature, media or reports. Based on the above discussion, surveys will be used to collect the primary data for the purpose of this research as data will be collected at first hand from the participants. The section below highlights the survey method to collect data.

4.3.6.4 Surveys

According to Kabir (2017) a survey is a technique for research that consists of questions that are used to collect data from the participants. Stockemer (2019) argues that a research survey refer to the process to systematically collect data from the individuals using standardised methods. Glasow (2005) highlighted that a research survey is used to answer the research question, identify gaps, and offer recommendations. Mathers, Fox and Hunn (2006) recommended the usage of surveys for quantitative research as they assist in collecting information based on the behaviour and attitudes of the participants which indicates the reality of the situation. The arguments are supported in Doss, Rayfield, Barris, Lawver (2021) as they stated that a research survey investigates the participants' behaviour, attitude and beliefs. According to Kabir (2016), the list below serves as benefits for using questionnaires in a research study.

- The process saves cost unlike physical interviews e.g travel costs.
- More information/data can be collected from many participants in a short space of time.
- It can be used to measure the trends based on the feedback received back from the participants.
- It can be used to examine previous hypothesis and establish latest theories.
- It is easier to analyse information/data more scientifically.

Mondal (2010) recommended the usage of surveys as they do not require much effort as opposed to interviews in qualitative research. Doss, Rayfield, Barris and Lawver (2021) highlighted that the research should identify the right research mode that will be utilised to distribute the survey to the participants, for example, emails, social media and web. Taherdoost (2016) highlighted that surveys are the most used instruments for data collection. Based on the above discussion, the descriptive strategy will be utilised to advance the quantitative study and a deductive approach to theory. The research study will be implemented through the usage of a survey to collect primary data to satisfy the objective of the study which is to determine and confirm the dimensions and underlying criteria for a risk management culture. The next section deals with the different methods of data collection.

4.3.6.5 Methods of data collection

Lefever, Dal and Matthiasdottir (2007) highlighted that surveys only allow the participants to respond once to a particular question. Rice, Winter, Doherty and Milner (2017) indicated the below as the advantages and the disadvantages for using a questionnaire to collect data.

Advantages	**Disadvantages**
It is simple to access the population	The sample is not representative
Ability to generalise	The response rate may be low
Ability to identify the age and gender of the participants	May require financial motivation
It is not time consuming	Data is limited
It is not costly	

Advantages	Disadvantages
Data has quality	Too much administration of the questionnaire

Table 4. 3 Advantages and disadvantages of using questionnaires

Source: Adapted from (Rice *et al*, 2017)

For research that uses interviews to collect data, the primary data are the thoughts, ideas, and impressions of the participants (Bolderston, 2012). Alamri (2019) highlighted the following advantages and disadvantages of using interviews for research study as represented in Table 4.4 below.

Advantages	Disadvantages
Controls the process of data acquisition	The participant's actions and responses are impacted by the interviewer's presence
Triangulation provides a more thorough grasp	The participants biases are encouraged by the intervention
Allows the research to think back and consider the information gathered	Data is unreliable
The interviewer can better direct the session with the help of the pre-planning	Data analysis takes time
Encourages the research to address any uncertainties regarding an answer	Data transcribing takes time
Improved iteration through participant and interviewer engagement	Recalling the interview or circumstances

Table 4. 4 Advantages and disadvantages of using interviews

Source: Adapted from (Alamri, 2019)

Abawi (2017) argued that the questionnaire should ensure to lead the respondents to answer the research questions by way of close-ended or open-ended questions. Hyman and Sierra (2016) highlighted that the open- ended questions are questions that are similar to a short answer or essay questions whilst close-ended questions are similar in nature to multiple-choice questions. The multiple-choice questions will be used in the research study as they are quick, simple and the participants must weigh all available options and select the best one (NG & Chan, 2009). For the purpose of this study, a questionnaire-based survey will be used for reasons identified in Roopa and Rani (2012) which are listed as below:

- They are flexible.
- They are efficient.
- They save time.

The questionnaire collated primary data from the respondents by means of close-ended questions as they are easy to interpret, and data collection does not take time. The questionnaire was designed as per the pointers as are discussed in the next sections.

Cover letter

The cover letter introduces the study and gave an explanation of study's primary goals and relevance. In addition, the cover letter clarified the intention of requesting the participants to complete the questionnaire and highlighted that the completion of the questionnaire is voluntarily and there will be no remuneration offered to partake in the study. The participants and the South African financial institution used for the purpose of this study will remain anonymous throughout the research. Furthermore, the participants were advised of the informed consent prior completion of the questionnaire. The cover letter can be referenced to in Appendix A titled Informed consent.

Main body

Abawi (2017) highlighted that the questions should be simple, concise and sensitive inquiries must be avoided. The main body consists of 30 close-ended questions which includes the biographic information of the respondents such as the number of years working in the financial institution and experience in risk management as these assisted in ascertaining their level of understanding to the research study. Joshi, Kale, Chandel and Pal (2015) explained that Likert scale as a list of claims made for a scenario that is being researched, whether it be real or hypothetical. The Likert scale requires the participants to reflect their level of understanding to a given statement from a rating metric scale (Joshi, Chandel & Pal, 2015) As such, the Likert scale was used to assess the responses and the perceptions of the participants from 1= To no degree, 2= To a lesser degree, 3= To a moderate degree, 4= To a degree and 5= To a full degree. The questionnaire was sent by an email (link) through the usage of microsoft forms as a platform to create and analyse surveys (refer to Appendix B, the actual questionnaire).

Pilot testing

Abawi (2017) suggested that it is very important to test the questionnaire before the formal distribution as this will eliminate any confusion from the questions. A small number of employees from the financial institution were chosen to complete the questionnaire and make an effort to respond to the questions in order to see if they are clear and valid. The feedback from the participants were incorporated after completion of the pilot test. (Refer to Appendix C, Diagnostic questionnaire). In addition, the questionnaire was tested for validity and reliability as per the discussion below.

4.3.6.6 Validity and reliability

Validity refer to representing features of the phenomena as accurate and true reflection of the concepts and reliability refer to consensus between two attempts to measure familiar things, using the same methods (Winter, 2000). Mohajan (2017) highlighted that reliability and validity are the most important features that can be used to measure and evaluate research.

- Validity: According to Unicef (2014), when data obtained has a purpose and intention, this may validate the contents of the research. Taherdoost (2016) stated that validity highlights how the data collected covers the specific investigation area. Validity affirms the degree to which a test affirms what it perceives to measure (Lakshami & Mohideen, 2013). The following are subtypes of validity as suggested in Taherdoost (2016).
- Face validity: Taherdoost (2016) argues that the face validity refer to the extent a measure seems to be related to a construct that is specific. Face validity rely on the expertise of the researcher (Mohajan, 2017). Havins (2006) argues that face validity observes an instrument that is being measured then understand the measurement processes. It is subjective and rely on how the research is feeling and their intuitions (Surucu & Maslakci, 2020). Therefore, it seems that face validity utilises the researcher's knowledge and skills.
- Content validity: According to Taherdoost (2016), content validity refer to the extent to which the survey tool contemplates the tool that will be generalised. Mohajan (2017) argues that the content validity ensures that the survey has items that are aligned to the concept. The research should ensure that the objects utilised for measurement should ensure that purpose is served (Surucu & Maslakci, 2020). Therefore, this means that the content validity ensure that the survey items are in line with the theme.
- Criterion validity: Taherdoost (2016) argues that the criterion validity refer to the degree to which the measure and the outcome are related. The criterion validity is utilised for future predictions and the performance at present (Mohajan, 2017). Heale and Twycross (2015) argued that the criterion validity relate to the degree that an instrument is aligned to another instrument where the same variable is being measured. Based on the discussion,

it seems that the criterion validity refer to the degree of correlation between the outcome and the measure and used to predict the future and current performance.

- Construct validity: This refer to how the research has transformed or translated the concept (Taherdoost,2016). The construct validity judges the evidence from the survey result through comparison with several completed studies using particular instruments for measurements (Mohajan, 2017). This provides the ability to identify between the participants, the quality and the behaviour that is required to be measured (Surucu & Maslakci, 2020). Therefore, this means that the construct validity evaluate the survey evidence by comparing it to the results of other studies that have been performed using certain measurement tools.

For this study, face validity will be used to test the validity of the survey as it is straightforward and a quick method to assess the usefulness of a new metric at first glance. The questionnaire will be tested prior distribution to the sampled participants, through a pilot test involving experts in risk management within the financial institution. The analysis of the feedback from the pilot test (diagnostic questionnaire) is indicated in Appendix C. According to the analysis, the questionnaire was found to be valid in terms of the purpose of the study, namely, to determine the dimensions and underlying criteria of founding a risk management culture in organisations.

- **Reliability**

According to Surucu and Maslakci (2020), reliability is consistency and stability when measuring an item in an instrument. The assertion is supported in Heale and Twycross (2015) as they stated that reliability is associated with how consistent an item is being measured and this is attributed to stability, equivalence and homogeneity. Mohajan (2017) argued that reliability provides the consistent results when the same measuring instrument is employed. In concurrency, Lakshami and Mohideen (2013) stated that reliability eliminates errors when measuring to provide consistent results. Surucu and Maslakci (2020) highlighted the types of reliability as listed and discussed below.

- Test-retest reliability: refer to the consistent outcome when the instrument that is used to measure is used and applied similarly, although in different time, on the same sample (Surucu & Maslakci, 2020). This is obtained when the same measure is being repeated for the second round (Mohajan, 2017). Therefore, it seems that the test-retest reliability is accomplished by repeating the identical action a second time.
- Alternate forms/parallel forms: This method measures the instrument that has similar contents (Surucu & Maslakci, 2020). This is because of the administering different measuring instrument on the same sample group (Mohajan, 2017). Based on the

discussion, it seems that the alternate forms/parallel forms measure instruments whose contents are comparable.

- Methods of internal consistency: This method revolves around the expressions that are found within the instrument that is being used for measurement (Surucu & Maslakci, 2020). This determines the extent to which unsimilar tests using the same measuring instruments provide the same results (Mohajan, 2017). This method relate to the degree that the test is analysed, and assessed with the same quality, skill and character (Howell, Jonathan, Miller, Park, Sattler, Schack, Spery, Widhalm, & Palmquist, 2005). Therefore, it seems that the method of internal consistency establishes the degree to which different tests conducted with the same measuring equipment yield the same outcomes.

Based on the above arguments and perspectives, it can be assumed that the use of reliability in research ensure that the results are accurate, and data is reliable. According to Bonett and Wright (2014), the Cronbach Alpha Coefficient measures how consistent reliability is. Taber (2016) highlighted that the Cronbach Alpha Coefficient is a statistic that researchers frequently use to show that scales and tests created or used for research projects are appropriate for their intended use. The Cronbach Alpha Coefficient will be used to measure reliability as it maintains consistency and it is reliable (Gliem & Gliem ,2003). Furthermore, it seems that the Cronbach Alpha is consistent, dependable, and gauge reliability.

4.3.6.7 Sample of the proposed study

Singh (2014) recommends that the sample should be clear so that the conclusion can be valid and adequate. A financial institution was used in the research study. The sample was identified as a financial institution in South Africa. The staff members are ranking in different roles, for example, business/operations management, risk management, compliance management. The stratum is illustrated on the below table 4.5 where participants were randomly selected.

First line of defence	Second line of defence	Third line of defence
Business Management	Risk Management	Internal Audit
Operations management	Compliance management	
Front office		
Back office		
Financial management		

Table 4. 5 Participants selection

Source: Author's own interpretation

To ensure that the departments are fairly represented, probability sampling was used in the form of the random stratified sample technique. There was an equal opportunity for each staff member to be selected for the sample. The population was 160 and 54 participants were considered acceptable, responded to the questionnaire and provided reliable feedback that was used for statistical analysis. The section below highlights how data will be analysed and interpreted.

4.3.6.8 Data analysis and interpretation

According to Migrant and Start (2006) it is very important to analyse data as it comprises of information that needs to be broken down to form a meaning. Samuel (2020) argued that the purpose of data analysis is to conclude the research question. Descriptive and inferential statistics may be used in quantitative research. According to Baha (2016), descriptive analysis refer to narrating a phenomenon on how we perceive it to be. This could mean that descriptive analysis examines and describes a typical situation to establish the norm. Samuel (2020) argues that the descriptive analysis plays a vital role as it simplifies the results from the raw data. Ali (2021) recommended the usage of descriptive analysis as it presents data in a simplified manner. Inferential statistics refer to data analysis that enables the results to be generalised from the sample. Kern (2013) stated that inferential statistics try to draw inferences that go beyond the data that has been observed.

Heeringa, West and Berglund (2017) stated that it is fundamental for the research to understand the roles of the participants and how data will be collected and interpreted. Data should only be analysed through statistical methods and the usage of software programs (SAGE, 2016) According to Samuels (2020) it is important to follow the following approach when analysing data:

- Understand the purpose of conducting the research.
- Collect data that is consistent with the purpose and the questions asked through means of surveys.
- Process raw data on the specified method to be used, for example the excel spreadsheet.
- Work on the raw data through the specified method to be used for the research, for example the descriptive statistics.
- Have the ability to interpret data informally.
- Have the ability to analyse data through a group of variables or the individual variables.
- Have the ability to run the results and interpret the results formally, then the final conclusions can be made.

Based on the above approach, it seems important to analyse data in a systematic way to get the desired results. Manju and Mathur (2014) stated that data analysed through descriptive statistics is useful and simple to interpret and makes it easier to provide an observation. As such, data will be analysed using the mean (averages) for a descriptive statistic as it provides useful details regarding a set of data's properties (DeAngelis & Ayers, 2009). Mathers, Fox and Hunn (2006) suggested that the data must be of quality before analysing. The section below deals with the population for the study.

4.3.6.9 Population

According to Mohsin (2016) sample population refer to selecting the right participants that meets the criteria to conduct the research study. It is critical to select the right population to sample against, when conducting a research study (University of Central Arkansas, 2013). Parveen and Showkat (2017) recommends that data collected should be from targeted groups or population. The population is from one financial institution in South Africa from which the research will be conducted. The targeted population were the staff members from Business/Operations Management, Risk Management, Compliance Management, Financial Management, and Internal Audit. The participants were randomly (stratified) selected based on their nature of work, years of experience within the financial institution and knowledge of the subject matter (risk management culture) with the aim to determine and confirm the dimensions and underlying criteria of a risk management culture and the current applicability within the financial institution. The section below summarises the research onion used for purpose of the research study.

4.4 RESEARCH ONION CUSTOMISATION FOR THE STUDY

The below section provides a summary of the research onion customized for the purpose of the study.

Layer	Description
Philosophy	A post-positivism and pragmatism philosophy will be utilised for the purpose of the research as they have foundation in realist philosophy (Turyahikayo, 2021), and as such, the study aims to base its research on the facts, situations, and reality
Theory development	A deductive approach will be used as it is based on scientific investigation and knowledge that is advancing (Woiceshyn & Daellenbach, 2018), and as such, a deduction approach will be used as it seeks to determine and confirm the applicability of the dimensions and underlying criteria of a risk management culture
Methodological choice	A quantitative method will be employed as the study endeavours to collect data in a numerical form, using mathematical techniques to analyse it to explain a phenomenon

Layer	Description
Strategy	A descriptive strategy will be employed as it is neutral, objective and narrate how reality is (Manjunatha, 2019)
Time-horizons	A short time frame will be utilised, and data will be collected all at once due to the limited amount of time
Techniques and procedures	A probability sampling will be used as it is the most basic random strategy to employ (Showkat & Parveen, 2017). In addition, stratified sampling will be used as its purpose is to ensure that each stratum is fairly represented (Taherdoost, 2016).

Table 4. 6 The research onion for the study

Source: Adapted from (Saunders & Tossey, 2012)

The section below provides a conclusion on chapter 4.

4.5 CHAPTER CONCLUSION

This chapter dealt with an overview of the research process which centered around the research onion that forms the basis of the research study. The chapter provided an in-depth discussion of the research onion layers including their relevance for this research. The first layer was the philosophy which stressed out the reality of the research study to be conducted. The second layer highlighted how the theory will be developed for research. The third layer highlighted the different methodologies that can be chosen for research (qualitative, quantitative and mixed method). The fourth layer dealt with the different strategies that the research may make use of, for example the descriptive strategy, normal strategy and explorative strategy which were explained. The fifth layer emphasised the importance of having time horizons for each milestone in the research, for example short term, medium term and long term and the last layer discussed the different techniques and procedures that may be used for research. The research onion was adopted for the purpose of the study and the below conclusions were made.

- Descriptive research, deductive approach to theory was adapted for the purpose of the study as the aim of the research was to confirm the dimensions and the underlying criteria of a risk management culture and confirm the current applicability of such in a practical environment within a financial institution.

- A quantitative approach was adopted for the research study which will be executed using questionnaires and the questionnaire will be verified for validity and reliability to ensure accuracy and completeness.
- The study will be based on post-positivism and pragmatism as the assumptions made seeks to base its study on the truth, situation, and circumstance.
- The questionnaire was sent to 160 participants and data was collected randomly (stratified) from the sample drawn from the population.
- Data will be exported and analysed in Microsoft excel then SPSS, using the mean method.
- Descriptive statistic will be used to interpret the results.

The chapter ended describing the targeted population for the research study which is the staff members within one financial institution. The next chapter will deal with the presentation and analysis of the data using descriptive statistical analysis.

CHAPTER 5

DATA PRESENTATION AND ANALYSIS OF FINDINGS

5.1 INTRODUCTION

The previous chapter highlighted the methods that will be used to conduct the research and the significance of using a quantitative method for this research. This chapter focuses on analysing and discussing the findings of the research which sought to identify and confirm the dimensions and underlying criteria of a risk management culture from a financial institution. The questionnaire was distributed via Microsoft form link to the participants to collect primary data. An excel spreadsheet was exported from Microsoft forms with all the participants responses and data was imported to SPSS for analyses. The participants were required to respond based on their importance of the dimension and criteria, then the application thereof within their departments. The graphs and charts are based on the feedback from the participants. The findings will be used as a platform for final conclusions and recommendations regarding this study.

5.2 BIOGRAPHICAL DETAILS

The section below highlights the biographical details of the participants which were extracted from question 1-4 from the questionnaire. Approximately 54 participants completed the questionnaire. Each participant was assigned a number which was used instead of their names, in order to maintain the anonymity of the respondents and in adherence to the ethical criteria of the study. The biographical information is presented in the following section as tables and percentages prepared using Microsoft Excel spreadsheets then imported to SPSS.

5.2 1 Departmental representation

Respondents were required to identify the department they were working from inside the financial institution. The business units were clarified in the categories, financial management department, risk management department, front office department, back-office department and other. Table 5.1 shows the participation rate per department.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Financial management	8	14.8	14.8	14.8
	Risk management	21	38.9	38.9	53.7
	Front office	12	22.2	22.2	75.9
	Back office	7	13	13	88.9
	Other	6	11.1	11.1	100
	Total	54	100	100	

Table 5. 1 Categories of business units for participants

Source: Author’s own data analysis

This questionnaire was distributed to various departments and some departments were classified under other. Majority of the participants were from the risk management department followed by front office. The research study targeted the departments which deals with managing the risks in their daily operations in order to identify and confirm the dimensions and the underlying criteria of a risk management culture within the financial institution. The study also found it beneficial to obtain feedback from risk management as they are responsible in assisting the organisation to establish a risk management culture which is pertinent for this study.

5.2.2 Focus area within the bank

The participants were required to confirm their focus area within the bank to ascertain and confirm their relevancy to participate in the research study. The focus areas were categorised as business/operations management, risk management, compliance management, financial management and other. The Table 5.2 below indicates the focus areas relevant to the respondents who took part in the survey.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business/Operations management	16	29.6	29.6	29.6
	Risk management	17	31.5	31.5	61.1
	Compliance management	4	7.4	7.4	68.5
	Financial management	6	11.1	11.1	79.6
	Other	11	20.4	20.4	100
	Total	54	100	100	

Table 5. 2 Focus areas of respondents

Source: Author’s own data analysis

The participants spanned across a broader spectrum of departments within the organisation, whereby majority of them were positioned in risk management followed by business/operations management. The research study targeted staff members who deal with operational risk and management who enforce the standards for risk management. The research study saw it feed to include departments such as the risk and compliance department as they oversee risk management at an operational level.

5.2.3 Exposure, knowledge, and experience in risk management

This section relate to the exposure, knowledge, and experience that the participants have with risk management. The period was classified as follows, 0 – 1 year, 1 – 3 years, 3 – 5 years, 5 – 10 years and more than 10 years. Table 5.3 illustrates the period of exposure, knowledge, and experience that the participants have working in risk management.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 – 1 year	3	5.6	5.7	5.7
	1 – 3 years	6	11.1	11.3	17
	3 – 5 years	8	14.8	15.1	32.1
	5 – 10 years	16	29.6	30.2	62.3
	More than 10 years	20	37	37.7	100
	Total	53	98.1	100	
Missing	System	1	1.9		
Total		54	100		

Table 5. 3 How many years exposure, knowledge and experience do you have in risk management

Source: Author's own data analysis

Most participants had more than 10 years of exposure, knowledge, and experience in risk management. The period of exposure, knowledge and experience in risk management strengthens the research study in identifying and confirming the dimensions and the underlying criteria of a risk management culture within the financial institution and these variable forms a base for understanding the risk management culture framework for this particular financial institution.

5.2.4 Years of experience within the organisation

This section relate to the number of years that the participants have been employed by the organisation. The period was categorised as follows, 0 – 1 year, 1 – 3 years, 3 – 5 years, 5 – 10 years and more than 10 years. Table 5.4 shows the number of years that the respondents have working for the organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 – 1 year	3	5.6	5.7	5.7
	1 – 3 years	7	13	13.2	18.9
	3 – 5 years	9	16.7	17	35.8
	5 – 10 years	14	25.9	26.4	62.3
	More than 10 years	20	37	37.7	100
	Total	53	98.1	100	
Missing	System	1	1.9		
Total		54	100		

Table 5. 4 How many years of experience do you have with your current organisation

Source: Author's own data analysis

Majority of the participants worked for more than 10 years in the organisation, and this may indicate that they are knowledgeable of the internal controls for risk management enquired upon in this research study. The years of experience also demonstrate their knowledge and experience in embedding a sound risk management culture framework within the organisation. The next section represents the results of Cronbachs alpha.

5.3 CRONBACH ALPHA'S RESULTS

Table 5.5 below highlights the Cronbach's alpha results that was used to measure reliability.

Implementation			**Application**		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Principles of risk management			**Principles of risk management**		
0.841	0.84	9	0.94	0.942	9
Standards of risk management			**Standards of risk management**		
0.824	0.824	6	0.871	0.869	6
Code of conduct			**Code of conduct**		
0.658	0.7	6	0.86	0.865	6
Values of risk management			**Values of risk management**		
0.874	0.88	9	0.894	0.896	9

Table 5. 5 Cronbach alpha results

Source: Authors own data analysis

Table 5.5 highlights the Cronbach alpha results which indicated an outcome of 0.658 and above. According to Bonett and Wright (2014), Cronbach's alpha is mostly useful for assessing scale reliability in the sense of item equivalency within single-construct scales. Therefore, this means reliance can be placed on Cronbach's alpha to measure reliability. The next section analyses the dimensions and underlying criteria for a risk management culture in the form of charts and percentages using Microsoft Excel and SPSS.

5.4 DATA ANALYSIS

The data generated from question 1 of the questionnaire are dealt with in this section. The questionnaire made use of a Likert scale which was classified as follows, to no degree, to a lesser degree, to a moderate degree, to a degree and to a full degree. The questions were divided into 2 sections (A & B) whereby the first section (A) the participants had to indicate to what degree they rated the importance of the dimensions and the underlying criteria of a risk management culture as a crucial component of a risk management culture framework and the second section (B) the participants had to indicate to what extend they agree that the dimensions and the underlying criteria are currently applicable as part of a risk management culture within their organisation. The questions are linked to the different risk management culture dimensions as indicated below.

- Question 1 to 9 deals with the risk management principles as part of the dimension of a risk management culture framework and the underlying criteria thereof for this dimension.
- Question 10 to 15 deals with the risk management standards as part of a dimension of a risk management culture framework and the underlying criteria thereof for this dimension.
- Question 16 to 21 deals with the code of conduct as part of a dimension of a risk management culture framework and the underlying criteria for this dimension.
- Question 22 to 30 deals with the value of risk management as part of a dimension of a risk management culture and the underlying criteria thereof for this dimension.

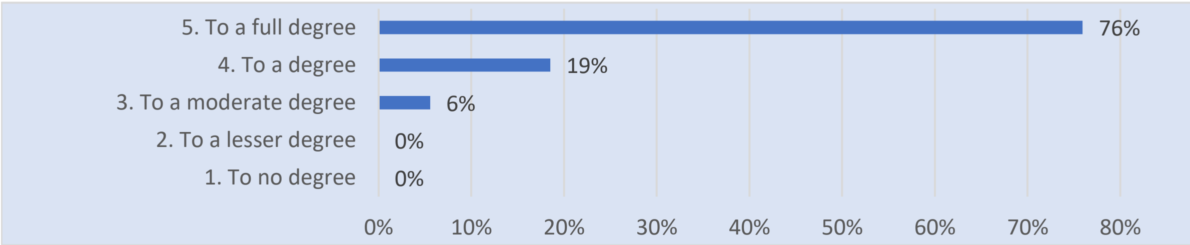
The questions were derived from the previous chapters (2 & 3) whose discussions were aimed at identifying the dimensions and underlying criteria of a risk management culture. The section below analyses the feedback received from the participants. Where there is a 25% variance and less, this is deemed acceptable and the gap does not need urgent attention and where the participants did not respond, the result were averaged (mean).

5.4.1 Risk management culture framework dimension: principles

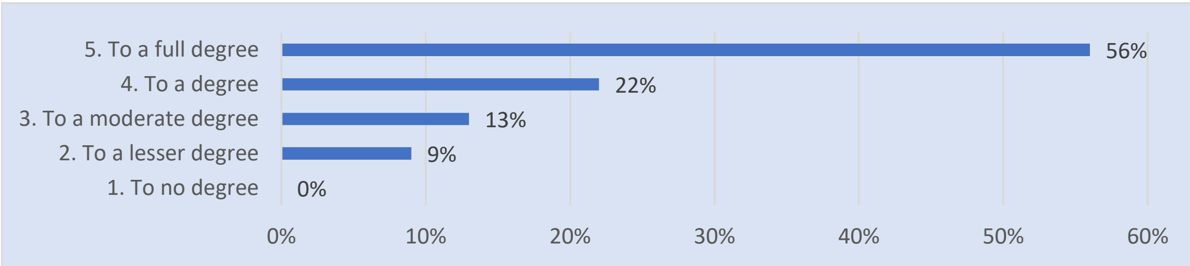
Question 1 required respondents to indicate to what extend the risk principles are viewed as a dimension of an organisation's risk management culture which will allow for making effective risk-based decisions. The feedback highlights the participants views based on the importance of the risk management principles and the application thereof within their department. The feedback from participants is shown in figure 5.1.

Figure 5.1 Risk management principles sets the tone of the organisational risk management culture

A. The participants view of importance



B. Current applicability within their department



Source: Author's own data analysis

The majority (76%) indicated that risk principles set the tone for the organisational risk management culture while another 19% indicated to a degree and 6% were of the view that principles set the tone to a moderate degree. The majority (56%) asserted that risk principles were currently applicable within their organisations risk management culture. Another 35% of the respondents confirmed that the principles were applicable to a degree (22%) and others felt to moderate extend (13%).

The 20% variance between A and B (76% and 56%), indicates that although most of the respondents acknowledges the importance of this dimension, there seems to be a gap between what is currently being implemented and what is known. Therefore, it seems that although it is an important dimension, organisations still need to embed the dimension as a component of a risk management culture. This could possibly be achieved by introducing some form of training after explicitly developing a risk management culture framework for the organisation. This finding supports the view of MacCregor and Calkin (2016) who stated that the risk management principles are essential to bring about change within the organisation and ultimately increasing the likelihood of the organisations establishing a sound risk management culture.

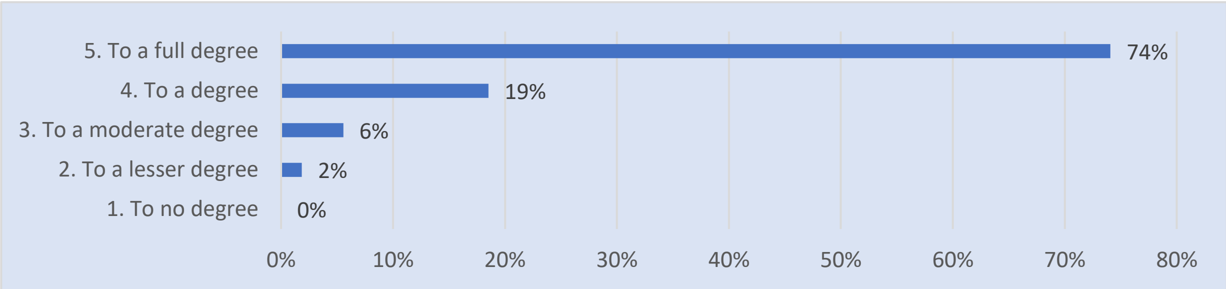
Question 2 to 9 deals with the underlying criteria of the risk principles dimension.

5.4.2 Risk principles criterion: business decisions

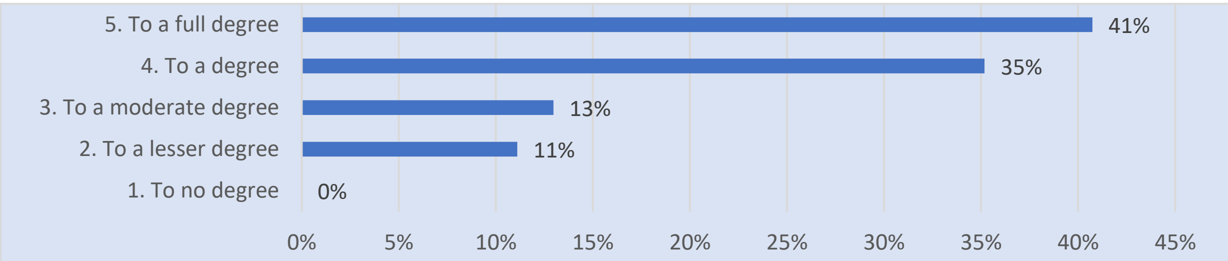
A question solicited responses on the importance and applicability of the criterion that risk management supports the making of business decisions during the strategic planning processes. This criterion underlies the dimension of risk principles. The response from the respondents are shown in Figure 5.2 below.

Figure 5. 2 Risk management assists organisations to make risk based informed decisions

A. The participants view of Importance.



B. Current applicability within their department



Source: Author's own data analysis

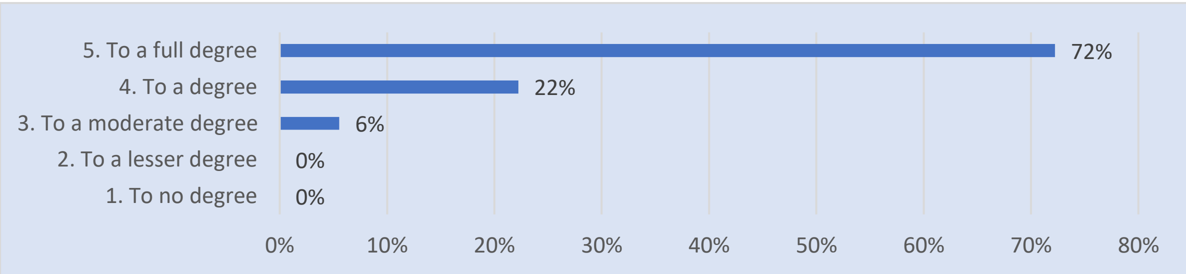
According to the response, 93% of the participants mostly agree with the criterion that it is important for risk management to be included in the decision-making process during the strategic planning process and 76% confirmed that risk management is included in the decision-making process during the strategic planning process within their department. The 33% variance (74% and 41%) shows that while most respondents agree that this criterion is important, there appears to be a disconnect between what is currently being implemented and what should be. As a result, organisations still need to incorporate it as part of a risk management culture due to its significance. This could be achieved through promoting awareness regarding the risk management culture throughout the organisation and implementing the risk management culture framework. The finding supports the view in Md. Sum (2013) that risk management assists the organisation to make risk-based informed decisions, which seems like an essential criterion to embed a risk management culture framework.

5.4.3 Risk principles criterion: timeous and systematic way

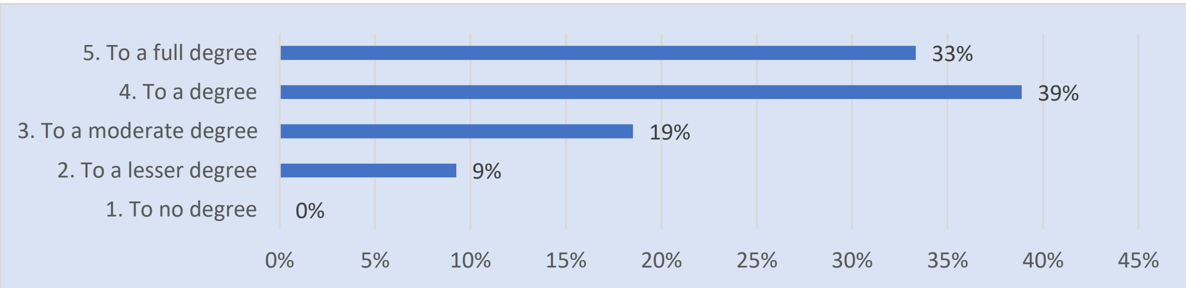
Question 3 sought reactions to the importance and applicability claim of the criterion that risk management should be utilised in a systematic and timeous way to effectively manage the risks throughout the organisation. This criterion supports the dimension of risk principles. Figure 5.3 provides an overview of the participants responses based on their views.

Figure 5. 3 Risk management should be systematic and timeous

A. The participants view of importance.



B. Current applicability within their department



Source: Author's own data analysis

According to the response, 94% of the participants mostly agreed with the criterion that risk management should be systematic and timeous whilst 72% confirmed that risk management is systematic and timeous within their respective departments. The 39% variance (72% and 33%) demonstrates that even if most participants concur that this criterion is crucial, there seems to be a gap between what is being done currently and what ought to be done. While it is regarded as an important criterion, organisations still need to include it as part of their culture for risk management. This could be achieved through documenting a procedure of how the risks should be managed after implementing a risk management culture framework. The outcome supports the view in Renault, Agumba and Ansary (2016) that when risk management is not timeous and systematic, it may lead to the organisation experiencing challenges when implementing the risk management culture.

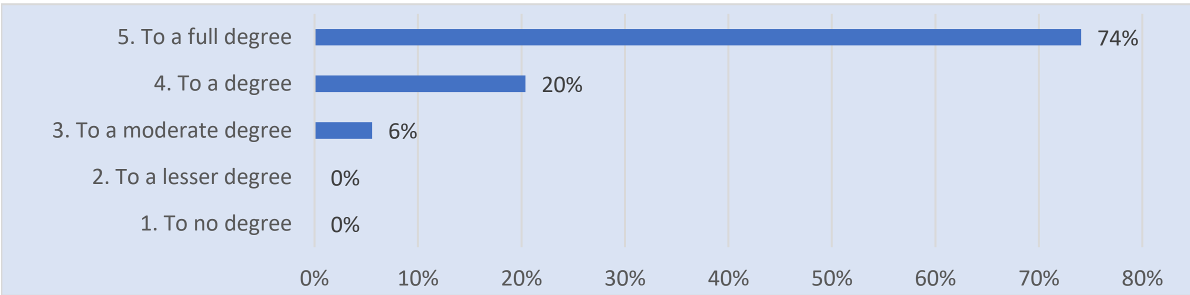
The outcome has highlighted the importance of this criterion as part of the risk management culture framework.

5.4.4 Risk principles criterion: alignment with business processes

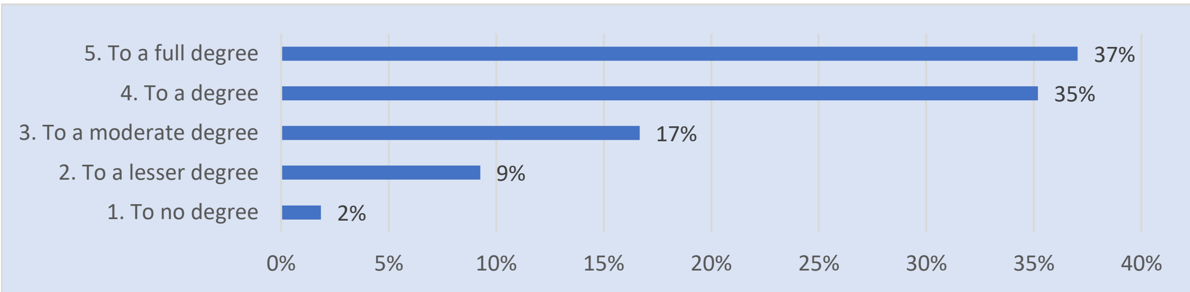
The solicited responses on the importance and applicability of the criterion that the risks should be aligned/relevant to business processes in order to manage them adequately and effectively. This criterion supports the dimension of risk principles. Figure 5.4 shows the participants responses based on their view.

Figure 5. 4 The risks managed should be aligned/relevant to the business processes

A. The participants view of importance



B. Current applicability within their department



Source: Author's own data analysis

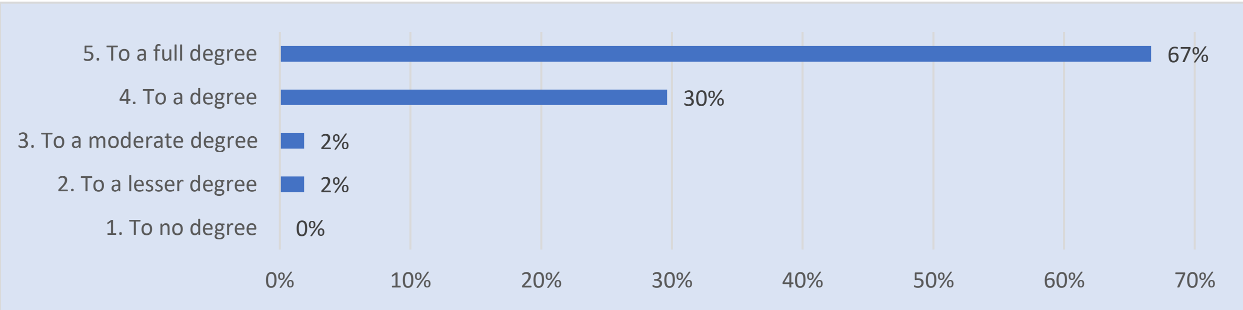
According to the feedback, 94% of the participants mostly agreed with the criterion that it is crucial for the risks managed to be aligned/relevant to the business process and 72% confirmed that they are currently managing the risks aligned/relevant to the business process within their department. The 37% variance (74% and 37%) highlights that even though a vast majority of the participants agree that this criterion is important, there seem to be a gap between what is done versus what should be done. Although it is a crucial component, organisations still need to include it in a risk management culture framework. This can be accomplished through equipping their staff members with the right skills to manage the risks effectively (such as attending risk management workshops and courses). The outcome supports the finding in the Asian Development Bank (2014) that aligning the risks to business processes guide the organisation to manage the risks better and embed an effective risk management culture which could be achieved through the establishment of a risk management culture framework.

5.4.5 Risk principles criterion: management assist risk exposure identification

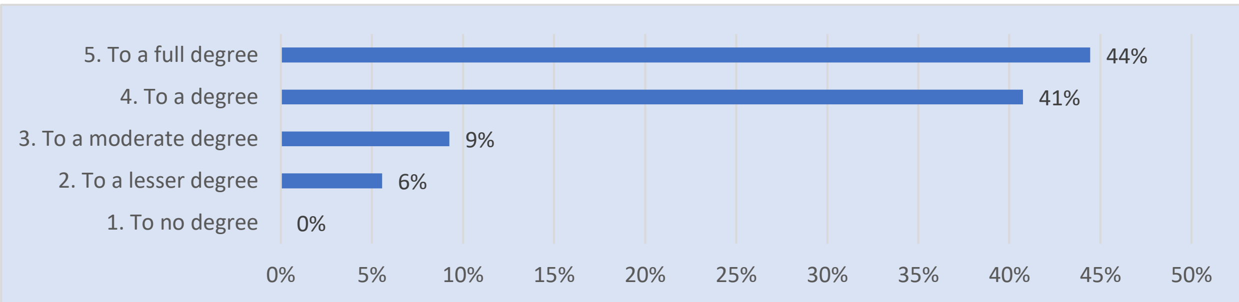
Question 5 required respondents to react to the importance and applicability of the criterion that risk management should assist in identifying the risk exposures for an organisation which in turn helps the organisation to determine measures that may be utilised to prevent the risks from occurring. This criterion supports the dimension of risk principles. Figure 5.5 shows the response from the participants based on their views and rating on the Likert scale.

Figure 5. 5 Risk management identifies risk exposures

A. The participants view of importance



B. Current applicability within their department



Source: Author's own data analysis

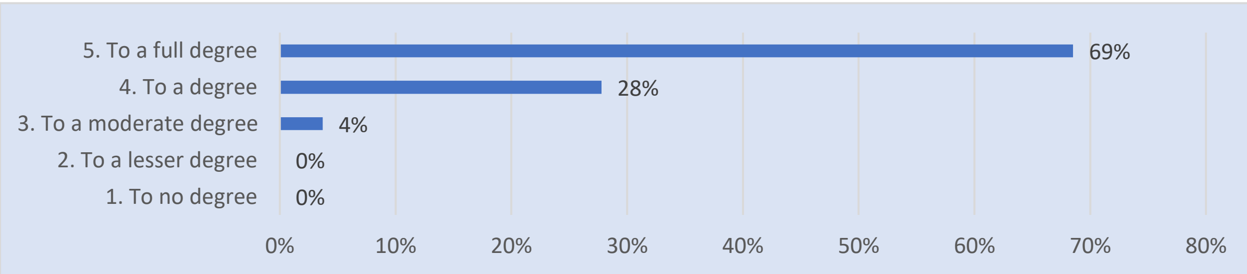
According to the feedback, 97% of participants mostly agreed with the criterion that risk management assists in identifying the organisation's risk exposures and 85% of participants confirmed that their departments have implemented risk management to identify risk exposures. The 23% variance (67% and 44% respectively) demonstrate that despite most of the respondent's agreement that this criterion is crucial, there seems to be a gap between what the organisation does, opposed to what it should be doing. However, the 23% variance is not alarming and may indicate that organisations have the right measures in place to identify potential risk exposures. Furthermore, implementing risk management tools after developing a framework for the organisation's risk management culture could assist the organisation to identify risk exposures. The outcome supports the finding in OECD (2014) that organisations should have appropriate measures to manage the risk exposures, which could be accomplished by including the criterion in a risk management culture framework.

5.4.6 Risk principles criterion: management role in addressing uncertainty

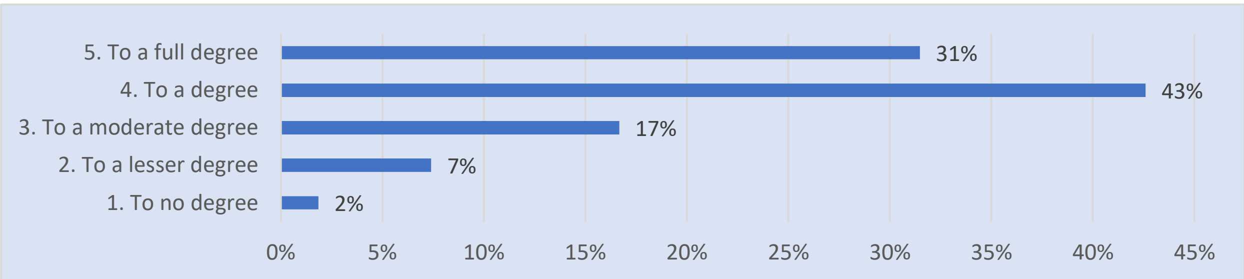
Another question sought to evaluate the importance and applicability of the criterion that risk management should assists in addressing uncertainties which may negatively impact the organisation. This criterion supports the dimension of risk principles. Figure 5.6 shows the feedback received from respondents.

Figure 5. 6 Risk management addresses uncertainties

A. The participants view of importance



B. Current applicability within their department



Source: Author's own data analysis

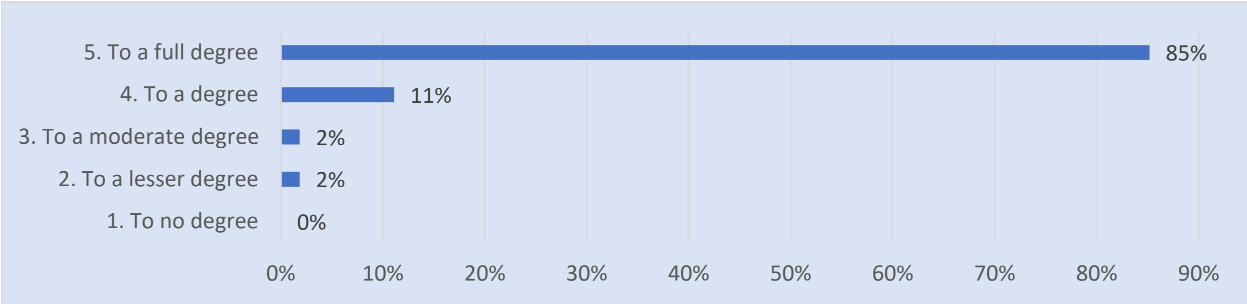
According to the feedback, 97% of the participants mostly agreed with the criterion that risk management should assist the organisations to address uncertainties whilst 74% confirmed that their department have implemented risk management to address uncertainties. The 38% variance (between 69% and 31%) indicates that although most participants agree that this is an important criterion, there seem to be a disconnect between what the organisation does and what they ought to be doing. The high response (97%) indicate that respondents agreed to a full degree with the criterion that management must assist with the identification of uncertainties and be proactive when addressing the risk for an effective risk management culture. Therefore, it seems imperative to establish risk management techniques to achieve the identification of uncertainties to allow management to formulate proactive risk control measures. As such, this criterion which is a part of the dimension of risk management principles, should be addressed in a framework for a risk management culture. These findings support the view in Jedynak and Bak (2020) that risk management assists the organisation to identify the possibility of negative events which could allow for management to be proactive in establishing risk control measures. By incorporating this criterion into a risk management culture framework, it is expected that it should address the gap between what is indicated as important and what is currently being experienced within organisations.

5.4.7 Risk principles criterion: ownership of risk

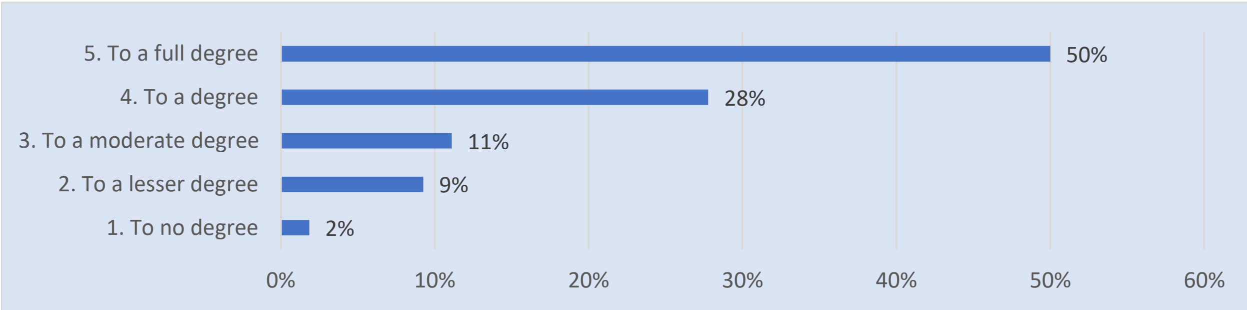
Question 7 sourced responses on the importance and applicability of the criterion that risks should have a risk owner who will ensure accountability and responsibility of the risks identified by the organisation. This criterion supports the dimension of risk principles. Figure 5.7 provides an overview of the participants views.

Figure 5. 7 The risks should have a risk owner for accountability and responsibility

A. The participants view of importance.



B. Current applicability within their department



Source: Author's own data analysis

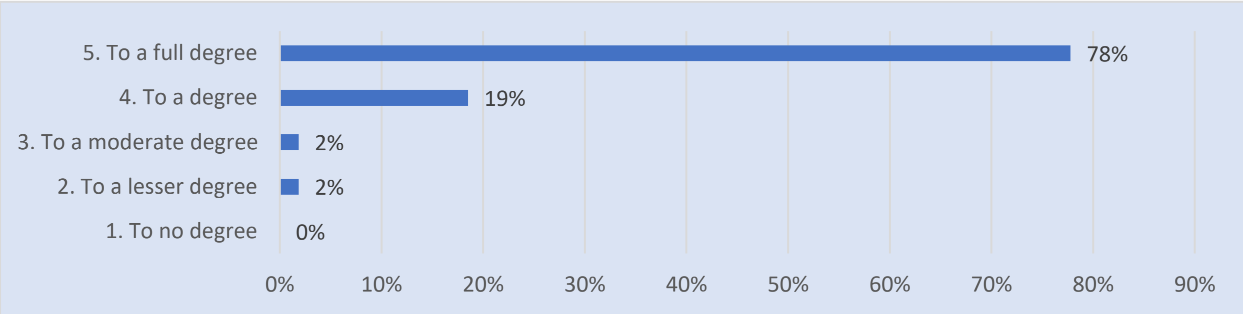
According to the feedback, 96% of participants mostly agree with the criterion that the risks should have a risk owner and 78% of the participants confirmed that their department have founded risk owners to manage the risks. The 35% variance (between 85% and 50%) indicates that whilst most participants agree that this issue is important, there seems to be a gap with implementation within their organisations. As this is indicated as an important criterion, organisations should include ownership of risks as part of their risk management culture. Organisations can implement by establishing risk owners as accountable and responsible for managing risks and ensuring that the action plans are identified and monitored to reduce/mitigate the potential risk exposure. The argument supports the finding in the Risk Management Capability Ltd (2012) that the risks that are not owned are not managed frequently hence it is important to implement risk owners who will be held accountable and responsible for the risks they manage when establishing a risk management culture.

5.4.8 Risk principles criterion: continuous training

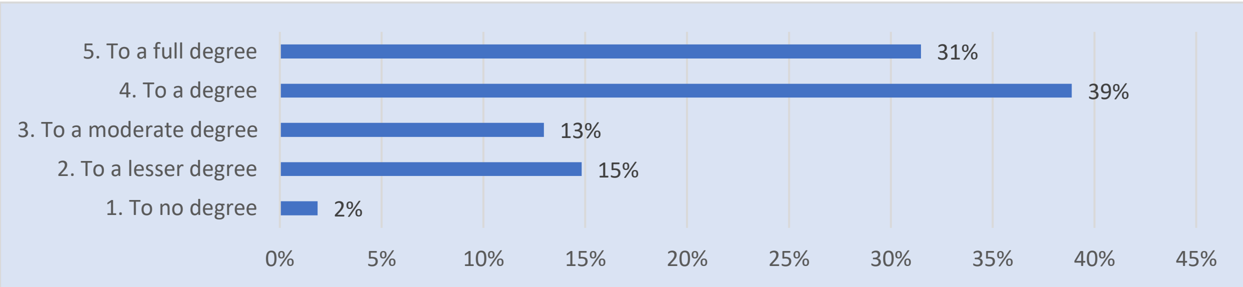
Another question sought to acquire responses on the importance and applicability of the criterion that staff members should obtain continuous training and awareness on risk management to ensure they are up to date and remain relevant. This criterion also supports the dimension of risk principles. Figure 5.8 illustrates the participants response.

Figure 5. 8 Risk management training should be continuous and remain relevant

A. The participants view of importance.



B. Current applicability within their department



Source: Author's own data analysis

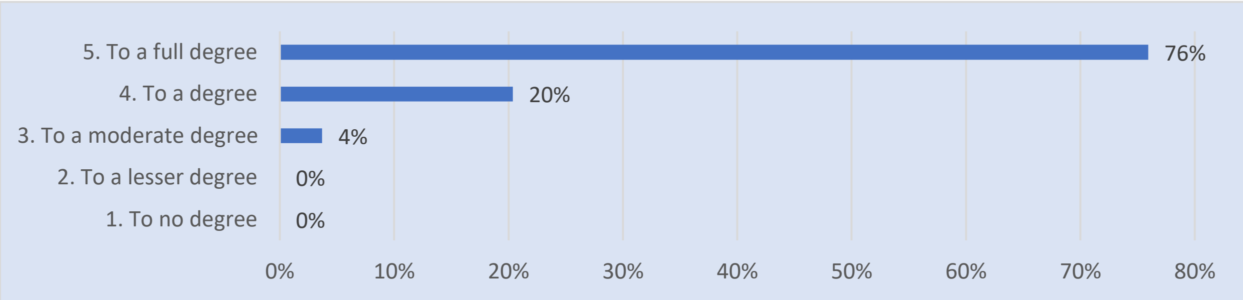
According to the feedback, 97% of the participants mostly agree with the criterion that it is important for organisations to have continuous risk management training whilst 70% confirmed that their respective departments have implemented a continuous risk management training programme. The 47% variance (between 78% and 31%) demonstrates that although most participants agree with the importance of this issue, there is a disconnect between what the organisation is currently doing and what they should be doing. As this is an important criterion, organisations should include it as part of their risk management culture. The outcome is in line with the view in Mustaffa, Isa and Preece (2022) that risk management training provides methodical ways to analyse, detect, evaluate, and manage the risks to reduce their negative effects towards the organisation. Therefore, it seems imperative that organisations should implement risk management training programmes as part of a risk management culture framework that will continuously prepare staff members on risk management techniques that will allow them to manage risks effectively.

5.4.9 Risk principles criterion: continuous improvement of risk management

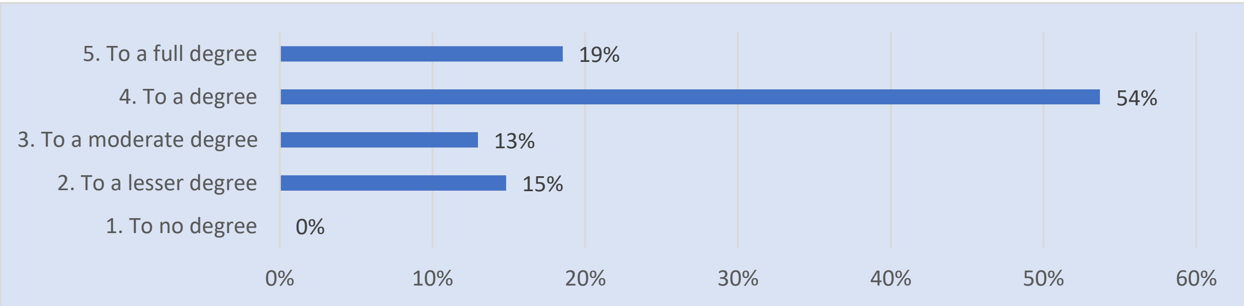
A question also sought to affirm the importance and applicability of the criterion that risk management should be continuously improved to remain relevant as the organisation evolves. This criterion is also the dimension of risk principles. Figure 5.9 below highlights the participants views.

Figure 5. 9 Risk management should continuously be improved as the organisation evolves

A. The participants view of importance



B. Current applicability within their department



Source: Author's own data analysis

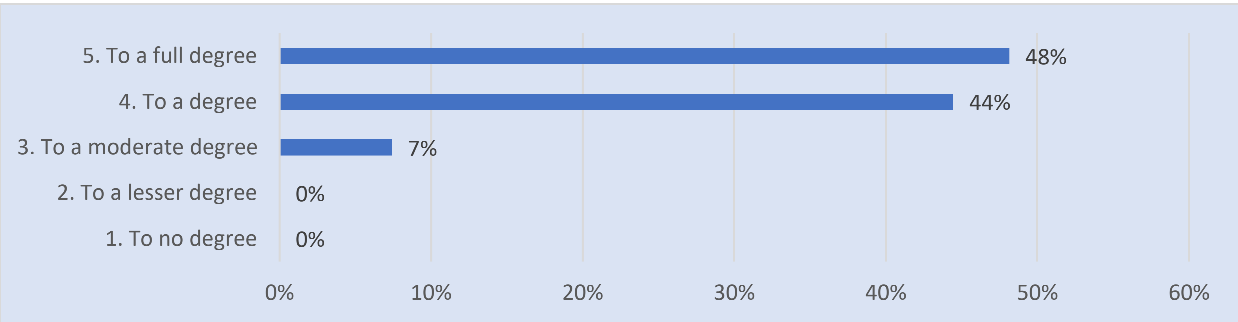
According to the feedback, 96% of participants mostly agree with the criterion that risk management should be continuously improved and remain relevant as the organisation evolves and 73% of participants confirmed that their department have implemented continuous improvement of risk management. The 57% variance (between 76% and 19%) indicates that despite the overwhelming consensus among the participants of the importance of this criterion underlying risk principles, there seem to be a lack of implementation within the organisation. Based on the significance of the criterion, an organisation should include it as part of their risk management culture. This could lead to continuous monitoring of risk management developments (such as benchmark exercises with other institutions) to ensure that the organisation remains abreast of industry best practices in terms of risk management. This finding also supports the view in the Tenterfiled Shire Council (2020) that continuous improvement of risk management assists organisations to enhance their risk management processes on an on-going basis according to changing circumstances. Therefore, it can be concluded that the continuous improvement of risk management is an important criterion for embedding a risk management culture. Risk managers and risk owners, accordingly, should be kept informed on new risk management techniques and processes by means of research and attending risk training programmes.

5.4.10 Risk management culture framework dimension: standards

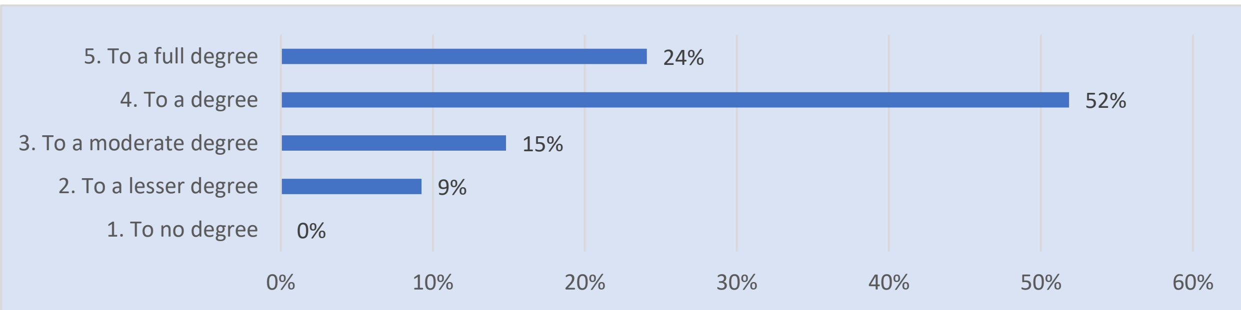
Question 10 sourced reactions on the importance of the criteria of standards as a dimension of a risk management culture which informs the process of how risk management should be carried out within the organisation. The criteria underlie the risk management culture framework dimension. Figure 5.10 shows the participants response based on their views of the importance and applicability within their department of the risk management standards.

Figure 5. 10 Risk management standards outlines the process for risk management

A. The participants view of importance



B. Current applicability within their department



Source: Author’s own data analysis

According to the feedback, 92% of the participants mostly agree that the risk management standards should be regarded as a dimension of a risk management culture framework, while 76% confirmed that their department have developed risk management standards. The 24%

variance (between 48% and 24%) indicates that although most participants agreed with the importance of this issue, there seem to be a lack in terms of implementation. However, based on the slim 24% variance, it can be assumed that the organisation has some set of risk management standards as part of their risk management culture. These standards should indicate how the risk management culture should be carried out within the organisation. The outcome of confirms the validity of arguments in the ISO 31000 (2018), that risk management standards create a culture of risk management where stakeholders and staff members understand the value of monitoring and managing risk.

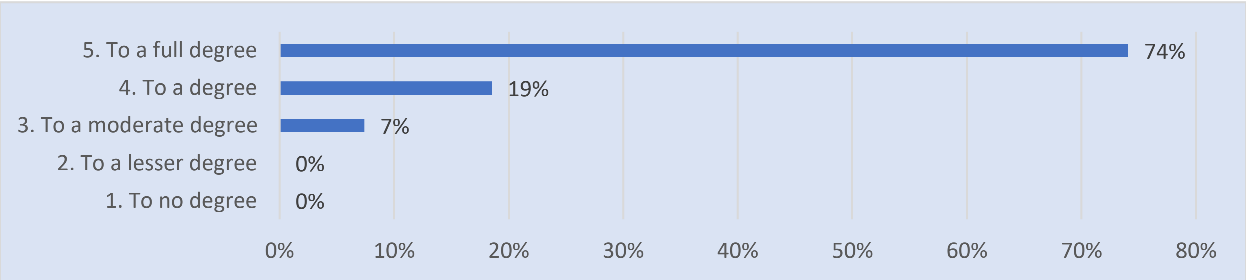
Question 11 to 15 deals with the underlying criteria of the risk standards dimension.

5.4.11 Risk standards criterion: policies, frameworks and standard operating procedures

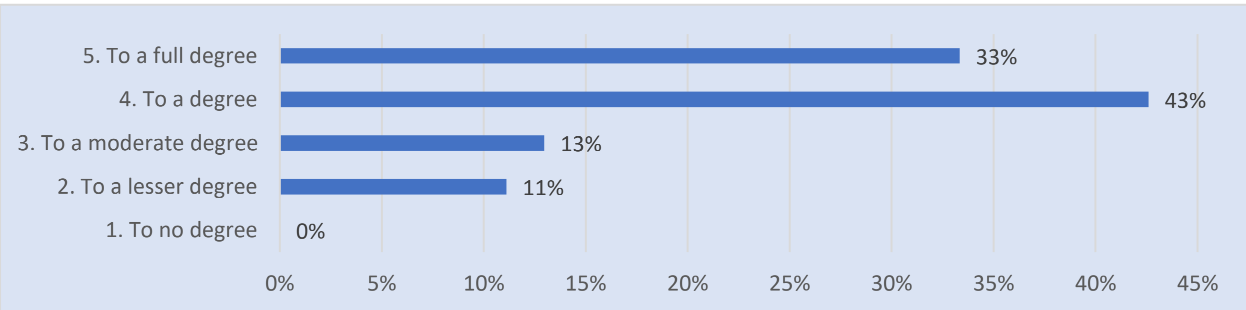
A question sourced responses on the claim that risk management should be incorporated and conceptualised in policies, frameworks and standard operating procedures within organisations to ensure a consistent approach to risk management. This criterion supports the dimension of risk standards. Figure 5.11 shows the respondents response on the view of the importance and applicability within their departments of documenting how risks should be managed, such as through policies, framework, and standard operating procedure manuals.

Figure 5. 11 Organisations should have risk management policies, frameworks, and standard operating procedures

A. The participants view of importance



B. Current applicability within their department



Source: Author’s own data analysis

According to the feedback, 93% of the participants mostly agree with the criterion that risk management policies, frameworks and standard operating procedure manuals should be in place which provides guidance of how risk should be managed and 76% confirmed that their department have implemented risk management policies, frameworks, and standard operating procedure manuals. However, there is a 41% variance (between 74% and 33%) between what is regarded as important and the current applicability. There is a wide gap between what is being done currently and what is applicable despite the overwhelming agreement among participants that this criterion is significant. Therefore, it can be concluded that this criterion should be included in the risk management culture of the organisation. This supports the finding in the Global Partnership for Education (2019), that risk management policies, frameworks and standard operating procedures assist organisations to set operating standards and continuously assess the organisational risk management culture by way of embedding a risk management culture framework. And as such, the gap could be addressed through documenting risk management policies, frameworks and standard operating procedures which should set the standards of how staff members approach the embedding of the risk management culture.

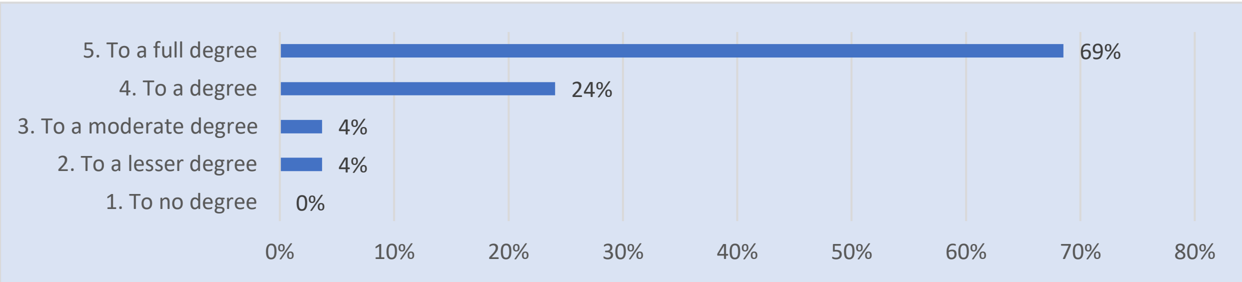
5.4.12 Risk standards criterion: internal processes management inclusion

The question solicited responses on the importance and applicability of the criterion that risk management should be included in the planning, controlling, and monitoring of internal processes within the organisation. This criterion also supports the dimension of risk standards.

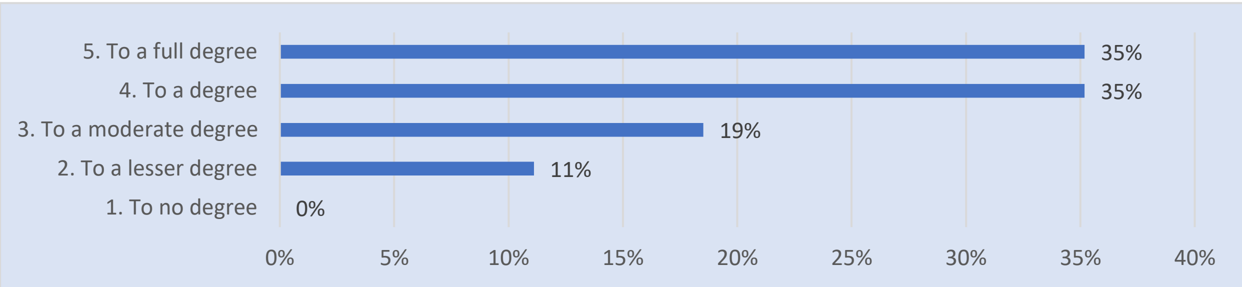
Figure 5.12 presents the participants views under on the importance and applicability within their department of including risk management within the planning, controlling, and monitoring of internal processes.

Figure 5. 12 Risk management should be included in the planning, controlling, and monitoring of the internal processes

A. The participants view of importance



B. Current applicability within their department



Source: Author's own data analysis

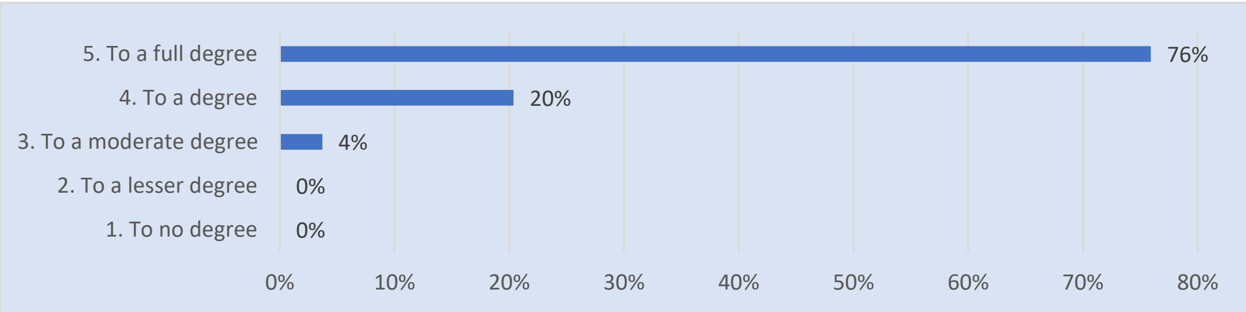
According to the feedback, 93% of the participants agree with the criterion that risk management should be included in the planning, controlling, and monitoring of the internal processes and 70% confirmed that their departments have implemented risk management in the planning, controlling, and monitoring of the internal processes. The 34% variance (69% and 35% respectively) highlights that despite the majority of the participants (93%) agreeing that this criterion is important, there seem to be a disconnect again to what the organisation does and what is necessary. Based on the importance of this criterion, organisations should incorporate the criterion within the risk management culture. This could be achieved through implementing the risk management tools and techniques (such as KRI, RCSA and scenario analysis) within the risk management process while embedding the risk management culture framework. The outcome aligns with the finding in Chattered Institution of Management Accountant (CIMA) (2008), that risk management should be included in the internal organisational processes in order to identify and remediate the risks that may hinder the organisations to meet its objectives.

5.4.13 Risk standards criterion: definition of operational risk

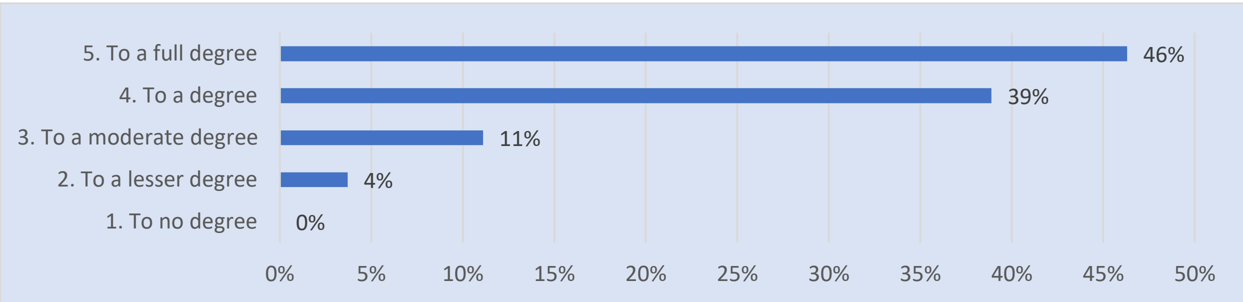
Question 13 required respondents to rate the importance and applicability of the criterion that organisations should have an approved and recognised definition for operational risk which sets the statement of what operational risk means within the organisation. This criterion also supports the dimension of risk standards. Figure 5.13 shows the respondent's feedback.

Figure 5. 13 Organisations should have an approved definition of operational risks within their policy

A. The participants view of importance



B. Current applicability within their department



Source: Author's own data analysis

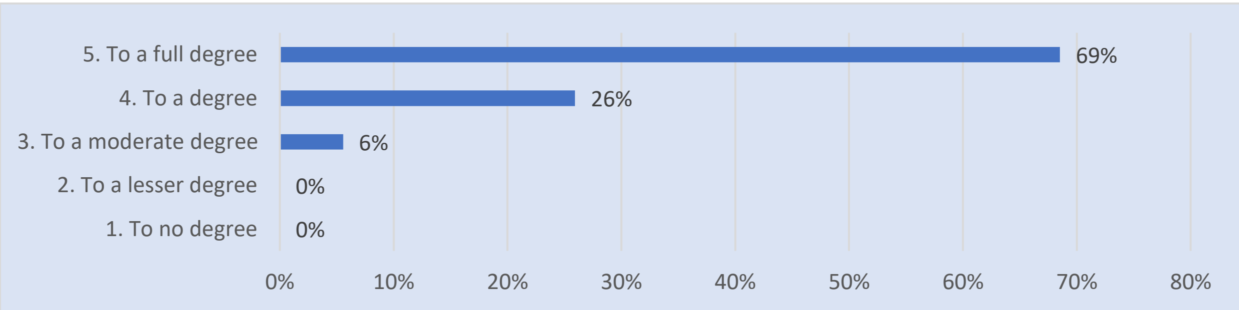
According to the feedback, 96% of the respondents agree with the criterion that organisations should have a definition of operational risk whilst 85% confirmed that their department have implemented a definition of operational risk within their policy. The 30% variance (between 76% and 46%) indicate that despite most participants concurring with the importance of this criterion, there seem to be a problem with the implementation. Because of the importance of this criterion, organisations should incorporate a definition for operational risk as a criterion for the standards dimension of a risk management culture framework. This could be achieved through clearly articulating the operational risk definition within the risk management policies and frameworks. The finding supports the recommendation in CIMA (2008) that organisations should have a definition of operational risk which should align to the organisational operations and this will be possible through the implementation of a risk management culture framework.

5.4.14 Risk standards criterion: risk process availability

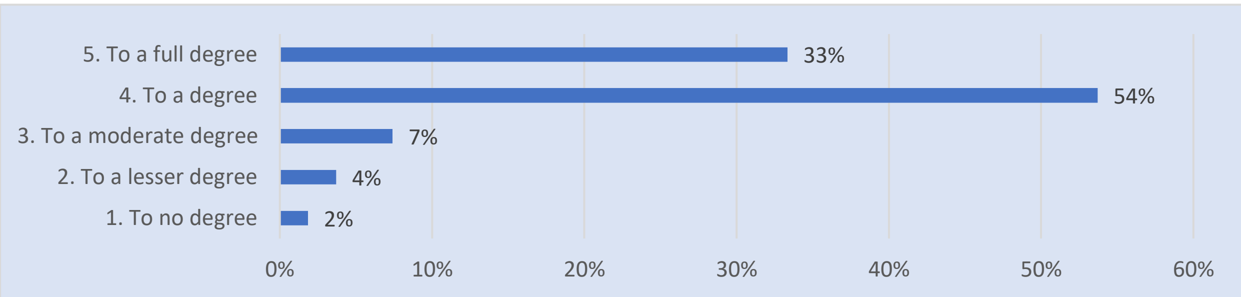
Question 14 enquired on the importance and applicability of a criterion which states that there should be availed a process which demonstrate how risk management should be performed within the organisations. This criterion also supports the dimension of risk standards. Figure 5.14 shows feedback from respondents based on their view of the importance for organisations of having a process for risk management and if this applies within their department.

Figure 5. 14 Organisations should have a process for risk management

A. The participants view of importance.



B. Current applicability within their department



Source: Author's own data analysis

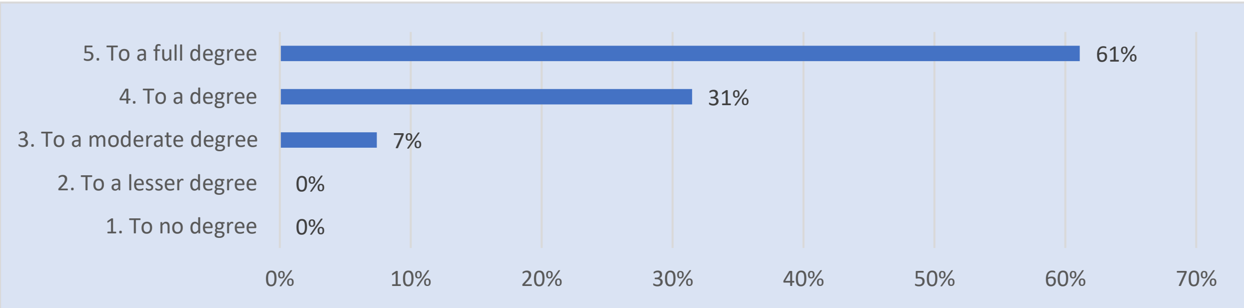
According to the feedback, 95% of the participants agree with the criterion that organisations should have a process for risk management whilst 87% confirmed that their departments have implemented a process for risk management. The 36% variance (between 69% and 33%) demonstrate that although most participants agree with this criterion, there is a lack of implementation and as such organisation should include this criterion as part of their risk management culture owing to Its importance. This could be achieved through documenting and establishing a process for risk management which is approved by top management while implementing the risk management culture framework. This supports the view in Meiryani (2018) that a process for risk management enables management to deal with the risks, opportunities, enhance the business processes and establish the right risk management culture which is possible through the establishment of a risk management culture framework.

5.4.15 Risk standards criterion: business process management

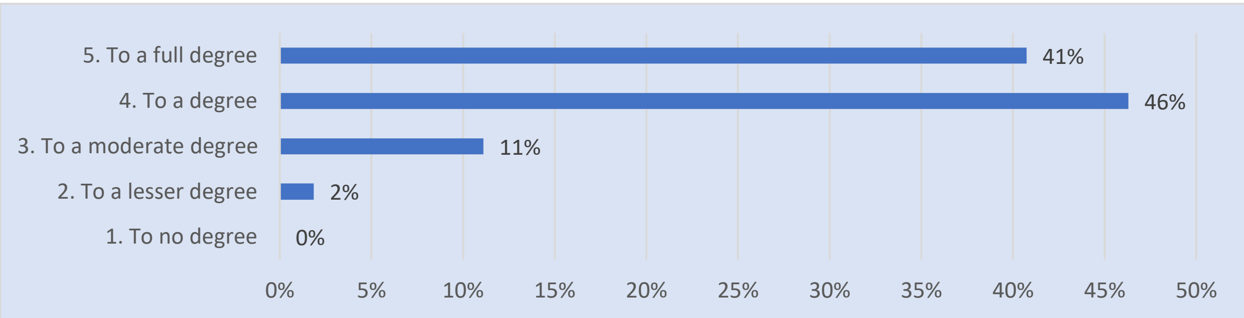
A question enquired about the importance and application of the criterion that risk management is critical for business process management in order to achieve the organisational objectives. This criterion also supports the dimension of risk standards. Figure 5.15 presents the respondents view of the importance for risk management being critical for business process management and the applicability within their department.

Figure 5. 15 Risk management is critical for business management process

A. The participants view of importance.



B. Current applicability within their department



Source: Author's own data analysis

According to the feedback, 92% of the participants agree with the criterion that risk management is critical for business process management whilst 87% confirmed that their department have implemented the risk management within their business process management. The 20% variance (between 61% and 41%) demonstrate that despite several participants agreeing with the importance of this criterion, there is a disconnect with its current application. However, the 20%

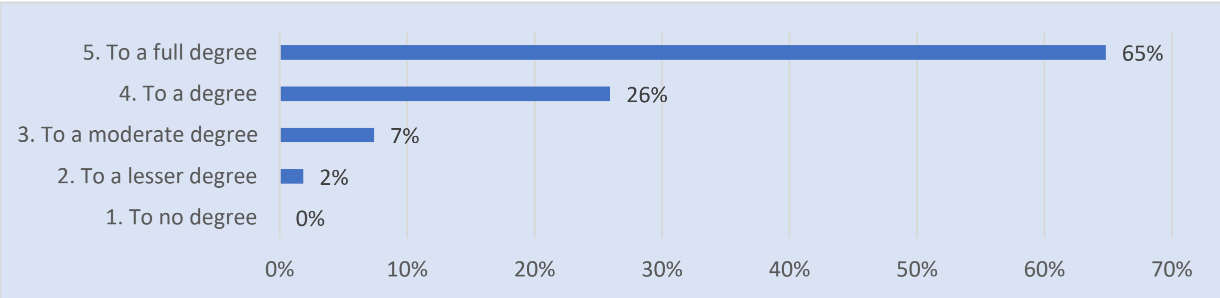
variance is not a significant gap which may indicate that the organisations do acknowledge risk management as critical for business processes. This supports the view of Uzoamaka, Ifeoma and Amakor (2013) that utilising risk management within the business process management will benefit the organisation through protecting it against reputational damage, losses, and unexpected risk exposures which seem possible through the implementation of a risk management culture framework. Therefore, organisations should provide risk management training to staff members to ensure that staff members are equipped with the skills and knowledge to manage the risks within their areas of responsibility.

5.4.16 Risk management culture framework dimension: staff conduct

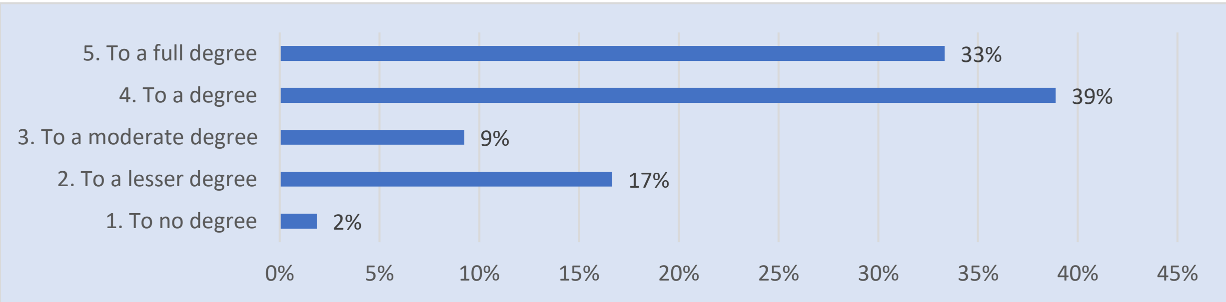
Question 16 solicited responses on the importance and applicability of a code of conduct as a dimension of a risk management culture within the organisation that sets out how staff members should conduct themselves. This supports the dimension of a risk management culture framework. Figure 5.16 highlights the participants feedback based on their view of importance of incorporating the code of conduct within the risk management activities and the applicability within their department.

Figure 5. 16 The code of conduct should be incorporated in the risk management activities

A. The participants view of importance



B. Current applicability within their department



Source: Author’s own data analysis

According to the feedback, 91% of the participants mostly agree that the code of conduct sets the tone of how staff members should conduct themselves when managing the risks and 72% confirmed that their department have implemented a code of conduct that sets the tone of how staff members conduct themselves when managing risks. Based on the response, it can be concluded that a code of conduct in terms of risk management should be included as a dimension of a risk management culture framework. However, the 32% variance (65% and 33%) indicate that even though most participants agreed with the importance of this dimension, there is still a gap in the application. Given the importance of this issue, organisations should integrate the code of conduct within their risk management culture. The finding and conclusion support the view in Singh and Prasad (2017) that the code of conduct enables the staff members to perform their tasks with integrity and honesty while implementing the risk management culture. Therefore, the best outcome could be accomplished by organisations explicitly documenting the code of conduct within their risk management practice as the criteria seem fundamental in founding a sound risk management culture.

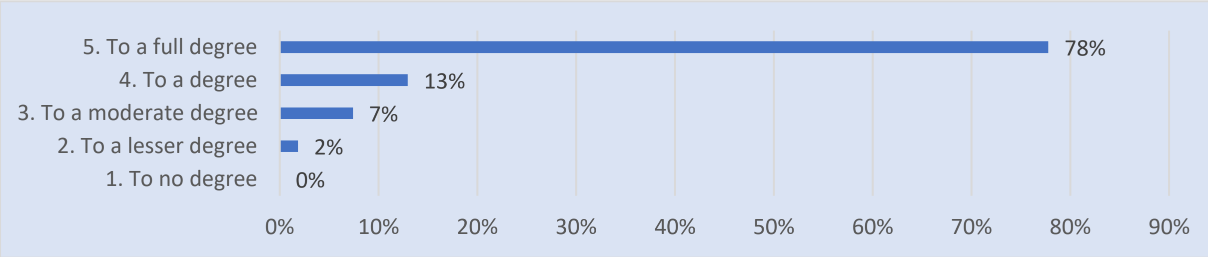
Question 17 to 21 deals with the underlying criteria of the code of conduct dimension.

5.4.17 The code of conduct criterion: staff compliance

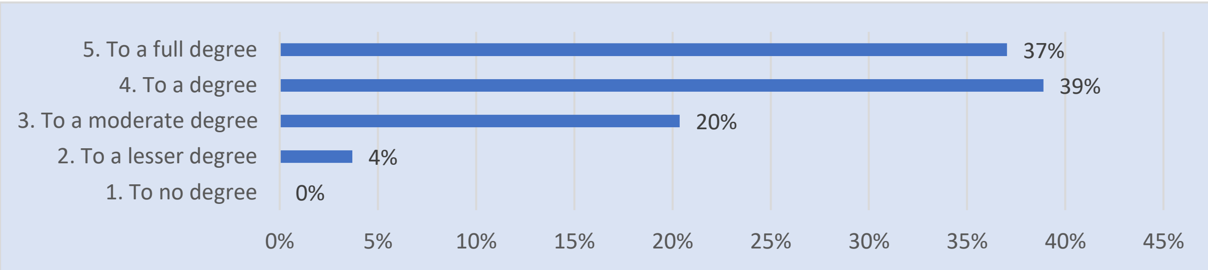
A question sourced reactions on the importance and application of the criterion that the code of conduct assist organisations to reduce the risk exposures. This criterion supports the code of conduct dimension. Figure 5.17 shows the respondents reactions on the importance of staff members complying with the code of conduct and the applicability within their department.

Figure 5. 17 Staff members should comply with the code of conduct to embed the sound risk management culture

A. The participants view of importance.



B. Current applicability within their department



Source: Author's own data analysis

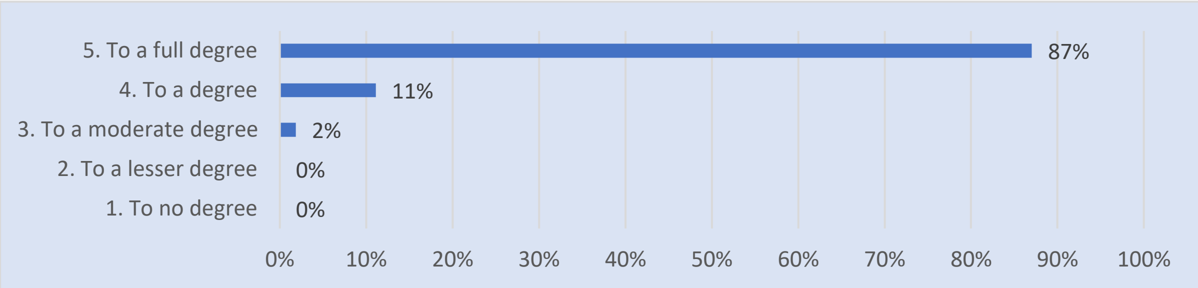
According to the feedback, 91% of the participants agree with the criterion that staff members should comply with the code of conduct to reduce the risk exposures whilst 76% confirmed that staff members within their department use the set code of conduct in managing the risks to reduce exposures. The 41% variance (between 78% and 37%) show that even though most participants thought this criterion is crucial, there still appears to be a gap in the organisation's execution. Organisations should ensure that staff members comply with the code of conduct in their culture for risk management given the significance of this criterion. Accordingly, Singh and Prasad (2017) had argued that that staff members that comply with the organisational code of conduct follow company norms and regulations while working to achieve the organisations objectives which seem beneficial in establishing a sound risk management culture framework. To align with these arguments, organisations should implement compulsory annual declarations of the code of conduct for all staff members where they confirm to have read, understood, and will abide by the set code of conduct which seem crucial to found the right risk management culture.

5.4.18 The code of conduct criterion: honesty and transparency reporting

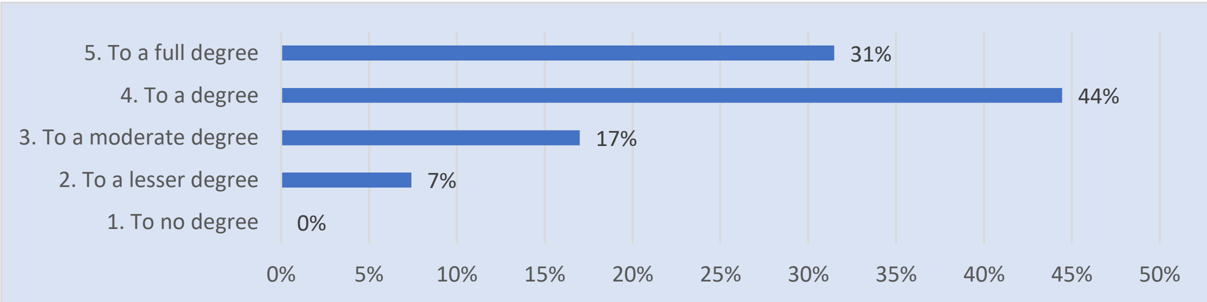
Question 18 solicited reactions on the importance and applicability of the criterion that staff members should be honest and transparent when reporting risk issues. This criterion also supports the code of conduct dimension. Figure 5.18 demonstrate the participants feedback based on their view on importance for staff members being honest and transparent when reporting risk issues and how it applies within their department.

Figure 5. 18 Staff members should be honest and transparent when reporting risk issues

A. The participants view of importance.



B. Current applicability within their department



Source: Author's own data analysis

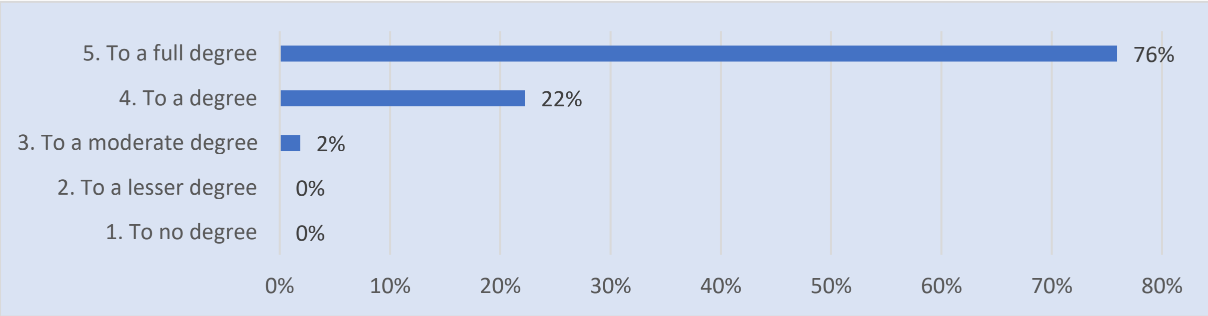
According to the feedback, 98% of the participants agreed with the criterion that staff members should be honest and transparent when reporting on the risk issues whilst 75% confirmed that staff members are honest and transparent when reporting on the risk issues within their departments. The 56% variance (87% and 31% respectively) demonstrate that even though most participants believed this criterion to be important, there still seems to be a great weakness in the organisation's application. Given the importance of this criterion, organisations should encourage honesty and transparency within their risk management culture. This could be achieved through incorporating honesty and transparency within the code of conduct while implementing the risk management culture framework. This supports the view in Kashyap and Iveroth (2020) that transparency enables the risks to be effectively controlled and enforces accountability and responsibility on the risks while embedding the risk management culture.

5.4.19 The code of conduct criterion: staff integrity enforcement

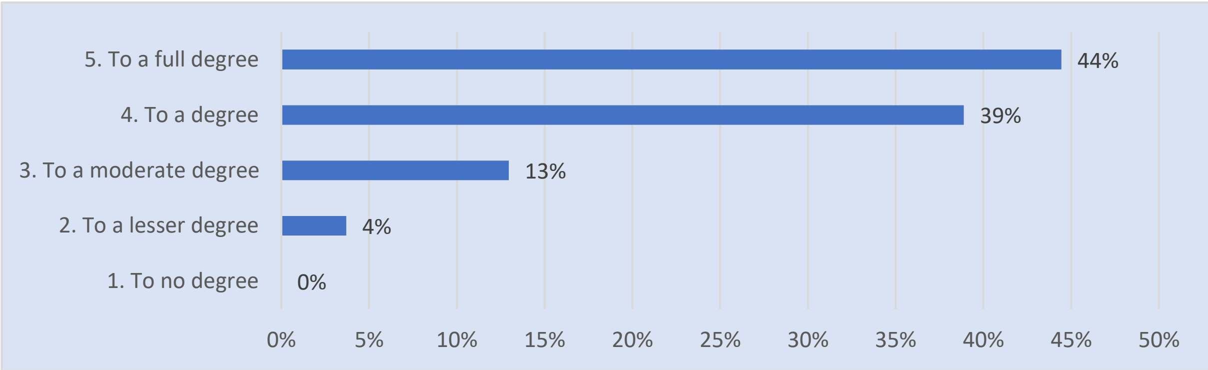
A question enquired the importance and application of the criterion that organisations should enforce staff members to always act with integrity and maintain the organisational standards through acceptable behaviours. This criterion also supports the code of conduct dimension. Figure 5.19 shows the respondents feedback regarding the importance of staff members acting with integrity in their activities and the applicability thereof within their department.

Figure 5. 19 Staff members should act with integrity in their dealings

A. The participants view of importance



B. Current applicability within their department



Source: Author's own data analysis

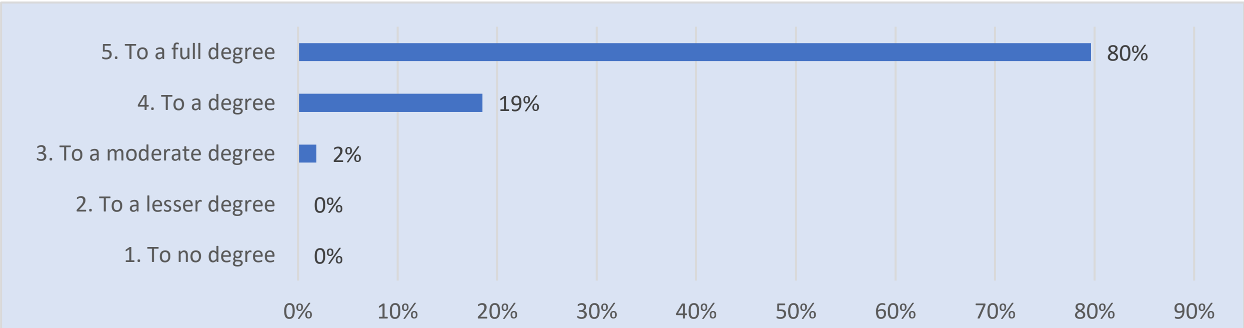
According to the feedback, 98% of the participants agree with the criterion that staff members should act with integrity and maintain the organisational standards through acceptable behaviours and 83% confirmed that staff members within their department act with integrity and maintain the organisational standards throughout their dealings. The 32% variance (76% and 44%) indicates that even though most of the participants thought this criterion was crucial, there is still room for improvement. Due to the significance of this criterion, organisations should ensure that staff members act with integrity and always maintain the organisational standards. This could be accomplished through having a process in place to report unacceptable behaviours while embedding the risk management culture framework. The finding and conclusion support the finding in the Petroleum Geo-Services (2021) that organisations should act with integrity in their dealings which should be driven by the code of conduct to embed a risk management culture.

5.4.20 The code of conduct criterion: honesty, accountability, impartiality, selflessness, respect, and ethical behaviour

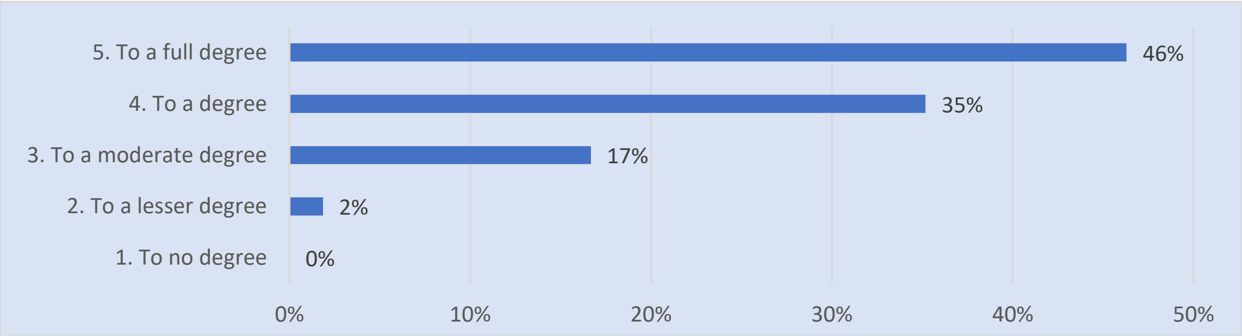
A question required respondents to rate the importance and applicability of the criterion that honesty, accountability, impartiality, selflessness, respect, and ethical behaviour should be incorporated in the code of conduct to set the tone of how staff members should conduct themselves. This criterion also supports the code of conduct dimension. Figure 5.20 provides feedback on the participants view about the importance of incorporating the factors, such as honesty, accountability, impartiality, selflessness, respect, and ethical behaviour within the code of conduct and if the code of conduct within their organisations have incorporated such factors.

Figure 5. 20 The code of conduct should incorporate factors such as honesty, accountability, impartiality, selflessness, respect, and ethical behaviour

A. The participants view of importance.



B. Current applicability within their department



Source: Author’s own data analysis

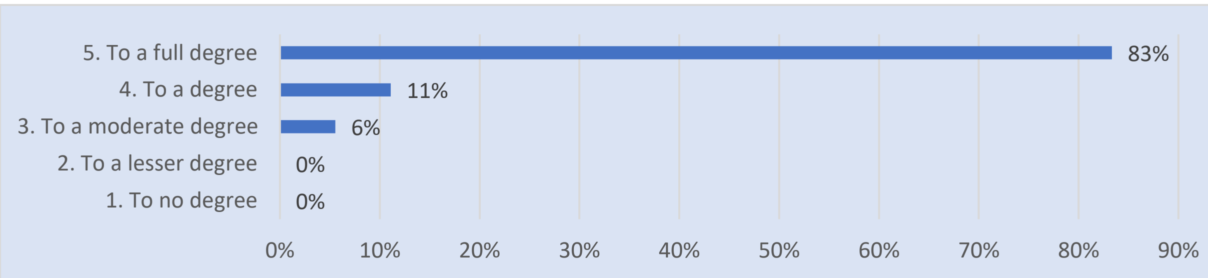
According to the feedback, 99% of the participants agree with the criterion that honesty, accountability, impartiality, selflessness, respect, and ethical behaviour should be incorporated within the code of conduct whilst 81% confirm that these factors are incorporated within the code of conduct in their department. The 34% variance (80% and 46%) indicates that although most participants believed this criterion to be important, there seems to be a shortcoming in terms of the organisation's application. Given the importance of this criterion, organisation should incorporate honesty, accountability, impartiality, selflessness, respect, and ethical behaviour within their code of conduct, while founding the risk management culture framework. This supports the view of Popescu (2016) that incorporating honesty, accountability, impartiality, selflessness, respect, and ethical behaviour within the code of conduct serves great importance as it specifies how staff members should conduct themselves when rooting the risk management culture framework.

5.4.21 The code of conduct criterion: ethical behaviour promotion

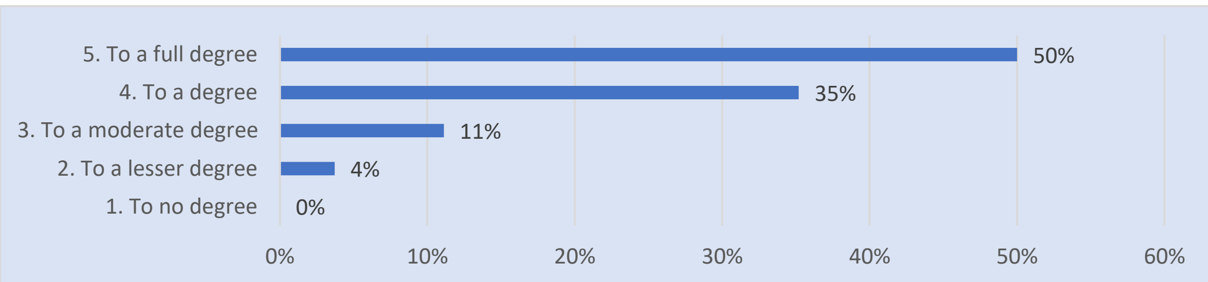
The question enquired about the importance and application of the criterion that ethical behaviour should be promoted within organisations to embed a sound risk management culture. This criterion also supports the code of conduct dimension. Figure 5.21 highlights the respondents view of the importance for organisations to promote ethical behaviour and how their department is promoting ethical behaviour.

Figure 5. 21 Organisations should promote ethical behaviour

A. The participants view of importance.



B. Current applicability within their department



Source: Author's own data analysis

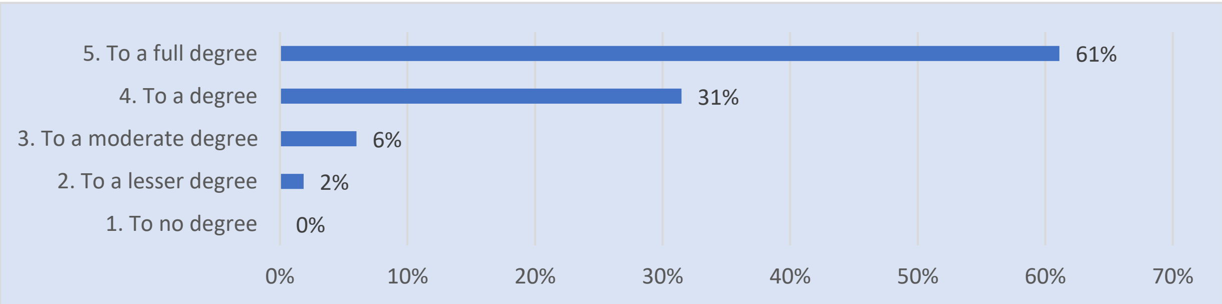
According to the feedback, 94% of the participants agree with the criterion that ethical behaviour should be promoted within the organisation whilst 85% confirm that their department have implemented the promotion of the code of conduct. The 33% variance (between 83% and 50%) indicate that although most participants indicated that this criterion was crucial, there is still room for improvement in the application. Given the importance of the criterion, organisations should incorporate this within their risk management culture. The recommendation supports the view in Popescu (2016) that the code of conduct prevents unethical behaviour from staff members which seem crucial when embedding the risk management culture framework. Therefore, organisations should establish a channel where unethical behaviour is reported and subsequently dealt with.

5.4.22 Risk management culture framework dimension: risk value

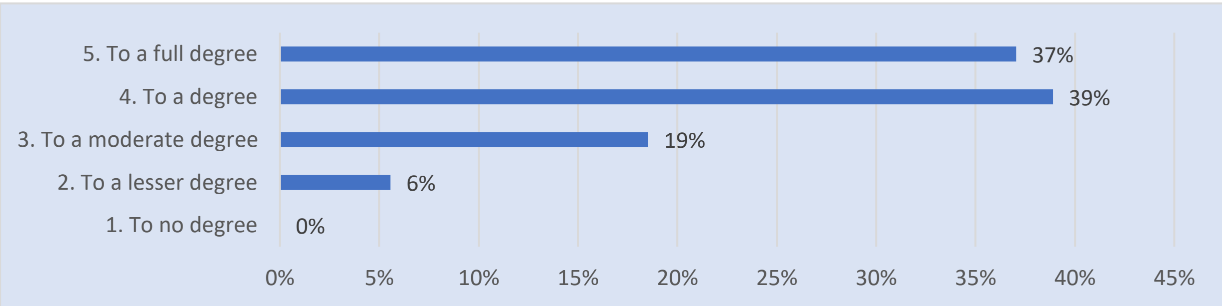
Question 22 enquired about the value of risk management as a dimension of a risk management culture that ensures that the management of risks becomes meaningful. This supports the dimension of a risk management culture framework. Figure 5.22 highlights the participants view on importance for the value of risk management and how their department values risk management.

Figure 5. 22 Risk management should be valued

A. The participants view of importance.



B. Current applicability within their department



Source: Author’s own data analysis

According to the feedback, 92% of the participants agree that the organisations should incorporate the value of risk management as a dimension of a risk management culture framework whilst 76% confirm this is currently applicable to their departments. The 24% variance (61% and 37%) indicates that the dimension should be incorporated into a risk management culture framework and that is currently being done by most organisations to some degree. This supports the finding of McKinsey and Company (2015), that it is important for organisations to clearly communicate the value of risk management throughout the organisation while implementing a risk management culture. As such, it can be concluded that the value of risk management should be included as a dimension of a risk management culture framework.

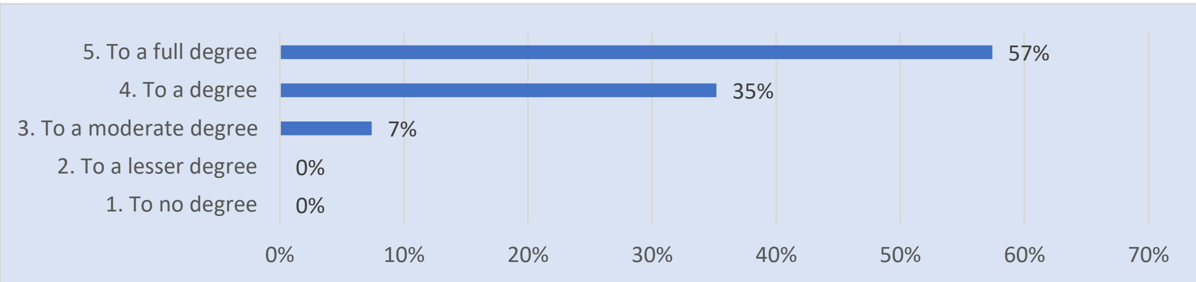
Question 23 to 30 deals with the underlying criteria of the risk value dimension.

5.4.23 Risk value criterion: risk management valued in organisations

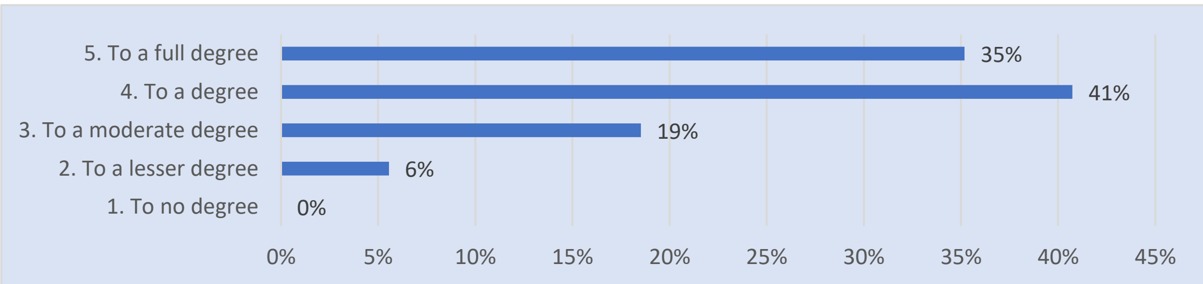
Question 23 enquired about the importance and application of the criterion that risk management should be valued and form part of the organisations integral processes to ensure effective risk management. This criterion supports the dimension of the risk value. Figure 5.23 demonstrate the respondent’s opinion on risk management forming part of the organisations integral process and how it is within their department.

Figure 5. 23 Risk management should form part of the organisations integral process

A. The participants view of importance.



B. Current applicability within their department



Source: Author’s own data analysis

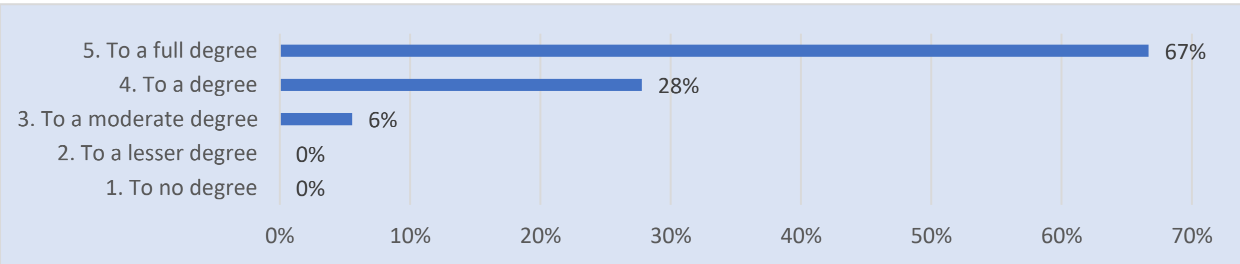
According to the feedback, 92% of the participants agree with the criterion that risk management should be valued and form part of the organisations integral process whilst 76% confirmed that their department have implemented risk management within their integral process. The 22% variance (between 57% and 35%) indicates that the there is still room for improvement when incorporating risk management as an integral part of the business processes. However, the integrated risk management and business processes should be regarded as a crucial criterion for a risk management culture. This supports the finding in the Federal Office for Civil Protection (2014) that having risk management within the organisational integral process assist the organisations to ensure that the likelihood of the risks occurring are as low as possible which seem possible through the implementation of the risk management culture framework. Therefore, organisations should manage the organisational processes through the risk management process while making risk management a focal point within the organisation.

5.4.24 Risk value criterion: risk forums

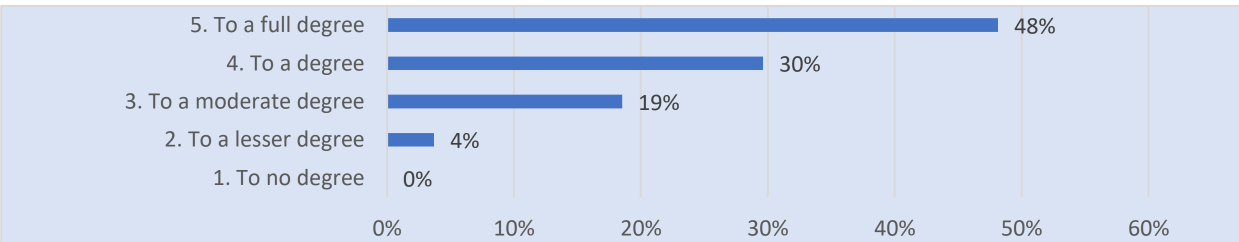
Question 24 enquired about the importance and applicability of the criterion that the risks should be reported in governance forums to ensure transparency and accountability and to inform management of all the risks within their business units. This criterion also supports the dimension of the risk value. Figure 5.24 highlights the participants feedback on their opinion of the risks being reported to the risk management governance forums and applicability within their department.

Figure 5. 24 Risk governance forums should be in place

A. The participants view of importance.



B. Current applicability within their department



Source: Author’s own data analysis

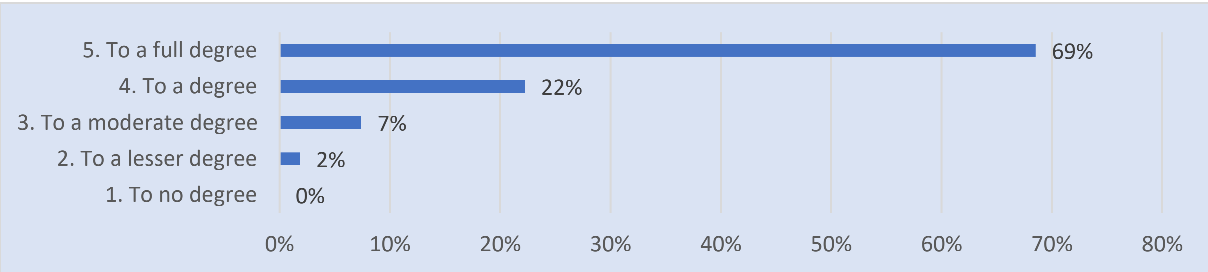
According to the feedback, 95% of the participants agree with the criterion that organisations should have risk management governance forums in place to ensure transparency and accountability and to inform management of all the risks within their business units and 78% confirm that their department have implemented the risk management governance forums. As such, it can be concluded that risk management governance forums are established to ensure transparency and accountability and should be included as a criterion for the dimension of the value of risk and the risk management culture framework. The fundings supports the view in Caraiman and Mates (2020) that the risk management governance forums ensure that the organisation does not incur the risks which may prevent it from achieving its strategic objective, and this can be achieved through the establishment of the risk management culture framework.

5.4.25 Risk value criterion: manage/recover loss

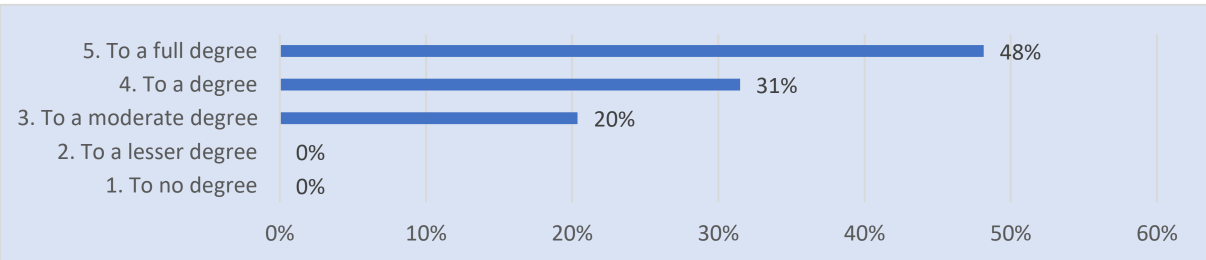
Question 25 enquired about the importance and applicability of the criterion that organisations should have provisions in place to manage/recover losses, such as insurance and, budget allocation. This criterion also supports the dimension of the risk value. Figure 5.25 represents the participants view on the importance for organisations to have methods of how losses should be managed/recovered and if their departments have such methods in place.

Figure 5. 25 Losses recovery methods should be in place

A. The participants view of importance



B. Current applicability within their department



Source: Author's own data analysis

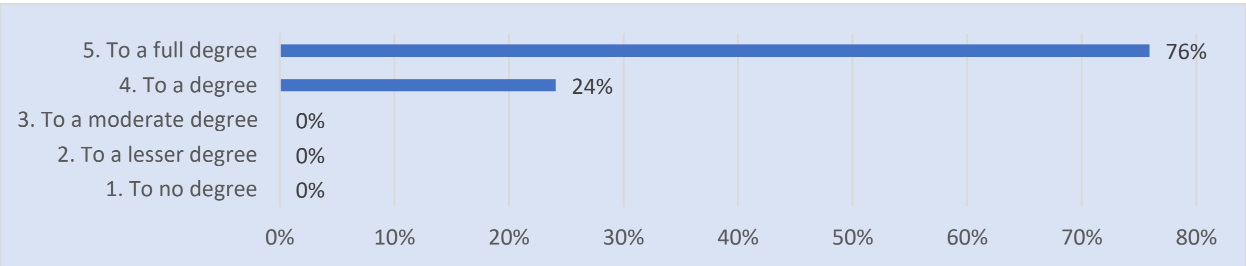
According to the feedback, 91% of the participants agree with the criterion that organisations should have provisions in place to recover losses whilst 79% confirm that their department have implemented loss recovery methods. The response thus supports the fact that this criterion should form part of this dimension on the value of risk management and included in a risk management culture. This could be achieved through the introduction of contingency requirements (such as budget allocation, incentive pool or insurance) to manage the unforeseen risk of losses. In addition, it will assist the organisation to have the ability to recover losses and ensure that business operations continue smoothly following major or extreme incidents which resulted in financial losses. The findings and recommendations support the view in Sturgess (2016) that organisations should ensure that there is financial protection against the losses, which will seem possible through the implementation of the risk management culture framework.

5.4.26 Risk value criterion: risk appetite and tolerance

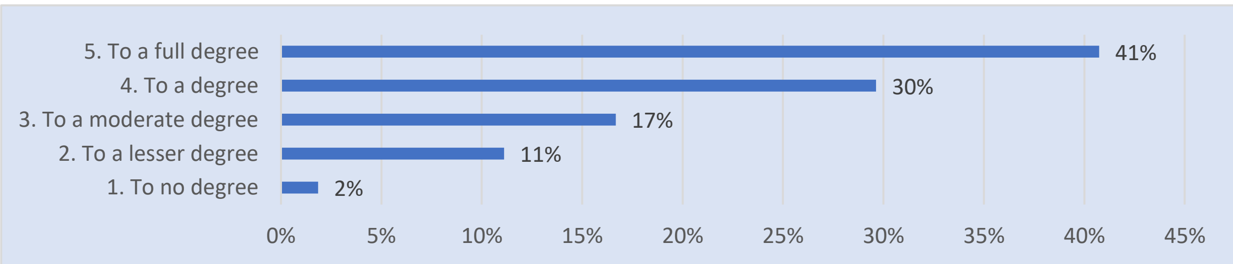
Another question enquired about the importance and application of the criterion that risk appetite and risk tolerance should be established within the organisation, in order to manage the risks effectively. This criterion also supports the dimension of the risk value. Figure 5.26 shows the respondents opinion on the organisation embedding the risk appetite and risk tolerance and if this has been founded within their department.

Figure 5. 26 The risk appetite and risk tolerance should be determined

A. The participants view of importance.



B. Current applicability within their department



Source: Author's own data analysis

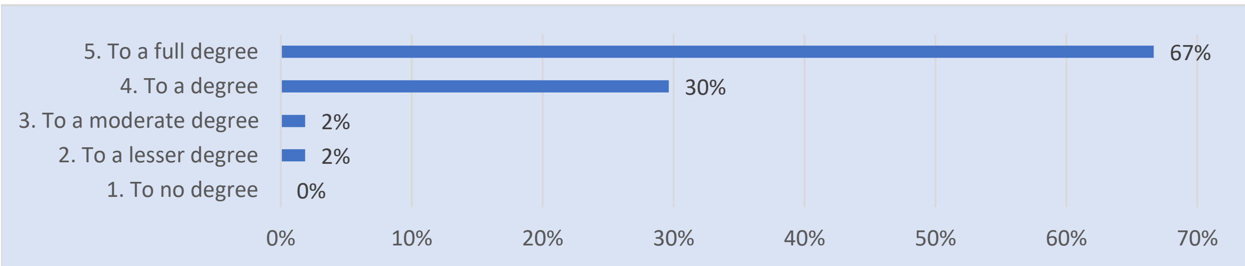
According to the feedback, 100% of the participants agree with the criterion that risk appetite and risk tolerance is crucial to effectively manage the risks whilst 71% confirmed that their departments have implemented the risk appetite and risk tolerance. As such, it can be concluded that this is a crucial criterion for a risk management culture. However, the variance of 35% variance (76% and 41%) indicates that there is still room for development and improvement in establishing this criterion as part of a risk management culture. This could be addressed through clearly defining the risk appetite and risk tolerance within the organisational risk management policy and should form part of the risk management culture. The outcomes align with finding in the Australian government (2016) that the risk appetite and risk tolerance inform how much risk an organisation is willing to take on, which seem crucial while establishing the risk management culture framework.

5.4.27 Risk value criterion: data usage

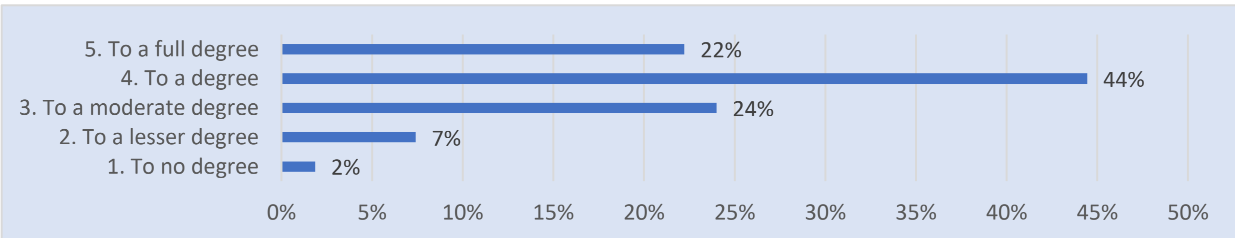
Question 27 enquired about the importance and application of the criterion that the availability of risk data is fundamental to manage the risks adequately and effectively. This criterion also supports the dimension of the risk value. Figure 5.27 provides feedback on the participants views on the importance for the usage of data for risk management activities and if their department uses data to manage the risks.

Figure 5. 27 Risk management should use available data

A. The participants view of importance



B. Current applicability within their department



Source: Author’s own data analysis

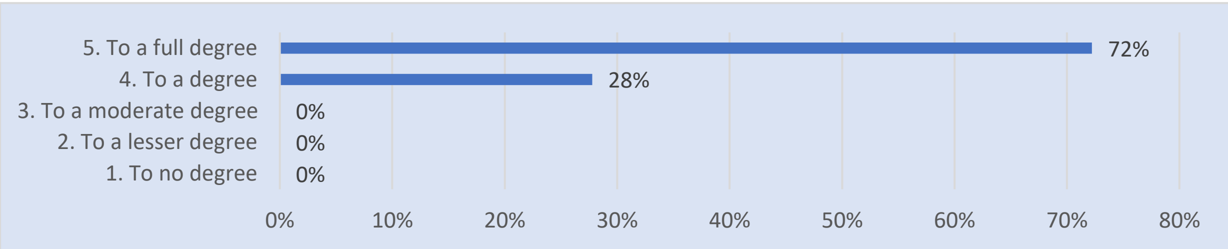
According to the feedback, 97% of the participants agree with the criterion that the availability and usage of data for risk management is important to manage the risks adequately and effectively whilst 66% confirmed that their departments use data to manage the risks. Therefore, it can be concluded that this is an essential criterion for the dimension on the value of risk and a risk management culture framework. However, a 45% variance between the importance and the current applicability (67% and 22%) indicates that this criterion still requires attention to ensure adequate risk data which could be achieved by effective risk reporting and through the establishment of a risk management system that will serve as a central database where all risk activities are performed and stored. This supports the finding in the Infolock (2017), that organisations should perform on-going monitoring of data to identify any risks that are likely to emerge, which seems possible through the founding of the risk management culture framework.

5.4.28 Risk value criterion: top management inclusion

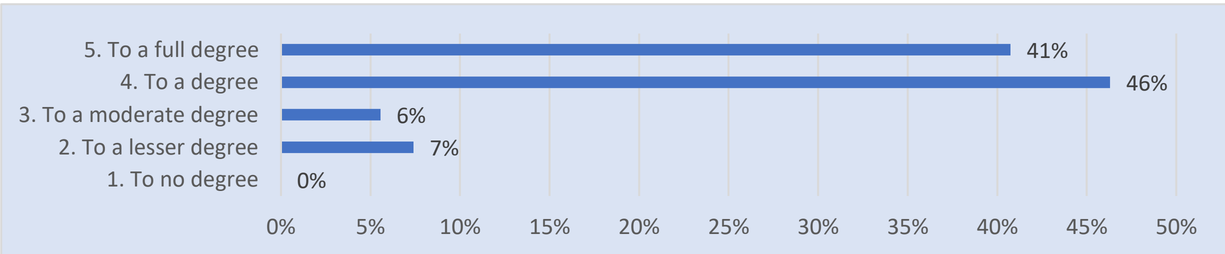
The question enquired about the importance and application of the criterion that risk management should include top management to drive the strategic objectives of the organisation whilst considering all the risks involved. This criterion also supports the dimension of the risk value. Figure 5.28 highlights the participants feedback based on the importance of top management considering the risks while driving the strategic objectives and how these applies within their department.

Figure 5. 28 The top management should consider all the risks impacting the strategy

A. The participants view of importance.



B. Current applicability within their department



Source: Author’s own data analysis

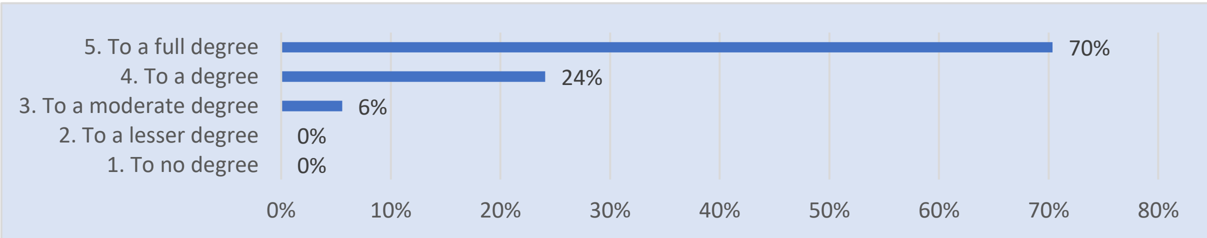
According to the feedback, 100% of the participants agree with the criterion that risk management should include top management to drive the strategic objectives of the organisation whilst considering all the risks involved and 87% confirm that their department have founded risk management for top management when driving the strategic objective. Therefore, this criterion can be accepted as part of the dimension of the value of risk management and a risk management culture framework. However, the variance of 31% (72% and 41%) indicates a shortcoming in the application of the criterion. This could be addressed through establishing a top-down approach whereby top-management lead by example by considering the risks involved while driving the organisational strategic objectives. This supports the finding in McKinsey and Company (2010) that a top-down approach enables appropriate risk management, which is possible through the embedment of the risk management culture framework.

5.4.29 Risk value criterion: strategic objectives

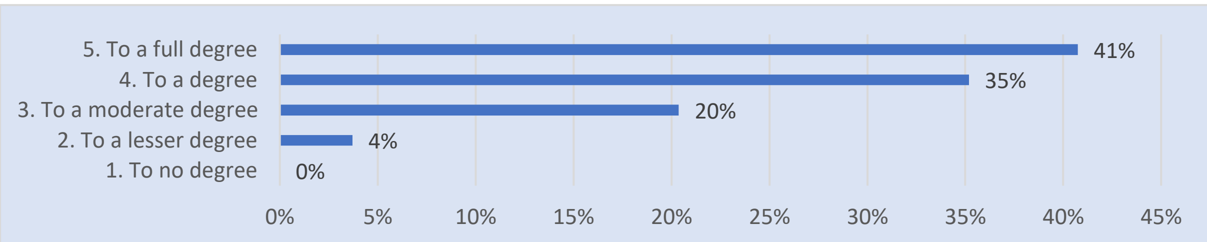
Question 29 enquired about the importance and application of the criterion that risk management should be considered when drafting the strategic objectives of the organisation in order for the organisation to meet those set objectives. This criterion supports the dimension of the risk value. Figure 5.29 highlights the participants views in considering the risks when drafting the organisations strategic objectives and how it is applicable within their department.

Figure 5. 29 Risk management must be considered when drafting the organisations strategic objectives

A. The participants view of importance



B. Current applicability within their department



Source: Author’s own data analysis

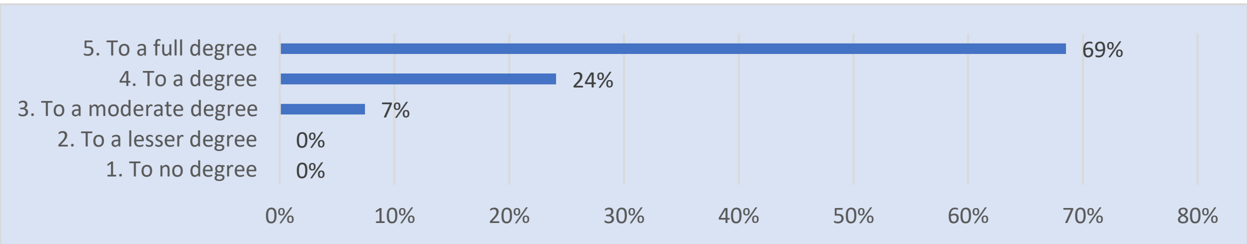
According to the feedback, 94% of the participants agree with the criterion that risk management should be considered when drafting the organisations strategic objectives whilst 76% confirm that their department have implemented risk management when drafting the strategic objectives. As such, this criterion can be regarded important for the dimension of the value of risk management and the risk management culture framework. The 29% variance (70% and 41% respectively) indicate that the criterion still requires attention in implementation to ensure that the organisation will be able to identify any potential threats that may hamper in the achieving of the strategic objectives. This supports the view in Guliyeva (2020) that considering risk management when the strategy is drafted will assist the organisation in achieving its strategic objectives, which will be possible after implementing the risk management culture framework. Therefore, organisations should link the risks to every Strategic Focus Area (SFA) to ensure the risks are managed pro-actively and do not prevent the achievement of the set organisational objectives.

5.4.30 Risk value criterion: governance committee

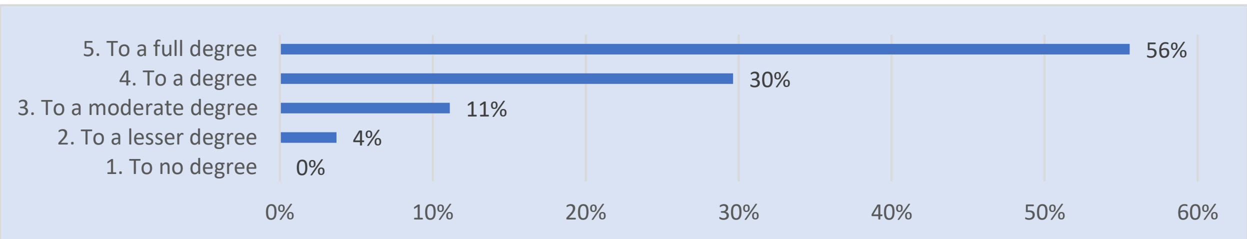
The final question enquired about the importance and applicability of the criterion that organisations should have a governance committee to oversee the risk management process. This criterion also supports the dimension of the risk value. Figure 5.30 below shows the respondents opinion on the organisations having a risk management committee to oversee the risk management process and how it is within their department.

Figure 5. 30 Organisations should have a governance committee that oversees the risk management process

A. The participants view of importance.



B. Current applicability within their department



Source: Author's own data analysis

According to the feedback, 93% of the participants agree with the criterion that organisations should have a governance committee that oversees the risk management process whilst 86% confirm that their department have implemented a governance committee that oversees the risk management process. As such, it can be concluded that a governance committee to oversee the risk management process is an important criterion and part of the dimension of the value of risk management and a risk management culture framework. Therefore, it seems important that oversight committees (roles and responsibilities) within the risk management policies and frameworks should be established in the organisations. This supports the view in Bensaid *et al,* (2021) that the governance committee plays a critical role in ensuring proper risk management, which lowers operational risks and improves the organisational performance, which will be possible through the establishment of the risk management culture framework. The following section provide concluding remarks.

5.5 CONCLUDING REMARKS

The study was able to identify risk dimensions that underly a sound risk management culture. The dimensions identified are explained as follows:

- Principles as a dimension of a risk management culture: this dimension is concerned with the risk management principles establishing the culture of risk management within the organisation.
- Standards as a dimension of a risk management culture: this dimension is concerned with organisations having standards in place of how risk management should be carried out within the organisation.
- Code of conduct as a dimension of a risk management culture: this dimension is concerned with the code of conduct becoming part of the risk management activities.
- Value as a dimension of a risk management culture: this dimension is concerned with organisations valuing and implementing risk management within their activities.

As per the responses, it seems significant that each criteria should be included in their different dimensions. Furthermore, the responses confirmed the dimensions of a risk management culture framework and that they are founded to an acceptable degree by most departments. In addition, the responses indicated the dimensions in order of importance ranked in priority order as indicated below: risk principles dimension (95%), risk standards dimension (92%), risk value dimension (92%) and the code of conduct dimension (91%). The following section provides an overview of the inferential statistics that was used to analyse the relationship between the identified dimensions of the risk management culture.

5.6 INFERENTIAL ANALYSIS

Inferential statistics were utilised to ascertain the relationship between the identified dimensions of a risk management culture and the embedding of these dimensions to establish a risk management culture. The relationship between the dimensions and the underlying criteria of a risk management culture are shown in Table 5.6 below.

Question	Correlation	Relationship Strength
A (Importance)		
Principles ⟷ Standards	r 0.768	Strong Positive
Principles ⟷ Code of conduct	r 0.688	Strong Positive
Principles ⟷ Values	r 0.705	Strong Positive
Standards ⟷ Code of conduct	r 0.771	Strong Positive
Standards ⟷ Values	r 0.769	Strong Positive
Code of conduct ⟷ Values	r 0.757	Strong Positive
B (Application)		
Principles ⟷ Standards	r 0.885	Very strong Positive
Principles ⟷ Code of conduct	r 0.614	Strong Positive
Principles ⟷ Values	r 0.800	Very strong Positive
Standards ⟷ Code of conduct	r 0.658	Strong Positive
Standards ⟷ Values	r 0.847	Very strong Positive
Code of conduct ⟷ Values	r 0.768	Strong Positive

Table 5. 6 The relationship strength between section A (importance) and section B (application)

Source: Author’s own data analysis

Table 5.6 shows the relationships that exist between all the four dimensions of a risk management culture. A single star denotes a relationship that is significant at the 5% significance level, whereas a double star denotes a link that is significant at the 1% significance level.

A detailed list of correlations is presented below based on the importance.

- Significant positive relationships were found between Principles and Standards (r = 0.768**); Principles and Code of Conduct (r = 0.668**); and Principles and Values r = 0.705**). This clearly shows that the respondents highlighted the importance of principles as crucial to embed the sound risk management culture.
- Significant positive relationships were found between Standards and Code of Conduct (r = 0.771**); Standards and Value (r = 0.769**). This indicates that the respondents view standards as crucial to set the tone of how the risk management culture should be founded within the organisation.
- Significant positive relationships were found between the Code of Conduct and Values (r = 0.757**). This denotes the respondents view of the significant of the code of conduct in setting how staff members should conduct themselves while embedding the risk management culture framework.

A detailed list of correlations is presented below based on the application.

- Significant positive relationships were found between Principles and Standards (r = 0.885**); Principles and Code of Conduct (r = 0.614**); and Principles and Values r = 0.800**). This highlights the applicability of the principles risk dimension in driving the risk management culture within the organisation.
- Significant positive relationships were found between Standards and Code of Conduct (r = 0.658**); Standards and Value (r = 0.847**). This highlights how standards are used within the organisation to embed the right risk management culture.
- Significant positive relationships were found between Code of Conduct and Values (r = 0.768**). This indicates how the code of conduct enforces the required attitudes and conduct in establishing the risk management culture.

Therefore, it can be concluded that the dimensions of a risk management culture correlate well with each when their importance are considered, however, with regards to applicability for the dimensions of a risk management culture within the participants' departments, the principles and standards have the strongest correlation compared to the code of conduct and values of a risk management culture. According to the respondents, each of the identified dimension are regarded as essential for the risk management culture framework of the organisation. Furthermore, the respondents attested to the dimensions of the risk management culture framework and the fact that most departments have incorporated them to an appropriate level.

5.7 DIMENSIONS AND UNDERLYING CRITERIA IN A PRIORITY ORDER

Table 5.7, 5.8, 5.9 and 5.10 highlights the dimensions and the underlying criteria in priority order based on which criterion received the highest response.

Number	Risk principles dimension	Percentage of the importance	Percentage of the current applicability	Variance
I)	Risk management principles sets the tone of the organisational risk management culture	95%	78%	17%
Underlying criteria for risk principles dimension				
1	Risk management identifies risk exposures	97%	85%	12%
2	Risk management addresses uncertainties	97%	74%	23%
3	Risk management training should be continuous and remain relevant	97%	70%	27%
4	The risks should have a risk owner for accountability and responsibility	96%	76%	20%
5	Risk management should continuously be improved as the organisation evolves	96%	73%	23%
6	Risk management should be systematic and timeous	94%	72%	22%
7	The risks managed should be aligned to business processes	94%	72%	22%
8	Risk management assists organisations to make risk-based informed decisions	93%	76%	17%

Comment: Based on the feedback, it seems that organisations have an interest in implementing the risk management culture through the usage of the risk management principles.

Table 5. 7 Risk principles dimension and underlying criteria in a priority order

Source: Author’s own data analysis

Number	**Risk standards dimension**	**Percentage of the importance**	**Percentage of the current applicability**	**Variance**
II)	Risk management standards outlines the process for risk management	92%	76%	16%
Underlying criteria for risk standards dimension				
9	Organisations should have an approved definition of operational risks within their policy	96%	85%	11%
10	Organisations should have a process for risk management	95%	87%	8%
11	Organisations should have risk management policies, frameworks, and standard operating procedures	93%	76%	17%
12	Risk management should be included in the planning, controlling, and monitoring of the internal processes	93%	70%	23%
13	Risk management is critical for business management process	92%	87%	5%
Comment: Based on the feedback, it can be said that the organisations notice the need for documenting risk management in policies and framework.				

Table 5. 8 Risk standards dimension and underlying criteria in a priority order

Source: Author’s own data analysis

Number	Code of conduct dimension	Percentage of the importance	Percentage of the current applicability	Variance
III)	The code of conduct should be incorporated in the process of risk management	91%	72%	19%
Underlying criteria for the code of conduct				
14	The code of conduct should incorporate factors such as honesty, accountability, impartiality, selflessness, respect, and ethical behaviour	99%	81%	18%
15	Staff members should be honest and transparent when reporting risk issues	98%	75%	23%
16	Staff members should act with integrity in their dealings	98%	83%	15%
17	Organisations should promote ethical behaviour	94%	85%	9%
18	Staff members should comply with the code of conduct to embed the sound risk management	91%	76%	15%
Comment: Based on the feedback, it can be assumed that the code of conduct has a positive impact in instilling the required attitudes and behaviours when embedding the risk management culture.				

Table 5. 9 Code of conduct dimension and underlying criteria in a priority order

Source: Author’s own data analysis

Number	Risk values dimension	Percentage of the importance	Percentage of the current applicability	Variance
IV)	Risk management should be valued	92%	76%	16%
Underlying criteria for the risk values dimension				
19	The risk appetite and risk tolerance should be determined	100%	71%	29%
20	The top management should consider all the risks impacting the strategy	100%	87%	13%
21	Risk management should use available data	97%	66%	31%
22	Risk governance forums should be in place	95%	78%	17%
23	Risk management must be considered when drafting the organisations strategic objectives	94%	76%	18%
24	Organisations should have a governance committee that oversees the risk management process	93%	86%	7%
25	Risk management should form part of the organisations integral process	92%	76%	16%
26	Losses recovery methods should be in place	91%	79%	12%
Comment: Based on the feedback, it seems that the organisations do value risk management to some extent.				

Table 5.10 Risk values dimension and underlying criteria in a priority order

Source: Author's own data analysis

5.8 CHAPTER CONCLUSION

This chapter provided a statistical analysis which aimed to confirm the dimensions of a risk management culture framework and the underlying criteria of each dimension. The first section dealt with the participants biographic details and the second section dealt with the importance and application of the dimensions and the underlying criteria for a risk management culture framework for organisations.

Inferential statistics further validated the risk dimensions identified in this study by showing high correlation values between the dimensions. It thus can be asserted that the dimensions identified in the study are important elements of founding an effective risks culture framework in an organisation. The dimensions are listed as follows:

- Principles of risk management.
- Standards of risk management.
- Value of risk management.
- Code of conduct.

Further conclusions were made in consideration of the relationship and the higher regard of their importance by respondents.

With regard to the risk principles dimension and underlying criteria, it can be concluded that organisations should implement the risk management principles and provide training to staff members on the organisational risk management process and ensure that all staff members are aligned with the vision of the organisation when embedding the risk management culture framework. Furthermore, there should be risk owners in place who will be held accountable and responsible to manage the identified risks.

With respect to the risk standards dimension and underlying criteria, organisations should have the risk management policies, frameworks, and standard operating procedures in place which details how risk management should be carried out within the organisation. This document will assist in incorporating risk management within the organisational activities and implementing the risk management culture framework.

Regarding the code of conduct dimension and underlying criteria, organisations should incorporate the code of conduct within the risk management process which will sets the required conduct for staff members for the effective embedment of the risk management culture framework. The code of conduct will foster integrity and ethical behaviour throughout the organisation when implementing the risk management culture.

In consideration of the risk values dimension and underlying criteria, an oversight committee should be established, with specific roles and responsibilities towards risk management which should be incorporated in the risk management policies in order to embed a risk management culture framework. Furthermore, organisations should incorporate risk management within the strategic objectives and top management should lead by example through considering risks when implementing the strategy.

Findings, conclusions and recommendations of the study are presented in the next chapter.

CHAPTER 6
CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The preceding chapter provided an overview of the data that was collected and analysed. The findings detailed in this chapter serve as the foundation for recommendations regarding the dimensions and underlying criteria needed to embed a risk management culture framework for organisations.

The chapter will begin by providing a synopsis and an overview of the research objectives and, followed by the findings and recommendations on how organisations might incorporate the identified dimensions and underlying criteria into their risk management culture framework. The study's contribution to the body of knowledge, the limitations of the study and recommendations for further research are included in the chapter.

6.2 THE AIM OF THE STUDY

This study aimed at identifying the dimensions and the underlying criteria of a risk management culture in an organisation, from a South African perspective. The study also aimed to answer the research questions, namely: what are the dimensions and underlying criteria for embedding a risk management culture in an organisation of the financial sector? To answer the research question, a comprehensive literature review was conducted to determine the dimensions and the underlying criteria to establish a risk management culture framework that is required to embed a risk management culture within the organisation. The importance of the dimensions and the underlying criteria of a risk management culture and the application thereof within the organisation were identified and formed the essence of this study which satisfied the objectives of the study. Furthermore, the study was also guided by the primary and secondary objectives which were satisfied.

6.3 OBJECTIVES OF THE STUDY

This section provides an overview of the study regarding the purpose, goals and objectives of the research. The study was fashioned to satisfy the below objectives.

6.3.1 Primary objective: the primary objective was to determine the dimensions and the underlying criteria of a risk management culture.

6.3.2 Secondary objectives: the secondary objectives were supporting the primary objective as indicated below.

- to conduct an in-depth literature review on the concept of a risk management culture to derive at the dimensions and the underlying criteria.

- to empirically confirm the relevance of the dimensions and the underlying criteria for a risk management culture framework, and the current application thereof in a financial institution from a South African perceptive.
- to give recommendations for establishing a risk management culture using the data that has been analysed as a base.

The below section details how the study satisfied all the objectives.

6.4 FINDINGS OF THE STUDY

The findings of the study are explained below.

6.4.1 Identify risk dimensions through literature review

The comprehensive literature review conducted in the study was used to identify four risk dimensions: risk principles, risk standards, risk values and the code of conduct.

6.4.2 Validation of the identified risk dimensions empirically

The dimensions and the underlying criteria were discussed in detail in chapter 3 then tested by a questionnaire-based survey where the respondents views of importance and applicability thereof within their departments were determined. It was concluded that all the dimensions and the underlying criteria seem crucial to embed the risk management culture framework within an organisation.

6.4.3 To analyse data as a base for recommendations and conclusion

The analysis of data empirically confirmed the relevance of the dimensions and the underlying criteria for a risk management culture framework, and the current application thereof in a financial institution from a South African perceptive. The research gap between the ratings of the importance and current applicability allowed for conclusions to be made to confirm the dimensions and underlying criteria as part of a risk management culture framework. According to the analysis of the questionnaires, it was found that all respondents agreed with the proposed dimensions of a risk management culture framework and the underlying criteria. However, it was apparent that not all departments effectively founded the dimensions and the underlying criteria at an acceptable level, leading to recommendations to assist organisations in implemeting the risk management culture framework.

6.5 STUDY LIMITATIONS

Even though this study tried to be as thorough as feasible, it is often difficult to accurately address some limitations. The first limitation is that the research was only applicable to participants who are involved in the operational risk management process within the organisation. All other risks, such as credit risk and market risk were not included in the scope of the research. The second limitation was the accessibility of data, which may not be made public due to sensitivity of the organisation's information. However, the gathered information was accepted as adequate to support the results of the study. The following section provides an overview of the recommendations.

6.6 RECOMMENDATION

This section provides an overview of the conclusions based on the literature review and the empirical analysis of the study. The findings are based on the identified risk dimensions and underlying criteria of a risk management culture and the applicability thereof from a financial institution. The study concluded that all the identified risk dimensions and underlying criteria of a risk management culture are valid and should be included in a risk management culture framework.

Accordingly, relevant recommendations were generated with respect to the risk dimensions and criteria for embedding a sound risk management culture framework. Table 6.1, 6.2, 6.3 and 6,4 show the several recommendations made to the organisations with respect to the outcomes in this study.

Item	Risk principles dimension	
1.	Risk management principles sets the tone of the organisational risk management culture.	The objective of this dimension is to highlight the importance of using risk management principles to set the standards on managing the risks. Organisations should have a consistent approach across all departments to manage the risks and eliminate any confusions. Therefore, it is recommended for organisations to incorporate risk management training programs in their risk management culture framework to manage the risks according to the defined principles.
Underlying criteria for the risk principles dimension		
1.1	Risk management should continuously be improved as the organisation evolves.	This criterion highlights the importance of continuously improving on risk management as the organisation evolves. This criterion was indicated as the highest priority for this dimension and as such, organisations should use the latest methods for risk management to manage the risks effectively. Therefore, organisations should conduct benchmarking exercises with similar institutions to remain

Item	Risk principles dimension	
		abreast and use industry best practices regarding risk management.
1.2	Risk management training should be continuous and remain relevant.	This criterion highlights the importance of offering staff members continuous risk management training to remain relevant and manage risks effectively. Therefore, it is recommended for organisations to provide continuous risk management training to staff members which enables effective risk management.
1.3	Risk management addresses uncertainties.	This criterion illustrates the significance of utilising risk management to address any uncertainty. Organisations should use risk management techniques such as Risk and Control Self-Assessments (RCSA's), Scenario Analysis, and identify suitable controls to address uncertainties.
1.4	The risks managed should be aligned/relevant to business processes.	This criterion is concerned with the organisation managing the right risks aligned to the business processes. It is important for organisations to manage the relevant risks which may hinder the organisations from achieving its strategic objectives. Organisations should include, in their annual plans, risk management workshops and courses that will equip their staff members with the right skills and knowledge needed to manage the risks effectively.
1.5	The risks should have a risk owner for accountability and responsibility	This criterion determines the importance of the risks having a dedicated person that is responsible and accountable for managing them. It is important for the risks to have an owner to ensure continuous management of the risks. Organisations should implement risk owners that will ensure that the action plans are identified and implemented to remediate the risks identified.
1.6	Risk management should be systematic and timeous.	This criterion is concerned with organisations managing the risks in a systematic and timeous manner. Due to the cruciality of managing the risks appropriately, organisations should document a procedure for risk management that will be explicit in terms of how the risks should be managed.

Item	Risk principles dimension	
1.7	Risk management assists organisations to make risk-based informed decisions.	This criterion highlights how risk management assists the organisations to make risk-based decisions, which proved to be a crucial aspect during business decisions. To ensure the realisation of this criterion, it is recommended that organisations include risk awareness programs in the risk management processes during the strategic planning sessions which will lead to informed risk-based decisions.
1.8	Risk management identifies risk exposures.	This criterion is concerned with the identification of risk exposures. This should assist management to identify the risks during the execution of business processes and to proactively implement risk control measures. Therefore, it is recommended that organisations implement techniques that will assist them to identify risk exposures, such as Scenario Analysis, Key Risk Indicators (KRI's), Risk and Control Self Assessments (RCSA's) and risk reports.

Table 6. 1 Recommendations for the risk principles dimension from the study

Source: Author's own data analysis

Item	Risk standards dimension	
2.	Risk management standards outlines the process for risk management.	This dimension demonstrates the importance of the risk management standards outlining the process for risk management which must be followed by staff members. Organisations should ensure that the risk management standards are documented and understood by the staff members.
Underlying criteria for the risk standards dimension		
2.1	Organisations should have risk management policies, frameworks, and standard operating procedures	This criterion is concerned with organisations having documented risk management policies, framework, and procedures in place to manage the risks effectively. This criterion was indicated as the highest priority for this dimension. Organisations should have a standardised approach for risk management through documenting risk

Item	Risk standards dimension	
		management policies, frameworks and standard operating procedures.
2.2	Organisations should have a defined process for risk management.	This criterion highlights the importance of organisations having a well-defined process for risk management which is documented. The risk management process will assist the staff members to carry out the risk management process in a well-defined manner and consistently so. Organisations should have a document (for example risk management policy) which outlines the risk management process.
2.3	Risk management should be included in the planning, controlling, and monitoring of the internal processes.	This criterion is concerned with including risk management within the business internal processes to manage the risks effectively. Therefore, it is recommended that organisations include risk management within the internal processes which will set the standard of how staff members should manage the risks.
2.4	Organisations should have an approved definition of operational risks within their policy.	This criterion determines the importance of organisations having a definition for risk within their risk management policy. The definition of operational risk should be aligned to the organisation's operations. It is recommended that organisations have a well-articulated definition of operational risk within their policy as this will clarify what operational risk is and how it should be managed.
2.5	Risk management is critical for business management process.	This criterion determines how critical is risk management for managing the business processes. Organisations should emphasise the importance of risk management for business processes to staff members, so that risk management become meaningful.

Table 6. 2 Recommendations for the risk standards dimension from the study

Source: Author's own data analysis

Item	Code of conduct dimension	
3.	The code of conduct should be incorporated in the process of risk management.	This dimension is concerned with embracing the code of conduct within the risk management process to embed an effective risk management culture. Therefore, it is recommended that organisations document the code of conduct and stipulate the required code of conduct for risk management.
Underlying criteria for the code of conduct dimension		
3.1	Staff members should be honest and transparent when reporting risk issues.	This criterion is concerned with how honesty and transparency is important when embedding the risk management culture. This criterion was indicated as the highest priority for this dimension and as such, honesty and transparency should be incorporated within the code of conduct which sets the manner of how staff members should conduct themselves while performing risk management activities.
3.2	Staff members should comply with the code of conduct to embed the sound risk management.	The objective of this criterion is to ensure that staff members abide to the set code of conduct. Complying to the set code of conduct will set the required standard of how staff members should conduct themselves while performing risk management activities. It is recommended that organisations have annual declarations for staff members to declare that they have read, understood, and will comply with the set code of conduct. In addition, organisations should also have compulsory annual assessments with the required pass marks that staff members should undertake to confirm whether they understand the code of conduct.
3.3	The code of conduct should incorporate factors such as honesty, accountability, impartiality, selflessness, respect, and ethical behaviour.	This criterion is concerned with the significance of honesty, accountability, impartiality, selflessness, respect, and ethical behaviour in establishing a risk management culture. The code of conduct, which establishes expectations for staff member's behaviour, should take into account these factors which explicit the required conduct for staff members.

Item	Code of conduct dimension	
3.4	Organisations should promote ethical behaviour.	This criterion demonstrates the importance of staff members having ethical behaviour while rooting the risk management culture. Ethical behaviour enables organisations to see the benefits of risk management. It is recommended that organisations promote ethical behaviours through trainings and also establish a channel (preferably anonymous) to report unacceptable behaviour.
3.5	Staff members should act with integrity in their dealings.	This criterion determines the importance of staff members acting with integrity to establish a risk management culture. Organisations should embrace integrity within their risk management activities.

Table 6. 3 Recommendations for the code of conduct dimension from the study

Source: Author's own data analysis

Item	Risk values dimension	
4.	Risk management should be valued.	This dimension is concerned with organisations valuing risk management within their daily operations. Organisations will have the ability to identify the risks impacting their organisations when they recognise the risk management benefits. Therefore, it is recommended for organisations to provide risk management training on the value for risk management.
Underlying criteria for the risk values dimension		
4.1	Risk management should use available data.	This criterion is concerned with the usage of data to perform risk management activities. The usage of data assist organisations to manage the risks and prevent re-occurrence of the risks using historic data. This criterion was indicated as the highest priority for this dimension and as such, it is recommended for organisation to have a centralised risk management system that will store risk

Item	Risk values dimension	
		management data and enable organisations to perform risk management activities.
4.2	The risk appetite and risk tolerance should be determined.	This criterion highlights the significance of organisations embedding the risk appetite and risk tolerance within their business processes. It is vital for the organisations to determine what the level of risk they are willing to take on. Therefore, it is recommended for the organisations to set acceptable risk parameters for their appetite and tolerance within their risk management policy which will indicate the organisational operation limits.
4.3	The top management should consider all the risks impacting the strategy.	This criterion determines the importance of how the risks should be taken into consideration by top management when executing the strategy of the organisation. Top management should lead by example when embedding the risk management culture and as such, it is recommended for organisations to identify the risks per each Strategic Focus Area (SFA) and provide constant monitoring of the risk impacting the Strategic Focus Area (SFA).
4.5	Risk management must be considered when drafting the organisations strategic objectives.	This criterion highlights the importance of taking into consideration risk management when the strategic objectives are drafted. This will assist organisations to eliminate any risks that may prevent them from meeting their strategic objectives. It is recommended that organisations consider risk management when drafting the strategic objectives.
4.6	Risk management should be part of the organisations integral process.	This criterion illustrates the importance of integrating risk management within the business process. It is recommended that organisations make risk management their focal point within their business process. This will assist them to manage any risks that may result in the organisations being negatively impacted.
4.7	Losses recovery methods should be in place.	This criterion is concerned with the organisations having plans in place to recover losses that may be incurred, so that business continue as per normal without interruptions. It is recommended for organisations to investigate the risks

Item	Risk values dimension	
		incurred and have losses recovery methods in place such as budget allocation, insurance or take from the staff incentive pool. In addition, organisations should be able to remediate the root cause from the results of the investigation through the risk assessments process and enhance current controls to prevent the re-occurrence of the risks.
4.8	Risk governance forums should be in place.	This criterion highlights the importance of organisations having risk governance forums where all risk related matters are discussed. Such forums ensure transparency of the risks impacting the organisations and progress thereof in terms of managing the risks. Therefore, it is recommended that organisations implement the risk governance forums.
4.9	Organisations should have a governance committee that oversees the risk management process.	This criterion indicates the importance of oversight risk management from the governance committee. The governance committee enforces risk management within the organisation. Therefore, it is recommended that organisations implement governance committees to provide oversight and enforces effective risk management.

Table 6. 4 Recommendations for the risk values dimension from the study

Source: Author’s own data analysis

The aforementioned dimensions and criteria can be seen as the primary dimensions and underlying criteria for a sound risk management culture framework for an organisation. By implementing the recommendations, organisations could implement a risk management culture framework which can be an important element of a risk management framework. However, it is important to ensure that risk management is aligned to the achievement of the strategic objectives of the organisation. The following section provides the contribution of the research.

6.7 RESEARCH CONTRIBUTION

This research adds to the body of knowledge that is currently available about risk management culture. The research adds by enhancing the comprehension and knowledge of the risk management culture framework within an organisation by clarifying the recommended dimensions and the underlying criteria of the risk management culture. This risk management culture framework can be utilised by all organisations that are exposed to operational risk. In addition, the dimensions and the underlying criteria can be used as a checklist (refer to appendix F) for organisations to assess their status and progress concerning embedding the risk management culture framework to the benefit of the organisation's risk management. The below section highlights the suggestion for future research.

6.8 FUTURE RESEARCH SUGGESTION

The aim of the study was to identify and confirm the dimensions and the underlying criteria of a risk management culture framework for a financial institution, from a South African perspective. However, it became clear that not all departments had successfully incorporated the dimensions and underlying criteria at a level that was acceptable. The primary causes of the gap between the dimensions and underlying criteria and their application are outside the purview of this study but may serve as a starting point for future investigation. In addition, this study is a platform for further research involving organisations outside the spectrum of financial institutions. As the study was limited to one financial institution, this could be used as a platform for similar research for other organisations. Furthermore, it can serve as a basis for additional research involving other risk types such as reputational and strategic risks.

6.9 CHAPTER CONCLUSION

The study identified and confirmed the dimensions and underlying criteria required to establish a risk management culture framework within a financial institution in South Africa. An empirical study was conducted to confirm the dimensions of risk management principles, risk management standards, risk management value and code of conduct. The importance of implementing a risk management culture framework became apparent throughout the study in view the identified risk dimensions and criteria. As a result, organisations can effectively use the findings of this study to assess their current situation and address any issues while creating and implementing a risk management culture framework. Such an approach should also contribute to the knowledge base of risk managers and establish risk management as a specific management discipline.

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APPENDIX A: INFORMED CONSENT

APPENDIX B: INFORMED CONSENT LETTER

Dear Prospective Participant

I, Mamotlatso Teffo, am doing research with Dr G Jethro in the Department of Finance, Risk Management and Banking towards a MCom Dissertation at the University of South Africa. I am inviting you to participate in a study entitled: "The dimensions of a risk management culture a: A case study of a South African Financial Institution (SAFI)"

The aim of this study is to find out the dimensions of a risk management culture and confirm the current applicability of such dimensions in a practical environment within a South African Financial Institution (SAFI). A questionnaire will be sent out to selected staff members based on their role and exposure to managing the risks within their daily duties.

Being in this study is voluntary and you are required to consent before participation. You are free to withdraw (opt-out) at any time or stage during the completion of the questionnaire without giving a reason. The survey should not take more than 20 minutes to complete. All data obtained from you will be kept confidential and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones).

There are no direct benefits to participants in this study. However, we hope that the information obtained from this study may be used to identify the dimensions of a risk management culture and the required levels of risk maturity. The results from this study will be presented in a thesis and possibly articles at a later stage. At no time, however, will your organisations and the participants name be used, or any identifying information revealed. If you wish to receive a copy of the results you may contact one of the researchers at the contact details given below.

Electronic copies of your answers will be stored by the researcher for a period of five years on google forms and no personal, confidential, or identifiable data will be collected, and the questionnaire is of a generic nature. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. After the 5-year period all information will be permanently deleted.

If you require any information about this study or would like to speak to one of the researchers, please call Mamotlatso Teffo at 079 071 3242 or e-mail 50485458@unisa.ac.za or Dr Godi Jethro on 012 429 6658 or e-mail godinj@unisa.ac.za at the University of South Africa.
If you have any other questions regarding your rights as a participant in this research, you may also contact the College Research Ethics Review Committee of the University of South Africa via email at uysm@unisa.ac.za.

Thank you for taking the time to read this information sheet and for choosing to participate in this study. Please note that by completing the questionnaire you agree that you understand the information shared with you and that you voluntarily participate.

Yours Sincerely,
Mamotlatso Teffo (Masters student)

____

Signature

APPENDIX B: QUESTIONAIRE

DIMENSIONS FOR A RISK MANAGEMENT CULTURE

Aim

The aim of the questionnaire is to confirm the dimensions and criteria of a risk management culture and the current applicability in a practical environment within the South African Reserve Bank.

Introduction

A literature review, based on the components of an operational risk management framework, allowed the identification of four dimensions of a risk management culture for an organisation. The information gained from this questionnaire will assist in confirming these dimensions and the underlying criteria of each, which can serve to enhance the effective management of risks. It is envisaged that the findings of this study will contribute towards the body of knowledge and implementation of a risk management culture as a crucial component of a risk management framework.

Confidenti ality

This survey is voluntary, and all information will be regarded as confidential. No names will be linked to any feedback and data will be anonymous. You are, however, under no obligation to complete the survey and you can withdraw from the study before submitting it. If you choose to participate in this survey, it will take no more than 15 minutes of your time. You will not directly benefit from your participation as an individual but can add value towards the objective of this research.

Time

To complete the survey should take approximately 15 minutes

Questions 1 to 4: Mark you answer with an X in the space provided

Question 1

Indicate the department where you are employed.	**Answer**

Question 2

What is your focus area within the organisation?	**Answer**

Financial management			**Business/Operations management**	
Risk management			**Internal audit**	
Audit			**Risk management**	
Front office			**Compliance management**	
Back office			**Financial management**	
Other:			**Other:**	

Question 3

How many years' experience do you have in risk management?	**Answer**
0 – 1 year	
1 – 3 years	
3 – 5 years	
5 – 10 years	
More than 10 years	

Question 4

How many years' experiences do you have with your current organisation?	**Answer**
0 – 1 year	
1 – 3 years	
3 – 5 years	
5 – 10 years	
More than 10 years	

Answer the following by indicating an X in the appropriate box based on your knowledge and experience.

Question 5

A. To what degree do you rate the IMPORTANCE of the dimensions and the underlying criteria of a risk management culture as a crucial component of a risk management framework?
B. To what extend do you agree that the dimensions and the criteria are CURRENTLY applicable as part of a risk management culture in your organisation?

	A. Your view on importance	B. Current applicability in your department

CRITERIA	To no degree	To a lesser degree	To a moderate degree	To a degree	To a full degree	To no degree	To a lesser degree	To a moderate degree	To a degree	To a full degree
	1	2	3	4	5	1	2	3	4	5
1. To what degree should the risk management principles be viewed as a dimension of an organisation's risk management culture which will allow for making effective risk-based decisions?										
2. To what degree should risk management support the making of business decisions during the strategic planning processes?										
3. To what degree should risk management be										

systematic and timeous?										
4. To what degree should risk management be tailored/customised to manage the risks aligned to the business needs										
5. To what degree should risk management assist in identifying the risk exposures for an organisation, which in turn may assist the organisation to determine measures that may be utilised to mitigate/prevent the risks from occurring										
6. To what degree should risk management assist in										

addressing uncertainties, in order to management the risks before occurrence										
7. To what degree should the risks have a risk owner, for accountability and responsibility.										
8. To what degree should staff members obtain continuous training and awareness on risk management to ensure they are up to date and remain relevant										
9. To what degree should risk management be continuously improved to remain relevant as the organisation evolves?										

	A. Your view on importance					B. Current applicability in your organisation				
10. To what degree should standards be viewed as a dimension of a risk management culture and to inform the process of how risk management should be carried out within the organisation?										
11. To what degree should risk management be incorporated and conceptualised in policies, frameworks and procedure documents to ensure a consistence approach to risk management and that the risks are effectively managed.										

12. To what degree should risk management be included in the planning, controlling and monitoring of internal processes within the organisation										
13. To what degree should organisations have an approved and recognised definition of what operational risk means within the organisation										
14. To what degree should there be an approach/ process of how risk management should be carried out within the organisations										
15. To what degree is risk management critical for										

business process management										
	A. Your view on importance					**B. Current applicability in your organisation**				
16. To what degree should a code of conduct be viewed as a dimension of a risk management culture within the organisation that sets out how staff members should conduct themselves?										
17.To what degree should staff members comply with the applicable codes of conduct and standards to reduce the risks within the organisation										
18. To what degree should staff members be honest and transparent when reporting risk issues										

19. To what degree should organisations enforce staff members to act with intergrity at all times and maintain the organisational standards through acceptable behaviours										
20. To what degree should honesty, accountability, impartiality, selflessness and respect be incorporated within the code of conduct.										
21. To what degree should ethical behaviour be promoted within organisations?										
	A. Your view on importance					**B. Current applicability in your organisation**				
22. To what degree should the value of risk management be a dimension of a										

risk management culture to ensure that the management of risks becomes meaningful?										
23. To what degree should risk management be valued and form part of the organisations integral processes to ensure effective risk management.										
24. To what degree should the risks be reported in governance forums for transparency and accountability (e.g risk meetings) and management be well informed of all the risks within their business unit										

25. To what degree should the organisations have provisions in place to manage/recover losses e.g insurance, budget allocation										
26. To what degree should the risk appetite and risk tolerance be determined within the organisation, in order to manage the risks effectively										
27. To what degree is the availability of data critical to manage the risks adequately and effectively										
28. To what degree should risk management include top management to drive the										

strategic objectives of the organisation whilst considering all the risks involved?										
29. To what degree should risks be considered when drafting the strategic objectives of the organisation?										
30. To what degree should organisations have a governance committee to oversee the risk management process										

THANK YOU

The records will be kept for five years for audit purposes and will, thereafter, be permanently destroyed by way of being deleted from the hard drives of the computers used to store them. There is no financial compensation or incentive for your participation in the survey. **The research has been reviewed and approved by the UNISA College of Economic and Management Sciences Research Ethics Review Committee, Ethics clearance number: 2022/CEMS/FRMB/014. The primary researcher, Mamotlatso Teffo, can be contacted during office hours at 50485458@mylife.unisa.ac.za**

APPENDIX C: DIAGNOSTIC QUESTIONAIRE (PILOT TEST)

	Question 1: Is the research objective clear?					
Option 1	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**	**Unspecified**
	0%	0%	33%	33%	33%	0%
Question 2: Is the questionnaire comprehensive of the dimensions and underlying criteria of a risk management culture						
Option 2	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**	**Unspecified**
	0%	0%	0%	67%	33%	0%
Question 3: Are the instructions on how the questionnaire should be completed clear						
Option 3	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**	**Unspecified**
	0%	0%	0%	33%	33%	33%
Question 4: Are the questions simple to interpret						
Option 4	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**	**Unspecified**
	0%	0%	0%	67%	0%	33%
Questions 5: Does the scale options make sense						
Option 5	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**	**Unspecified**
	0%	0%	0%	67%	0%	33%
Question 6: How long did it take to complete the survey						
Options						Percentage response

0-10 min			33%
10-20 min			33%
20-30 min			33%
	Question 7: Are there any comments?		
	Comments:		

APPENDIX D: ETHICAL CLEARANCE CERTIFICATE

UNISA university of south africa

UNISA DEPARTMENT OF FINANCE, RISK MANAGEMENT AND BANKING ETHICS REVIEW COMMITTEE

Date: 25 JULY 2022

Dear Mrs MM Teffo

ERC Ref #2022/CEMS/FRMB/014
Name: Mrs MM Teffo
Student #: 50485458
Staff #:

Decision: Ethics Approval from 01 October 2022 to 30 September 2025

Researcher(s): Name Mrs MM Teffo

E-mail address 50485458@mylife.unisa.ac.za, telephone 0790713242

Supervisor: Name: Dr NJ Godi

Email address: godinj@unisa.ac.za, telephone 012 429 8895

Working title of research:

The dimensions of a risk management culture and risk maturity levels: A case study of a South African financial institution (SAFI)

Qualification: Mcom in Financial Management

Thank you for the application for research ethics clearance by the Unisa DFRB Ethics Review Committee for the above-mentioned research. Ethics approval is granted for the period 01 October 2022 to 30 September 2025

The low-risk ***application was reviewed*** *by the DFRB Ethics Review Committee on 25 July 2022 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment*

The proposed research may now commence with the provisions:

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on the condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No fieldwork activities may continue after the expiry date (2025). Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number 2022/CEMS/FRMB/014 *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,

Signature

Chair of DFRB ERC: Prof A Mutezo

E-mail: muteza@unisa.ac.za

Tel: (012) 429-4595

Executive Dean: Prof T Mogale

E-mail: mogalemt@unisa.ac.za

Tel: (012) 429-4805

URERC 25.04.17 - Decision template (V2) - Approve

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

ANNEXURE E: CHECKLIST

The dimensions and underlying criteria of a risk management culture

Item	**Risk principles dimension**	**Mark (x) in the appropriate box**		**Comments**
		Yes	**No**	
I)	Risk management principles sets the tone of the organisational risk management culture			
Underlying criteria of the risk principles dimension				
1	Risk management identifies risk exposures			
2	Risk management addresses uncertainties			
3	Risk management training should be continuous and remain relevant			
4	The risks should have a risk owner for accountability and responsibility			
5	Risk management should continuously be improved as the organisation evolves			
6	Risk management should be systematic and timeous			
7	The risks managed should be aligned to business processes			
8	Risk management assists organisations to make risk-based informed decisions			
Risk standards dimension				

II)	Risk management standards outlines the process for risk management			
Underlying criteria of the risk standards dimension				
9	Organisations should have an approved definition of operational risks within their policy.			
10	Organisations should have a process for risk management			
11	Organisations should have risk management policies, frameworks, and standard operating procedures			
12	Risk management should be included in the planning, controlling, and monitoring of the internal processes			
13	Risk management is critical for business management process			
Code of conduct dimension				
III)	The code of conduct should be incorporated in the process of risk management			
Underlying criteria of the code of conduct dimension				
14	The code of conduct should incorporate factors such as honesty, accountability, impartiality, selflessness, respect, and ethical behaviour			
15	Staff members should be honest and transparent when reporting risk issues			

16	Staff members should act with integrity in their dealings			
17	Organisations should promote ethical behaviour			
18	Staff members should comply with the code of conduct to embed the sound risk management			
Risk values dimension				
IV	Risk management should be valued			
Underlying criteria of the risk values dimension				
19	The risk appetite and risk tolerance should be determined			
20	The top management should consider all the risks impacting the strategy			
21	Risk management should use available data			
22	Risk governance forums should be in place			
23	Risk management must be considered when drafting the organisations strategic objectives			
24	Organisations should have a governance committee that oversees the risk management process			
25	Risk management should form part of the organisations integral process			
26	Losses recovery methods should be in place			