



**FACTORS AFFECTING IMPLEMENTATION OF RISK MANAGEMENT SYSTEMS
AT MUNICIPALITIES IN THE OVERBERG DISTRICT, SOUTH AFRICA**

by

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ABSTRACT

The aim of the study was to investigate the effectiveness of risk management systems within municipalities in the Overberg district of South Africa. The value of effective risk management systems in any organisation cannot be underestimated as it is responsible for appropriately identifying, assessing, and treating risks that may adversely influence the achievement of organisational objectives. The Overberg district municipalities were used as case studies to identify and evaluate the factors that could affect implementation of risk management systems at a local government level in a specific geographical area.

The primary research question was what factors affect the effective implementation of risk management systems at the Overberg district municipalities. To answer this research question, sub-questions and research objectives were formulated to determine the relevant factors. The research employed descriptive statistics, as well as inferential analysis to analyse the data. Lack of sufficient funding for risk mitigation seemed to be the main factor that affects the implementation of risk management systems within the municipalities.

In addition, the research highlighted the current gaps in the implementation of risk management processes. This made municipalities aware of the risks within their organisation and identified the benefits of implementing sound risk management initiatives.

The contribution of the research will empower the Overberg district municipalities to manage their key organisational risks proactively. This will lead to sustainable local governments that will be able to continue to perform their primary functions effectively.

From the results, it was evident that although the Overberg district municipalities had risk management systems in place, insufficient funding posed a challenge to effective risk mitigation. Municipal management should therefore allocate sufficient funding to ensure effective implementation of risk management systems.

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GLOSSARY

ANC	African National Congress
ART	Antiretroviral Therapy
ASGISA	Accelerated and Shared Growth Initiative for South Africa
DA	Democratic Alliance
DFA	Developmental Facilitation Act
EFF	Economic Freedom Fighters
ERM	Enterprise Risk Management
ICOSA	Independent Civic Organisation of South Africa
IDP	Integrated Development Plan
MERO	Municipal Economic Review & Outlook
MFMA	Municipal Finance Management Act
MSA	Municipal Structures Act
NEMA	National Environment Management Act
ODM	Overberg district Municipality
ORMS	Obstacles affecting the implementation of Risk Management Systems
PFMA	Public Finance Management Act
PSRMF	Public Sector Risk Management Framework
RDP	Reconstruction and Development Programme
RRCE	Risks relating to Compliance/ Regulatory/ Legislative Environment
RRDR	Risks relating Disaster Recovery & Business Continuity
RRFM	Risks relating to Financial Management
RRHR	Risks relating to Human Resources
RRIT	Risks relating to Information Technology
RRPE	Risks relating to Political Environment
UF	United Front

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO STUDY

1.1 INTRODUCTION

This chapter introduces the study and provides the reader with an overview of the research to aid in understanding the primary notion of the study.

The schematic flow of discourse in Chapter One is depicted in Figure 1.1 below.

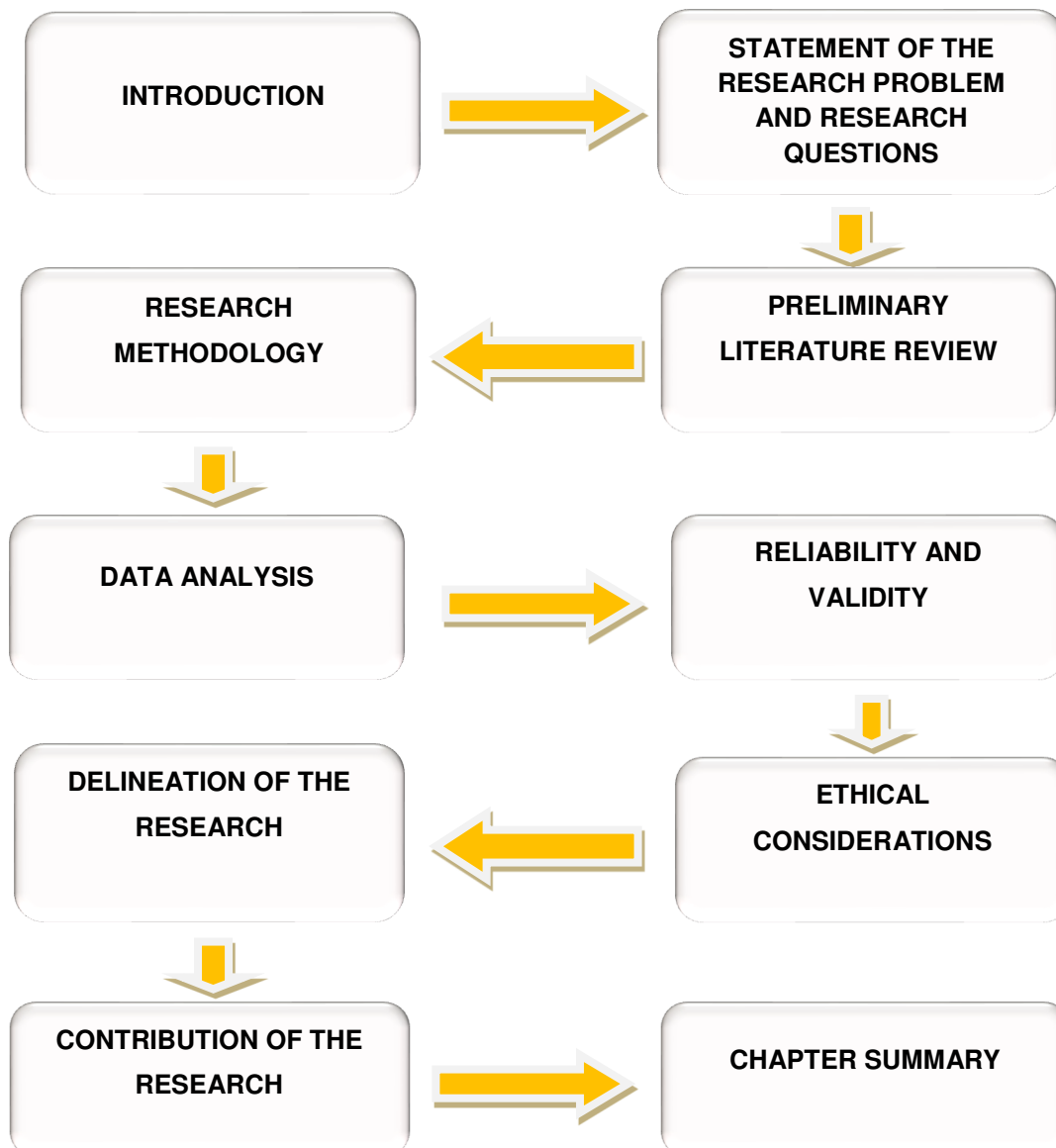


Figure 1.1: Layout of Chapter One: Scope of the research (Researcher's own construct)

In a business dispensation, risks are inevitable and they are regarded as the variance between the predicted outcome and the actual outcome (Valsamakis, Vivian & du Toit, 1996:24). Risks therefore imply the presence of uncertainty (Valsamakis, Vivian & du Toit, 2000:35). Areas of uncertainty should be managed with the main intent to identify possible incidents that may adversely influence the attainment of organisational objectives. Management should therefore manage the identified incidents to ensure the attainment of organisational goals and objectives (COSO, 2017).

Over the years, with the failure of various multi-national private and public organisations such as Enron and the Iceland banking system, many investors and policy makers have revisited the manner in which relevant organisations manage their risk (Hopkin, 2014:2). One of the best ways in which risks can be managed strategically is through enterprise risk management (ERM) (Hopkin, 2014:98). For the sake of clarity, the Committee of Sponsoring Organisations of the Treadway Commission (COSO), defines the concept of ERM as follows (COSO, 2004):

A process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.

In layperson's terms, the risk management process includes; the identification of risks, the assessing of risks and the treatment of risks, to ensure the attainment of organisational goals and objectives (COSO, 2017).

Due to the uncertainty of risk, effective risk management systems must be in place in all organisations, including municipalities, as risk management influences the attainment or non-attainment of organisational goals and strategic objectives. Limited literature is available on the effectiveness of risk management systems used by municipalities in South Africa, highlighting the need to determine whether the deployed risk management initiatives in local authorities are implemented effectively.

The South African Constitution (South Africa, 1996) indicates that the status and importance of municipalities is instituted in the Constitution. Section 152(1) of the Constitution states the objectives of municipalities, as follows:

- to provide democratic and accountable government for local communities;
- to ensure the provision of services to communities in a sustainable manner;
- to promote social and economic development;
- to promote a safe and healthy environment; and
- to encourage the involvement of communities and community organisations in the matters of local government.

To give further effect to the provisions of the Constitution, the Legislature passed legislation specifically related to local government, named the Local Government: Municipal Finance Management Act (MFMA), Act 56 of 2003. In terms of Section 62 of the MFMA, “The municipal manager is responsible for managing the municipality’s financial administration, inclusive of sound systems of financial and risk management and internal control.” Therefore, the municipal manager should ensure that sound risk management processes are deployed in municipalities (South Africa, 2003).

According to the Overberg District Municipality (ODM) Annual Report (2016:7), the Overberg district comprises of a district municipality and four local municipalities, namely Theewaterskloof, Overstrand, Cape Agulhas and Swellendam. These municipalities are used in this study as case samples to identify and evaluate the factors that can affect risk management on the local government level in a specific geographical area.

Due to skills and funding constraints, the Overberg district municipalities might not have sound risk management initiatives in place to mitigate and manage key organisational risks (ODM, 2016:66). This may have a negative effect on municipal service delivery efforts and the overall sustainability of the municipalities. Without a formalised system of risk management, municipalities might not be able to respond proactively to potential risks through internal control.

None of the municipalities individually in the Overberg district has implemented risk management units to facilitate and manage the risk management process. However, the Overberg district municipality has established a business model to provide risk management services to the respective municipalities within its area of jurisdiction. In some municipalities, such as Swellendam and Cape Agulhas, the Internal Audit Unit fulfils the facilitation role of the risk management process.

Sound risk management initiatives by the Overberg district municipalities will aid the local government sphere to effectively identify; assess and managed the key risks to ensure that the organisational objectives are met. Therefore, municipalities can add value through means of sound corporate governance, internal controls, and sound risk management initiatives in order to fulfil their legislative mandate.

1.2 STATEMENT OF THE RESEARCH PROBLEM

Considering the above, it becomes apparent that the value of effective risk management systems cannot be underestimated. An effective risk management system is critical in providing management with reasonable assurance regarding the attainment of organisational objectives. When taking into account the objectives of South African municipalities, clear tangent planes emerge that their relevant risk management systems should be effective.

According to previous studies, South African municipalities use risk management systems that are described as ineffective. Hence, the inference can be made that these entities' risk management systems are not as effective as they should be, especially since effective risk management is of utmost importance in the achievement of organisational objectives (COSO, 2004: Online). For this reason, it may be that the risk management systems of South African municipalities are affected by unmanaged risk factors. To test the foregoing inference, the main research problem investigated within the ambit of this study is:

- The effective implementation of risk management systems within Overberg district municipalities is adversely affected by risk factors which, in turn, adversely affect the attainment of relevant organisational objectives.

1.3 RESEARCH QUESTIONS

1.3.1 Primary research question

The primary research question asked was: What factors affect the effective implementation of risk management systems at Overberg district municipalities?

To answer this research question, the sub-questions and research objectives were formulated to determine the factors that affect the implementation of risk management systems.

1.3.2 Sub-questions

The research sub-questions are:

- i) What is an effective risk management system within a municipal setting?
- ii) What risk management systems and initiatives are currently deployed at the identified municipalities?
- iii) What influences ineffective implementation of the existing risk management systems and initiatives at the identified municipalities?
- iv) What risk factors affect Overberg district Municipalities?

1.3.3 Research objectives

The research objectives are:

- i) to establish if there are any existing risk management systems within municipality settings;
- ii) to identify the risk management systems and initiatives that are currently deployed at the Overberg district municipality;
- iii) to identify the causes of ineffective implementation of the existing risk management systems and initiatives at the identified municipalities; and
- iv) to establish the magnitude and impact of risk factors that affect operations of Overberg district Municipalities.

1.4 PRELIMINARY LITERATURE REVIEW

1.4.1 Overview

The preliminary literature review focussed on risk management initiatives applicable to municipalities both locally and abroad. The literature review covered the theory of risk management from an empirical perspective within the South African local government context. This offers the reader an overview of the research and aids in understanding the primary notion of the research proposal.

1.4.2 Categories of municipalities

According to South African Government (2016: Online), three categories of municipalities exist in South Africa. Recent literature indicated that there is a total of 257 municipalities in South Africa (8 metropolitan municipalities, 44 district municipalities and 205 local municipalities). These municipalities primary role is to provide municipal services and infrastructure to their respective local communities.

South African Government (2016: Online) further indicates that; “the Constitution and the Local Government: Municipal Structures Act (MSA), No. 117 of 1998, contains criteria for determining when an area must have a Category A municipality (metropolitan municipalities) and when municipalities fall into Category B (local municipalities) or Category C (district municipalities)”.

According to South African Government (2016: Online): “In metropolitan areas, there are two types of executive systems, namely, the mayoral executive system and the collective executive committee system. In a mayoral executive system, the executive authority is vested in the mayor, and in the collective executive committee system the authority is vested in the executive committee”. Areas falling outside of metropolitan areas consist of district and local municipalities.

1.4.3 Enterprise risk management

The concept of enterprise risk management (ERM) is defined by COSO (2017) as:

“Enterprise risk management is a process, effected by an entity’s board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, and to provide reasonable assurance regarding the achievement of entity objectives”.

The concept of ERM is an enterprise-wide application of risk management across various organisational operations of the municipality. ERM also calls for the municipality to consider risks on activities, regardless of whether the identified risks are external or internal. The ERM process consists of activities to identify, assess, manage, and control the identified risk factors.

1.4.4 Benefits of enterprise risk management

In terms of the Swellendam municipality's revised risk management policy, ERM can make a key contribution towards assisting the municipality's personnel manage the risks in order to achieve organisational objectives. Swellendam Municipality (2015:4) lists the benefits of ERM as follows:

- greater likelihood of achieving those objectives;
- consolidated reporting of disparate (unrelated) risks at council level;
- improved understanding of key risks and their wider implications;
- identification and sharing of cross-business risks;
- greater management focus on the issues that really matter;
- fewer surprises or crises;
- more focus internally on doing the right things in the right way;
- increased likelihood of change initiatives being achieved;
- capability to take on greater risk for greater reward; and
- more informed risk taking and decision making.

1.4.5 Roles and responsibilities for enterprise risk management

All stakeholders in the municipality have a role and responsibility for ensuring that an effective risk management process is deployed. However, management is primarily responsible for the risk management process.

For municipalities in the Overberg district to enhance their service delivery efforts there should be a structured (organised) approach to implementation effective risk management systems.

1.4.6 Risk management

According to section 62(c)(i) of the MFMA, the maintenance of effective and efficient risk management systems is one of the Accounting Officer's key functions and should therefore form an essential part of the organisational processes of a municipality.

Risk management is a structured process to identify, manage, evaluate and address identified risks on a continuous basis, to prevent such risks to negatively impact on the service delivery capacity of a municipality. Risk Management therefore, provides management with reasonable assurance that the organisation will be successful in achieving its goals and objectives.

1.4.7 Risk management process

According to Bowden, Lane and Martin (2001:8-15), two key processes, namely the managing of risk outcome and the control of risk, underpin the risk management process. These two key processes include a number of sub-activities. Valsamakis et al., (2000:25-27) report that the risk management process, which is guided by an approved risk management policy and strategy, consists of the following sub-processes:

Step 1 - Risk identification

Risk identification involves the comprehensive identification of risks that can impact on the organisation's sub-processes.

Step 2 - Risk evaluation

This is the core process of risk management. The level of risk is quantified by determining the frequency at which events occur and the impact of the consequences.

Step 3 - Risk control

Risk treatment measures are evaluated or designed by management and implemented to control the impact of the risk. Usually, risk identification is executed by management, while the implementation processes are executed by staff.

Risk control measures include:

- risk transferring or risk sharing, where risks are transferred or shared with third parties, for example, insurance;
- risk reduction that limits the occurrence of risk or the impact of the risk; and
- risk acceptance by the organisation because of cost-benefit analysis or other factors.

Step 4 - Risk monitoring

This step entails the monitoring and evaluation of the effectiveness of the control mechanisms employed by the organisation.

1.5 RESEARCH METHODOLOGY

1.5.1 Introduction

According to Babbie (2005:12), "the concept of applied research refers to research which has been designed to apply its findings to solving a specific existing problem". In this study, the nature of applied research is located within a quantitative research paradigm. Bryman and Bell (2011:26), defines quantitative research as a "research paradigm that emphasises quantification in the collection and analysis data and viewing the relationship between theory and research as deductive". Cooper and Emory (1995:202) aver that, "quantitative research includes the use of a large sample that is representative of the population, broadening the range of possible data, and ultimately forming a better picture for analysis". Cooper and Emory further opine that it is suitable for testing hypotheses, measuring social reality and quantifying opinion.

An empirical investigation was conducted to examine and obtain an understanding of variables that influence effective risk management systems and the performance of municipalities.

1.5.2 Target population

Quinlan (2011:206) defines the target population “as all the individuals, items or units relevant to the study; it comprises individuals, groups, organisations, documents and campaigns”. The target population of this study comprised supervisors, managers, and staff at the director level within the Overberg district municipalities. According to Municipalities of South Africa (2016: Online), the Overberg district municipalities employ nearly 280 employees at supervisor, manager, and director level in total. The population of this study included both female and male staff members.

1.5.3 Sampling frame and sampling technique

Malhotra (2010:373) describes a sample frame as a, “representation of the elements of the target population.” Coldwell and Herbst (2004:73) define it as a list that consists of the directions of identifying the target population. The sampling frame for this study was the database of staff generated from the Payroll systems of the various municipalities.

For the purposes of conducting the study, purposive sampling was used. According to Watkins (2008:56); “Purposive sampling is used for a particular purpose, for instance choosing people who are typical of a group, or those who represent diverse perspectives on an issue.”

This sampling approach was used, because the research study focuses on a specific sample of Overberg district employees that forms part of the supervisors, managers, and directors level, with the main intent to obtain ‘rich data’ (Welman, Kruger & Mitchell, 2007:70).

1.5.4 Sample size

A sample of 106 municipal employees were chosen from the Overberg district municipalities. The study targeted only employees at the level of supervisors, managers, and directors within the Overberg district municipalities, as these are the officials primarily responsible for risk management and understand the importance of the risk management processes. Therefore, they were able to provide valuable insight and input to be used and analysed as part of the study.

1.5.5 Method of data collection and measuring instrument

A survey method was used to obtain the data required and a structured questionnaire was developed. Structured questionnaires are easy to administer, are cost effective and have high response rates when compared to other forms of data collection. The questionnaire was self-administered to obtain relevant data from the participants. The questionnaire was divided into four sections. Section A contained questions regarding the business processes and activities of the municipalities. Section B comprised questions on the risk categories and risk ratings. Section C contained questions on the risk management process, and Section D consisted of

general questions regarding the number of employees of the municipality, years of experience of respondents and questions on the qualification of respondents.

The municipal managers of the respective municipalities provided their consent and approval, prior to the distribution of the questionnaires

1.6 DATA ANALYSIS

For this study, descriptive statistics were used to explain the sample composition. Statistical Package for Social Sciences (SPSS) version 22.0 Windows was used in analysing the data. SPSS was also used because of its status in academic and business circles and the fact that it is the most generally acceptable package within studies of this nature. SPSS is an adaptable package that permits researchers to run various types of data analyses and data transformations, which in this case adequately served the purpose. In addition, cross-tabulations, correlations, non-parametric tests and analysis of variance (ANOVA) were used to examine differences and relationships among the variables used in the study (Cooper & Emory 1995:526). These statistical tools were employed to meet the level of analysis that this study required.

1.7 RELIABILITY AND VALIDITY

According to Coldwell and Herbst (2004:17), “reliability is the assurance that the items suggested to measure the concept are adequately associated to be reliable.” Cronbach Alpha reliability was used. According to Hair, Anderson, Babin, Tathma and Black (1998:134), “the acceptable requirement for Cronbach’s coefficient should be greater than 0.70”. According to Cooper and Emory (1995:149), “Validity refers to the extent to which a test measures what it is meant to measure”. In this study, the researcher used correlation and regression analysis to establish discriminant and convergent validity.

1.8 ETHICAL CONSIDERATIONS

By incorporating the guidelines of Cooper and Emory (1995:98) and Cooper and Schindler (2006:118-119), the following ethical considerations were upheld:

- **Inform the participants of the benefits of the study:** Municipal managers of the Overberg district municipalities were informed of the purpose of the study, as well as the expected benefits.
- **Maintaining confidentiality and anonymity of participants:** No survey information would be made public and questionnaires would remain confidential at all times.
- **Informed consent:** Municipal managers of the Overberg district municipalities were informed of the voluntary nature of the respondents to the study. The researcher also indicated that the municipalities are under no obligation to complete any questions with

which they are uncomfortable. Participants may withdraw from the study at any point they so wish.

- **Debriefing:** The researcher offered to provide the final results of the study to the municipal managers.

1.9 DELIMITATION OF THE STUDY

The research was limited to municipalities in the Overberg district and only covered the geographical area of the Overberg district in the Western Cape, South Africa. According to ODM (2016:7), “the Overberg district is located in the south of the Western Cape. It is bordered by the Indian and Atlantic Oceans to the south, Cape Town to the west, the Cape Winelands to the north, and Eden district to the east.” The Overberg district is divided into four local municipalities, namely Theewaterskloof, Overstrand, Cape Agulhas and Swellendam.

These municipalities were used as case samples to identify and evaluate the factors that can affect risk management at the local government level in a specific geographical area. The results cannot be generalised to all municipalities but will identify common factors that can add value to the existing body of knowledge. Municipalities outside of the Overberg district geographic region of the Western Cape were not included.

1.10 CONTRIBUTION OF THE RESEARCH

The output of this research assisted with the identification of the factors affecting the implementation of risk management systems for municipalities in the Overberg district and highlight the current gaps in the implementation of risk management. The research made municipalities more aware of the risks within their organisations and identify the benefits of implementing sound risk management initiatives.

Ultimately, through the implementation of sound risk management initiatives, the contribution of the research empowered the Overberg district municipalities to manage their key organisational risks proactively, which will lead to sustainable local governments.

1.11 STRUCTURE OF THE DISSERTATION

The study comprises five chapters and is structured in line with the van Aswegen (2010) format guide for CPUT postgraduate dissertations. This CPUT guide explains how dissertations should be presented and how to cite the consulted sources when compiling the study.

Chapter One: This chapter introduces the research and states the problem statement, study aim, research questions, and objectives of the study. It also presents important research elements that introduce the reader to the study, such as the importance of the study, ethical issues, research methodology, contribution of the study and delimitation of the research.

Chapter Two: Chapter Two reviews relevant literature, with the focus on risk management initiatives applicable to municipalities, both local and abroad. Various sources of secondary data are reviewed, including journal articles, government publications, and books

Chapter Three: Chapter Three focuses on the research design and methodology applied in gathering data for the study. It discusses the population, sampling, data collection instrument, and data collection and analysis procedures.

Chapter Four: Chapter Four provides an analysis and interpretation of the data that were sourced from the respondents. The factors which affect the implementation of effective risk management systems are established.

Chapter Five: In Chapter Five conclusions are drawn from the analysis of the results and recommendations are made to assist Overberg district municipalities in addressing the obstacles to effective risk management. Additionally, a direction for future research is proposed.

CHAPTER TWO LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter introduced the study and stated the research problem, the research question and the research objectives. This chapter reviews literature, focusing on risk management initiatives applicable to municipalities both locally and abroad. In addition, this chapter reviews literature pertaining to the legislation that governs municipal operations, public sector accountability and the theory and practice of risk management, from an empirical perspective within the South African local government context. This in turn provides the reader with a general viewpoint of the research and aids in understanding the primary notion of the research study.

Figure 2.1 below is a schematic flow of the discourse of Chapter Two.

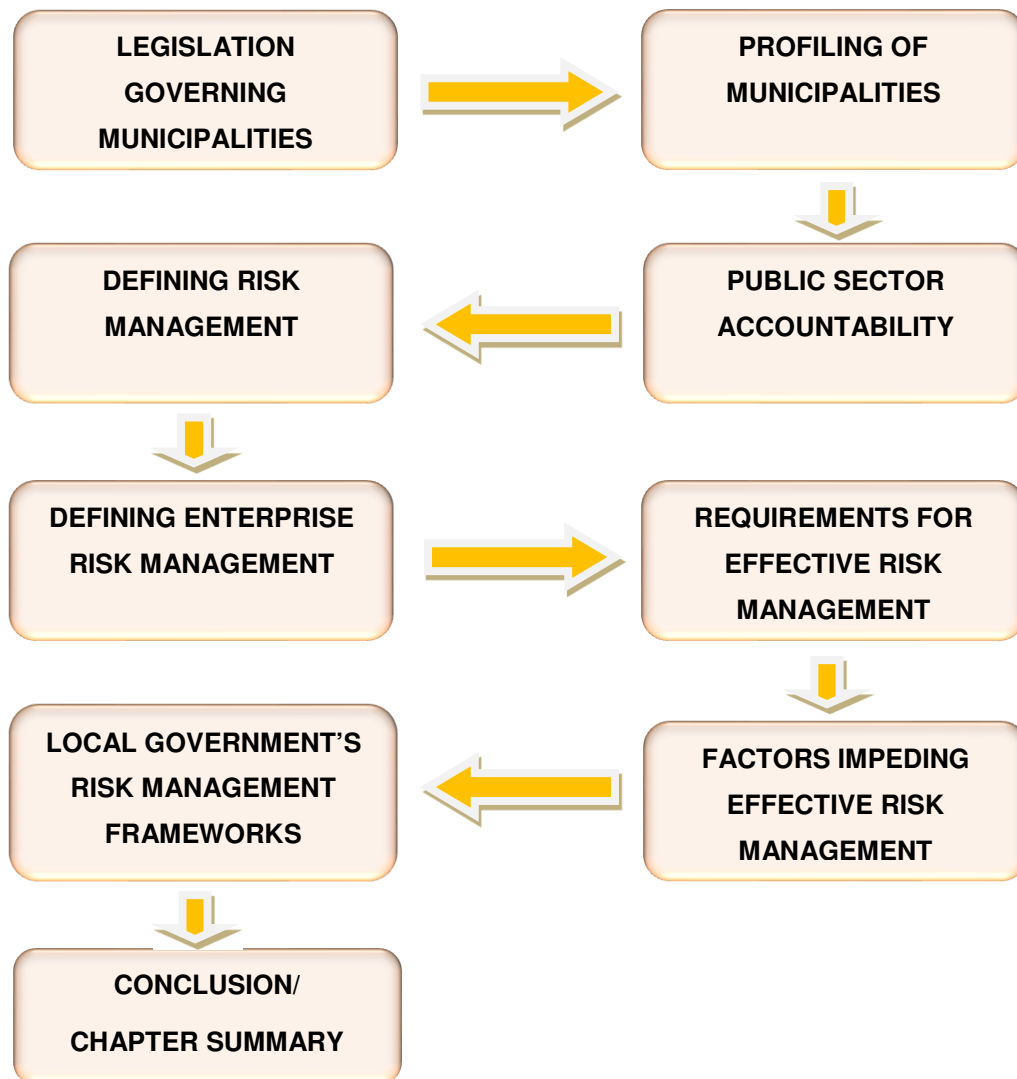


Figure 2.1: Layout of Chapter Two: Literature review (Researcher's own construct)

2.2 LEGISLATION GOVERNING MUNICIPALITIES

2.2.1 Overview

Chapter 7, Section 152, of the Constitution delegated the primary accountability for service delivery in South Africa to local government. Chapter 7 further stipulates that the structure and roles of local government should be addressed by further legislation (South Africa, 1996).

The key legislation governing risk management is the MFMA. In terms of Section 62 of the MFMA it is the responsibility of the municipal manager to manage the financial administration of the municipality. Section 62 further states that: “the municipal manager must take all reasonable steps to ensure, that the municipality has and maintains effective, efficient and transparent systems of financial and risk management and internal control” (South Africa, 2003).

The White Paper on Transforming Public Service Delivery (South Africa, 1997:15) sets out the Batho Pele principles and aims to improve public service delivery. These principles state the commitment between the public and the municipality on how the municipality will provide its service delivery mandate to the communities.

The White Paper further states that; “improving service delivery and extending access to public services for all South Africans must be achieved by reducing public expenditure and creating a more cost-effective public service” (South Africa, 1997:15). This must therefore be supported by an effective system of risk management and internal control.

2.2.2 Developmental local government

The concept of developmental local government is the preferred future state of municipalities in South Africa. In laypersons terms, it means a system of democratic local government where the needs of all citizens of South Africa are met by efficient and effective municipalities (DBSA, 2000:3). The White Paper on Local Government Section B1 sets out the following characteristics of a developmental local government and these characteristics are identified as (South Africa, 1998b):

2.2.2.1 *Maximising social development and economic growth*

The powers and functions of local government should be exercised in a way that has a maximum impact on the social development of communities, in particular meeting the basic needs of the poor and on the growth of the local economy.

2.2.2.2 *Integrating and co-ordinating*

Developmental local government must provide a vision and leadership for all those who have a role to play in achieving local prosperity. Within any local area many different agencies

contribute to development, including national and provincial departments, parastatals, trade unions, community groups and private sector institutions.

2.2.2.3 *Democratising development*

Municipal councils play a central role in promoting local democracy. In addition to representing community interests within the council, municipal councillors should promote the involvement of citizens and community groups in the design and delivery of municipal programmes.

2.2.2.4 *Leading and learning*

Developmental local government requires that municipalities become more strategic, visionary and ultimately influential in the way they operate. Municipalities have a crucial role as policymakers, as thinkers and innovators, and as institutions of local democracy. A developmental municipality should play a strategic policy-making and visionary role and seek to mobilise a range of resources to meet basic needs and achieve developmental goals.

South Africa (1998b:17) describes developmental local government as:

Developmental local government is local government committed to working with citizens and groups within the community to find sustainable ways to meet their social, economic and material needs and improve the quality of their lives.

Bagchi (2000:398) further defines developmental local government as; “one that places top priority on economic development and is able to design effective instruments to promote such an objective”. Furthermore, South Africa (1988b) states that; “the developmental role of municipalities is to work together with local communities to find sustainable ways to meet their needs and improve the quality of their lives.” Municipalities should therefore develop strategies and programmes to meet community needs and improve the quality of life of citizens.

According to Chapter 5, Section 25 of the MSA of 2000, each municipal council must upon entering its elected term of office develop and implement an Integrated Development Plan (IDP), illustrating a strategic plan that aligns the resources and capabilities of the municipality to achieve its set objectives. These objectives are also compatible with the development objectives provided to the municipality by provincial government. This strategic plan is developed for a 5-year period and is reviewed on an annual basis as prescribed by legislation (South Africa, 2000).

The IDP articulates the objectives of the municipality, inclusive of the key performance areas (KPAs), and the short-, medium- and long-term objectives the municipality would want to achieve. Therefore, for each objective/KPA the various risks related to it need to be identified and assessed to ensure that adequate controls are in place to effectively manage the risks. An effective risk management system is necessary to ensure that the risks that might hamper the process of achieving the set objectives are identified and controlled.

2.2.3 Institutional framework for Developmental Local Government

According to De Visser (2011:2),

Development brings freedom, provided it is development of people but people cannot be developed; they can only develop themselves ... A man develops himself by joining in free discussion of a new venture and participating in the subsequent decision, he is not being developed if he is herded like an animal into a new venture.

Koma (2012:109) states that the instruments for developmental local government include, *inter alia*, establishing organisations, the integration of formal and informal networks of association between the community and municipalities, and the use of newly developed opportunities. Therefore, a developmental municipality will strive towards developing its community and allowing the public to partake and contribute in the decision-making process of the municipality.

De Visser (2011:3) further states that:

The definition of development that will guide the formulation of the institutional principles for 'developmental decentralisation' comprises of three elements, namely the improvement of material well-being, the empowerment with choice and inter-social and inter-generational equity in the delivery of development.

According to Bagchi and Mogale, "Developmental local government is not reserved by philosophy but is rather able to transfer easily from market- to government-directed growth, or *vice versa*. Frequently, it combines both market and government direction in an inclusive manner when the opportunity arises" (Bagchi, 2000; Mogale, 2003). According to Koma (2012), "developmental local government should associate both market and government driven economic development efforts and strategies."

2.2.3.1 Objectives of local government

The concept of 'developmental local government' finds its constitutional basis mainly in sections 152 and 153 of the Constitution.

Section 152:

1. The objectives of local government are to:

- a) provide democratic and accountable government for local communities;
- b) ensure the provision of services to communities in a sustainable manner;
- c) promote social and economic development;
- d) promote a safe and healthy environment; and
- e) encourage the involvement of communities and community organisations in the matters of local government.

2. A municipality must strive, within its financial and administrative capacity, to achieve the objectives set out in subsection 1 above.

Section 153:

Regarding developmental duties, a municipality must:

- a) Structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community; and
- b) Participate in national and provincial development programmes

De Visser (2011:15) further indicated that the provisions in the Constitution, which outline the envisioned developmental role of municipalities, is centred around 4 key principles. Table 2.1 below lists these 4 developmental principles as identified:

Table 2.1: Principles of Developmental Local Government

Principle	Definition
Democracy	Both sections 152(1)(a) and (e) are informed by the establishment of a democratic dispensation for local government, which rests on the concepts of representation, accountability and people-centred governance. This element of developmental local government relates the element of 'choice' that is part of the definition of development.
Sustaining and improving standard of living	Subsection 152(1)(b) instructs local government to ensure sustainable service delivery— <i>sustainable</i> service delivery means delivery in such a manner that the consumer can afford them and the supplier can provide them within its own means on an ongoing basis.
Safe and healthy environment	Subsection 152(1)(d) incorporates two notions, namely a safe environment, related to issues of security (crime prevention, traffic safety) and a healthy environment.
Co-operative government	The Constitution accords local government a distinct developmental role, which places it under a duty to contribute to the overall development objectives of the government in the interests of the entire population and with significant emphasis on the poor majority.

(Source: De Visser, 2011:15)

2.2.4 Legislative framework governing the IDP process

The role of a municipality plays itself off in municipal administration, which is the driving force for articulating the principles and preferences of municipal citizens, communities, and social livelihood (Plant, 2008). Municipal performance management processes and practices must support and improve operations in order to provide the effective and efficient services to improve the quality of life of the community within their municipal areas. This situation requires an enabling environment for municipal operations to fulfil their duty. The Constitution (South Africa, 1996) provides the guidelines and provisions useful for national and local government (municipalities).

The Constitution further commits the entire government sphere to take sensible measures, within its capability, to ensure that all South Africans have access to the basic minimum services, such as proper human settlements, health-care, education, food, water, and social security.

In order to realise the above, the MSA of 2000 was enacted. Chapter 5 of the MSA states that; “a municipality must undertake developmental-oriented planning in the form of integrated development planning, to ensure that it achieves the objectives of local government as set out in the Constitution. It must further give effect to its developmental duties as required by Section 153 of the Constitution” (South Africa, 2000).

According to Section 25 of the MSA, “each municipal council must, after the start of its elected term, adopt a single, inclusive and strategic plan (called an IDP) for the development of the municipality.” The IDP forms the strategic policy document and the basis on which annual budgets are informed. The IDP should be aligned with national and provincial development plans and planning requirements (South Africa, 2000).

The following other legislative and policy frameworks are applicable to an IDP.

- The Municipal Systems Act and amendments
- The Developmental Facilitation Act, No. 67 of 1995
- The National Environment Management Act, No. 107 of 1998
- The Reconstruction and Development Programme
- The Growth, Employment and Redistribution policy
- The White Paper on Local Government
- The Urban Development Strategy (1995)
- The White Paper on Spatial Planning and Land Use Management (2001)
- Accelerated and Shared Growth Initiative for South Africa

2.3 PROFILING OF MUNICIPALITIES

2.3.1 Introduction

Municipalities in South Africa is categorised into three types, namely metropolitan; district and local municipalities. Each of these respective categories of municipalities, has an independent municipal council where strategic and operational decisions are made. Where after the municipal administration and public officials implement the decisions of the municipal council. According to Wittmayer, Avelino, van Steenberg and Loorbach (2016), “municipalities are positioned in institutional contexts that vary between regions and countries, which influence their governance, administration and their operational imperatives”. In South Africa, the constitutional objectives of municipal governance include providing democratic and accountable fiscal administration and encouraging civil society involvement in local government matters (South Africa, 1996; Plant, 2008). According to Wittmayer *et al*, “this is supposed to be done by municipalities through ensuring and promoting social and economic

development, enabling a safe and healthy environment, and providing sustainable services” (2016). The White Paper on Local Government was developed in pursuit of the constitutional mandate of a developmental local government. Thereafter various other legislation was promulgated, including the annual Division of Revenue Act (DORA), which gave provisions to municipal categories as outlined below.

2.3.2 Categories of municipalities

According to South African Government (2016: Online), the Constitution provides for three categories of municipalities. Recent literature indicated that there is a total of 257 municipalities in South Africa. They are focused on growing local economies and providing infrastructure and service.

South African Government (2016: Online) further states that:

As directed by the Constitution, the Local Government: Municipal Structures Act, 1998 (Act 117 of 1998) contains criteria for determining when an area must have a Category A municipality (metropolitan municipalities) and when municipalities fall into Categories B (local municipalities) or C (district municipalities).

The Act also determines that Category A municipalities can only be established in metropolitan areas.

The Constitution (South Africa, 1996) states that local government should be differentiated into the following three categories.

2.3.2.1 Category A: Metropolitan municipalities

“A Category A municipality has exclusive municipal executive and legislative authority in its area. Metropolitan councils have single metropolitan budgets, common property ratings and service-tariff systems, and single employer bodies.

South Africa has 9 metropolitan municipalities, namely:

- Buffalo City in the Eastern Cape
- City of Cape Town in the Western Cape
- Ekurhuleni in Gauteng
- City of eThekweni in KwaZulu-Natal
- City of Johannesburg in Gauteng
- Mangaung in the Free State
- Nelson Mandela Bay in the Eastern Cape
- City of Tshwane in Gauteng”

According to South African Government (2016: Online), in metropolitan areas, “there are two types of executive systems, namely, the mayoral executive system and the collective executive

committee system. In a mayoral executive system, the executive authority is vested in the mayor, and in the collective executive committee system the authority is vested in the executive committee”

2.3.2.2 Category B: Local municipalities

A Category B municipality shares municipal and legislative authority in its area with a Category C municipality within whose area it falls.” Examples of Category B municipalities in the Overberg district include Overstrand, Theewaterskloof, Cape Agulhas, and Swellendam municipalities.

2.3.2.3 Category C: District municipalities

A Category C municipality has municipal executives and legislative authority in an area that includes more than one municipality.” Examples of Category C municipalities include the Overberg district, Cape Winelands district, and the Eden district municipality.

District councils are primarily responsible for capacity-building and district-wide planning. The MSA of 1998 provides for ward committees whose tasks, among others, are to:

- “prepare, implement and review industrial development programmes (IDPs);
- establish, implement and review municipalities' performance-management systems;
- monitor and review municipalities' performances;
- prepare municipalities' budgets;
- participate in decisions about the provision of municipal services; and
- communicate and disseminate information on governance matters”.

2.4 PROFILING THE OVERBERG DISTRICT MUNICIPALITIES

2.4.1 Overview

According to ODM, “The Overberg district is an area in South Africa to the East of Cape Town beyond the Hottentots Holland mountains” (2017). ODM further states that, “it lies along the Western Cape Province's south coast between the Cape Peninsula and the region known as the Garden Route in the East. The boundaries of the Overberg are the Hottentots-Holland mountains in the west, the Riviersonderend mountains in the north, the Atlantic and Indian oceans in the south and the Breede river in the east” (ODM, 2017).

2.4.2 Geographic profile

The Overberg district borders the Kogelberg Biosphere Reserve which is inhabited with a large variety of flowering plants.

The Overberg district municipality is a Category C municipality, with the following Category B municipalities under its jurisdiction:

- i) Cape Agulhas
- ii) Overstrand
- iii) Theewaterskloof
- iv) Swellendam

2.4.3 Profiling of the Overberg district municipalities

Figure 2.2 below illustrates the map of the Overberg district.



Figure 2.2: Map of the Overberg district (Source: ODM, 2017)

A) Overberg district Municipality

Executive Mayor

Speaker

Municipal Manager

Area size: 12 241km²

Population: 258 176 (SSA, 2012); 286 786 (SSA, 2016)

The Overberg district municipality's head office is situated in Bredasdorp. Official data state that the region comprised a population of 286,786 in 2016 (SSA, 2012). Western Cape Government's (2016) Municipal Economic Review and Outlook (MERO) predicts that the population is expected to increase to 291 150 by 2020.

The Overberg district municipal council was constituted on 30 August 2016. Two political parties are represented with 21 councillors:

14 x Democratic Alliance (DA)

7 x African National Congress (ANC).

B) Cape Agulhas Local Municipality

Executive Mayor

Speaker

Municipal Manager

Area size: 2 411km²

Population: 33 038 (SSA, 2012); 36 000 (SSA, 2016)

Situated in Bredasdorp, the Cape Agulhas municipality includes the towns of Bredasdorp; Napier; Arniston/Waenhuiskrans, Struisbaai, L'Agulhas; Suiderstrand and Elim.

Cape Agulhas Ward Committee system

The municipality is demarcated into six wards. Four political parties are represented with 11 councillors:

6 x Democratic Alliance (DA)

3 x African National Congress (ANC)

1 x Service Delivery Party

1 x Kaap Agulhas Civic Organisasie (KAPCO)

C) Overstrand Municipality

Executive Mayor

Speaker

Municipal Manager

Area size: 1 708km²

Population: 80 432 (SSA, 2012); 93 466 (SSA, 2016)

According to ODM, "Overstrand Municipality has its head office in Hermanus. Municipal services are delivered on a decentralised basis from offices in Gansbaai, Stanford, Hermanus and Kleinmond. The area is divided into three administrations: Hangklip-Kleinmond, Greater Hermanus and Gansbaai/Stanford" (2017).

Overstrand Ward Committee system

The municipality is demarcated into 13 wards. Councillors are assisted with a Ward Committee of 10 members. Three political parties are represented with 25 councillors:

16 x Democratic Alliance (DA)

8 x African National Congress (ANC)

1 x Economic Freedom Fighters (EFF)

D) Theewaterskloof Municipality

Executive Mayor

Speaker

Municipal Manager

Area size: 3 232km²

Population: 108 790 (SSA, 2012); 117 109 (SSA, 2016)

Situated in Caledon, Theewaterskloof Municipality has the largest geographical area in the Overberg Region, and consists of fourteen wards comprising towns of Villiersdorp, Tesselaarsdal, Grabouw, Botrivier, Caledon/Myddleton, Genadendal, Greyton and Riviersonderend.

Economic activities focus on agriculture, environmental and cultural based tourism, manufacturing and commercial businesses that provides in the holistic products and services needs of residents and tourists. Agriculture focuses on grain production, vineyards, apples and cattle farming.

Theewaterskloof Ward Committee system

The municipality is demarcated into 14 wards. Councillors are assisted with a Ward Committee of 10 members. Five political parties are represented with 27 councillors:

14 x Democratic Alliance (DA)

10 x African National Congress (ANC)

1 x Independent Civic Organisation of South Africa (ICOSA)

1 x Economic Freedom Fighters (EFF)

1 x United Front (UF)

E) Swellendam Municipality

Executive Mayor

Speaker

Municipal Manager

Area size: 3 835km²

Population: 35 916 (SSA, 2012); 40 211 (SSA, 2016)

Swellendam Municipality is the second largest Municipality in the District, comprising the towns of Swellendam, Barrydale, Stormsvlei, Suurbraak, Buffeljagsrivier, and rural areas Malgas and Infanta.

The area boasts with a rich agriculture, the Bontebok Nature Reserve and a powerful historical background. Malgas is located at a pontoon ferry on the Breede River, the last crossing of the river before it reaches the ocean.

Swellendam Ward Committee system

The municipality is demarcated into six wards. Councillors are assisted with a Ward Committee of 10 members. Two political parties are represented with 11 councillors:

6 x Democratic Alliance (DA)

5 x African National Congress (ANC)

2.4.4 Demographic changes in the Overberg region

The Western Cape Government's (2016) MERO document and the socio-economic profile for the Overberg district was accessed for statistical data. According to MERO: "Demographic change brings about a specific set of challenges and opportunities for planners and decision makers. Demographic characteristics, in a municipal service delivery environment, determine the extent and quantum of services to be delivered. Population figures help to target plans and budget priorities more accurately and reduce the occurrence of fragmented and unfocussed planning within a context of limited resource availability."

2.4.5 Population within the Overberg region

According to the 2016 mid-year population estimates (SSA, 2016), the Western Cape's current population is estimated to be 6.29 million, or 11.3% of the total population. The total population of people living in the Overberg district increased by approximately 11% from 2011 to 2016 according to officials data from Statistics South Africa.

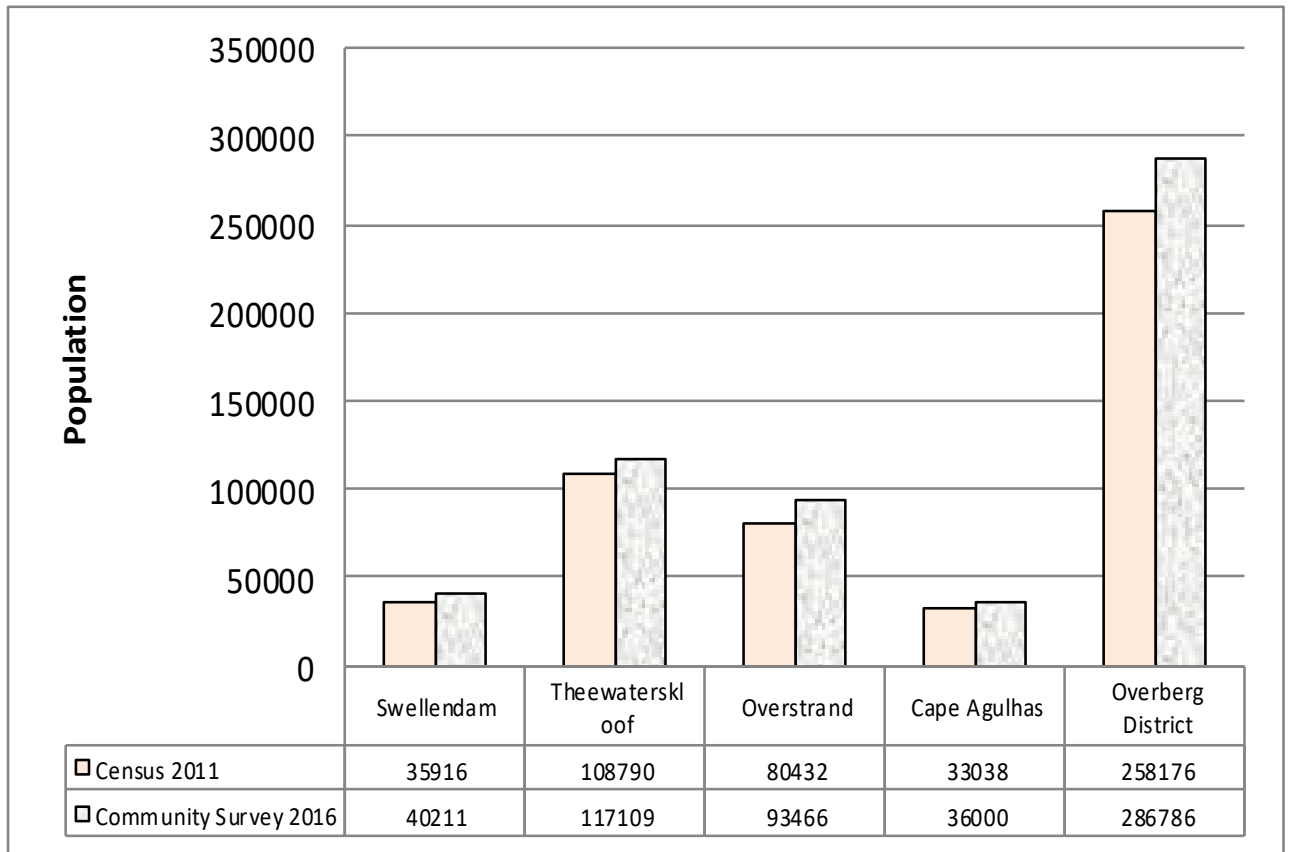


Figure 2.3: Overberg population (Source: SSA, 2012; SSA, 2016)

Figure 2.3 above indicates that Overstrand had the largest population increase (16.2%) between 2011 and 2016, followed by Swellendam (11.9%), while Theewaterskloof experienced the lowest population growth in the district (7.6%). Migration due to employment prospects in the Overstrand and Swellendam areas could be one of the reasons for the population increases, as well as better access to basic services.

2.4.6 Economic profile

According to Western Cape Government (2016), the Overberg district is the Western Cape’s fourth largest non-metro economy and contributed 3.5% to the GDP of the Western Cape in 2015, making it a relatively minor contributor.

According to Western Cape Government (2016), “the Overberg district contributed R13.33 billion (3.4%) to the Western Cape’s R391.6 billion GDP as at the end of 2015. GDP growth averaged 4.0% per annum over the period 2005–2015; this is significantly above the provincial average of 3.3% per annum over this period. The region’s average annual growth of 3.0% in the post-recessionary period remains below the long-term trend but above the provincial average of 2.5% per annum over the period 2010–2015.”

The Overberg district employed 5.1% (125 491) of the Western Cape's labour force in 2015. The Overberg's employment growth has averaged 2.2% per annum since 2005. Employment growth has strengthened in the post-recessionary period (2010–2015), averaging 3.0% (which is significantly above the provincial employment growth rate of 1.9% over the period 2010–2015). Approximately 24 793 jobs have been created in the district since 2005.

The finance, insurance, real estate and business services sector, the wholesale and retail trade, catering and accommodation sector, and the transport, storage and communications sector were the top three economic sectors that contributed the most to the GDP of the Overberg district.

Some of the major projects implemented in the Overberg district include the proposed Aquaculture SEZ, expansion of Abagold, Stony Point Eco-Centre, Theewaterskloof Municipal Support Development Team, Middle Income Housing Development, and Flight Park. Areas of concern include the rising number of indigent households, rising income inequality, informal dwellers, people with no schooling, increasing antiretroviral therapy (ART) patient loads and high teenage pregnancies.

2.5 ROLE OF DISTRICT MUNICIPALITIES

According to Section 83(3) of the MSA, a district municipality must seek to achieve the integrated, sustainable and equitable social and economic development of its area as a whole by doing the following (2000):

- ensuring integrated development planning for the district as a whole;
- promoting bulk infrastructural development and services for the district as a whole;
- building the capacity of local municipalities in its area to perform their functions and exercise their powers where such capacity is lacking; and
- promoting the equitable distribution of resources between the local municipalities in its area to ensure appropriate levels of municipal services within the area.

In terms of the more specific functions assigned to districts, Sections 84(1) and 84(2) of the MSA clearly define the divisions of functions and powers between District and Local Municipalities.

2.6 PUBLIC SECTOR ACCOUNTABILITY

Employees in public service organisations, such as municipalities, departments and institutions, who are entrusted with public resources must be accountable to the public for both effectiveness and efficiency in service delivery and in transparency, in compliance with the regulatory framework. Furthermore, the employees in the public service must be effective and

efficient in their service delivery so that they promote a positive image of their environment. This positive image is built on public accountability.

The principle of public sector accountability, especially in the local government context is of key importance to this study. Hogue and Van Reeth (2004:7) report:

In the past two decades, public sector and particularly local governments, have experienced a notable transformation which was characterised by a displacement from the traditional public administration system to one more dynamic, flexible, responsible and open. The continuing reform process of public sector in local government towards managerial techniques and practices, is still on-going to realise the management changes outlined.

According to Roberts and Scapens (1985); “accountability relates to the ability to explain how resources are assigned and utilised.” Sinclair (1995), Hood (1991) and Patton (1992) further describe public accountability as; “a way to find out, through objectives and standards, how to the measure actual performance reported, to identify the connected responsibilities.”

According to Hoskin (1996), Olson, Humphrey & Guthrie (2001), “public accountability is further characterised by the measurement of the co-operation between two different components that help to express the effective meaning of this principle. Accountability means to account for something in the past and in the future, with a responsibility for actions that someone is doing in the present” (Hoskin, 1996; Olson, Humphrey & Guthrie, 2001).

In terms of Chapter 5, Section 25 of the MSA (2000), each municipal council must, upon entering its elected term of office, develop and implement an IDP. This IDP must illustrate a strategic plan that aligns the resources and capabilities of the municipality to achieve its set objectives that are also compatible with the development objectives provided to the municipality by provincial government. This strategic plan is developed for a five-year period and is reviewed annually as prescribed by legislation.

The IDP sets out the objectives of the municipality, inclusive of the KPAs, and the short-, medium- and long-term objectives the municipality wants to achieve. Therefore, for each objective/KPA, the various risks related to the objective/KPA need to be identified and assessed, to ensure that adequate controls are in place to effectively manage the risks to an acceptable level. An effective risk management system is necessary to ensure the risks that might hamper the process of achieving the set objectives are identified and controlled.

2.7 DEFINING RISK MANAGEMENT

2.7.1 Definitions

The *Oxford English Dictionary* defines risk as “a chance or possibility of danger, loss, injury or other adverse consequences”. In this context, risk is used to indicate adverse consequences.

However, taking a risk can also result in a positive outcome. A third possibility is that risk is related to uncertainty of outcome (Hopkin, 2014:15).

Valsamakis, et al., (1996:24-27; 2000:32-35) define risk as:

...the variation of the actual outcome from the expected outcome. Risk therefore implies the presence of uncertainty. Managing risk implies not only the financial provision for the consequences of an event, but the effort to Reduce or minimise the likelihood of the loss-producing event occurring and to Reduce or minimise the adverse effects once the event has occurred.

According to Truslow (2003: Online), risks should be viewed as the level of uncertainty surrounding an outcome, as this uncertainty creates volatility in an organisation's income stream. Truslow (2003: Online) defines risk management as "Risk management ... encompasses the actions we take to minimize the uncertainty of our expected results and to reduce volatility."

This concept is also reflected by Cummins, Phillips and Smith (1998:30), who state that:

Risk management can be roughly defined as any set of actions taken by individuals or corporations in an effort to alter the risk arising from their primary lines of business.

Other than those identified above, further definitions of risk management can be found from many sources, and some key definitions are set out below (Hopkin, 2014:16):

- ISO Guide 73: ISO 3100, defines risk as: "an effect of uncertainty on objectives. Note that an effect may be positive, negative, or a deviation from the expected."
- The Institute of Risk Management (IRM) defines risk as; "the combination of the probability of an event and its consequence. Consequences can range from positive to negative."
- The Institute of Internal Auditors defines risk as; "the uncertainty of an event occurring that could have an impact on the achievement of the objectives. Risk is measured in terms of consequences and likelihood".

According to Hopkin (2014:16), "risk is an organizational context that is usually defined as anything that can impact the fulfilment of corporate objectives." In terms of Section 62 of the MFMA, the management of risk is one of management's core responsibilities and should be an integral part of the internal processes of a municipality. Swellendam Municipality (2015) states:

Risk management is a systematic process to identify, evaluate and address risks on a continuous basis before such risks can impact negatively on the service delivery capacity of a municipality. When properly executed, risk management provides reasonable assurance that the institution will be successful in achieving its goals and objectives.

2.7.2 Risk management process

According to Bowden *et al.* (2001:8-15), "two fundamental activities, namely the control of risk and the managing of risk outcome, underpin the risk management process. Each of these fundamental processes encompasses a series of activities that may vary in complexity."

Valsamakis *et al.* (2000:25-27) state that the risk management process determined by a departmental risk strategy comprises the following sub-processes:

Step 1 - Risk identification

Risk identification involves the comprehensive identification of risks that can impact on the organisation's sub-processes.

Step 2 - Risk evaluation

This is the core process of risk management. During risk evaluation, the level of risk is quantified by determining the frequency with which events will occur and the impact of the consequences.

Step 3 - Risk control

Internal control is a process, affected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance (COSO, 2004). Municipal operational objectives, reporting objectives, and compliance objectives are three key objectives of internal controls within the provisions of MFMA framework (Plant, 2008).

Step 4 - Risk monitoring

This step entails the monitoring and evaluation of the effectiveness of the control mechanisms employed by the organisation. These processes are graphically depicted in Figure 2.4 below.



Figure 2.4: The risk management process (Researcher's own construct)

Various risk management frameworks exist to guide the process of implementing enterprise risk management in organisations. For the purposes of this study, two of the predominantly used frameworks in local government are National Treasury's Public Sector Risk Management Framework (PSRMF) (South Africa, 2010) and the COSO Risk Management Framework.

2.8 DEFINING ENTERPRISE RISK MANAGEMENT (ERM)

2.8.1 Overview

According to Hopkin (2014:53), enterprise risk management is an area where the risk management discipline has developed in recent times. A simplified definition of ERM is provided by Miccolis, et al., (2001:xxii), defining ERM as:

A rigorous and coordinated approach to assessing and responding to all risks that affect the achievement of an organization's strategic and financial objectives. This includes both upside and downside risks.

The concept of ERM is further defined by COSO (2004: Online) as:

Enterprise risk management is a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.

To assist in understanding ERM, a basic definition of enterprise risk is also provided by Dickinson (2001:361) as:

... the extent to which the outcome from the corporate strategy of a company may differ from those specified in its corporate objectives, or the extent to which they fail to meet these objectives.

The corporate strategy derived from the corporate objectives is tied to a certain risk profile, which is formulated by taking into account various factors that might affect the organisation's activities and processes.

According to Schröder (2006:66), ERM is:

... a holistic systematic and integrated approach to the management of all key risks and opportunities with the intent of maximizing shareholder value for the enterprise as a whole.

ERM is further defined by Miccolis *et al.* (2001:xxii), as:

A rigorous and coordinated approach to assessing and responding to all risks that affect the achievement of an organization's strategic and financial objectives. This includes both upside and downside risks.

ERM is an enterprise-wide application of risk management across various organisational operations of municipalities. ERM also calls for municipalities to consider risks on activities, regardless of whether the identified risks are external or internal. The ERM process consists of activities to identify, assess, manage and control the identified risk factors.

Furthermore, COSO (2004: Online) states that ERM includes:

- aligning risk appetite and strategy;
- enhancing risk response decisions;
- reducing operational surprises and losses;
- identifying and managing multiple and cross enterprise risks;
- seizing opportunities; and
- improving deployment (utilisation) of capital

According to Smit (2012), a broad definition of ERM is the; “achievement of business objectives through the participation of all stakeholders at every level of the organisation. It should be noted that ERM constitutes multidirectional, repetitive processes, where activities influence one another with the primary differentiating factor, the focus on strategy” (Smit, 2012).

2.8.2 Benefits of ERM

According to Swellendam Municipality’s revised risk management policy, “ERM can make a major contribution towards helping the municipality manage the risks to achieving its objectives.” (Swellendam Municipality, 2015:4). Swellendam Municipality (2015:4) lists the following benefits of ERM:

- greater likelihood of achieving those objectives;
- consolidated reporting of disparate (unrelated) risks at council level;
- improved understanding of key risks and their wider implications;
- identification and sharing of cross business risks;
- greater management focus on the issues that really matter;
- fewer surprises or crises;
- more focus internally on doing the right things in the right way;
- increased likelihood of change initiatives being achieved;
- capability to take on greater risk for greater reward; and
- more informed risk-taking and decision making.

2.8.3 Roles and responsibilities for Enterprise Risk Management

All stakeholders in the municipality have a role and responsibility for ensuring that an effective risk management process is deployed, however, the primary responsibility for the risk management process resides with management.

For Overberg district municipalities to enhance their service delivery efforts there should be a structured approach to risk management.

2.9 REQUIREMENTS FOR EFFECTIVE RISK MANAGEMENT

There are various requirements for effective risk management in local government, such as municipal processes, systems and governance systems. According to Truslow (2003: Online), another influencing factor is the culture of an organisation, comprising the following elements:

- Base organisational activities on informed, calculated and structured decisions.
- Strive for consistent long-term growth with low volatility.
- The organisational hierarchy of importance is firstly soundness, then profitability and then growth.

According to Smit (2012), risk management responsibilities should be assigned to relevant structures in terms of an approved organisational structure. Therefore, the municipal council should adopt comprehensive risk policies and processes to guide and govern the process of managing risk. There should be effective oversight through regular supervision and review of the risk management processes. Risk management committees should be established for these purposes.

Adequate assurance should be provided on the effectiveness of risk management systems. In terms of the definition of Internal Auditing, according to the Institute of Internal Auditors, Internal Auditing could be delegated to provide this oversight and assurance to management. This is in line with good corporate governance practices, which advocate the use of a separate risk management function for risk oversight.

According to Young (2006:34):

Internal Audit's role is to provide management and the board with independent assurance regarding adequacy of the risk functions, and the degree by which organisational objectives are achieved.

This should be accompanied by ongoing monitoring from senior management and council. All the above requirements need to be in place for a risk management system to be effective.

According to Smit (2012), the key requirements for effective risk management systems are:

- A favourable culture of an organisation: The culture of an organisation should be favourable for risk management implementation. This could be achieved by commitment from top management for the implementation.
- Risk Management policies and procedures: Comprehensive risk policies and processes should be developed and implemented in controlling risk.
- Formally assigned risk management responsibilities: an organisational structure should be established for allocating risk management responsibilities.
- Ongoing monitoring and reviews and Proper oversight (committees): Control over the risk management processes should be exercised through regular supervision by an independent group.
- Assurance on the effectiveness of the process available: Internal audit's role is to provide management and the board with independent assurance regarding adequacy of the risk functions, and the degree by which organisational objectives are achieved.

Figure 2.5 depicts the key requirements for effective risk management systems as explained above.



Figure 2.5: Requirements for effective risk management systems (Researcher’s own construct)

2.10 POSSIBLE FACTORS IMPEDING ON EFFECTIVE RISK MANAGEMENT SYSTEMS

Risk management and the implementation thereof is not only prescribed but is a legal requirement for municipalities. This management capability is legislated in the MFMA and monitored by National and Provincial Treasuries through the publication of circulars and the PSRMF that recommends specific risk management processes. All these actions aim to create a performance and risk-focused environment in municipalities.

The factors depicted in Figure 2.6 could impede effective risk management systems in local government.

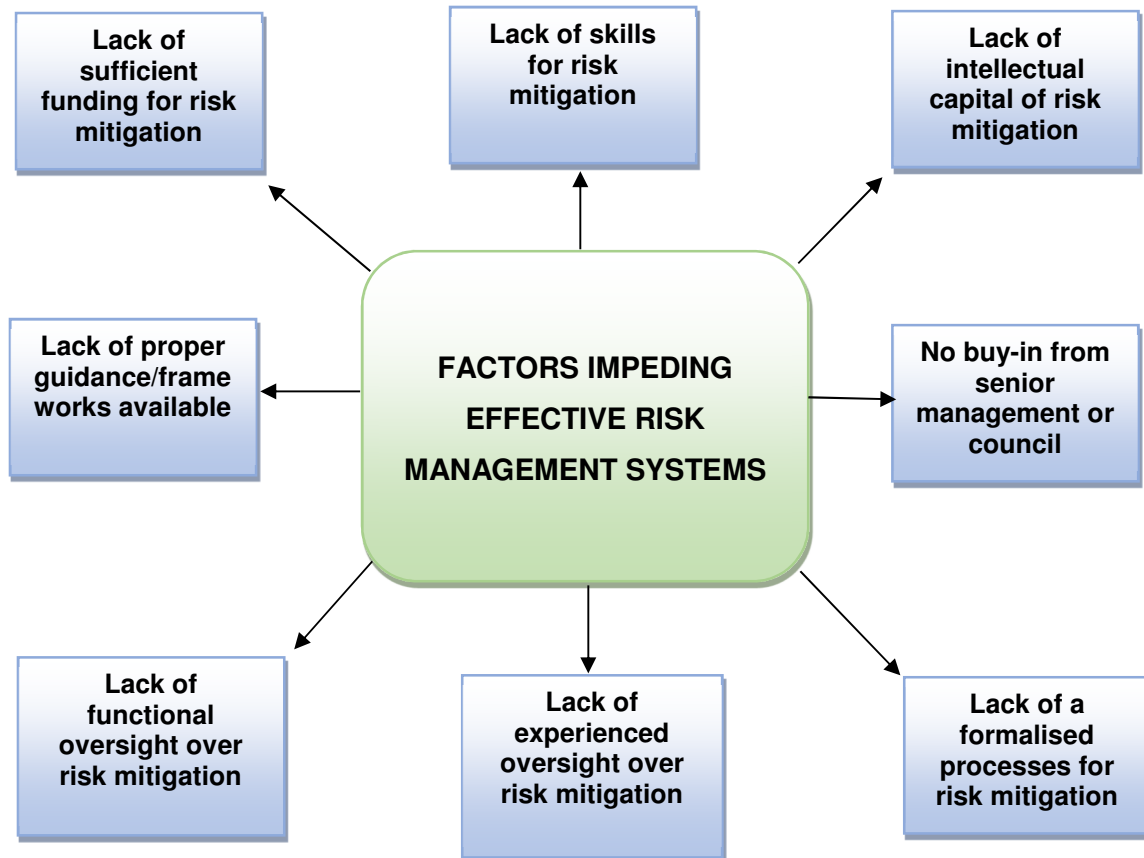


Figure 2.6: Factors which impede effective risk management systems (Researcher's own construct)

- a) There might be a lack of sufficient funding for risk mitigation. Council/management might not provide adequate resources for fulfilment of the mandate of risk management. This could be in the form of prioritising budget for the implementation of risk management/risk mitigation.
- b) There might be a lack of skills for risk mitigation. This could mean that management/municipal officials might lack the necessary skills and knowledge to effectively manage and mitigate the identified risks.
- c) There might be a lack of intellectual capital (know-how) of risk mitigation and systems. This could mean that management/municipal officials might lack the intellectual capital to effectively manage and mitigate the identified risks.
- d) There might be a lack of proper guidance/frameworks available. This could mean that there are no processes and procedures in place to guide the operation of the risk management processes. Council have not adopted a formalised process to manage and mitigate risks.
- e) There might be no buy-in from senior management/council. This could mean that council/senior management might not see risk management as a priority, therefore there is inadequate buy-in from them. This is crucial for the effective implementation of risk management.
- f) There might be a lack of functional oversight over risk mitigation: This means that there is no oversight mechanism to monitor the implementation of risk management. Functional oversight refers to having an independent Risk Management Committee in place to monitor and oversee the risk management systems and processes.

- g) There might be a lack of experienced oversight over risk mitigation. Possibly there is a risk management committee to monitor the implementation of risk management but the committee members lack the necessary skills and experience to fulfil their oversight role effectively.
- h) There might be a lack of formalised processes for risk mitigation. This could mean that the risk processes are conducted haphazardly and not in a proper formalised process guided by approved policies and procedures.

The abovementioned factors need to be identified accurately as root causes for the research problem. Once the abovementioned factors are pinpointed, sustainable solutions should be recommended. This is further explored in Chapters Four and Five.

2.11 RISK MANAGEMENT FRAMEWORKS USED WITHIN LOCAL GOVERNMENT

2.11.1 Introduction

The COSO framework and the PSRMF are the most widely used risk management frameworks in local government, due to their popularity and advocacy from various platforms. These two frameworks are briefly discussed below.

2.11.2 COSO ERM framework

COSO (2017: Online) reports:

“In October 2014, the Committee of Sponsoring Organisations of the Treadway Commission announced a project to review and update the 2004 *Enterprise Risk Management—Integrated Framework (Original Framework)*. The original framework is widely accepted and used by management and boards to enhance an organisation’s ability to manage uncertainty and to consider how much risk to accept as they strive to increase stakeholder value. The Framework clarifies the importance of enterprise risk management in strategic planning and embedding it throughout an organisation—because risk influences and aligns strategy and performance across all departments and functions”.

Figure 2.7 below reflects the components of COSO.



Figure 2.7: COSO components (Source: COSO 2017: Online)

According to COSO (2017: Online), the framework itself is a set of principles organised into the following five interrelated components.

a) Governance and culture

Governance refers to the leadership of the organisation and the tone set on top. The governing body should establish an effective structure for risk management. The organisational culture refers to the ethical values, behaviors, and proper understanding of risk management.

b) Strategy and objective setting

The governing body should determine the risk management strategy and relevant objectives. This should form part of the strategic planning process of the organisation. Risk should be identified that might hamper the achievement of the objectives and should be managed to an acceptable level.

c) Performance

Performance and risk management are interrelated and risks that may impact the achievement of strategy and business objectives need to be identified and assessed. Management should then implement the required control measures to reduce the impact of the risk, and risk profile reporting should be done to the governing body and key stakeholders on a continuous basis.

d) Review and revision

This component relates to review and revision of the organisations performance and how effective the enterprise risk management components are functioning over a period of time and in light of key organisational changes. Revision and amendments should be made where required.

e) Information, communication and reporting

The information, communication and reporting component refer to the required risk profile reporting to key stakeholders. Enterprise risk management requires a continual process of obtaining and sharing necessary information.

According to COSO (2017: Online), the five components in the updated framework are supported by a set of principles (see Figure 2.7). The indicated principles provides an overview of the entire risk management process. They are user friendly and they describe practices that are universally acceptable regardless of organisation's size, type, or sector.



Figure 2.8: COSO principles (Source: COSO, 2017: Online)

2.11.3 Public Sector Risk Management Framework (PSRMF)

Various risk management frameworks exist to guide the process of implementing enterprise risk management in organisations. For the purposes of this study, one of the most predominantly used frameworks in local government is the National Treasury’s PSRMF. The PSRMF was developed by the National Treasury for the public service and it was published on 1 April 2010.

According to South Africa (2010), “the PSRMF was developed in response to the requirements of the Public Finance Management Act (PFMA) and MFMA for institutions to implement and maintain effective, efficient, and transparent systems of risk management and control.”

The PSRMF is divided into four sections and was intended to assist the public service, including local government, to guide the implementation of risk management effectively.

Figure 2.9 depicts the various components and sections of the PSRMF.

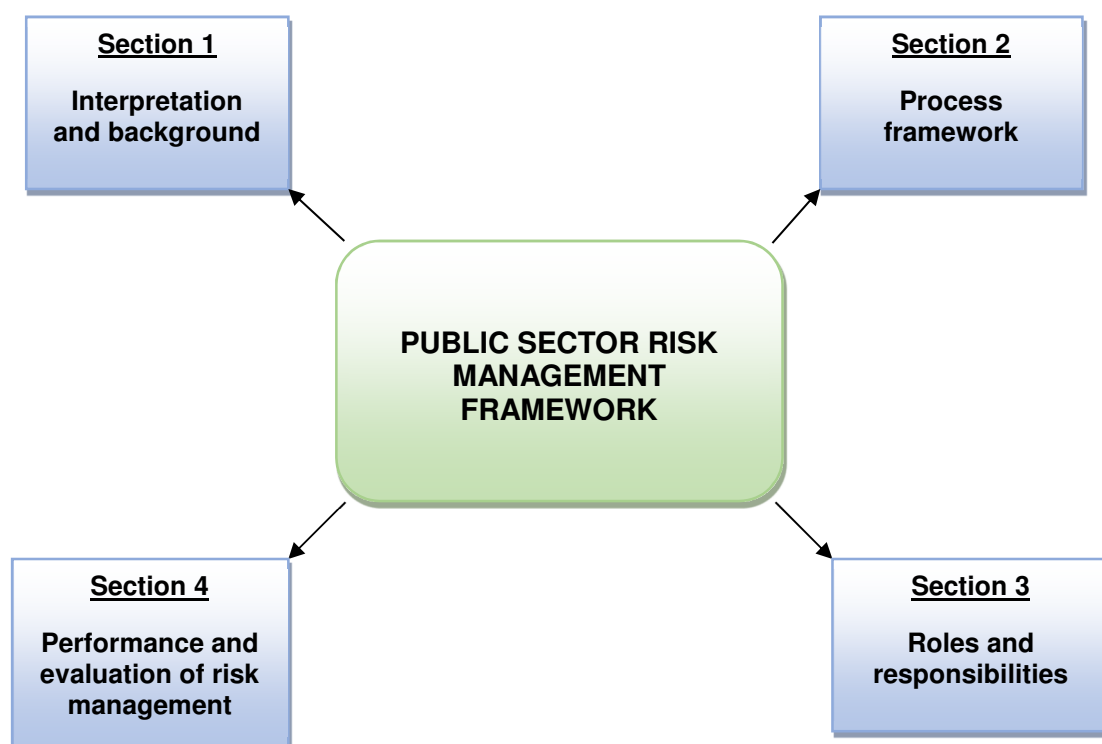


Figure 2.9: Sections of the Public Sector Risk Management Framework (Researcher's own construct)

2.11.3.1 Interpretation and background (Section 1)

The interpretation and background section of the PSRMF defines various words used in the framework, including the various stakeholders and role-players, and risk management concepts. It also deals with the purpose, applicability and background of the Framework.

2.11.3.2 Process framework (Section 2)

The process framework section of the PSRMF deals with the creation of an enabling environment for the management of risks, setting institutional objectives, risk management policy, risk management strategy, organisational structure, human resource capacity, tools and technology, and funding the risk management activities.

It deals with the integration of the risk management activities in terms of the notion of enterprise-wide risk management and the focus points of risk identification. The risk assessment process is defined and the various steps involved in the process, including risk responses and the design of control activities to mitigate the identified risks.

This section also deals with communication and reporting of the risk management processes, and the monitoring of the identified risks.

2.11.3.3 Roles and responsibilities (Section 3)

This section deals with the functions of the executive authority (the municipal council in the case of Local Government), the accounting officer (the municipal manager in the case of Local Government), audit committee, risk management committee, chief risk officer, management, other municipal officials, risk champions, internal auditing, external auditing, and National Treasury with respect to risk management

2.11.3.4 Performance and evaluation of risk management (Section 4)

The performance and evaluation section of the PSRMF, deals with the evaluation of risk management effectiveness pertaining to the evaluation of the value-add and performance indicators.

2.12 CHAPTER SUMMARY

In South Africa, three categories of municipalities exist with separate mandates in terms of the Constitution. Municipalities operate in a complex environment to achieve the objectives as stated in the Constitution. However, to achieve these objectives adequate risk management systems should be in place. Having defined the concepts of risk management and enterprise-wide risk management, it was clear that effective risk management systems are critical to the achievement of objectives. The legislative framework governing risk management in local government was explored, as well as the different risk management frameworks that are available within the Public Sector.

From the above, it is apparent that the value of effective risk management systems cannot be underestimated. An effective risk management system is critical for the achievement of organisational objectives. It is therefore of paramount importance to be able to identify whether the risk management systems within municipalities in the Overberg district are implemented effectively.

While research does exist on this focus area, limited research has been published on the factors that affect the implementation of risk management systems at a local government level in the Overberg district. Therefore, it is possible that current risk management initiatives used in Overberg municipalities are not effective or are inadequate in relation to the mitigation of risks. As a result, risks are more likely to manifest and adversely influence the overall performance of these municipalities.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter reviewed literature, with the emphasis on the profiling of the Overberg district municipalities, risk management activities and the relevant legislative provisions guiding municipal operations in their effort to implement internal risk mitigation controls. This chapter discusses the research methodology employed in the study. The geographical area which the study covered, the research design, the population and sample are discussed. Furthermore, the chapter discusses the data collection process, including the methods applied to maintain validity and reliability of the instrument, and the data analysis procedures. The research problem, as stated in Chapter One, is that the effective implementation of risk management systems within the Overberg district municipalities is adversely affected by risk factors which, in turn, adversely affect the attainment of relevant organisational objectives.

The main objective of this study was to solve the research problem as stated above. To reach this objective, relevant risk factors were identified before determining how effectively the Overberg district municipalities managed these factors that hinder the implementation of effective risk management systems in their organisations.

The schematic flow of the discourse of this chapter is depicted in Figure 3.1 below.

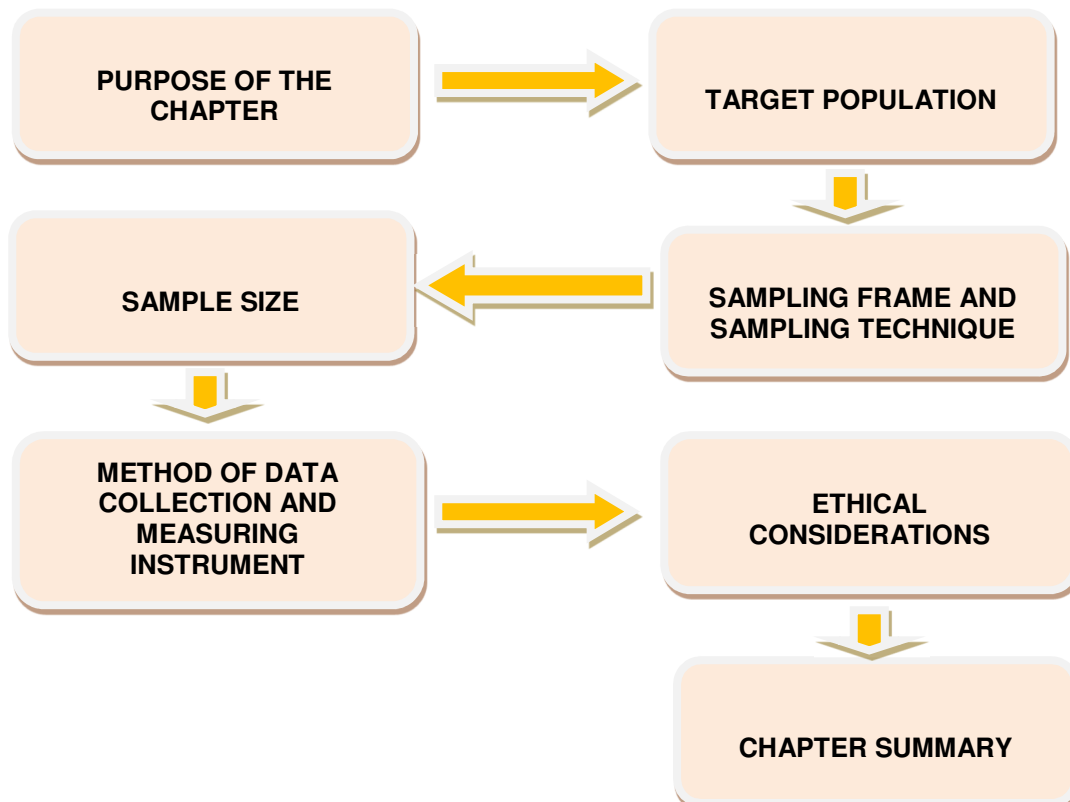


Figure 3.1: Layout of Chapter Three: Research methodology (Researcher's own construct)

3.2 RESEARCH APPROACH AND DESIGN

This study followed a quantitative research approach in line with Burns and Grove (1997:777). Where, a quantitative research approach is defined as; “a formal, impartial, systematic process to define and assess relationships and examine cause and effect interactions among variables.” This study employed a descriptive survey design. According to Mouton (1996), “Surveys may be used for descriptive, explanatory and exploratory research studies. A survey is used to collect data from a population too large to examine directly.” This study used a survey to obtain the information from a sample of respondents by means of self-report, that is, the people respond to a number of questions posed by the researcher (Polit & Hungler, 1993:148). A descriptive survey was selected because it provides an accurate depiction or account of the characteristics of the population.

3.3 TARGET POPULATION

Quinlan (2011:206) defines; “the target population as all the individuals, entities, items or units relevant to the research study; it comprises individuals, groups, organisations, documents, and campaigns”. In this study, the target population comprised only staff at management level of the Overberg district municipalities. The population included both female and male staff members.

3.4 SAMPLING FRAME AND SAMPLING TECHNIQUE

Malhotra (2010:373) describes a sample frame as a, “representation of the elements of the target population.” Coldwell and Herbst (2004:73) define it as; “a list that consists of the directions of identifying the target population.” The sampling frame for this study was the database of staff generated from the Payroll systems of the various municipalities.

For the purposes of conducting the study, purposive sampling was used. According to Watkins (2008:56); “Purposive sampling is used for a particular purpose, for instance choosing people who are typical of a group, or those who represent diverse perspectives on an issue.”

This sampling approach was used, because the research study focuses on a specific sample of Overberg district employees that forms part of the supervisors, managers, and directors level, with the main intent to obtain ‘rich data’ (Welman *et al.*, 2007:70).

3.5 SAMPLE SIZE

A sample of 106 municipal employees was chosen from the Overberg district municipalities. The study targeted only employees in supervisory, managerial, and directorship positions. These officials are primarily responsible for risk management and understand the importance of the risk management processes. Therefore, they provided valuable and relevant insight and inputs into this study.

3.6 SAMPLING CRITERIA

The subjects had to meet the following specific criteria to be included in the sample. They should:

- be employed by one of the Overberg district municipalities;
- be employed in the supervisor/senior management level;
- be exposed to the risk management processes of the municipalities; and
- be willing to participate.

3.7 DATA COLLECTION

3.7.1 Introduction

A survey method was used to obtain the data required and a structured questionnaire was developed (see Appendix C). Structured questionnaires are easy to administer, are cost effective and have high response rates as compared to other forms of data collection. The questionnaire was self-administered to gather relevant data from the respondents. The questionnaire was divided into four sections. Section A contained questions regarding the business processes and activities of the municipalities. Section B comprised questions on the risk categories and risk ratings. Section C contained questions on the risk management process, and Section D consisted of general questions regarding the number of employees of the municipality, years of experience of respondents and questions on the qualification of respondents.

3.7.2 Data collection instrument

A questionnaire was deemed the most suitable data collection instrument. A questionnaire is a self-administered tool designed to elicit information from the written responses of the respondents. According to Burns and Grove (1997:368), "The information collected through a questionnaire is alike to that obtained by an interview, however the responses tend to have less depth".

Data were collected using questionnaires to determine the factors that affect the implementation of effective risk management in the respondents' respective municipalities. Questionnaires were deemed the most appropriate data collection instrument because:

- A higher response rate was ensured as the questionnaires were distributed to respondents to complete and were personally collected by the researcher.
- Less time and energy are required to complete the questionnaire.
- Anonymity was offered because respondents' details were not required.
- There was less opportunity for bias as they were presented in a consistent manner.
- The closed-ended questions, made it easier for comparison responses.

Despite the benefits of questionnaires listed above, they also have shortcomings; for example, there is the question of validity and accuracy (Burns & Grove, 1997:368). The respondents might not reflect their true opinions but answer what they deem will please the researcher, and valuable information may be lost as answers are generally brief.

Permission was requested and obtained from the relevant municipal managers (see Appendix A) prior to the distribution of the questionnaires. A covering letter (see Appendix B) accompanied the questionnaires, informing participants of the nature of the study and outlining the ethical principles adhered to during the research.

3.7.3 Questionnaire design

The study used a structured questionnaire for data collection. As suggested by Burns and Bush (2006:300), the questionnaire enabled the researcher to achieve the following functions:

- It assisted to translate the research objectives into specific research questions.
- It allowed for standardized categories so that every participant responded to identical questions.
- It fostered support and co-operation and kept respondents engaged throughout the completion of the questionnaire
- It served as permanent records of the research study.
- It assisted with the timely completion of the data analysis process.
- It contained the information on which reliability assessments were made.

3.7.4 Questionnaire layout and question format

The questionnaire comprised four sections:

- Section A contained questions regarding the business processes and activities of the municipalities.
- Section B comprised questions on the risk categories and risk ratings.
- Section C contained questions on the risk management process.
- Section D consisted of general questions regarding the number of employees of the municipality, years of experience of respondents and questions on the qualification of respondents.

3.8 RELIABILITY AND VALIDITY

3.8.1 Reliability

According to Coldwell and Herbst (2004:17), “reliability is the assurance that the items posited to measure the construct are sufficiently related to be reliable.” Cronbach alpha reliability was used. According to Hair, Anderson, et al., “the acceptable requirement for Cronbach’s coefficient should be greater than 0.70” (1998:134).

The questionnaire which were answered by the respondents revealed consistency in their responses. Measurement errors, like data collector bias, can also affect the reliability of the

data. In this study, the data collector bias was minimised by mean of the researcher being the sole administer of questionnaires, including the distribution and collection. In addition, respondents completed the questionnaire in their own physical and psychological environment, to ensure that the data were collected where respondents felt relaxed, ensuring privacy, confidentiality and general physical comfort.

3.8.2 Validity

According to Cooper and Emory (1995:149), “Validity refers to the extent to which a test measures what it is meant to measure”. In this study, the researcher used correlation and regression analysis to established discriminant and convergent validity.

Questions were based on the information obtained through the literature review to ensure that the questions posed are aligned to the research objectives and questions. Content validity was further ensured by consistency in administering the questionnaires. The researcher distributed all questionnaires personally. The questions were expressed in layperson terms for each respondent to fully understand the questions posed and response expected.

Prior to the distribution and finalisation of the questionnaires, some question was rephrased for clarity purposes, and to allow for more appropriate alternative response choices to provide for meaningful data analysis (Burns & Grove, 1997:373). The completed questionnaires were submitted to the researcher and statistician at the Centre for Postgraduate Studies at the Cape Peninsula University of Technology for analysis.

During the study the external validity was also ensured. According to Burns and Grove (1997:270), “external validity, refers to the extent to which research findings can be generalised beyond the sample used”. The sample of 106 respondents completed the questionnaires. Generalising the findings to all respondents of the population is therefore justified.

3.9 DATA PREPARATION AND ANALYSIS

3.9.1 Data preparation

The data preparation process involves scrutiny of the collected data to ensure accuracy before entering into the computer software to convert and analyse it (Cooper & Schindler, 2006:490). In this study the researcher employed, 2 phases of the data preparation process, namely data editing and coding. These phases were employed to ensure that the data collected were complete and ready for analysis (Kumar, Aaker & Day, 2002:356).

3.9.2 Data cleaning

Data cleaning is imperative crucial part of data preparation process (McDaniel & Gates 2008:400). The process of transformation from data to intelligence is made riskier and more difficult if there are still remaining errors in the data (Zikmund & Babin, 2007:479). The next

step after the data is entered and stored in the computer for processing is error checking, before proceeding with statistical analysis. According to Malhorta (2010:461), “data cleaning involves error checking and treatment of missing responses, substitution of neutral values, substituting imputed responses, and a case-wise and pair-wise deletion”.

3.9.3 Data analysis

After collection the data were captured on an Excel spreadsheet and then copied to the Statistical Package for Social Sciences (Version 22.0 for Windows) program for statistical analysis. SPSS was used to code data and to run the statistical analysis. It is important to mention that the selection of data analysis techniques in this study was guided by the data analysis techniques used by past research in the area of online shopping.

- Descriptive statistics
- Inferential statistics
- Non-parametric tests
- Correlation analysis
- Regression analysis
- Reliability and validity analysis

3.10 ETHICAL CONSIDERATIONS

By incorporating the guidelines of Cooper and Emory (1995:98) and Cooper and Schindler (2006:118-119), the following ethical considerations were upheld in this study:

- **Inform the participants of the benefits of the study:** Municipal managers of the Overberg district municipalities were informed of the purpose of the study, as well as the expected benefits.
- **Maintaining confidentiality and anonymity of participants:** No survey information would be made public and questionnaires would remain confidential at all times.
- **Informed consent:** Municipal managers of the Overberg district municipalities were made aware that their participation in the research is of a voluntary nature and that they are under no obligation to answer any questions with which they are uncomfortable. Participants may withdraw from the study at any point they so wish.
- **Debriefing:** Municipal managers were offered the option to receive follow-up information about the research results. If this choice was selected by the participants, contact details were provided by the research participant.

3.11 CHAPTER SUMMARY

In this chapter the survey design and methodology was discussed. The target population was only the supervisory and management levels of the municipalities. The sample frame, sampling

technique and sample size was explained. A questionnaire was the method of data collection and measuring instrument. Finally, ethical considerations were addressed.

The following chapter, Chapter Four, presents the data analysis and findings of the study.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF RESULTS

4.1 INTRODUCTION

The previous chapter detailed the methodology and research methods used in the study. This chapter presents the analysis of collected data and discusses the results of the study. The results are analysed and interpreted in relation to the research questions and the research objectives which was to determine the effectiveness of the risk management systems in South Africa's Overberg district municipalities.

Figure 4.1 below depicts the schematic flow of the content of Chapter Four.

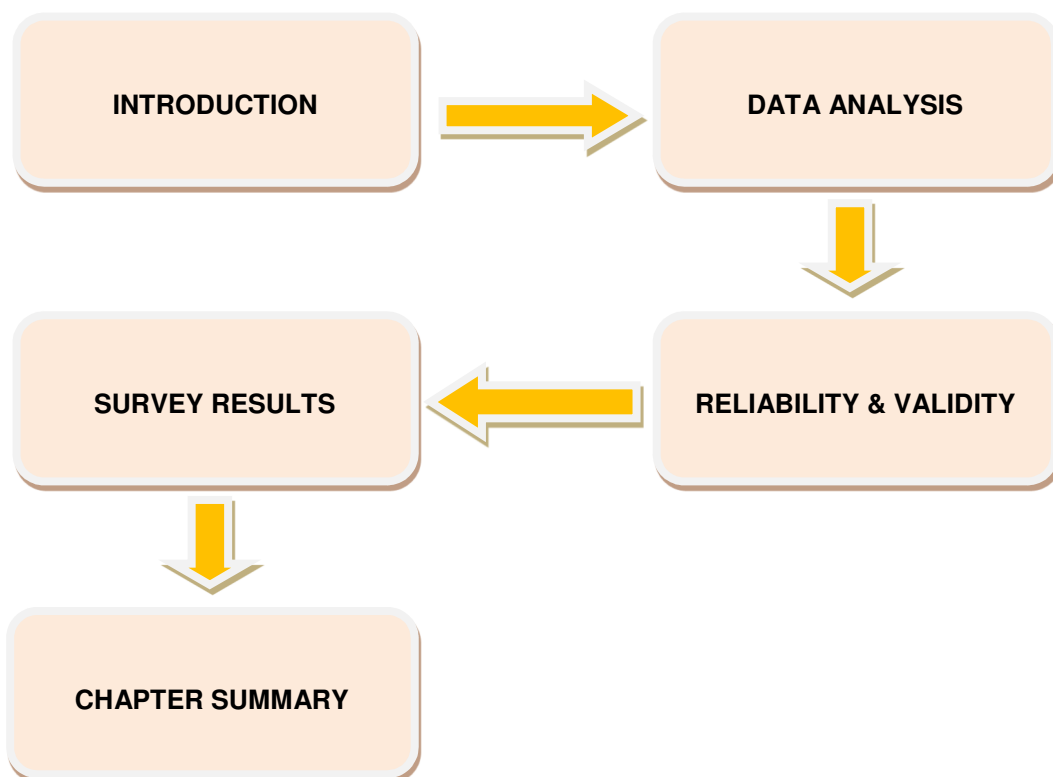


Figure 4.1: Layout of Chapter Four: Analysis and findings (Researcher's own construct)

4.2 DATA ANALYSIS

Descriptive statistics were used to explain the composition of the sample. Correlation, regression analysis and analysis of variance (ANOVA) was used to examine differences and relationships among the variables used in the study (Cooper & Emory, 1995:526). In addition, confirmatory factor analysis was used.

A descriptive analysis of the survey results returned by the research questionnaire respondents is contained in the following sections.

4.3 DATA CODING

Smit (2002:69) describes coding as attaching keywords to text segments and this plays an important role in data analysis. The data were coded by the researcher, as depicted in Table 4.1 below, before being imported into SPSS.

Table 4.1: Coding items

CODE	FACTOR
RRHR	Risks relating to Human Resources
RRIT	Risks relating to Information Technology
RRDR	Risks relating Disaster Recovery and Business Continuity
RRCE	Risks relating to Compliance/Regulatory/Legislative Environment
RRFC	Risks relating to Fraud and Corruption
RRFM	Risks relating to Financial Management
RRR	Risks relating to Reputation
RRPE	Risks relating to Political Environment
ORMS	Obstacles affecting the implementation of Risk Management Systems

4.4 DEMOGRAPHICS OF PARTICIPANTS

The questionnaire was completed by 106 participants comprising staff of the Overberg district municipalities. Of the total respondents, 61.9% indicated that their municipality has between 251 and 400 permanent employees, 18.1% stated that their municipality has 401 to 550 employees, 77.4% of the respondents indicated that their municipality is a Category B–Local Municipality and 22.6% fell within the Category C–District Municipality.

A total of 34.3% of respondents indicated that their highest qualification is a diploma, while 30.5% held a degree and 8.6% had a post-graduate degree. Regarding departments in which the respondents worked, 36.2% worked in the Financial Services department, 22.9% were positioned within the Community Services department, followed by 16.2% that worked in the Corporate/Strategic Services department.

Regarding tenure, 34% of the respondents indicated that they have over 15 years' experience in local government, 31.1% stated they have between 6 and 10 years' experience in local government, followed by 20.8% that have 11–15 years' experience in local government.

An analysis of the demographic data of participants is reflected in Table 4.2.

Table 4.2: Analysed demographic data of participants

Category		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Category B - Local	82	77.4	77.4	77.4
	Category C - District	24	22.6	22.6	100.0
	Total	106	100.0	100.0	
Education					
Education		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Post-graduate degree	9	8.5	8.6	8.6
	Degree	32	30.2	30.5	39.0
	Diploma	36	34.0	34.3	73.3
	Post-matriculation (other than the above)	16	15.1	15.2	88.6
	Matriculation certificate	12	11.3	11.4	100.0
	Total	106	100	100.0	

Table 4.2: Analysed demographic data of participants (continued)

Department		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Office of the municipal manager	13	12.3	12.4	12.4
	Financial services	38	35.8	36.2	48.6
	Community services	24	22.6	22.9	71.4
	Infrastructure services	12	11.3	11.4	82.9
	Corporate/strategic services	17	16.0	16.2	99.0
	Other	1	0.9	1.0	100.0
	Total	106	100	100.0	
Employment tenure		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Above 15 years	36	34.0	34.0	34.0
	11 - 15 years	22	20.8	20.8	54.7
	6 - 10 years	33	31.1	31.1	85.8
	0 - 5 years	15	14.2	14.2	100.0
	Total	106	100.0	100.0	

4.5 RELIABILITY ANALYSIS

According to Coldwell and Herbst (2004:17); “Reliability is the assurance that the items posited to measure the construct are sufficiently related to be reliable.” Cronbach Alpha reliability was used in this study. The acceptable value for Cronbach’s coefficient should be greater than 0.70 (Hair *et al.*, 1998:134).

The Cronbach’s Alpha reliability score of the coded items in this study was between 0.91 and 0.96. This is an indication of very high reliability and shows that all the items in the survey can hypothetically measure the obstacles affecting the implementation of risk management systems (ORMS). The Cronbach’s Alpha for risks relating to human resources (RRHR) was 0.92, which means 92% reliability for those statements represented by that construct. The Cronbach’s Alpha for risks relating to information technology (RRIT) was 0.96, indicating 96% reliability. Risks relating to disaster recovery and business continuity (RRDR) was 0.91, indicating 91% reliability. The Cronbach’s Alpha for risks relating to Compliance/Regulatory/Legislative environment (RRCE) was 0.94, indicating 94% reliability.

The Cronbach's Alpha for risks relating to financial management (RRFM) was 0.93, indicating 93% reliability. The Cronbach's Alpha for risks relating to the political environment (RRPE) was 0.92, indicating 92% reliability. The Cronbach's Alpha for obstacles affecting the ORMS was 0.92, indicating 92% reliability.

The level of the alpha was very good (see Table 4.3 below) and the data were deemed reliable. Therefore, the researcher proceeded to advanced data analysis.

Table 4.3: Reliability statistics

CODE	CRONBACH'S ALPHA	ITEMS TESTED
RRHR	0.924	7
RRIT	0.957	7
RRDR	0.911	2
RRCE	0.943	5
RRFM	0.926	7
RRPE	0.924	3
ORMS	0.917	9

NOTE: RRHR: Risks relating to Human Resources; RRIT: Risks relating to Information Technology; RRDR: Risks relating Disaster Recovery & Business Continuity; RRCE: Risks relating to Compliance/Regulatory/Legislative Environment; RRFM: Risks relating to Financial Management; RRPE: Risks relating to Political Environment; ORMS: Obstacles affecting the implementation of Risk Management Systems

4.6 VALIDITY

4.6.1 Introduction

According to Cooper and Emory (1995:149), "Validity refers to the extent to which a test measures what it is meant to measure." Discriminant validity and convergent validity was established through correlations and regression analysis.

4.6.2 Correlation analysis

Inter-item correlations were tested for each construct to establish relationships.

Table 4.4: Nonparametric correlations for risk categories

			Correlations							
			RRHR	RRIT	RRDR	RRCE	RRFC	RRFM	RRR	RRPE
Spearman's rho	RRHR	Correlation Coefficient	1.000	.502**	.380**	.311**	.269**	.435**	.317**	.146
		Sig. (2-tailed)	.	.000	.000	.001	.005	.000	.001	.136
		N	106	106	106	106	106	106	106	106
	RRIT	Correlation Coefficient	.502**	1.000	.568**	.543**	.514**	.402**	.597**	.445**
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000
		N	106	106	106	106	106	106	106	106
	RRDR	Correlation Coefficient	.380**	.568**	1.000	.654**	.519**	.266**	.636**	.491**
		Sig. (2-tailed)	.000	.000	.	.000	.000	.006	.000	.000
		N	106	106	106	106	106	106	106	106
	RRCE	Correlation Coefficient	.311**	.543**	.654**	1.000	.615**	.291**	.586**	.508**
		Sig. (2-tailed)	.001	.000	.000	.	.000	.002	.000	.000
		N	106	106	106	106	106	106	106	106
	RRFC	Correlation Coefficient	.269**	.514**	.519**	.615**	1.000	.189	.624**	.577**
		Sig. (2-tailed)	.005	.000	.000	.000	.	.053	.000	.000
		N	106	106	106	106	106	106	106	106
	RRFM	Correlation Coefficient	.435**	.402**	.266**	.291**	.189	1.000	.338**	.326**
		Sig. (2-tailed)	.000	.000	.006	.002	.053	.	.000	.001
		N	106	106	106	106	106	106	106	106

RRR	Correlation Coefficient	.317**	.597**	.636**	.586**	.624**	.338**	1.000	.716**
	Sig. (2-tailed)	.001	.000	.000	.000	.000	.000	.	.000
	N	106	106	106	106	106	106	106	106
RRPE	Correlation Coefficient	.146	.445**	.491**	.508**	.577**	.326**	.716**	1.000
	Sig. (2-tailed)	.136	.000	.000	.000	.000	.001	.000	.
	N	106	106	106	106	106	106	106	106

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

RRHR is significantly related to all factors, except RRPE. RRIT and RRCE is significantly related to all factors. RRFC is significantly related to all factors, except RRFM. Therefore, RRFM is also significantly related to all factors, except RRFC. RRR is significantly related to all factors and RRPE is significantly related to all factors except RRHR. All these variables demonstrate a significant correlation.

Table 4.5: Nonparametric correlations for risk statements

			Correlations								
			No obstacles experienced at my municipality	Lack of sufficient funding for risk mitigation	Lack of skills for risk mitigation	Lack of intellectual capital (know-how) of risk mitigation and systems	Lack of Proper Guidance/Frameworks available	No Buy-in from senior management/council (Not seen as priority)	Lack of Functional oversight over risk mitigation	Lack of Experienced Oversight over risk mitigation	Lack of Formalised processes for risk mitigation
Spearman's rho	No obstacles experienced at my municipality	Correlation Coefficient	1.000	-.129	.026	.046	.031	.129	-.097	-.064	-.087
		Sig. (2-tailed)	.	.187	.794	.636	.756	.188	.325	.514	.376
		N	106	106	106	106	106	106	106	106	106
	Lack of sufficient funding for risk mitigation	Correlation Coefficient	-.129	1.000	.693**	.629**	.581**	.600**	.582**	.570**	.509**
		Sig. (2-tailed)	.187	.	.000	.000	.000	.000	.000	.000	.000
		N	106	106	106	106	106	106	106	106	106
	Lack of skills for risk mitigation	Correlation Coefficient	.026	.693**	1.000	.890**	.758**	.666**	.643**	.677**	.675**
		Sig. (2-tailed)	.794	.000	.	.000	.000	.000	.000	.000	.000
		N	106	106	106	106	106	106	106	106	106
	Lack of intellectual capital (know-how) of	Correlation Coefficient	.046	.629**	.890**	1.000	.780**	.651**	.642**	.719**	.674**
		Sig. (2-tailed)									
		N									

Correlations

		No obstacles experienced at my municipality	Lack of sufficient funding for risk mitigation	Lack of skills for risk mitigation	Lack of intellectual capital (know-how) of risk mitigation and systems	Lack of Proper Guidance/Frameworks available	No Buy-in from senior management/council (Not seen as priority)	Lack of Functional oversight over risk mitigation	Lack of Experienced Oversight over risk mitigation	Lack of Formalised processes for risk mitigation
risk mitigation and systems	Sig. (2-tailed)	.636	.000	.000	.	.000	.000	.000	.000	.000
	N	106	106	106	106	106	106	106	106	106
Lack of Proper Guidance/Frameworks available	Correlation Coefficient	.031	.581**	.758**	.780**	1.000	.783**	.629**	.633**	.654**
	Sig. (2-tailed)	.756	.000	.000	.000	.	.000	.000	.000	.000
	N	106	106	106	106	106	106	106	106	106
No buy-in from senior management/council (Not seen as priority)	Correlation Coefficient	.129	.600**	.666**	.651**	.783**	1.000	.552**	.591**	.580**
	Sig. (2-tailed)	.188	.000	.000	.000	.000	.	.000	.000	.000
	N	106	106	106	106	106	106	106	106	106
Lack of Functional oversight over risk mitigation	Correlation Coefficient	-.097	.582**	.643**	.642**	.629**	.552**	1.000	.892**	.805**
	Sig. (2-tailed)	.325	.000	.000	.000	.000	.000	.	.000	.000
	N	106	106	106	106	106	106	106	106	106
	Correlation Coefficient	-.064	.570**	.677**	.719**	.633**	.591**	.892**	1.000	.841**

Correlations

		No obstacles experienced at my municipality	Lack of sufficient funding for risk mitigation	Lack of skills for risk mitigation	Lack of intellectual capital (know-how) of risk mitigation and systems	Lack of Proper Guidance/Frameworks available	No Buy-in from senior management/council (Not seen as priority)	Lack of Functional oversight over risk mitigation	Lack of Experienced Oversight over risk mitigation	Lack of Formalised processes for risk mitigation
Lack of Experienced Oversight over risk mitigation	Sig. (2-tailed)	.514	.000	.000	.000	.000	.000	.000	.	.000
	N	106	106	106	106	106	106	106	106	106
Lack of formalised processes for risk mitigation	Correlation Coefficient	-.087	.509**	.675**	.674**	.654**	.580**	.805**	.841**	1.000
	Sig. (2-tailed)	.376	.000	.000	.000	.000	.000	.000	.000	.
	N	106	106	106	106	106	106	106	106	106

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

The statement “There are no obstacles experienced at my municipality” relates to no other statements. The statement “There is a lack of sufficient funding for risk mitigation” significantly relates to all other statements except the statement “There are no obstacles experience at my municipality”. The statement “There is a lack of skills for risk mitigation” significantly relates to all other statements except the statement “There are no obstacles experience at my municipality”. The statement “There is a lack of intellectual capital (know-how) of risk mitigation and systems” significantly relates to all other statements except the statement, “There are no obstacles experience at my municipality”. The statement “There is a lack of proper guidance/frameworks available” significantly relates to all other statements, except the statement “There are no obstacles experienced at my municipality”. The statement “There is no buy-in from senior management/council (not seen as priority)” significantly relates to all other statements except the statement “There are no obstacles experienced at my municipality”. The statement “There is a lack of functional oversight over risk mitigation” significantly relates to all other statements except the statement “There are no obstacles experienced at my municipality”. The statement “There is a lack of experienced oversight over risk mitigation” significantly relates to all other statements except the statement “There are no obstacles experience at my municipality”. The statement “There is a lack of formalised processes for risk mitigation” significantly relates to all other statements except the statement “There are no obstacles experienced at my municipality”. This means that all statements are significantly related, except for the statement “There are no obstacles experienced at my municipality”. All these variables demonstrate a significant correlation.

4.6.3 Regression analysis

For the regression analysis, the researcher utilised the Stepwise analysis to establish a significant relationship between the variables. The ORMS was selected as the dependent variable, and RRR as the predictor using ANOVA.

Table 4.6: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.333	1	15.333	25.734	.000 ^b
	Residual	61.968	104	.596		
	Total	77.302	105			

a. Dependent variable: ORMS

b. Predictors: (Constant), RRR

The variables indicated in Table 4.7 below were excluded from the analysis.

Table 4.7: Excluded variables

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	RRHR	-.006 ^b	-.060	.952	-.006	.837
	RRIT	.085 ^b	.758	.450	.074	.617
	RRDR	-.002 ^b	-.019	.985	-.002	.576
	RRCE	-.102 ^b	-.952	.343	-.093	.670
	RRFC	-.024 ^b	-.215	.830	-.021	.643
	RRFM	.096 ^b	.957	.341	.094	.772
	RRPE	-.131 ^b	-1.074	.285	-.105	.520

a. Dependent variable: ORMS

b. Predictors in the Model: (Constant), RRR

Table 4.8: Tests of between-subjects effects

Dependent variable: ORMS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	33.227 ^a	15	2.215	4.487	.000
Intercept	128.695	1	128.695	260.688	.000
Qualification	4.062	4	1.015	2.057	.093
Experience	7.259	3	2.420	4.901	.003
RRHR	2.017	1	2.017	4.087	.046
RRIT	.996	1	.996	2.018	.159
RRDR	.030	1	.030	.061	.806
RRCE	.465	1	.465	.941	.335
RRFC	.193	1	.193	.391	.533
RRFM	• .644	• 1	• .644	• 1.304	• .256

RRR	• 3.099	• 1	• 3.099	• 6.278	• .014
RRPE	• .189	• 1	• .189	• .383	• .537
Error	• 43.937	• 89	• .494		
Total	1215.852	105			
Corrected Total	77.164	104			

a. R Squared = .431 (Adjusted R Squared = .335)

Table 4.8 above shows that only Experience and RRR has a significant relationship, while all other factors fall above the significant level. Therefore, Qualification, RRHR, RRIT, RRDR, RRCE, RRFC, RRFM, and RRPE were removed from the Stepwise analysis model.

Table 4.9: Tests of between-subjects effects

Dependent variable: ORMS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	26.035 ^a	4	6.509	12.822	.000
Intercept	282.454	1	282.454	556.454	.000
Experience	10.701	3	3.567	7.027	.000
RRR	10.691	1	10.691	21.062	.000
Error	51.267	101	.508		
Total	1229.296	106			
Corrected Total	77.302	105			

a. R Squared = .337 (Adjusted R Squared = .311)

Table 4.9 above shows that only Experience and RRR has a significant relationship.

4.7 SURVEY RESULTS

4.7.1 Introduction

This section discusses the key findings of the study, namely the effectiveness of risk management systems in the Overberg district municipalities. The findings are based on the 106 responses received from the participating municipal officials.

The results are presented in four sections:

- i) Section A: Business process/activities which established the general environment of the organisation;
- ii) Section B: Risk rating, which rated the importance of the various risk categories;
- iii) Section C: Risk management processes, which established the foundation of the current risk management process in place; and
- iv) Section D: General, which allows insight into general information regarding the municipality and respondent.

4.7.2 Section A: Business processes/activities

4.7.2.1 Areas where municipalities received support from external consultants

Table 4.10: Support from external consultants

Focus Area	%
Financial/Accounting Services	97.1
Strategic Management/Corporate Services	79.6
Infrastructure/Engineering Services	94
Community/Service Delivery Services	77.1
Information Technology Services	87.1
Human Resources Services	62.2
Public Relations Services	46.2
Governance: Internal Audit/Risk Management Services	72.4
None	n/a
Other	n/a

Of the respondents that selected Financial Accounting Services, 97.1% indicated that their municipality receives support from external consultants in the Financial/Accounting Services area. Of the respondents that selected Infrastructure/Engineering Services, 94% indicated that their municipality receives support from external consultants in the Infrastructure/Engineering Services area.

4.7.2.2 Financial problems experienced by the municipalities

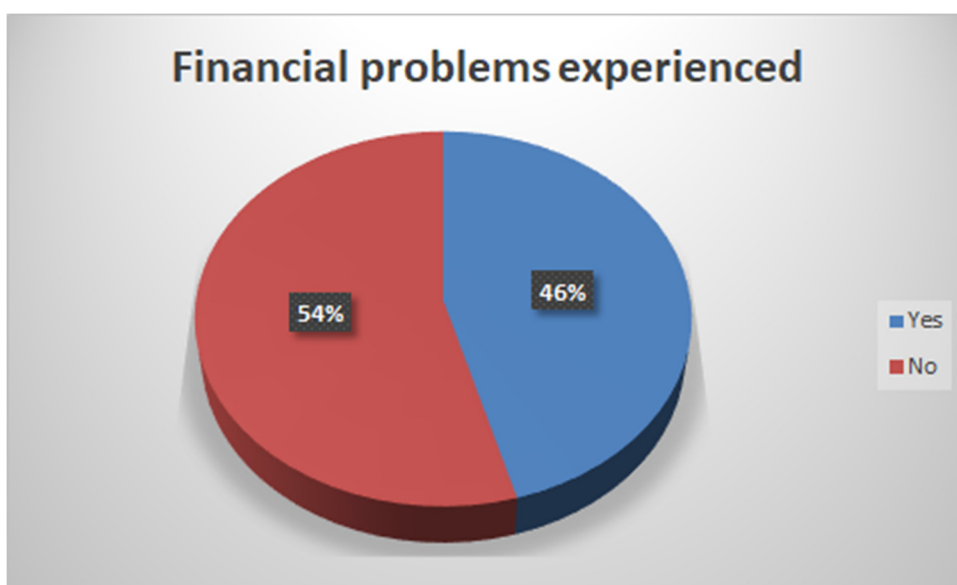


Figure 4.2: Financial problems experienced by the municipalities

Of the total respondents, 46% indicated that no financial problems were experienced by their municipalities in the past, while 54% believed that their municipalities experienced financial problems.

The main financial problems experienced are tabulated in Table 4.11 below.

Table 4.11: Main reasons for financial problems

Reasons for Financial Problems	%
Default/slow payments by debtors	94.4
Overspending or excessive expenditure	95.6
Irregularities/fraud/losses	96.8
Information technology inefficiencies	70.9
Personnel - lack of skill	74.7
Operational problems	76.2
Catastrophic event	61.7
Other	75

Other reasons for financial problems were:

- Bad decisions by management; and
- Political influences

A significant 96.8% of the respondents stated that their municipality experienced financial problems due to Irregularities/Fraud/Losses. Additional, a significant 95.6% of respondents indicated that their municipality experienced financial problems due to overspending or excessive expenditure.

4.7.2.3 Clearly defined municipal objectives and strategies

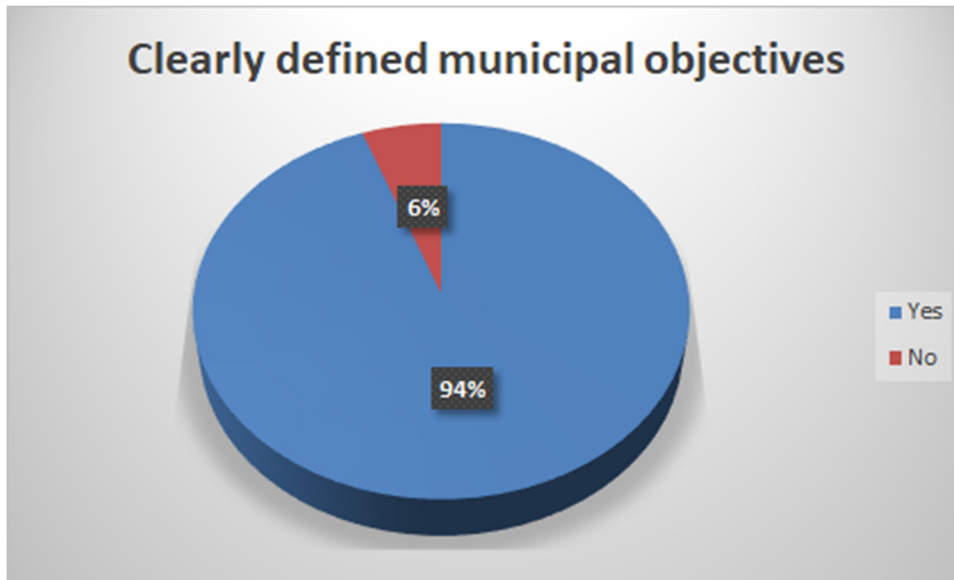


Figure 4.3: Municipal objectives and strategies

A significant 94.3% of the respondents indicated that their municipal objectives and strategies are clearly defined to help determine which activities are critical for the achievement of the set objectives and strategies.

4.7.3 Section B: Risk rating

4.7.3.1 Importance of risks relating to human resources

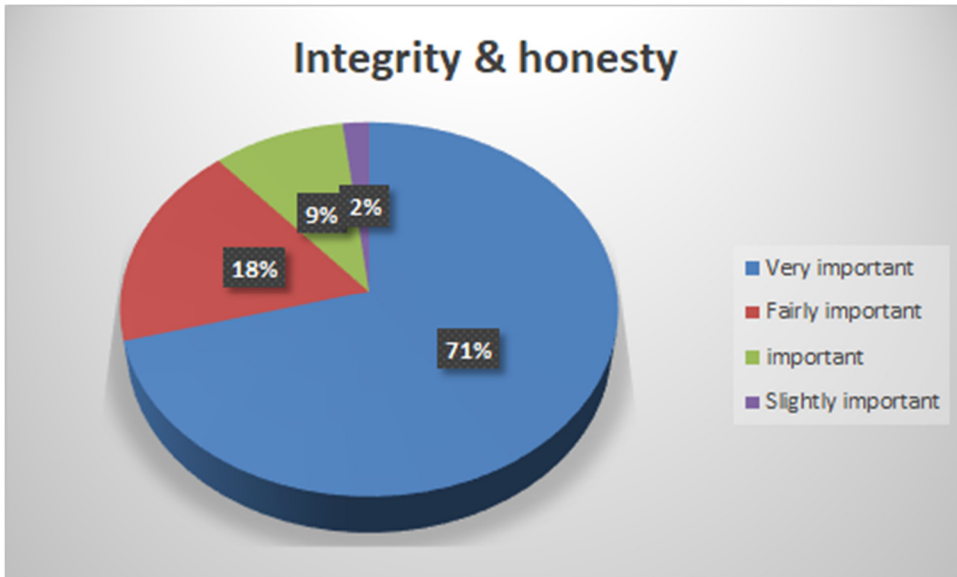


Figure 4.4: Integrity and honesty

Of the total respondents, 70.8% indicated that Integrity and Honesty is a very important risk category relating to Human Resources.

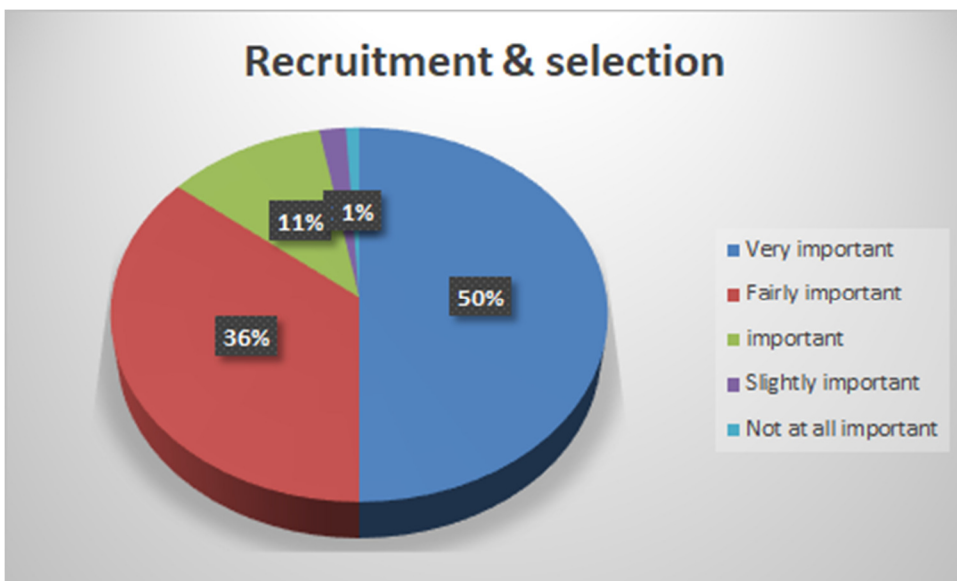


Figure 4.5: Recruitment and selection

Half of the respondents (50%) indicated that Recruitment and Selection is a very important risk category relating to Human Resources.

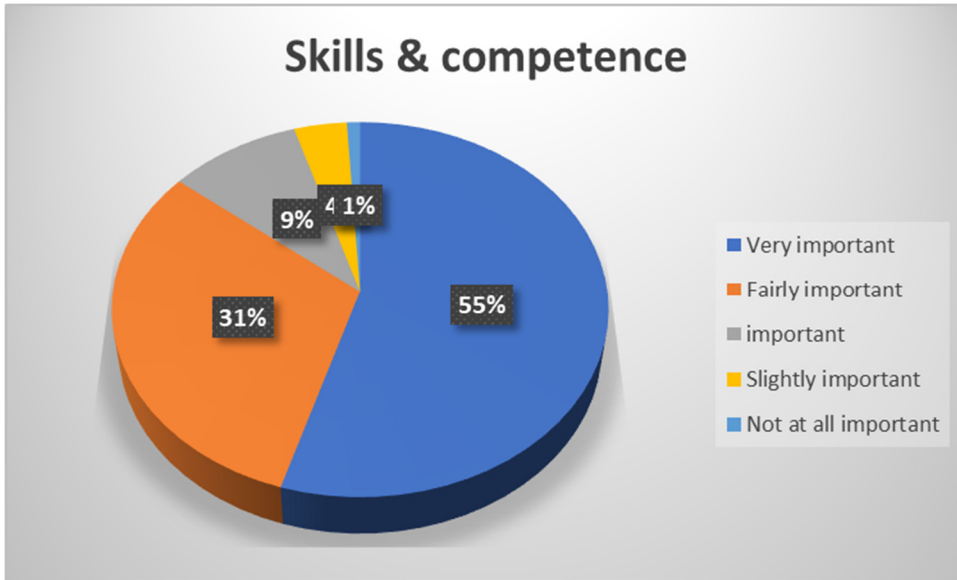


Figure 4.6: Skills and competence

More than half (54.7%) of the respondents indicated that Skills and Competence is a very important risk category relating to Human Resources.

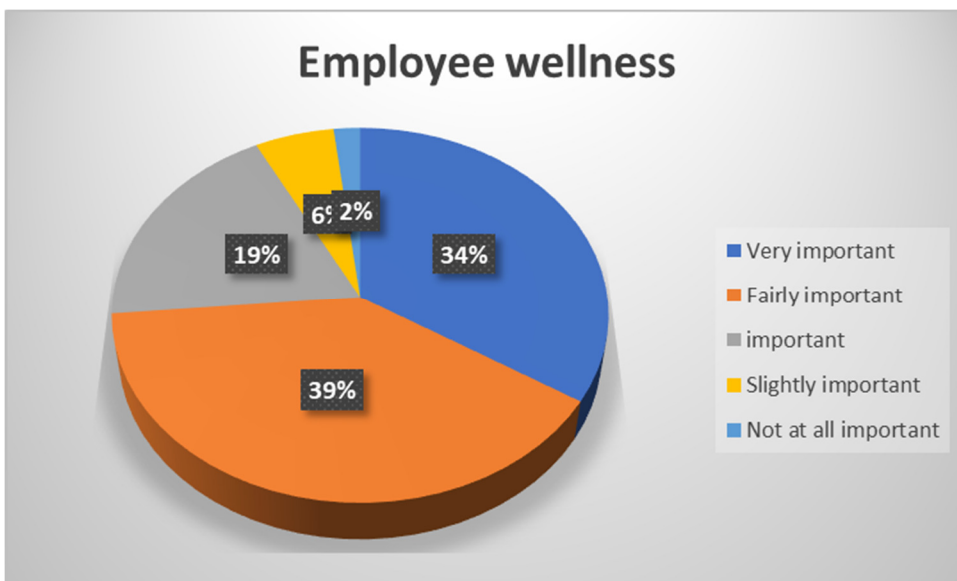


Figure 4.7: Employee wellness

Only 34% of the respondents stated that Employee Wellness is a very important risk category relating to Human Resources, while 39.6% indicated that it is fairly important.

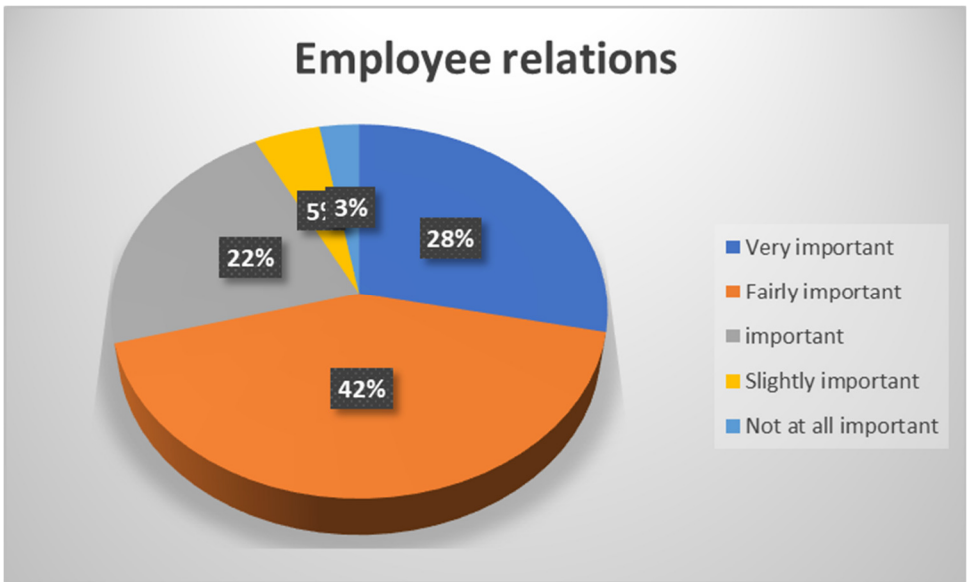


Figure 4.8: Employee relations

Only 28.3% of the respondents indicated that Employee Relations is a very important risk category relating to Human Resources, whereas 42.5% stated that it is fairly important.

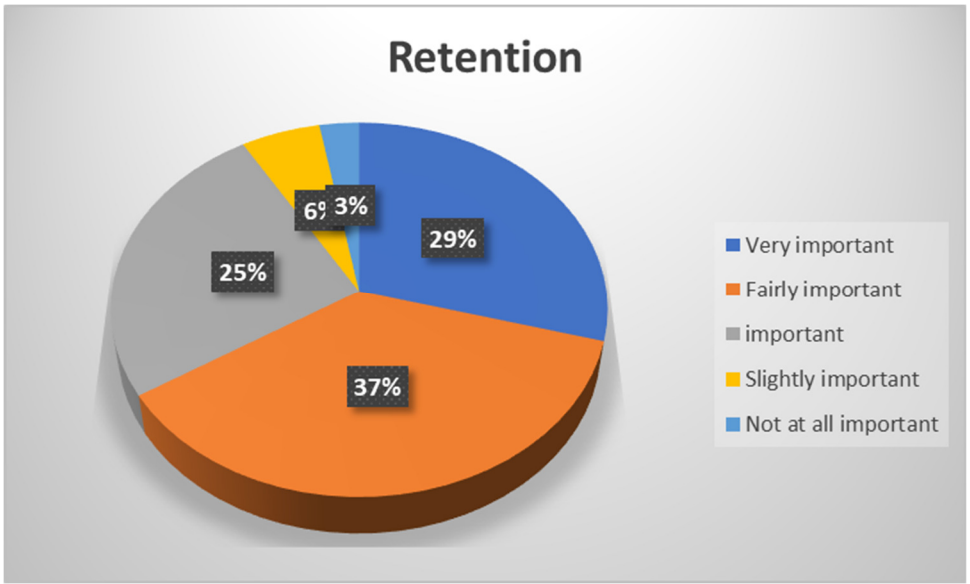


Figure 4.9: Retention

Only 29.2% of the respondents indicated that Retention is a very important risk category relating to Human Resources and 36.8% stated that it is fairly important.

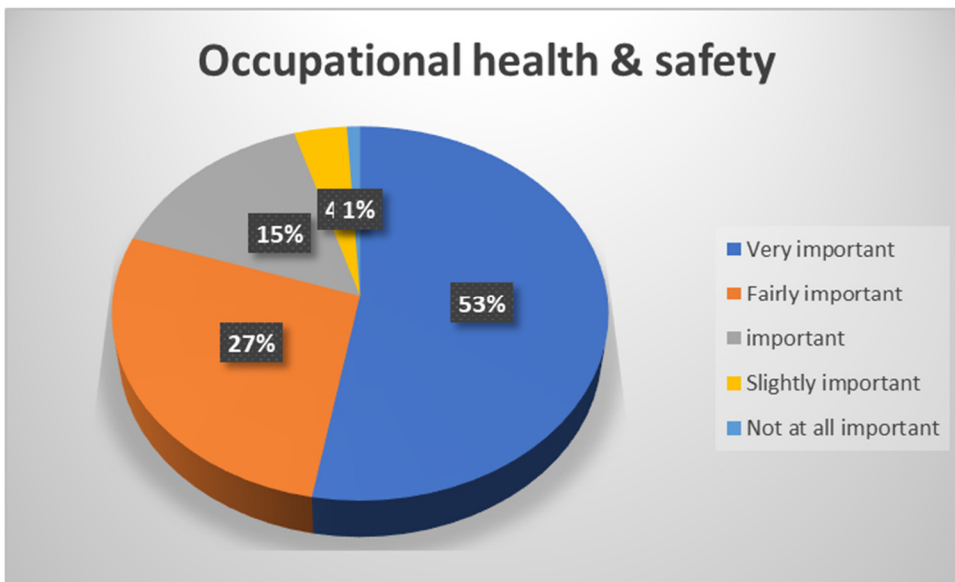


Figure 4.10: Occupational health and safety

Over half (52.8%) of the respondents stated that Occupational Health and Safety is a very important risk category relating to Human Resources.

4.7.3.2 Importance of risks relating to Information Technology (IT)

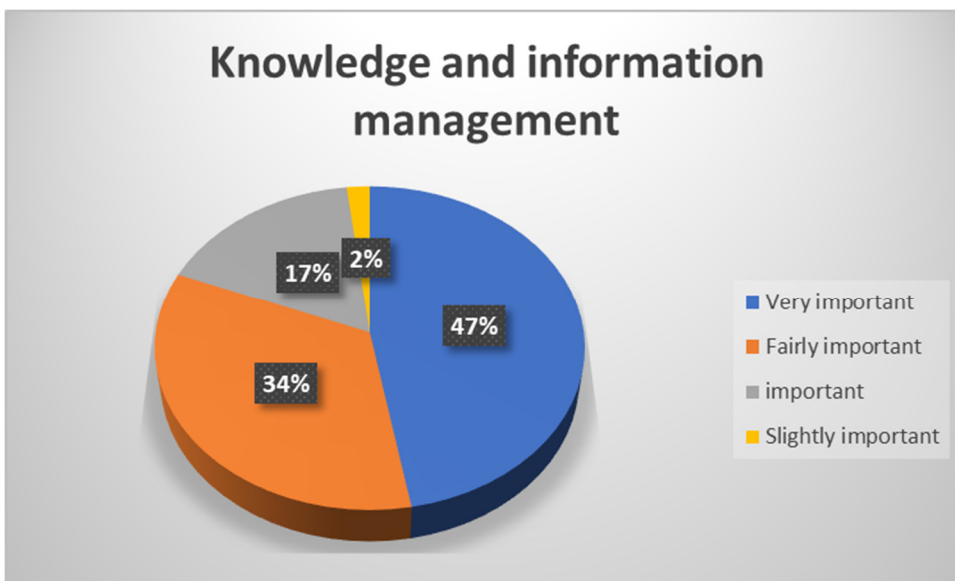


Figure 4.11: Knowledge and information management

Of the total respondents, 47.2% indicated that Knowledge and Information Management is a very important risk category relating to Information Technology, while 34% stated that it is fairly important.

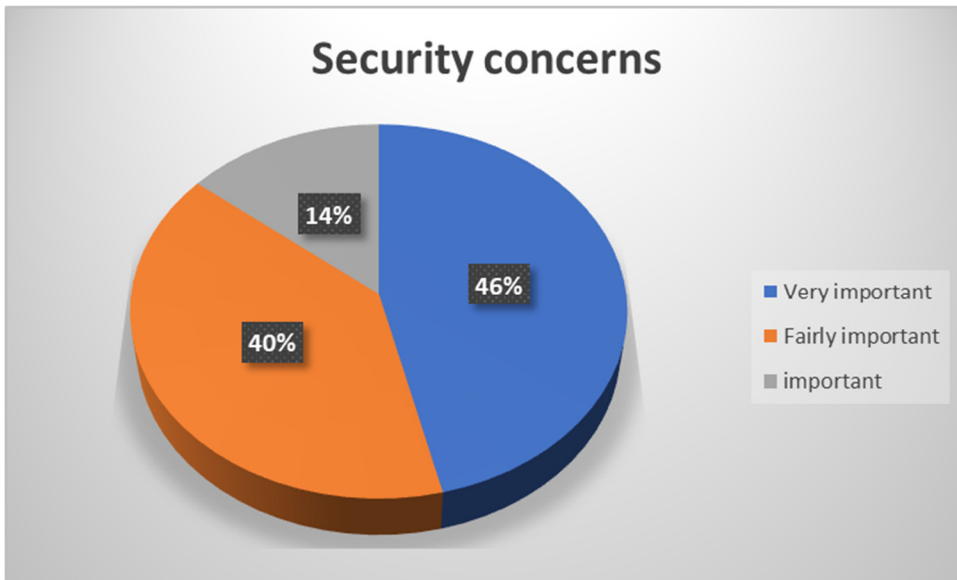


Figure 4.12: Security concerns

A total of 46.2% of the respondents indicated that Security Concerns is a very important risk category relating to Information Technology, whereas 39.6% stated that it is fairly important.

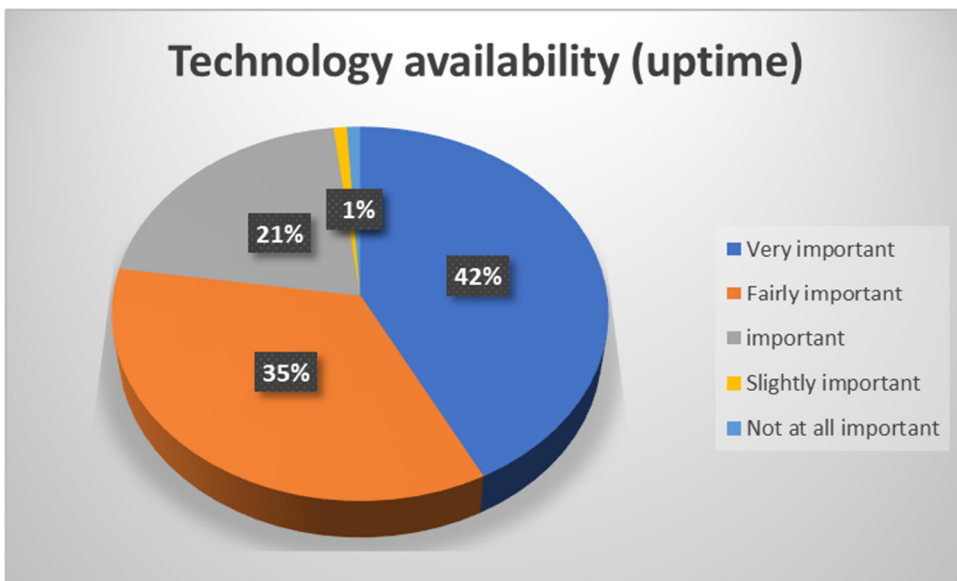


Figure 4.13: Technology availability

Of the total respondents, 42.5% indicated that Technology Availability is a very important risk category relating to Information Technology and 34.9% felt that it is fairly important.

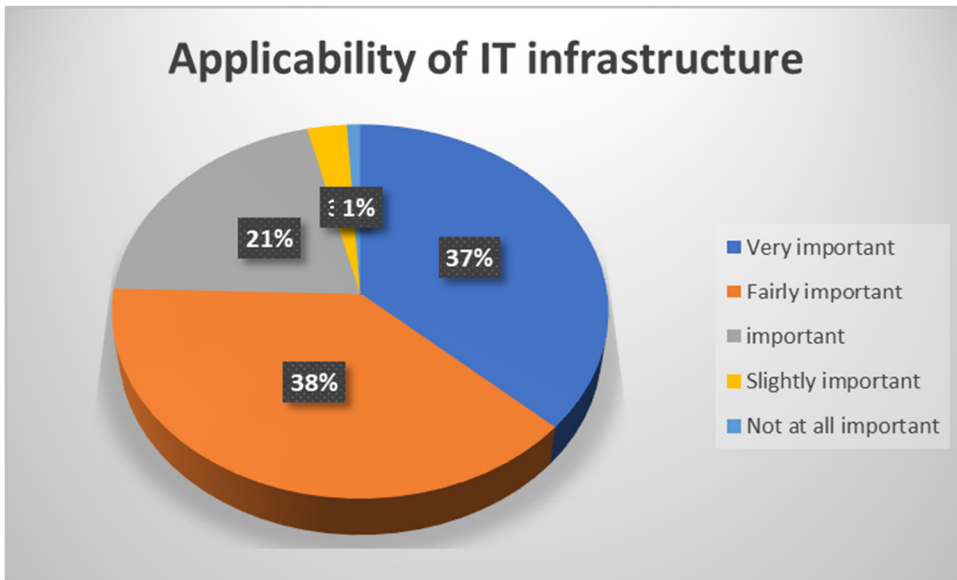


Figure 4.14: Applicability of IT infrastructure

Of the respondents, 36.8% stated that Applicability of IT Infrastructure is a very important risk category relating to Information Technology, whereas 38.7% indicated that it is fairly important.

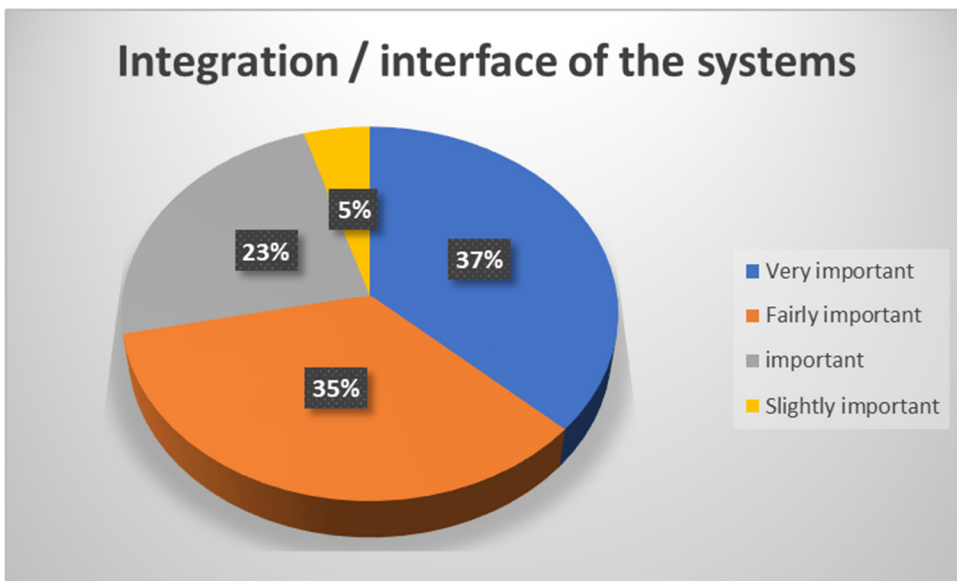


Figure 4.15: Integration/interface of the systems

A total of 36.8% of respondents stated that Integration/Interface of the Systems is a very important risk category relating to Information Technology and 34.9% indicated that it is fairly important.

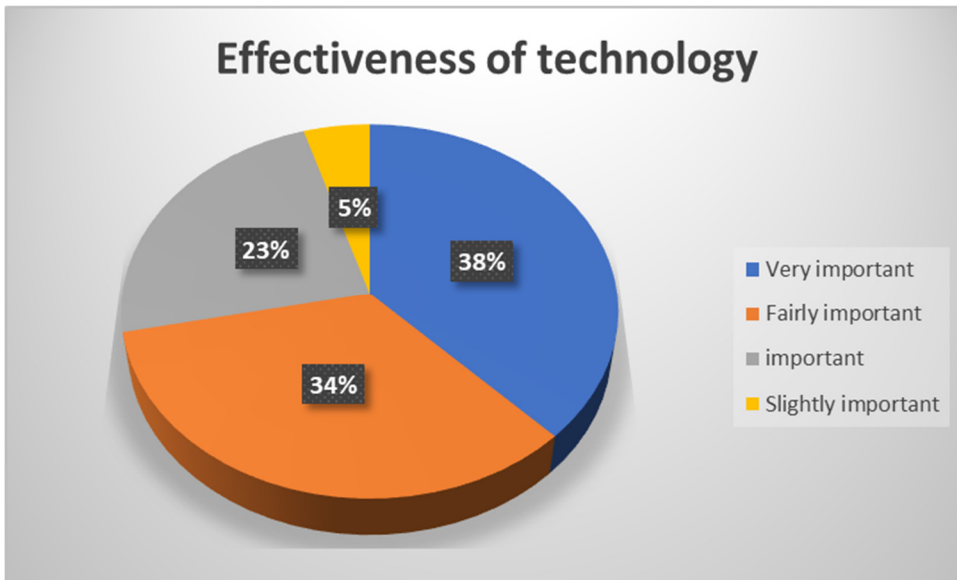


Figure 4.16: Effectiveness of technology

A total of 37.7% of the respondents indicated that Effectiveness of the Technology is a very important risk category relating to Information Technology and 34% indicated that it is fairly important.

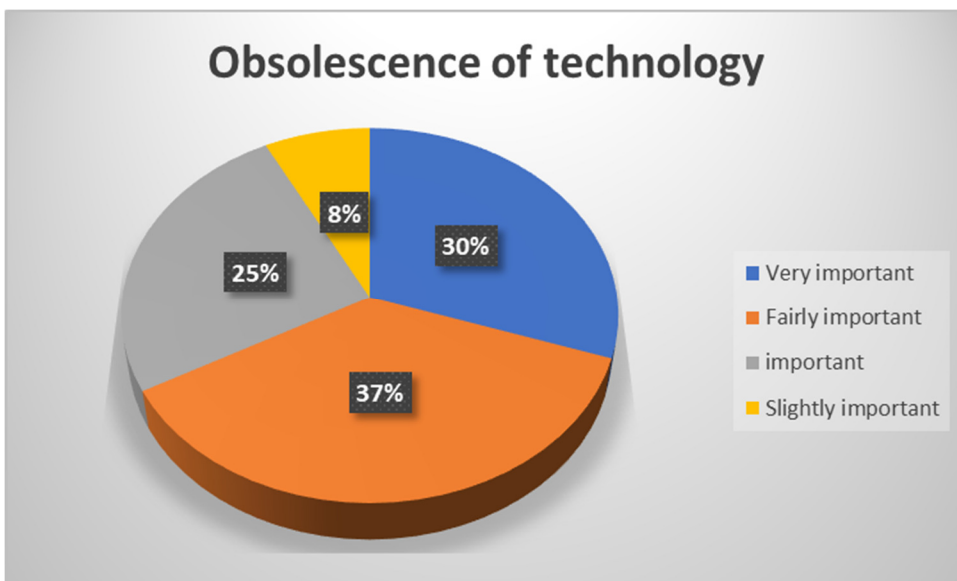


Figure 4.17: Obsolescence of technology

Only 30.2% of the respondents indicated that Obsolescence of the Technology is a very important risk category relating to Information Technology whereas 36.8% indicated that it is fairly important.

4.7.3.3 Importance of risks relating to disaster recovery and business continuity

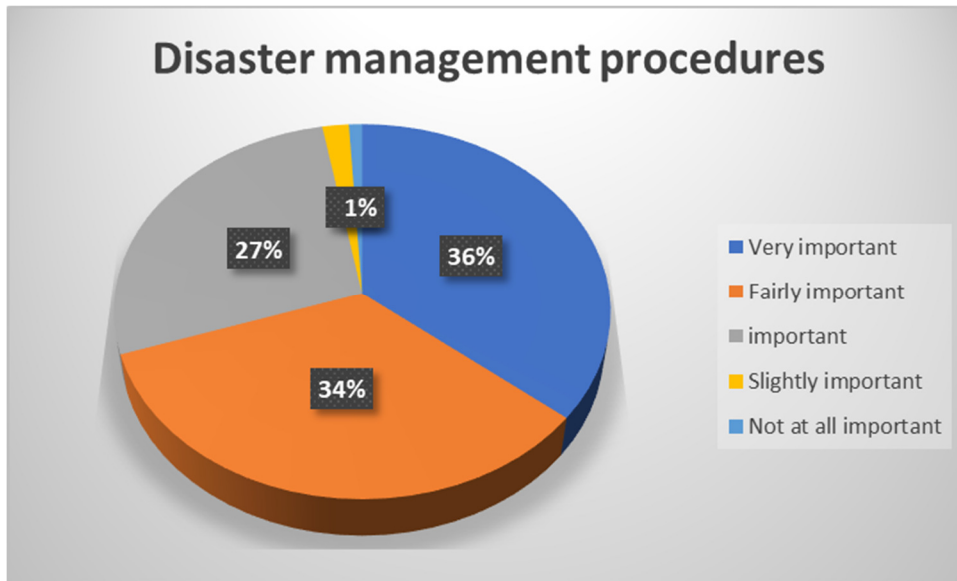


Figure 4.18: Disaster management procedures

A total of 35.8% of the respondents indicated that Disaster Management Procedures is a very important risk category relating to Disaster Recovery and Business Continuity and 36.8% indicated that it is fairly important.

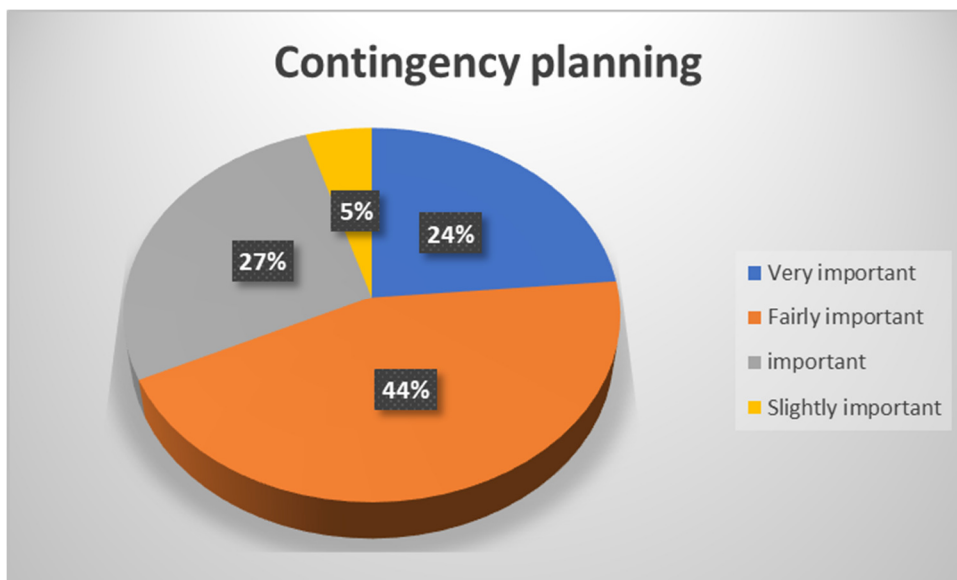


Figure 4.19: Contingency planning

Only 33.6% of the respondents indicated that Contingency Planning is a very important risk category relating to Disaster Recovery and Business Continuity and 44.3% indicated that it is fairly important.

4.7.3.4 Importance of risks relating to compliance/regulatory/legislative environment

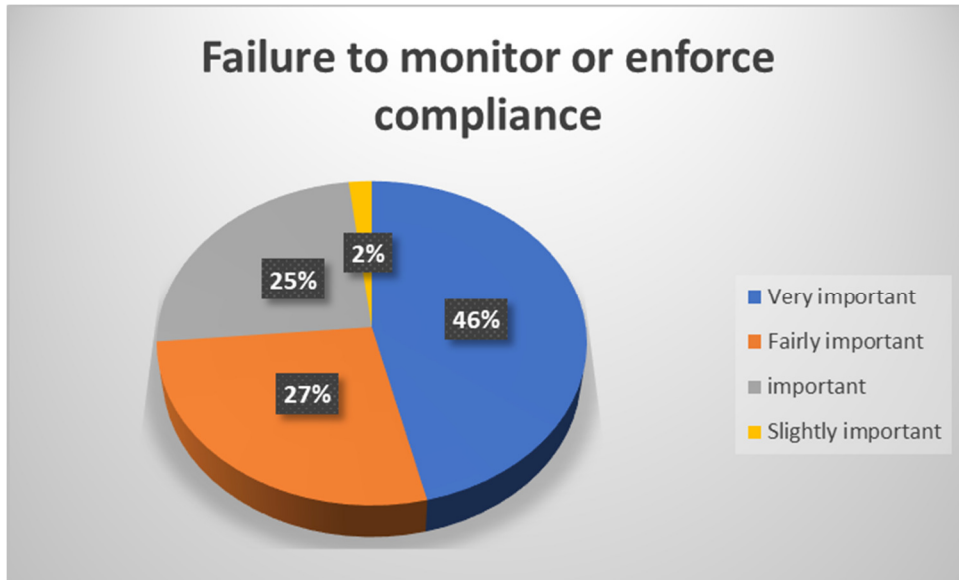


Figure 4.20: Monitor compliance

A total of 46.2% of the respondents indicated that Failure to Monitor or Enforce Compliance is a very important risk category relating to Compliance/Regulatory/Legislative Environment and 27.4% indicated that it is fairly important.

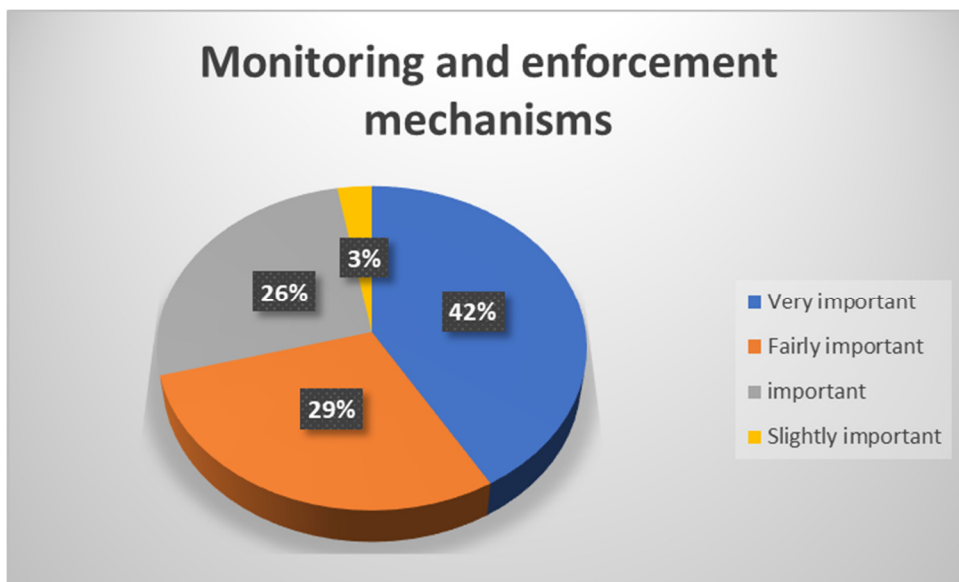


Figure 4.21: Monitoring and enforcement mechanisms

A fairly significant 41.5% of the respondents indicated that Monitoring and Enforcement mechanisms is a very important risk category relating to Compliance/Regulatory/Legislative Environment while 29.2% indicated that it is fairly important.

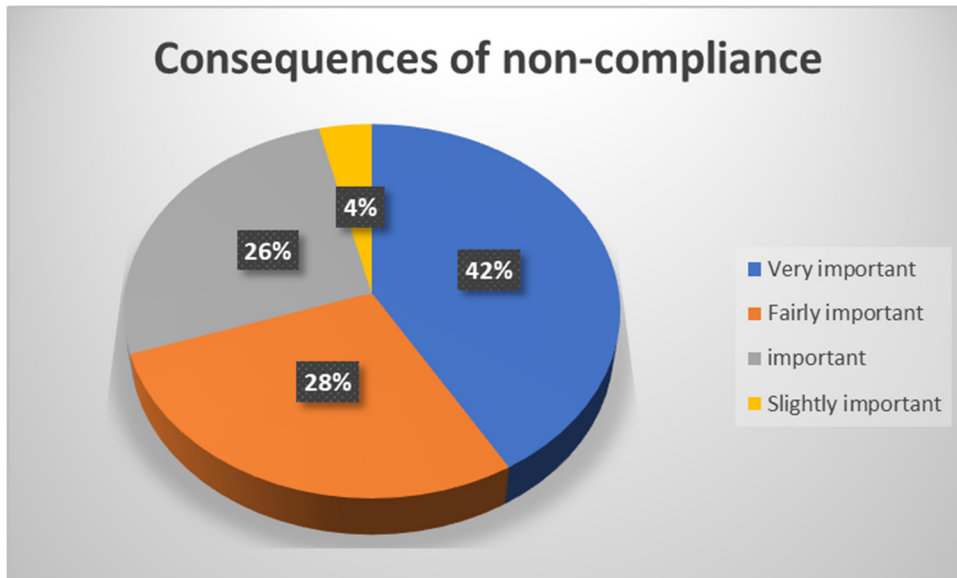


Figure 4.22: Consequences of non-compliance

A total of 41.5% of the respondents indicated that Consequences of Non-compliance is a very important risk category relating to Compliance/Regulatory/Legislative Environment while 28.3% indicated that it is fairly important.

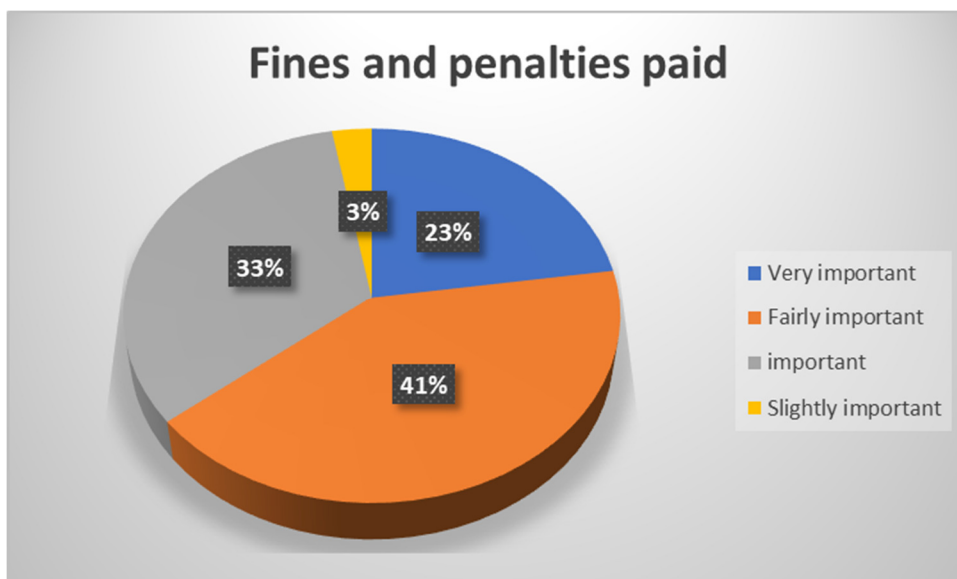


Figure 4.23: Fines and penalties paid

Only 22.6% of the respondents indicated that Fines and Penalties paid is a very important risk category relating to Compliance/Regulatory/Legislative Environment and 41.5% indicated that it is fairly important.

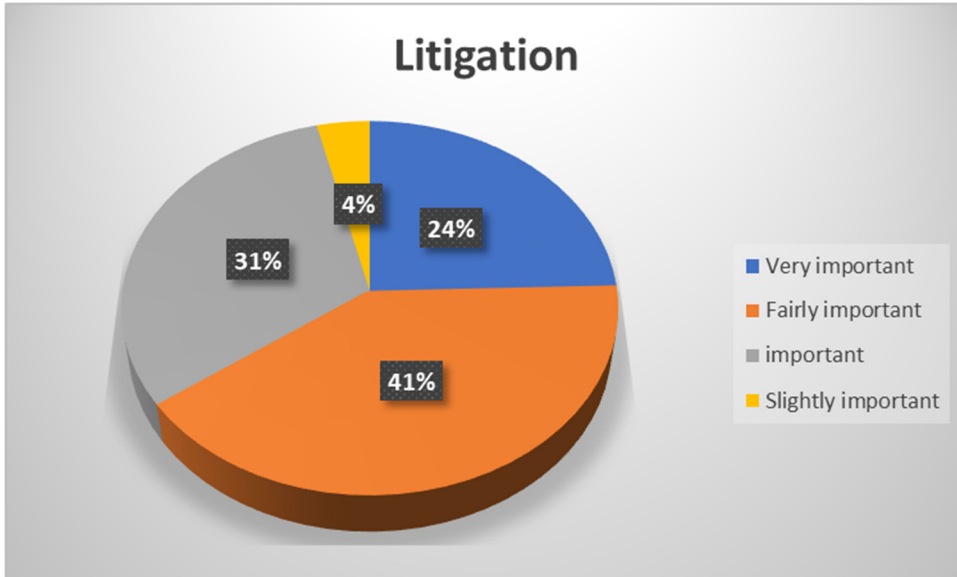


Figure 4.24: Litigation

Only 24.5% of the respondents indicated that Litigation is a very important risk category relating to Compliance/Regulatory/Legislative Environment while 40.6% indicated that it is fairly important.

4.7.3.5 Importance of risks relating to fraud and corruption

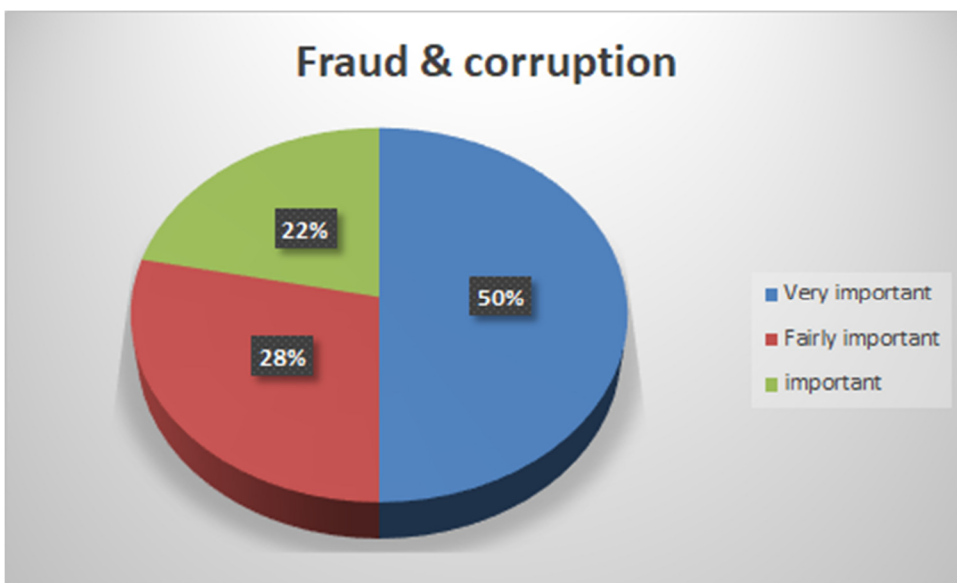


Figure 4.25: Fraud and corruption

Half (50%) of the respondents indicated that Fraud and Corruption is a very important risk category. This risk category relates to illegal or improper acts by employees resulting in a loss of the institution's assets or resources.

4.7.3.6 Importance of risks relating to financial management

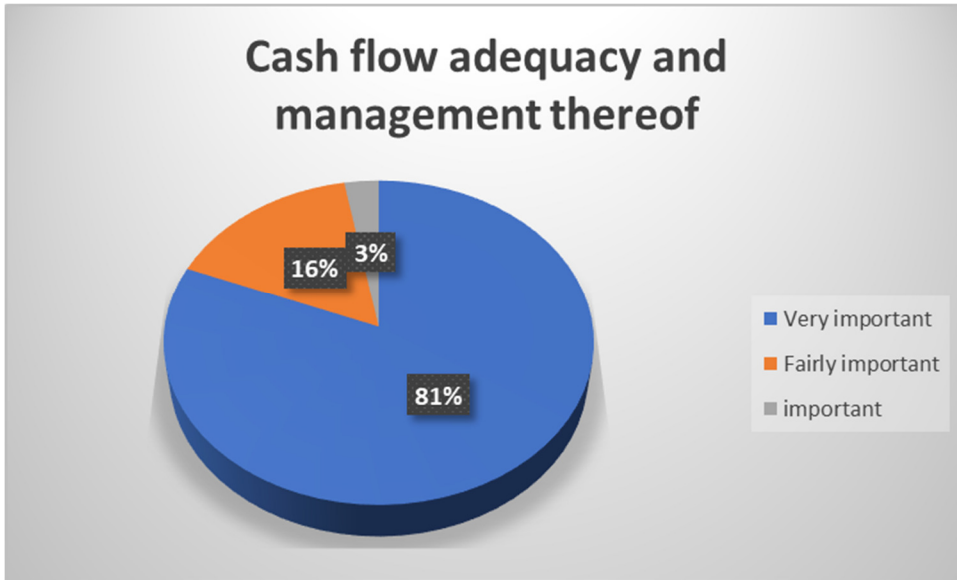


Figure 4.26: Cash flow management

A significant 81.1% of the respondents indicated that Cash Flow Adequacy and Management thereof is a very important risk category relating to Financial Management.

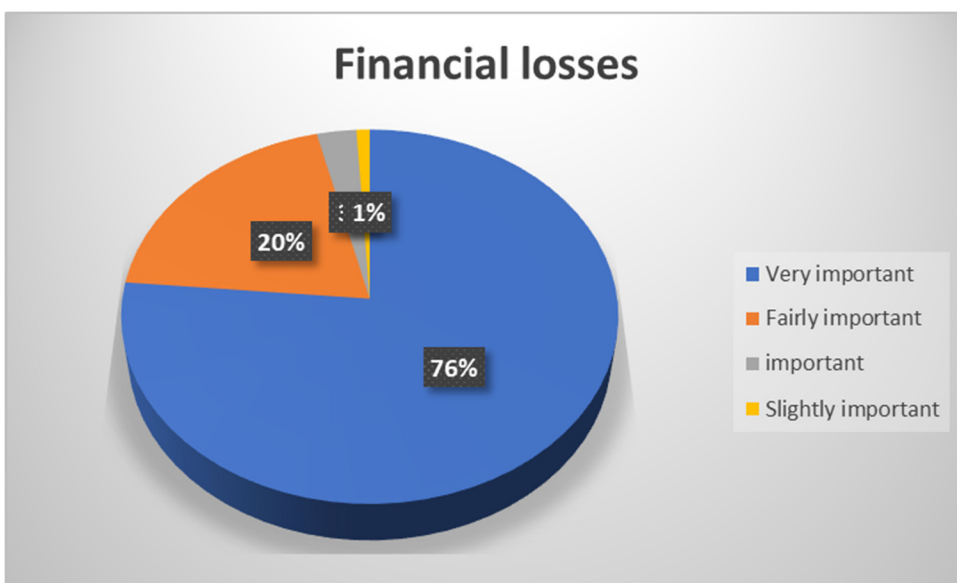


Figure 4.27: Financial losses

A total of 76.4% of the respondents indicated that Financial Losses is a very important risk category relating to Financial Management.

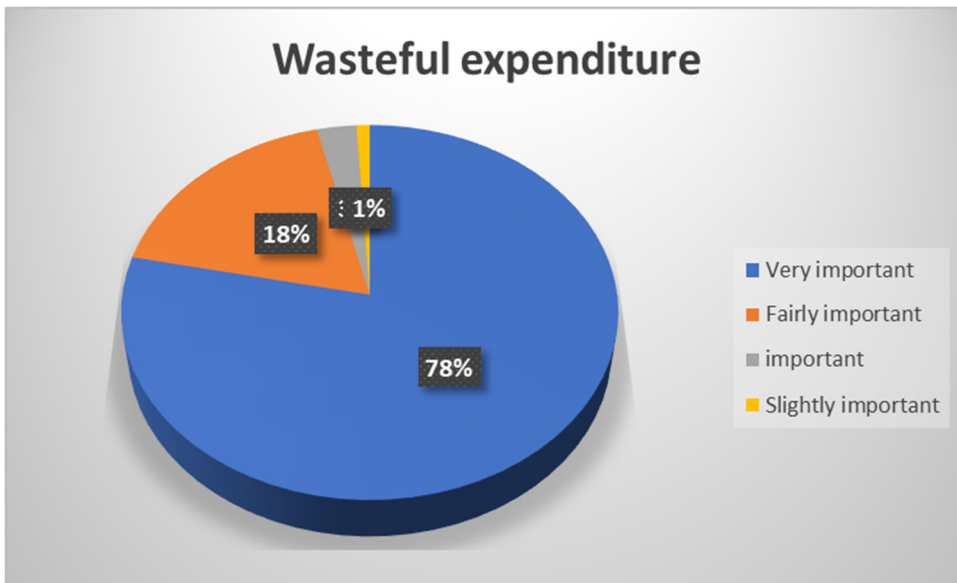


Figure 4.28: Wasteful expenditure

A total of 78.3% of the respondents indicated that Wasteful Expenditure is a very important risk category relating to Financial Management.

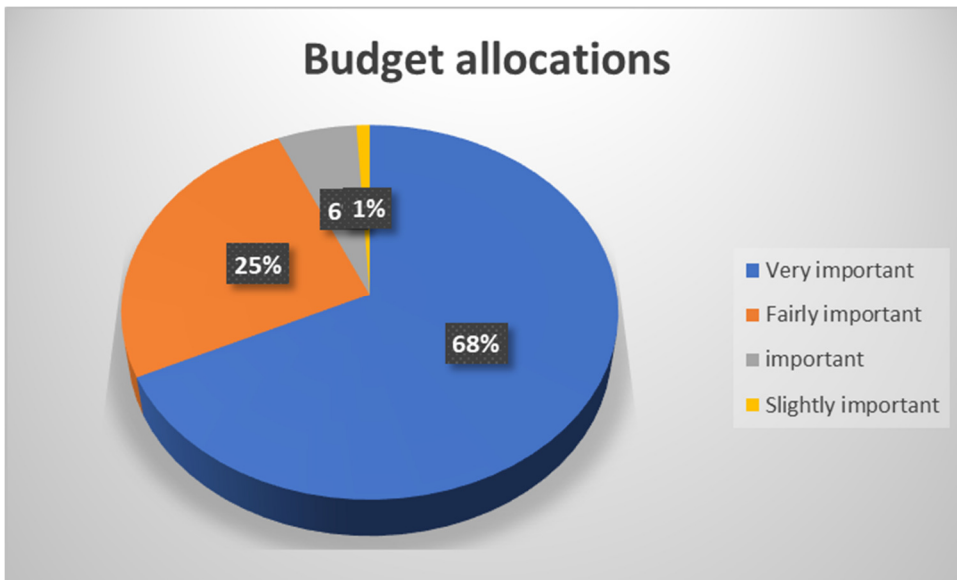


Figure 4.29: Budget allocations

Of the total respondents, 67.9% indicated that Budget Allocations is a very important risk category relating to Financial Management.

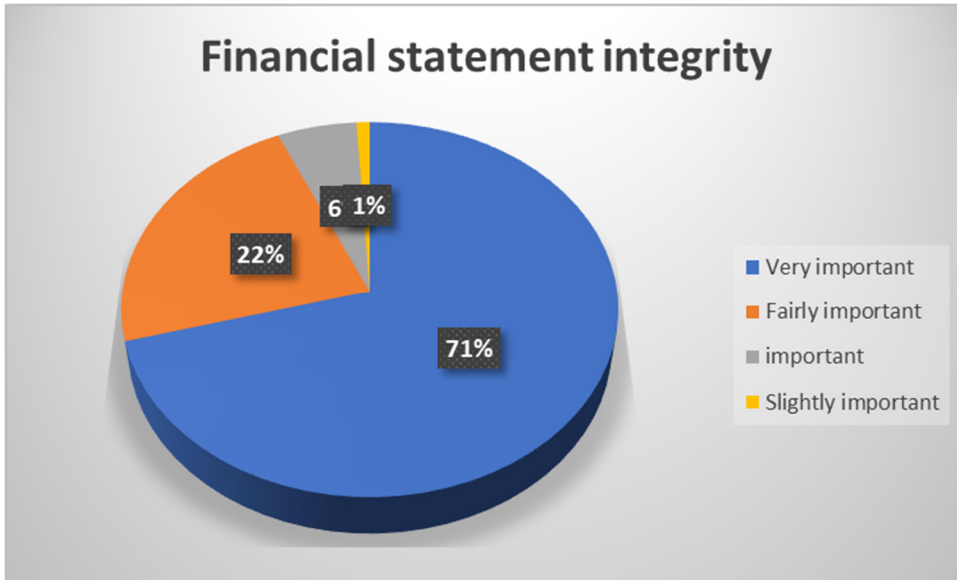


Figure 4.30: Financial statement integrity

A total of 70.8% of the respondents indicated that Financial Statement Integrity is a very important risk category relating to Financial Management.

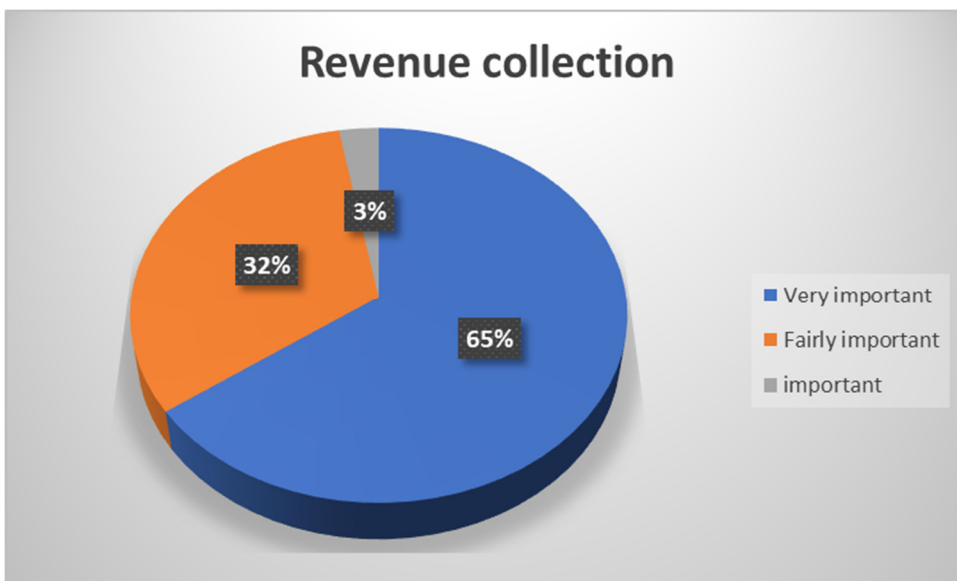


Figure 4.31: Revenue collection

A total of 65.1% of the respondents indicated that Revenue Collection is a very important risk category relating to Financial Management.

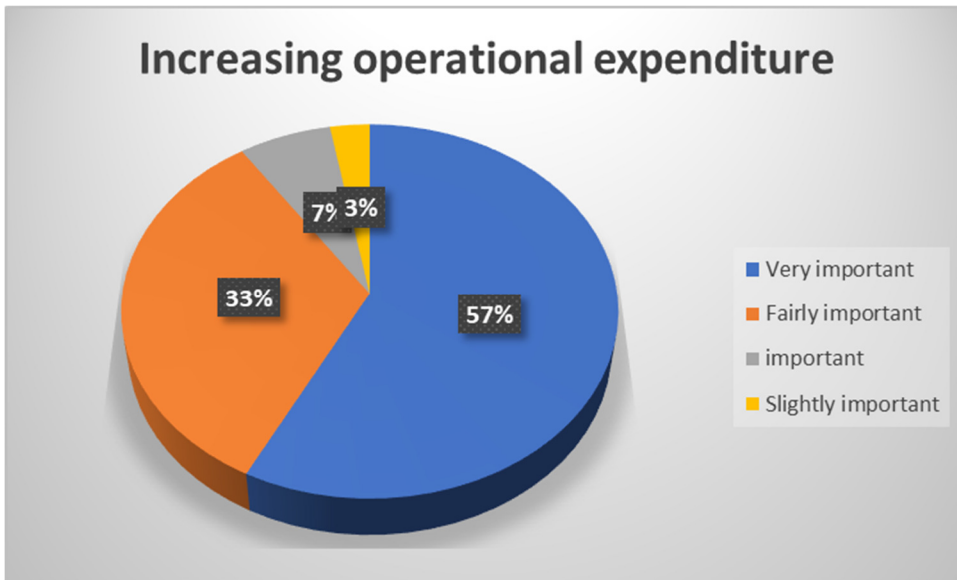


Figure 4.32: Increasing operational expenditure

Over half (57.5%) of the respondents indicated that Increasing Operational Expenditure is a very important risk category relating to Financial Management.

4.7.3.7 Importance of risks relating to reputation

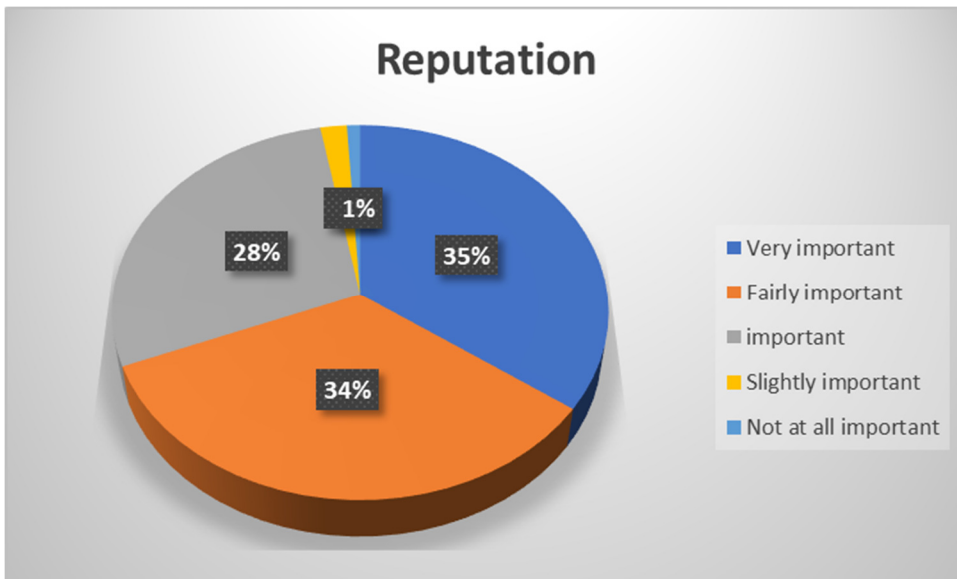


Figure 4.33: Reputation

Of the respondents, 34.9% indicated that Reputation is a very important risk category and 34% indicated that it is fairly important. This risk category relates to factors that could result in the tarnishing of an institution's reputation, public perception and image.

4.7.3.8 Importance of risks relating to the political environment

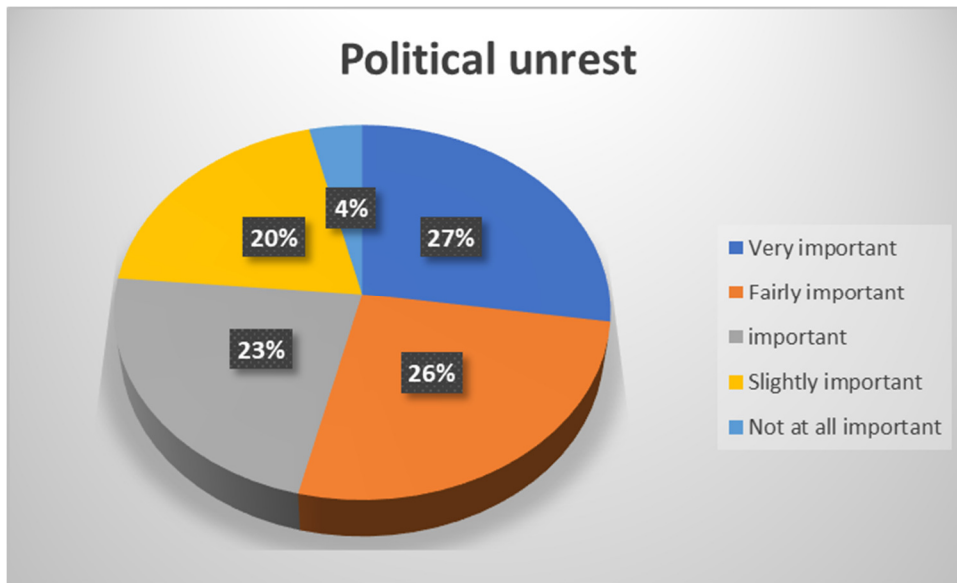


Figure 4.34: Political unrest

Only 27.4% of the respondents indicated that Political Unrest is a very important risk category relating to the Political Environment and 26.4% indicated that it is fairly important.

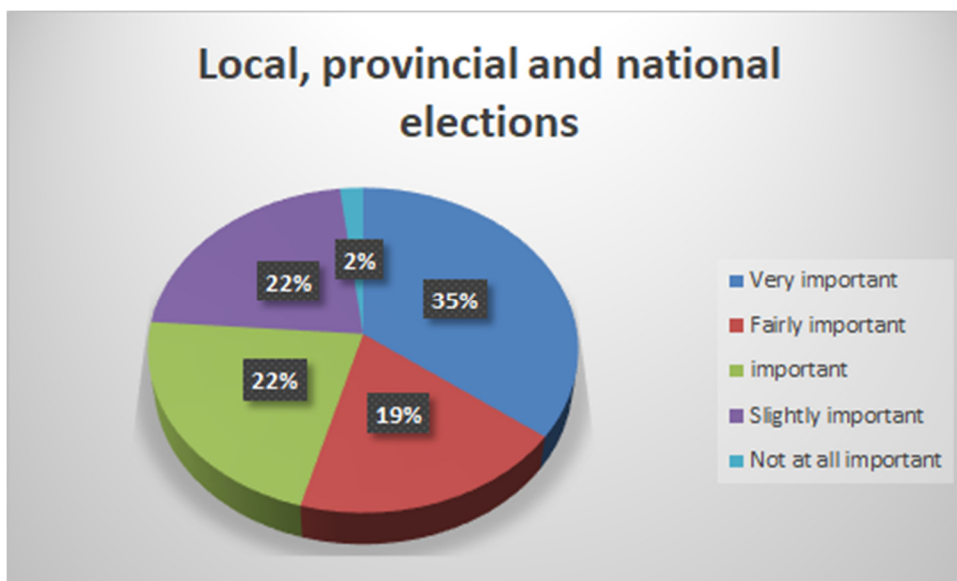


Figure 4.35: Elections

A total of 35.2% of the respondents indicated that Local, Provincial and National Elections is a very important risk category relating to the Political Environment while 19% felt that it is fairly important and 21.9% indicated that it is important.

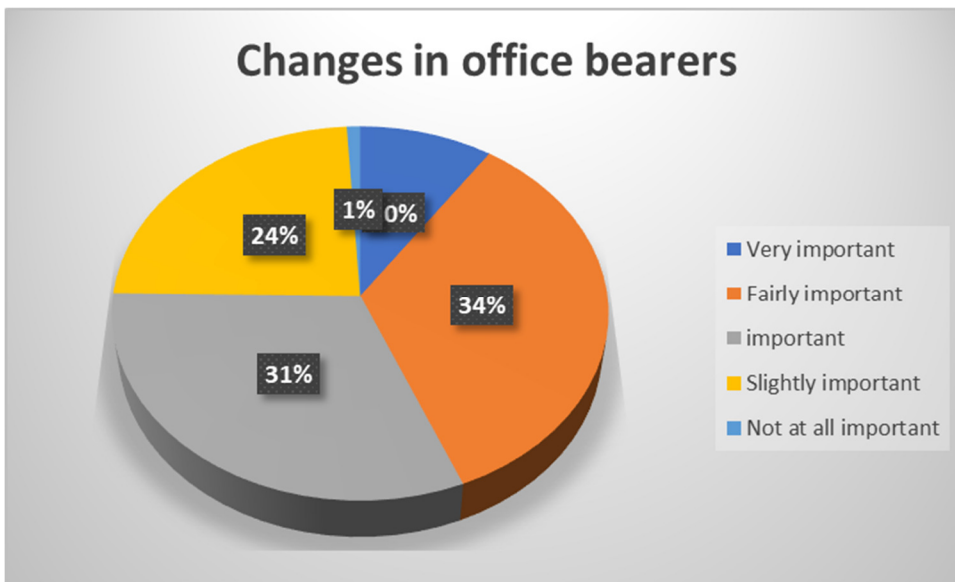


Figure 4.36: Change in office bearers

Only 9.5% of the respondents indicated that Changes in Office Bearers is a very important risk category relating to the Political Environment, 34.3% indicated that it is fairly important, and 31.4% felt that it is important.

4.7.4 Section C: Risk management processes



Figure 4.37: Understanding of risks

A very significant 92.5% of the respondents indicated that they have a clear understanding of the risks that have an impact on their municipality/departmental structure and processes.



Figure 4.38: Risk discussion: Strategic planning

Only 30.2% of the respondents stated that risks are discussed to a high extent in their municipal strategic planning sessions.

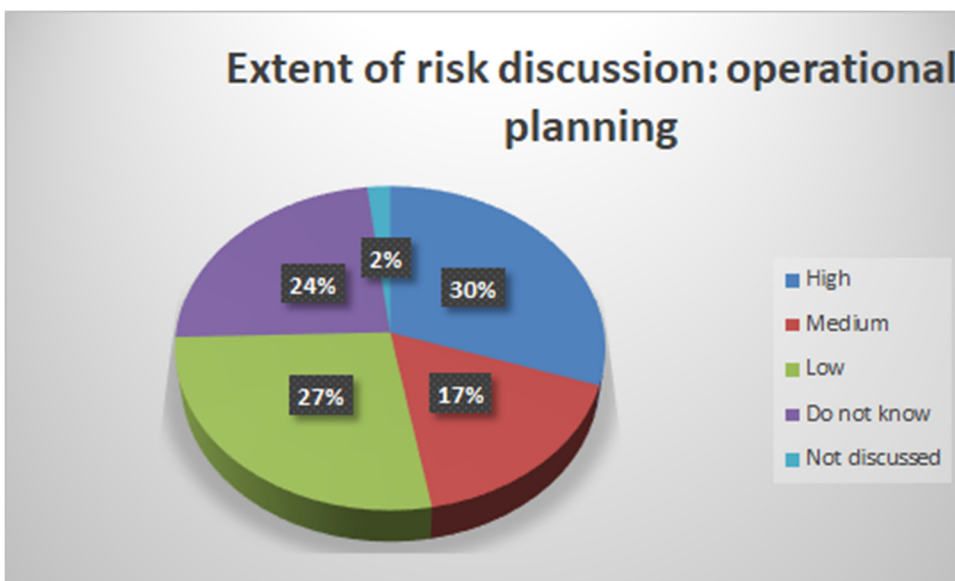


Figure 4.39: Risk discussion: Operational planning

Only 30.2% of the respondents indicated that risks are discussed to a high extent in their municipal operational planning sessions.



Figure 4.40: Risk management policy

All the respondents (100%) indicated that they have a risk management policy in place.



Figure 4.41: Risk management unit

A very significant 99% of the respondents indicated that they have a risk management (RM) unit in place.

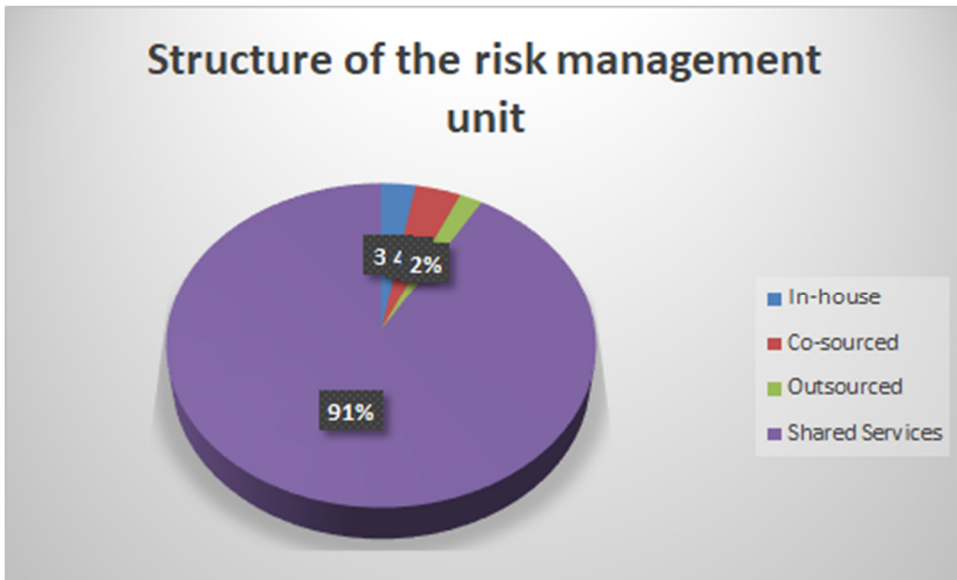


Figure 4.42: Structure of risk management unit

A significant 91% of the respondents indicated that they have a shared services structure for their RM units.

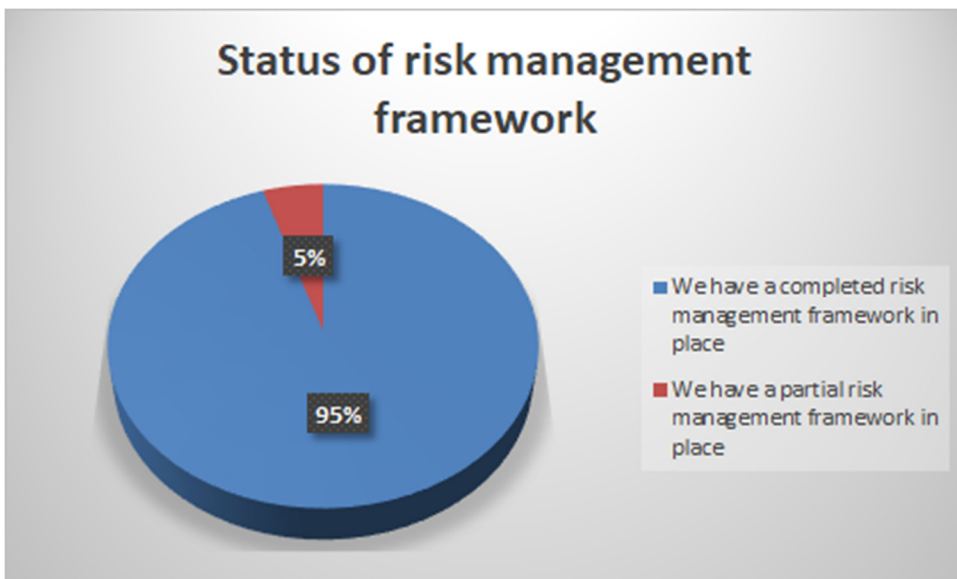


Figure 4.43: Status of risk management framework

A total of 95% of the respondents indicated that they have a completed RM framework in place.

Risk section/response types

Table 4.12: Risk action responses

Survey Question	Action/Response Type	Count	Column Valid N %
What type of action/response does your municipality engage in when risks are identified?	Avoid: Action is taken to exit the activities giving rise to risk. Risk avoidance may involve exiting a product line, declining expansion to a new geographical market, or selling a division.	54	52.9%
	Treat: Implementing or improving the internal control system.	97	95.1%
	Transfer: Transfer the risk to another party more competent to manage it.	59	57.8%
	Accept: No action is taken to effect likelihood or impact.	33	32.4%
	Exploit: Risk factors by implementing strategies to take advantage of the opportunities presented by such risk factors.	5	4.9%
	Other	0	0.0%

A significant 95.1% of the respondents indicated that their municipalities use the “Treat” risk action/response for the identified risks. It is noteworthy to mention that only 4.9% of the respondents indicated that their municipalities “Exploit” risk factors by implementing strategies to take advantage of opportunities presented by such risk factors.

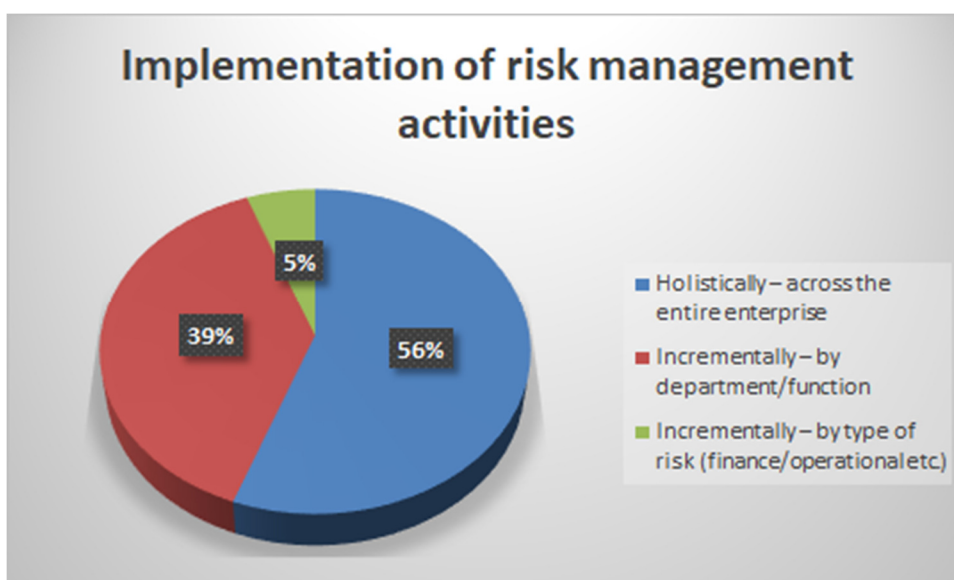


Figure 4.44: Implementation of risk management activities

More than half (55.7%) of the respondents indicated that their municipality plan to implement RM activities holistically across the entire enterprise

4.7.4.1 Factors/obstacles affecting the implementation of risk management

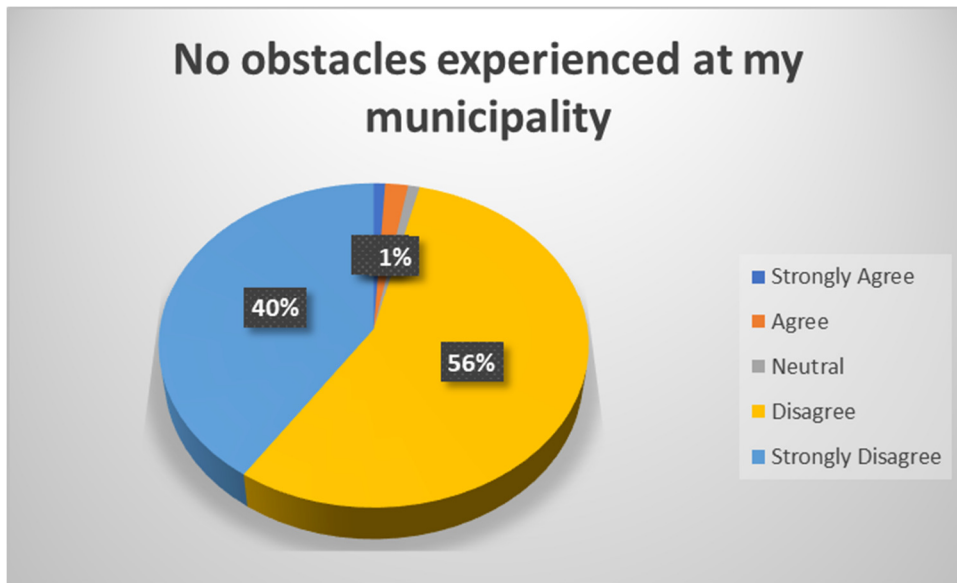


Figure 4.45: Obstacles experienced

A total of 40.6% of the respondents indicated that they strongly agreed with the statement that there are no obstacles experienced at their municipality, while 55.7% disagreed with the statement.

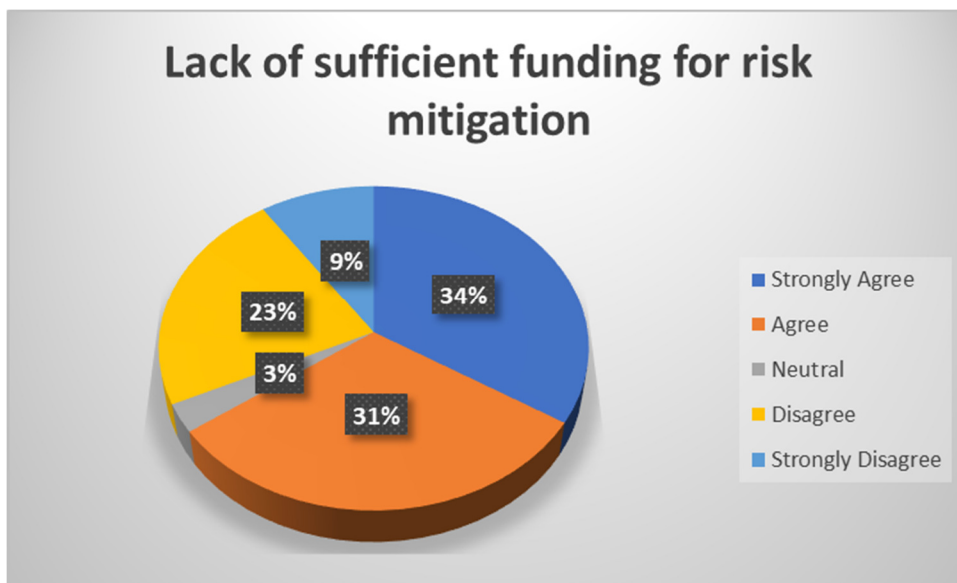


Figure 4.46: Funding

A significant 65.1% of the respondents agreed with the statement that there is a lack of sufficient funding for risk mitigation (34% Strongly Agreed and 31.1% Agreed with the statement).

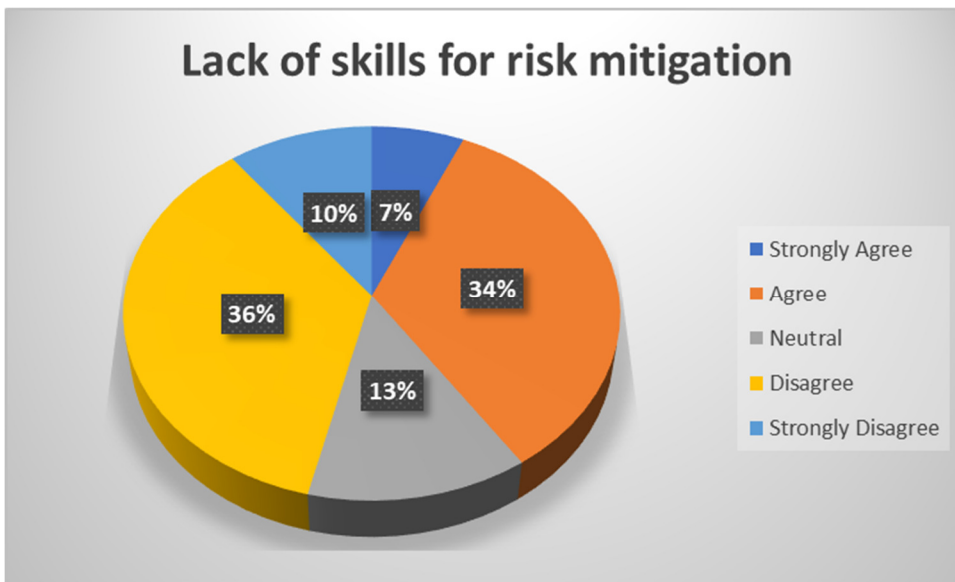


Figure 4.47: Skills

A total of 46.2% of the respondents disagreed and strongly disagreed with the statement that there is a lack of skills for risk mitigation, while 40.6% generally agreed with the statement.

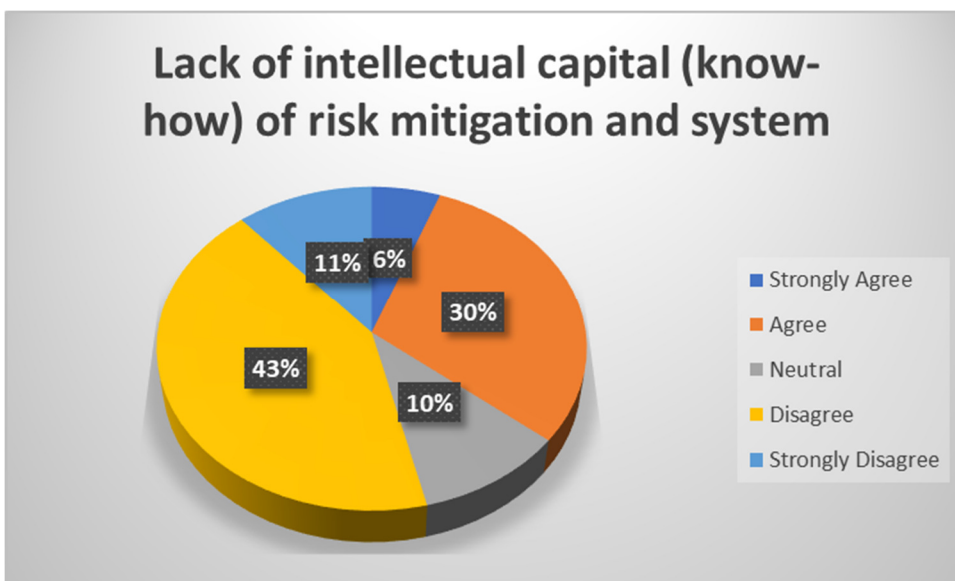


Figure 4.48: Intellectual capital

Over half (53.8%) of the respondents disagreed or strongly disagreed with the statement that there is a lack of intellectual capital (know-how) of risk mitigation and system, while 35.9% agreed or strongly agreed with the statement.

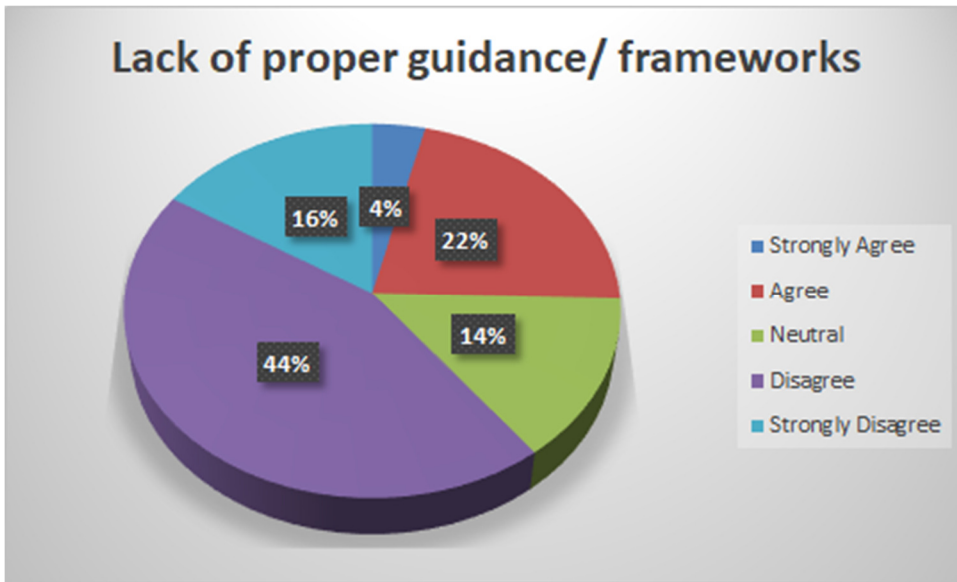


Figure 4.49: Guidance/frameworks

A total of 60.3% of the respondents generally disagreed with the statement that there is a lack of proper guidance/frameworks, while only 25.5% generally agreed with the statement.

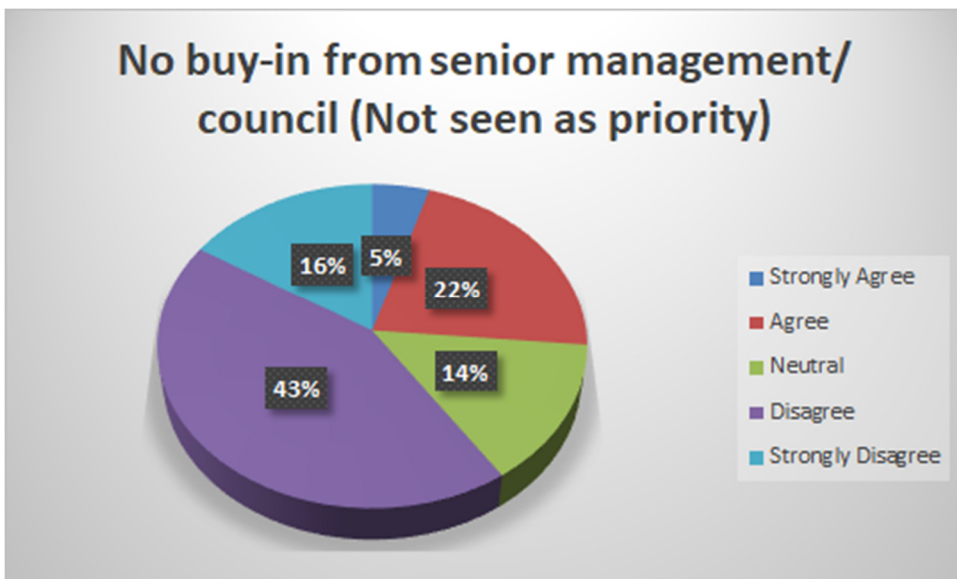


Figure 4.50: Senior management buy-in

Of the total respondents, 59.4% generally disagreed with the statement that there is no buy-in from senior management/council, while only 26.4% agreed or strongly agreed with the statement.

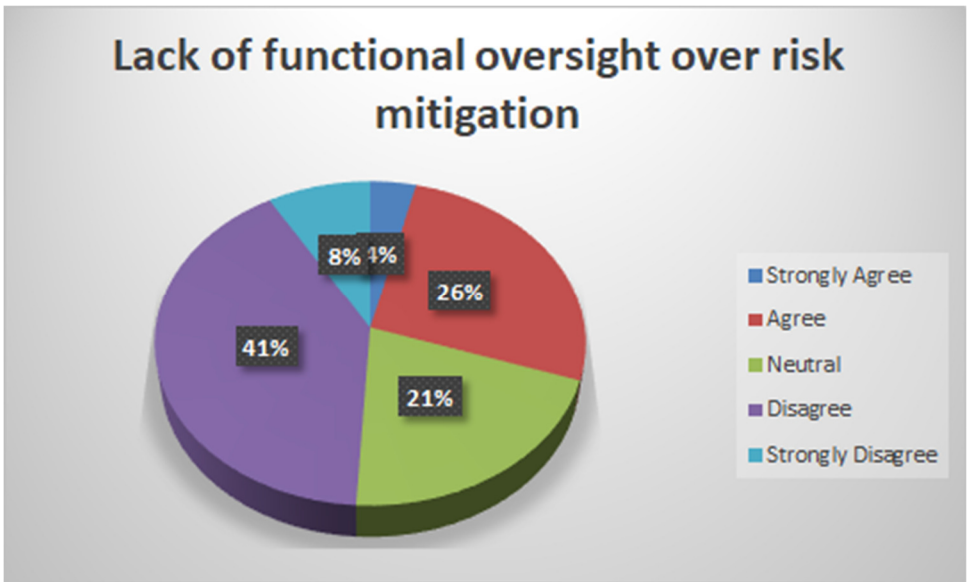


Figure 4.51: Functional oversight

Almost half (49.1%) of the respondents generally disagree with the statement that there is a lack of functional oversight over risk mitigation, while 30.2% generally agree with the statement.

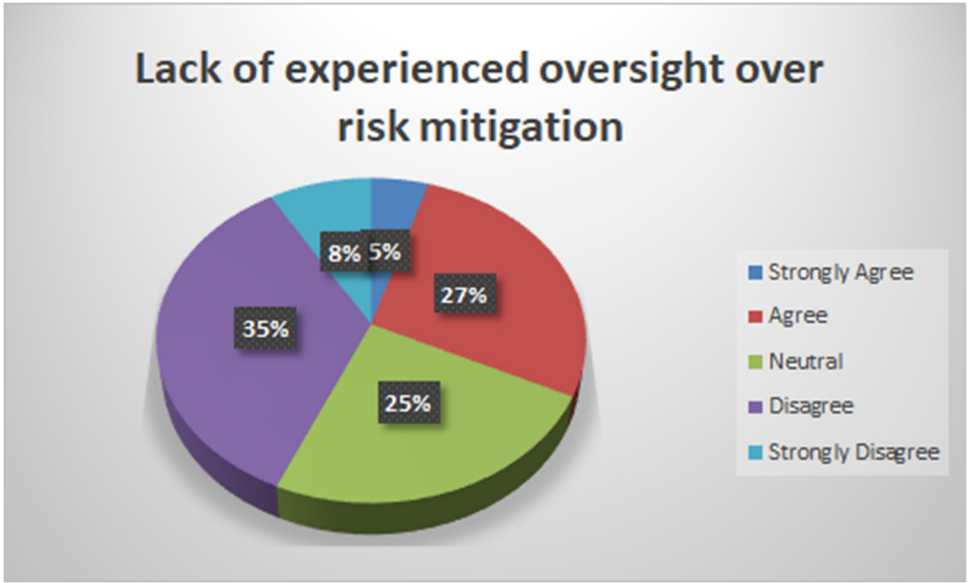


Figure 4.52: Experienced oversight

A total of 43.4% of the respondents generally disagree with the statement that there is a lack of experienced oversight over risk mitigation, while 32.1% generally agree with the statement.

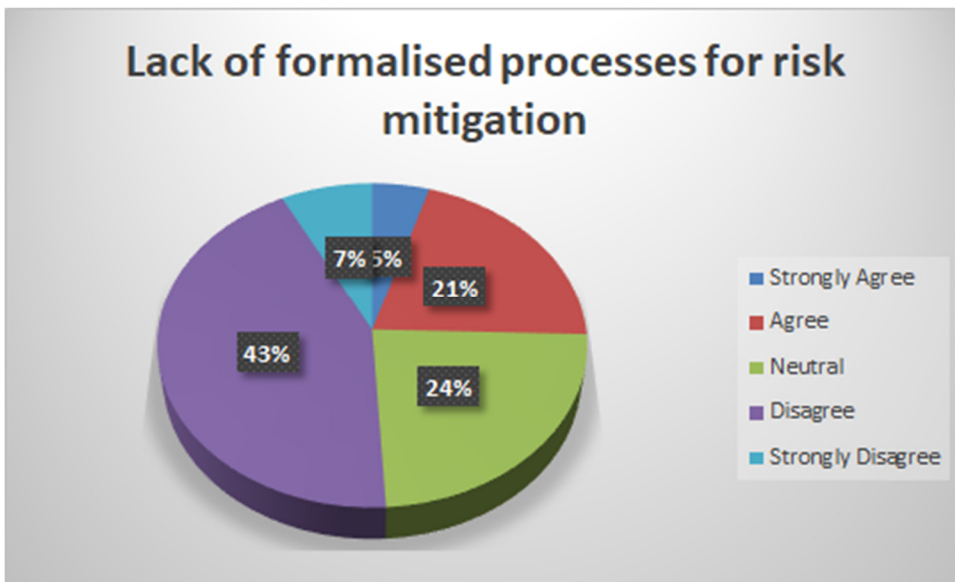


Figure 4.53: Formalised processes

Just over half (50.9%) of the respondents generally disagree with the statement that there is a lack of formalised processes for risk mitigation and only 25.5% generally agree with the statement.

Lack of training opportunities was also identified as a factor/obstacle that affects the implementation of risk management systems within the municipalities.

The researcher employed descriptive statistics to further analyse the factors/obstacles that affect the implementation of risk management systems within the municipalities.

Table 4.13: Factors/obstacles

Factor/Obstacle	N	Minimum	Maximum	Mean	Std. Deviation
Lack of sufficient funding for risk mitigation	106	1	5	2.42	1.400
Lack of skills for risk mitigation	106	1	5	3.09	1.175
Lack of experienced oversight over risk mitigation	106	1	5	3.15	1.067
Lack of intellectual capital (know-how) of risk mitigation and systems	106	1	5	3.24	1.167
Lack of functional oversight over risk mitigation	106	1	5	3.24	1.056
Lack of formalised processes for risk mitigation	106	1	5	3.28	1.031
No buy-in from senior management/council (not seen as priority)	106	1	5	3.44	1.139
Lack of proper guidance/frameworks available	106	1	5	3.47	1.114
There are no obstacles experienced at my municipality	106	1	5	4.33	0.686
Valid N (listwise)	106				

The majority of the respondents strongly disagreed with the statement that there are no obstacles experienced at their municipalities. The Lack of Sufficient funding for risk mitigation seemed to be the main factor/obstacle that affect the implementation of risk management systems within the municipalities.

4.8 CHAPTER SUMMARY

This chapter presented an analysis and interpretation of the findings. The results were analysed and interpreted in relation to the research questions and the research objective which was to determine the effectiveness of the risk management systems in South Africa's Overberg district municipalities. Descriptive statistics were used to explain the composition of the sample.

Reliability and validity were discussed and the researcher indicated that reliability is the assurance that the items posited to measure the construct are sufficiently related to be reliable. Furthermore, this chapter discussed the key findings of the study, namely what are the factors affecting effective risk management systems in the Overberg district municipalities. The results were presented under Section A: Business process/activities which established the general environment of the organisation; Section B: Risk rating, which rated the importance of the various risk categories; Section C: Risk management processes, which established the foundation of the current risk management process in place; and Section D: General, which allows insight into general information regarding the municipality and respondent.

The following chapter, Chapter Five, presents the conclusions drawn in the study and offers recommendations to address the shortcomings identified.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

It has been established that the majority of municipalities have risk management systems in place. However, some obstacles are experienced with the implementation of these systems.

This chapter discusses the conclusions and recommendations based on the results of the study. Conclusions are drawn from the analysis of the results and recommendations are made to assist Overberg district municipalities in addressing the factors and obstacles to effective risk management. All the conclusions and recommendations are supported by the research findings.

Chapter One provided the scope of the study. This offers the reader an overview of the research and aids in understanding the primary notion of the study.

Chapter Two provided a theoretical understanding of the profile of the Overberg district municipality, as well as risk management initiatives applicable to municipalities both locally and abroad.

Chapter Three addressed the methodology used in this study. It outlined the research design, and discussed the population, sampling, the data collection instruments, and data collection and analysis procedures.

Chapter Four contained the data analyses and findings, establishing the actual factors which affect the implementation of effective risk management systems.

5.2 KEY SURVEY FINDINGS

5.2.1 Primary research question

The primary research question was:

What are the factors affecting the effective implementation of risk management systems at South Africa's Overberg district municipalities?

The primary research objective was therefore to determine the factors which affect the effective implementation of risk management systems.

It was generally agreed that there were obstacles experienced by the municipalities, which affect the implementation of risk management systems. The following key factor was identified:

- There is a lack of sufficient funding for risk mitigation. Of the total respondents, 65.1% agreed with the statement that there is a lack of sufficient funding for risk mitigation.

Interpretation: Lack of funding is a major factor affecting risk management. Additional resources should be allocated for the effective implementation of risk management systems.

The following factors scored a neutral rating, where the mean is between 3.09 and 3.28 of the responses analysed on a scale from 1 – 5 (1 being negative and 5 being positive):

- There is a lack of skills for risk mitigation (mean: 3.09).
- There is a lack of experienced oversight over risk mitigation (mean: 3.15).
- There is a lack of intellectual capital (know-how) of risk mitigation and systems (mean: 3.24).
- There is a lack of functional oversight over risk mitigation (mean: 3.24).
- There is a lack of formalised processes for risk mitigation (mean: 3.28).

Interpretation: Municipalities neither agreed nor disagreed that the above factors were of concern. However, municipalities should take note of these factors and continue to monitor progress.

The following factors were generally disagreed upon, where the mean is between 3.44 and 3.47 of the responses analysed:

- There is no buy-in from senior management/council (not seen as priority) (mean: 3.44).
- There is a lack of proper guidance/frameworks available (mean: 3.47).

Interpretation: The abovementioned factors were not a concern to the municipalities and are in place. However, municipalities should take note of these factors and continue to monitor progress.

A lack of training opportunities was identified as a factor/obstacle that hampered the implementation of risk management systems within the municipalities.

5.2.1.1 Sub-questions

The research sub-questions are listed in Table 5.1 below.

Table 5.1: Research sub-questions and conclusions

Sub-question	Conclusion
What is an effective risk management system within a municipal settling?	<p>As per the literature, “an effective risk management system can be defined as a process effected by an entity’s board of directors, management, and other personnel. It is applied in a strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.”</p> <p>In layperson’s terms, effective risk management should allow for the identification of risks, the assessing of risks and the treatment of risks with the main intent being to provide management with reasonable assurance surrounding the attainment of business objectives.</p>
What risk management systems and initiatives are currently deployed at the identified municipalities?	It was generally indicated that most municipalities have a risk management policy and risk management unit in place. The structure of the risk management unit is Shared Services. The majority of the respondents also indicated that they have a completed risk management framework in place.
What influences effective implementation of the existing risk management systems and initiatives at the identified municipalities?	Generally, it appeared that the risk management systems and initiatives are adequate, however, the major factor or obstacle relates to the lack of sufficient funding for risk mitigation.
What risk factors affect Overberg district municipalities?	As per the literature and study results, the following risk factors might affect municipalities: lack of sufficient funding for risk mitigation; lack of skills for risk mitigation; Lack of intellectual capital (know-how) of risk mitigation and systems; lack of proper guidance/ frameworks available; no buy-in from senior management/council (not seen as priority); lack of functional oversight over risk mitigation; lack of experienced oversight over risk mitigation; and lack of formalised processes for risk mitigation

5.3 CONCLUSIONS AND RECOMMENDATIONS

5.3.1 Overview

The conclusions and recommendations are presented in the sequence in which they appear in the questionnaire, being Business processes/activities, Risk rating, Risk management processes, and General.

5.3.2 Business processes/activities

5.3.2.1 Use of external consultants

It was found that many municipalities use consultants for financial/accounting and infrastructure/engineering services because they do not have the skills in-house to perform the required functions. The use of consultants within the financial/accounting services is mainly for the compilation of annual financial statements and infrastructure/engineering for professional engineering services/consulting engineers on major capital projects.

The use of consultants has a major impact on the budget and alternatives must be explored to minimise the reliance on consultants for day-to-day operations.

Recommendations

- Reduce the use of consultants where possible and only appoint if necessary.
- Management should invest in training and development of in-house staff to perform the required duties.
- Develop a policy to guide the appointment of consultants. The policy should cover the process of appointing consultants, primary reasons for appointment, minimum requirements for appointing consultants, selection method, requirements of contract/agreement, and payment of consultants.
- Where the appointment of consultants cannot be avoided the following should be considered:
 - A gap analysis must be done by the respective manager/director and approved by the municipal manager, justifying the use of consultants.
 - Where possible, a competitive bidding process should be followed for the appointment of consultants. This is to ensure that the municipally tests the market to ensure market-related prices are being charged.
 - Service level agreements must be concluded as part of the appointment process where performance expectations are stipulated.
 - The performance of the consultants should be monitored on a monthly basis. As part of the SLA, punitive action must be included for non-performance.
 - The transfer of skills to in-house staff must be a specific requirement. Transfer of skills will assist in reducing the use of consultants.

5.3.2.2 Financial history

The Overberg district municipalities have experienced some financial problems in the past, mostly due to irregularities, fraud, losses, overspending or excessive expenditure, and default or slow payments by debtors.

Recommendation

- The current financial situation of the Overberg district municipalities should be monitored continuously via in-year reporting to the municipal manager, audit committee, and municipal council.

5.3.2.3 Municipal objective setting

It is noteworthy that 94% of the respondents indicated that their municipal objectives and strategies are clearly defined to help determine which activities are critical for the achievement of the set objectives and strategies. The objectives and strategies are determined and approved in terms of the IDP.

Recommendations

- Since the IDP is reviewed and approved on an annual basis, ongoing awareness and workshops should be held to inform municipal staff of the objectives and strategies that are approved as part of the IDP processes.
- Departmental strategic workshops need to be held to obtain input from all municipal staff on the strategy and objective setting of the municipalities.

5.3.3 Risk rating

- Integrity and Honesty was rated the most important risk category relating to human resources.
- Knowledge and Information Management was rated the most important risk category relating to IT.
- Disaster Management Procedures was rated the most important risk category relating to disaster recovery and business continuity.
- Failure to monitor or enforce compliance was rated the most important risk category relating to compliance/regulatory/legislative environment.
- A total of 50% of respondents indicated that Fraud and Corruption is a very important risk category.
- Cash Flow Adequacy and Management thereof was rated the most important risk category relating to financial management.
- Local, Provincial and National Elections was rated the most important risk category relating to the political environment.

Recommendations

- Municipal management should take note of the risk categories identified and incorporate the full list of risk categories in the risk management policies to be used during risk assessment workshops
- Special attention should be given to the following important risk categories:
 - Integrity and honesty

- Knowledge and information management
- Disaster management procedures
- Failure of monitor or enforce compliance
- Fraud and corruption
- Cash flow adequacy
- Local, provincial and national elections

5.3.4 Risk management processes

- The municipalities have a clear understanding of the risks that have an impact on their municipality/departmental structure and processes.
- Risks are not being discussed in depth in both strategic and operational planning.
- Most of the municipalities have a risk management policy.
- Most of the municipalities have risk management units in place and make use of the “Treat” action response to respond to identified risks. Municipalities are not currently utilising the “Exploit” risk response.
- Lack of sufficient funding for risk mitigation is the key factor hampering the implementation of effective risk management systems

Recommendations

- Municipal management should include risk management as a standing item for discussion at strategic and operational planning sessions.
- Risk management policies should be reviewed on an annual basis.
- Policies should be benchmarked against the COSO framework as well as the PSRMF.
- Municipal management should ensure that risk management frameworks are implemented to increase the probability of anticipating unpredictable risks.
- Municipal management should consider and implement appropriate risk responses. For example, management should make use of the “Exploit” action response to respond to identified risks. This will enable management to implement strategies to take advantage of the opportunities presented by such risk factors.
- Municipal management should allocate sufficient funding for risk mitigation to ensure effective implementation of risk management systems.
- Management should take note of the factors and obstacles identified during the study and monitor the municipal progress thereon.
- The municipal council should receive assurance regarding the effectiveness of the risk management processes. A written assessment on the effectiveness of the system of risk management should be provided by Internal Audit.

5.4 POLICY IMPLICATIONS OF THE FINDINGS

According to Koma (2012), South Africa’s process of policy reform and development largely occurred during the period of 1993-2000. It was through this process that the citizens of the country were involved in shaping the growing pieces of legislation, proclamations, white papers and by-laws tabled for action between 1994 and 1999.

In the local government sphere the municipal council is the legislative authority to set policy. In this study, the following policy implication may be initiated:

- Development of a consultant's policy; and
- Revision of the existing risk management policy frameworks.

5.5 AVENUES FOR FURTHER RESEARCH

The researcher suggests the following avenues for further research:

- The impact of using and relying on consultants on the sustainability of municipalities
- The development of a funding model for risk mitigation in local government
- The development of an industry-specific risk management approach within local government.

5.6 CHAPTER SUMMARY

Based on the data collected and analysed, it is clear that the Overberg district municipalities do have risk management systems in place, with a risk management policy and a risk management unit. The structure of the risk management unit is Shared Services. The majority of the respondents indicated that they have a completed risk management framework in place

Although generally risk management systems and initiatives are in place, the major obstacle to effective risk management systems is the lack of sufficient funding for risk mitigation. However, the municipalities experience difficulties in allocating sufficient funding for risk mitigation. They need to re-prioritise their funding allocations to ensure that adequate funds are available for the effective implementation of risk management systems. Effective risk management systems lead to the achievement of organisational objectives.

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APPENDIX A: PERMISSION REQUEST TO MUNICIPAL MANAGERS TO CONDUCT THE SURVEY

Date: 23 May 2016

Enquiries: J.P Rossouw

Reference: Permission to Conduct Research

To: Mr D Beretti (Municipal Manager: Overberg district Municipality)

Mr S Wallace (Municipal Manager: Theewaterskloof Municipality)

Mr D O'Neill (Municipal Manager: Cape Aghulhas Municipality)

Mr C Groenewald (Municipal Manager: Overstrand Municipality)

Dear Sirs,

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN OVERBERG MUNICIPALITIES

My name is Jean Pierre Rossouw, and I am currently employed as the Internal Auditor for the Swellendam Municipality. I am also a registered Master's student at the Cape Peninsula University of Technology in Cape Town.

The research I wish to conduct for my M Tech: Internal Auditing dissertation involves the Risk Management systems employed in the Overberg municipalities.

Research Title: ***"Factors Affecting the Implementation of Risk Management Systems on Local Government: A Case Study"***

The research will cover the geographical area of the Overberg district in the Western Cape. Covering the five (5) municipalities in the district.

Contribution of the Research:

- The output of this research will assist with the identification of the factors affecting the implementation of Risk Management Systems for municipalities in the Overberg district.
- The research will furthermore also highlight the current gaps in the implementation of risk management.
- The research will also make municipalities more aware of the risks within their organisation and identify the benefits of implementing sound Risk Management initiatives.
- Ultimately, through the implementation of sound risk management initiatives, the contribution of the research will empower the Overberg municipalities to proactively manage their key organisational risks, which will lead to sustainable local governments.

I am hereby seeking your consent to conduct research in your municipality. The research will contain approaching yourself and your Heads of Departments to participate in this research by means of completing a questionnaire, and be possibly available for an interview.

Upon completion of the study, I undertake to provide your municipality with a bound copy of the full research report. If you require any further information, please do not hesitate to contact me on 076 017 4433/028 514 8500.

Thank you for your time and consideration in this matter.

Yours sincerely,

Jean Pierre Rossouw

Internal Auditor

Swellendam Municipality

I herewith support Mr Jean Pierre Rossouw in his postgraduate studies, and humbly request that you grant permission to Mr Rossouw to conduct research in your respective municipality.

CM Africa

Municipal Manager

Swellendam Municipality

APPENDIX B: COVERING LETTER TO QUESTIONNAIRE



28 September 2016

To whom it may concern

Dear Respondent

The importance of time in our days cannot be overemphasized. At the same time, sharing your time with someone can be very enriching, rewarding and fulfilling. I would like to introduce our Master's student Mr Jean Pierre Rossouw. Mr Rossouw is currently working on a Masters Research project for a degree in the field of Internal Auditing under the School of Accounting Sciences at the Cape Peninsula University of Technology. He is seeking your permission to share approximately 10-15 minutes of your valuable time to conduct her questionnaire-based interviews. Granted, such permission will enable the student to carry out surveys across the sector for the project entitled, 'The Effectiveness of Risk Management Systems at South Africa's Overberg District Municipalities'.

The research project is intended to investigate the risk management systems that are currently in place in the Overberg District Municipalities. The primary research question is to identify the risk management initiatives of the identified municipalities in the Overberg area. The primary research objective is therefore to establish to what extent these municipalities manage risk factors. The output of this research will assist with the identification of the factors affecting the implementation of Risk Management Systems for municipalities in the Overberg District. The research will furthermore also highlight the current gaps in the implementation of risk management.

The researcher and the supervisor pledge, that all the survey data will be aggregated and organisational information will be treated with the strictest confidence; and that you are under no obligation to participate. All the information obtained will be used for research thesis and research publication purposes only. The final report will not include any identifying information of your organisation. Please feel free to contact student and/or supervisor with regards to any queries you might have. Your participation in the research project will be most appreciated.

This information is given in good faith. Should you need any information, do not hesitate to contact our offices.

Yours sincerely

A handwritten signature in black ink, appearing to read 'J Dubihlela', with a stylized flourish at the end.

Professor J Dubihlela
HOD: INTERNAL AUDITING & FINANCIAL INFORMATION SYSTEMS
Tel: 021 650 3266/3477
e-mail: DubihlelaJ@cput.ac.za

PO Box 1906 Bellville 7535 South Africa
086 123 2788

APPENDIX C: QUESTIONNAIRE

QUESTIONNAIRE FOR STUDENT ROSSOUW (206064675) FOR M TECH: INTERNAL AUDITING

TOPIC: Effectiveness of Risk Management Systems at South Africa's Overberg district municipalities

SECTION A: BUSINESS PROCESSES/ACTIVITIES

1. In what area does/did your municipality receive support from external consultants?
Mark all the applicable areas.

1.1	Financial/Accounting Services	Yes	No
1.2	Strategic Management/Corporate Services	Yes	No
1.3	Infrastructure/Engineering Services	Yes	No
1.4	Community/Service Delivery Services	Yes	No
1.5	Information Technology Services	Yes	No
1.6	Human Resources Services	Yes	No
1.7	Public Relations Services	Yes	No
1.8	Governance: Internal Audit/Risk Management Services	Yes	No
1.8	None	Yes	No
1.10	Other	Yes	No

If 'Other' is marked 'yes', please specify.

2. Has the municipality experienced any financial problems in the past?

Please mark the reason(s) for the financial state.

2.1	No financial problems experienced	Yes	No
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Problems experienced due to:			
2.1.1	Default/Slow payments by debtors	Yes	No
2.1.2	Overspending or excessive expenditure	Yes	No
2.1.3	Irregularities/Fraud/Losses	Yes	No
2.1.4	Information technology inefficiencies	Yes	No
2.1.5	Personnel - lack of skill	Yes	No
2.1.6	Operational problems	Yes	No
2.1.7	Catastrophic event	Yes	No
2.1.8	Other	Yes	No

If 'Other' is marked 'yes', please specify.

3. Are your municipal objectives and strategies clearly defined to help determine which activities are critical for the achievement of the set objectives and strategies?

Yes	1
No	2

SECTION B: RISK RATING

4. What type of risk is the most important to your municipality? Rate the following risks from 1 to 5 where: 1 = “Very Important”; 2 = “Fairly Important”; 3 = “Important”; 4 = “Slightly Important”; and 5 = “Not at all Important”.

No	Risk Category	1: Very Important	2: Fairly Important	3: Important	4: Slightly Important	5: Not at all Important
4.1	Risks Relating to Human Resources:					
4.1.1	Integrity and Honesty					
4.1.2	Recruitment and Selection					
4.1.3	Skills and competence					
4.1.4	Employee wellness					
4.1.5	Employee relations					
4.1.6	Retention					
4.1.7	Occupational health and safety					

No	Risk Category	1: Very Important	2: Fairly Important	3: Important	4: Slightly Important	5: Not at all Important
4.2	Risks Relating to Information Technology :					
4.2.1	Knowledge and information management					
4.2.2	Security concerns					
4.2.3	Technology availability (uptime)					
4.2.3	Applicability of IT infrastructure					
4.2.4	Integration /interface of the systems					
4.2.5	Effectiveness of technology					
4.2.6	Obsolescence of technology					

No	Risk Category	1: Very Important	2: Fairly Important	3: Important	4: Slightly Important	5: Not at all Important
4.3	Risks Relation to Disaster recovery and Business continuity:					
4.3.1	Disaster management procedures					
4.3.2	Contingency planning					

No	Risk Category	1: Very Important	2: Fairly Important	3: Important	4: Slightly Important	5: Not at all Important
4.4	Risks Relating to Compliance/Regulatory/Legislative Environment:					
4.4.1	Failure to monitor or enforce compliance					
4.4.2	Monitoring and enforcement mechanisms					
4.4.3	Consequences of non-compliance					
4.4.4	Fines and penalties paid					
4.4.5	Litigation					

No	Risk Category	1: Very Important	2: Fairly Important	3: Important	4: Slightly Important	5: Not at all Important
4.5	Risks Relating to Fraud and Corruption: These risks relate to illegal or improper acts by employees resulting in a loss of the institution's assets or resources					

No	Risk Category	1: Very Important	2: Fairly Important	3: Important	4: Slightly Important	5: Not at all Important
4.6	Risks Relating to Financial Management:					
4.6.1	Cash flow adequacy and management thereof					
4.6.2	Financial losses					
4.6.3	Wasteful expenditure					
4.6.4	Budget allocations					
4.6.5	Financial statement integrity					
4.6.6	Revenue collection					
4.6.6	Increasing operational expenditure					

No	Risk Category	1: Very Important	2: Fairly Important	3: Important	4: Slightly Important	5: Not at all Important
4.7	Risks Relating to Reputation: Factors that could result in the tarnishing of an institution's reputation, public perception and image.					

No	Risk Category and Factors to consider	1: Very Important	2: Fairly Important	3: Important	4: Slightly Important	5: Not at all Important
4.8	Risks Relating to the Political Environment :					
4.8.1	Political unrest					
4.8.2	Local, Provincial and National elections					
4.8.3	Changes in office bearers					

SECTION C: RISK MANAGEMENT PROCESSES

5. Do you have a clear understanding of the risks that have an impact on your municipality/departmental structure and processes?

Yes	1
No	2

6. To what extent are risks discussed in your municipal strategic planning sessions?

High	1
Medium	2
Low	3
Do not know	4
Not discussed	5

7. To what extent are risks discussed in your municipal operational planning sessions?

High	1
Medium	2
Low	3
Do not know	4
Not discussed	5

8. Do you have a Risk management policy?

Yes	1
No	2

9. Do you have a Risk management unit in place?

Yes	1
No	2

9.1 If 'Yes', Identify the structure of the risk management unit

In-house	1
Co-Sourced	2
Outsourced	3
Shared Services	4

10. How often do you interact with the Risk Management Staff, if any?

Very Often	1
Often	2
Not Often	3
Not at all	4

11. How would you characterise the status of your risk management framework? Tick only one.

We have a completed risk management framework in place	1
We have a partial risk management framework in place	2
We do not have a risk management framework in place, but are planning to implement one	3
We are investigating the concept of a risk management framework	4
We do not have a risk management framework in place and are not planning to implement one	5

12. What type of action/response does your municipality engage in when risks are identified? Mark the applicable action(s).

12.1	Avoid: Action is taken to exit the activities giving rise to risk. Risk avoidance may involve exiting a product line, declining expansion to a new geographical market, or selling a division.	1
12.2	Treat: Implementing or improving the internal control system.	2
12.3	Transfer: Transfer the risk to another party more competent to manage it.	3
12.4	Accept: No action is taken to affect likelihood or impact.	4
12.5	Exploit: Risk factors by implementing strategies to take advantage of the opportunities presented by such risk factors.	5
12.6	Other	6

If 'Other' is marked 'yes', please specify.

13. How do you implement or plan to implement risk management activities? Indicate your response by marking one of the options provided.

Holistically—across the entire enterprise	1
Incrementally—by department/function	2
Incrementally—by type of risk (finance/operational etc.)	3
Incrementally—other	4
Not applicable	5

•

13.1 If 'Other', please specify.....

14. The following statements relate to the factors/obstacles affecting the implementation of risk management systems at your municipality. Indicate to what extent do you Agree with the statements. Rate the statements from 1 to 5 where: 1 = “Strongly Agree”; 2 = “Agree”; 3 = “Neutral”; 4 = “Disagree”; and 5 = “Strongly Disagree”.

	Risk Management Factors/Obstacles	1: Strongly Agree	2: Agree	3: Neutral	4: Disagree	5: Strongly Disagree
14.1	There are no obstacles experienced at my municipality					
14.2	Lack of sufficient funding for risk mitigation					
14.3	Lack of skills for risk mitigation					
14.4	Lack of intellectual capital (know-how) of risk mitigation and systems					
14.5	Lack of proper guidance/frameworks available					
14.6	There is no buy-in from senior management/council (Not seen as priority)					
14.7	Lack of functional oversight over risk mitigation					
14.8	Lack of experienced oversight over risk mitigation					
14.9	Lack of formalised processes for risk mitigation					

•

14.10 Please indicate if there are any other factors/obstacles not listed above that affects the implementation of risk management systems at your municipality.

SECTION D: GENERAL

15. How many permanent employees does your municipality have?

< 100	1
101–250	2
251–400	3
401–550	4
> 550	5

16. What type of category is your municipality?

Category A–Metro	1
Category B–Local	2
Category C–District	3

17. What is the Highest Qualification you hold?

Post-graduate degree	1
Degree	2
Diploma	3
Post-matriculation (other than the above)	4
Matriculation certificate	5
Grade 8–Grade 10 /St 6–St 8	6
Grade 7 /St 5	7
None	8

18. In which municipal department do you work?

Office of the municipal manager	1
Financial Services	2
Community Services	3
Infrastructure Services	4
Corporate/Strategic Services	5
Other	6

•

18.1 If 'Other', please specify.

•

19. Number of years' experience in local government/municipal specific experience?

Above 15 years	1
11–15 years	2
6–10 years	3
0–5 years	4

APPENDIX D: DESCRIPTIVE STATISTICS

Frequencies

Frequency table

Financial/Accounting Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	101	95.3	97.1	97.1
	No	3	2.8	2.9	100.0
	Total	104	98.1	100.0	
Missing	System	2	1.9		
Total		106	100.0		

Strategic Management/Corporate Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	78	73.6	79.6	79.6
	No	20	18.9	20.4	100.0
	Total	98	92.5	100.0	
Missing	System	8	7.5		
Total		106	100.0		

Infrastructure/Engineering Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	94	88.7	94.0	94.0
	No	6	5.7	6.0	100.0
	Total	100	94.3	100.0	
Missing	System	6	5.7		
Total		106	100.0		

Community/Service Delivery Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	74	69.8	77.1	77.1
	No	22	20.8	22.9	100.0
	Total	96	90.6	100.0	
Missing	System	10	9.4		
Total		106	100.0		

Information Technology Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	88	83.0	87.1	87.1
	No	13	12.3	12.9	100.0
	Total	101	95.3	100.0	
Missing	System	5	4.7		
Total		106	100.0		

Human Resources Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	61	57.5	i) 62.2	ii) 62.2
	No	37	34.9	37.8	100.0
	Total	98	92.5	100.0	
Missing	System	8	7.5		
Total		106	100.0		

Public Relations Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	43	40.6	46.2	46.2
	No	50	47.2	53.8	100.0
	Total	93	87.7	100.0	
Missing	System	13	12.3		
Total		106	100.0		

Governance: Internal Audit/Risk Management Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	71	67.0	72.4	72.4
	No	27	25.5	27.6	100.0
	Total	98	92.5	100.0	
Missing	System	8	7.5		
Total		106	100.0		

None

		Frequency	Percent
Missing	System	106	100.0

Other

		Frequency	Percent
Missing	System	106	100.0

No financial problems experienced

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	47	44.3	45.6	45.6
	No	56	52.8	54.4	100.0
	Total	103	97.2	100.0	
Missing	System	3	2.8		
Total		106	100.0		

Default/Slow payments by debtors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	84	79.2	94.4	94.4
	No	5	4.7	5.6	100.0
	Total	89	84.0	100.0	
Missing	System	17	16.0		
Total		106	100.0		

Overspending or excessive expenditure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	87	82.1	95.6	95.6
	No	4	3.8	4.4	100.0
	Total	91	85.8	100.0	
Missing	System	15	14.2		
Total		106	100.0		

Irregularities/Fraud/Losses

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	92	86.8	96.8	96.8
	No	3	2.8	3.2	100.0
	Total	95	89.6	100.0	
Missing	System	11	10.4		
Total		106	100.0		

Information technology inefficiencies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	61	57.5	70.9	70.9
	No	25	23.6	29.1	100.0
	Total	86	81.1	100.0	
Missing	System	20	18.9		
Total		106	100.0		

Personnel - lack of skill

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	65	61.3	74.7	74.7
	No	22	20.8	25.3	100.0
	Total	87	82.1	100.0	
Missing	System	19	17.9		
Total		106	100.0		

Operational problems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	64	60.4	76.2	76.2
	No	20	18.9	23.8	100.0
	Total	84	79.2	100.0	
Missing	System	22	20.8		
Total		106	100.0		

Catastrophic event

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	50	47.2	61.7	61.7
	No	31	29.2	38.3	100.0
	Total	81	76.4	100.0	
Missing	System	25	23.6		
Total		106	100.0		

Other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	2.8	75.0	75.0
	No	1	.9	25.0	100.0
	Total	4	3.8	100.0	
Missing	System	102	96.2		
Total		106	100.0		

Q02.1.8.1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	104	98.1	98.1	98.1
Bad Decisions by Management	1	.9	.9	99.1
Political Influences	1	.9	.9	100.0
Total	106	100.0	100.0	

Are your municipal objectives and strategies clearly defined to help determine which activities are critical for the achievement of the set objectives and strategies?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	100	94.3	94.3	94.3
No	6	5.7	5.7	100.0
Total	106	100.0	100.0	

Q04.1

	Frequency	Percent
Missing System	106	100.0

Integrity and Honesty

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very important	75	70.8	70.8	70.8
Fairly important	19	17.9	17.9	88.7
important	10	9.4	9.4	98.1
Slightly important	2	1.9	1.9	100.0
Total	106	100.0	100.0	

Recruitment and Selection

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	53	50.0	50.0	50.0
	Fairly important	38	35.8	35.8	85.8
	important	12	11.3	11.3	97.2
	Slightly important	2	1.9	1.9	99.1
	Not at all important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Skills and competence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	58	54.7	54.7	54.7
	Fairly important	33	31.1	31.1	85.8
	important	10	9.4	9.4	95.3
	Slightly important	4	3.8	3.8	99.1
	Not at all important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Employee wellness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	36	34.0	34.0	34.0
	Fairly important	42	39.6	39.6	73.6
	important	20	18.9	18.9	92.5
	Slightly important	6	5.7	5.7	98.1
	Not at all important	2	1.9	1.9	100.0
	Total	106	100.0	100.0	

Employee relations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	30	28.3	28.3	28.3
	Fairly important	45	42.5	42.5	70.8
	important	23	21.7	21.7	92.5
	Slightly important	5	4.7	4.7	97.2
	Not at all important	3	2.8	2.8	100.0
	Total	106	100.0	100.0	

Retention

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	31	29.2	29.2	29.2
	Fairly important	39	36.8	36.8	66.0
	important	27	25.5	25.5	91.5
	Slightly important	6	5.7	5.7	97.2
	Not at all important	3	2.8	2.8	100.0
	Total	106	100.0	100.0	

Occupational health and safety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	56	52.8	52.8	52.8
	Fairly important	29	27.4	27.4	80.2
	important	16	15.1	15.1	95.3
	Slightly important	4	3.8	3.8	99.1
	Not at all important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Q04.2

		Frequency	Percent
Missing	System	106	100.0

Knowledge and information management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	50	47.2	47.2	47.2
	Fairly important	36	34.0	34.0	81.1
	important	18	17.0	17.0	98.1
	Slightly important	2	1.9	1.9	100.0
	Total	106	100.0	100.0	

Security concerns

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	49	46.2	46.2	46.2
	Fairly important	42	39.6	39.6	85.8
	important	15	14.2	14.2	100.0
	Total	106	100.0	100.0	

Technology availability (uptime)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	45	42.5	42.5	42.5
	Fairly important	37	34.9	34.9	77.4
	important	22	20.8	20.8	98.1
	Slightly important	1	.9	.9	99.1
	Not at all important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Applicability of IT infrastructure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	39	36.8	36.8	36.8
	Fairly important	41	38.7	38.7	75.5
	important	22	20.8	20.8	96.2
	Slightly important	3	2.8	2.8	99.1
	Not at all important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Integration /interface of the systems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	39	36.8	36.8	36.8
	Fairly important	37	34.9	34.9	71.7
	important	25	23.6	23.6	95.3
	Slightly important	5	4.7	4.7	100.0
	Total	106	100.0	100.0	

Effectiveness of technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	40	37.7	37.7	37.7
	Fairly important	36	34.0	34.0	71.7
	important	25	23.6	23.6	95.3
	Slightly important	5	4.7	4.7	100.0
	Total	106	100.0	100.0	

Obsolescence of technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	32	30.2	30.2	30.2
	Fairly important	39	36.8	36.8	67.0
	important	27	25.5	25.5	92.5
	Slightly important	8	7.5	7.5	100.0
	Total	106	100.0	100.0	

Q04.3

		Frequency	Percent
Missing	System	106	100.0

Disaster management procedures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	38	35.8	35.8	35.8
	Fairly important	36	34.0	34.0	69.8
	important	29	27.4	27.4	97.2
	Slightly important	2	1.9	1.9	99.1
	Not at all important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Contingency planning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	25	23.6	23.6	23.6
	Fairly important	47	44.3	44.3	67.9
	important	29	27.4	27.4	95.3
	Slightly important	5	4.7	4.7	100.0
	Total	106	100.0	100.0	

Q04.4

		Frequency	Percent
Missing	System	106	100.0

Failure to monitor or enforce compliance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	49	46.2	46.2	46.2
	Fairly important	29	27.4	27.4	73.6
	important	26	24.5	24.5	98.1
	Slightly important	2	1.9	1.9	100.0
	Total	106	100.0	100.0	

Monitoring and enforcement mechanisms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	44	41.5	41.5	41.5
	Fairly important	31	29.2	29.2	70.8
	important	28	26.4	26.4	97.2
	Slightly important	3	2.8	2.8	100.0
	Total	106	100.0	100.0	

Consequences of non-compliance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	44	41.5	41.5	41.5
	Fairly important	30	28.3	28.3	69.8
	important	28	26.4	26.4	96.2
	Slightly important	4	3.8	3.8	100.0
	Total	106	100.0	100.0	

Fines and penalties paid

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	24	22.6	22.6	22.6
	Fairly important	44	41.5	41.5	64.2
	important	35	33.0	33.0	97.2
	Slightly important	3	2.8	2.8	100.0
	Total	106	100.0	100.0	

Litigation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	26	24.5	24.5	24.5
	Fairly important	43	40.6	40.6	65.1
	important	33	31.1	31.1	96.2
	Slightly important	4	3.8	3.8	100.0
	Total	106	100.0	100.0	

Risks Relation to Fraud and Corruption: These risks relate to illegal or improper acts by employees resulting in a loss of the institution's assets or resources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	53	50.0	50.0	50.0
	Fairly important	30	28.3	28.3	78.3
	important	23	21.7	21.7	100.0
	Total	106	100.0	100.0	

Q04.6

		Frequency	Percent
Missing	System	106	100.0

Cash flow adequacy and management thereof

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	86	81.1	81.1	81.1
	Fairly important	17	16.0	16.0	97.2
	important	3	2.8	2.8	100.0
	Total	106	100.0	100.0	

Financial losses

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	81	76.4	76.4	76.4
	Fairly important	21	19.8	19.8	96.2
	important	3	2.8	2.8	99.1
	Slightly important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Wasteful expenditure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	83	78.3	78.3	78.3
	Fairly important	19	17.9	17.9	96.2
	important	3	2.8	2.8	99.1
	Slightly important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Budget allocations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	72	67.9	67.9	67.9
	Fairly important	27	25.5	25.5	93.4
	important	6	5.7	5.7	99.1
	Slightly important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Financial statement integrity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	75	70.8	70.8	70.8
	Fairly important	24	22.6	22.6	93.4
	important	6	5.7	5.7	99.1
	Slightly important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Revenue collection

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	69	65.1	65.1	65.1
	Fairly important	34	32.1	32.1	97.2
	important	3	2.8	2.8	100.0
	Total	106	100.0	100.0	

Increasing operational expenditure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	61	57.5	57.5	57.5
	Fairly important	35	33.0	33.0	90.6
	important	7	6.6	6.6	97.2
	Slightly important	3	2.8	2.8	100.0
	Total	106	100.0	100.0	

Risks Relation to Reputation: Factors that could result in the tarnishing of an institution's reputation, public perception and image

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	37	34.9	34.9	34.9
	Fairly important	36	34.0	34.0	68.9
	important	30	28.3	28.3	97.2
	Slightly important	2	1.9	1.9	99.1
	Not at all important	1	.9	.9	100.0
	Total	106	100.0	100.0	

Q04.8

		Frequency	Percent
Missing	System	106	100.0

Political unrest

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	29	27.4	27.4	27.4
	Fairly important	28	26.4	26.4	53.8
	important	24	22.6	22.6	76.4
	Slightly important	21	19.8	19.8	96.2
	Not at all important	4	3.8	3.8	100.0
	Total	106	100.0	100.0	

Local, Provincial and National elections

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	37	34.9	35.2	35.2
	Fairly important	20	18.9	19.0	54.3
	important	23	21.7	21.9	76.2
	Slightly important	23	21.7	21.9	98.1
	Not at all important	2	1.9	1.9	100.0
	Total	105	99.1	100.0	
Missing	System	1	.9		
Total		106	100.0		

Changes in office bearers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	10	9.4	9.5	9.5
	Fairly important	36	34.0	34.3	43.8
	important	33	31.1	31.4	75.2
	Slightly important	25	23.6	23.8	99.0
	Not at all important	1	.9	1.0	100.0
	Total	105	99.1	100.0	
Missing	System	1	.9		
Total		106	100.0		

Do you have a clear understanding of the risks that have an impact on your municipality/departmental structure and processes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	98	92.5	92.5	92.5
	No	8	7.5	7.5	100.0
	Total	106	100.0	100.0	

To what extent are risks discussed in your municipal strategic planning sessions?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High	32	30.2	30.2	30.2
	Medium	16	15.1	15.1	45.3
	Low	29	27.4	27.4	72.6
	Do not know	27	25.5	25.5	98.1
	Not discussed	2	1.9	1.9	100.0
	Total	106	100.0	100.0	

To what extent are risks discussed in your municipal operational planning sessions?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High	32	30.2	30.2	30.2
	Medium	18	17.0	17.0	47.2
	Low	29	27.4	27.4	74.5
	Do not know	25	23.6	23.6	98.1
	Not discussed	2	1.9	1.9	100.0
	Total	106	100.0	100.0	

Do you have a Risk management policy?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	106	100.0	100.0	100.0

Do you have a Risk management unit in place?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	104	98.1	98.1	98.1
	No	1	.9	.9	99.1
	4	1	.9	.9	100.0
	Total	iv) 106	v) 100.0	vi) 100.0	

If 'Yes', Identify the structure of the risk management unit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In-house	3	2.8	2.8	2.8
	Co-sourced	4	3.8	3.8	6.6
	Outsourced	2	1.9	1.9	8.5
	Shared Services	97	91.5	91.5	100.0
	Total	106	100.0	100.0	

How often do you interact with the Risk Management Staff, if any?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	34	32.1	32.1	32.1
	Often	18	17.0	17.0	49.1
	Not often	48	45.3	45.3	94.3
	Not at all	6	5.7	5.7	100.0
	Total	106	100.0	100.0	

How would you characterise the status of your risk management framework? Tick only one

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	We have a completed risk management framework in place	96	90.6	95.0	95.0
	We have a partial risk management framework in place	5	4.7	5.0	100.0
	Total	101	95.3	100.0	
Missing	System	5	4.7		
Total		106	100.0		

Custom Tables

		Count	Column Valid N %
12. What type of action/response does your municipality engage in when risks are identified?	Avoid: Action is taken to exit the activities giving rise to risk. Risk avoidance may involve exiting a product line, declining expansion to a new geographical market, or selling a division.	54	52.9%
	Treat: Implementing or improving the internal control system.	97	95.1%
	Transfer: Transfer the risk to another party more competent to manage it.	59	57.8%
	Accept: No action is taken to affect likelihood or impact.	33	32.4%
	Exploit: Risk factors by implementing strategies to take advantage of the opportunities presented by such risk factors.	5	4.9%
	Other	0	0.0%

Frequencies

Frequency Table

How do you implement or plan to implement risk management activities? Indicate your response by marking one of the options provided.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Holistically—across the entire enterprise	59	55.7	55.7	55.7
	Incrementally—by department/function	41	38.7	38.7	94.3
	Incrementally—by type of risk (finance/operational etc.)	6	5.7	5.7	100.0
	Total	106	100.0	100.0	

Q13.1

		Frequency	Percent
Missing	System	106	100.0

There are No obstacles experienced at my municipality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	1	.9	.9	.9
	Agree	2	1.9	1.9	2.8
	Neutral	1	.9	.9	3.8
	Disagree	59	55.7	55.7	59.4
	Strongly Disagree	43	40.6	40.6	100.0
	Total	106	100.0	100.0	

There is a lack of sufficient funding for risk mitigation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	36	34.0	34.0	34.0
	Agree	33	31.1	31.1	65.1
	Neutral	3	2.8	2.8	67.9
	Disagree	24	22.6	22.6	90.6
	Strongly Disagree	10	9.4	9.4	100.0
	Total	106	100.0	100.0	

There is a Lack of skills for risk mitigation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	7	6.6	6.6	6.6
	Agree	36	34.0	34.0	40.6
	Neutral	14	13.2	13.2	53.8
	Disagree	38	35.8	35.8	89.6
	Strongly Disagree	11	10.4	10.4	100.0
	Total	106	100.0	100.0	

There is a Lack of intellectual capital (know-how) of risk mitigation and systems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	6	5.7	5.7	5.7
	Agree	32	30.2	30.2	35.8
	Neutral	11	10.4	10.4	46.2
	Disagree	45	42.5	42.5	88.7
	Strongly Disagree	12	11.3	11.3	100.0
	Total	106	100.0	100.0	

There is a lack of Proper Guidance/Frameworks available

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	4	3.8	3.8	3.8
	Agree	23	21.7	21.7	25.5
	Neutral	15	14.2	14.2	39.6
	Disagree	47	44.3	44.3	84.0
	Strongly Disagree	17	16.0	16.0	100.0
	Total	106	100.0	100.0	

There is No Buy-in from senior management/council (Not seen as priority)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	5	4.7	4.7	4.7
	Agree	23	21.7	21.7	26.4
	Neutral	15	14.2	14.2	40.6
	Disagree	46	43.4	43.4	84.0
	Strongly Disagree	17	16.0	16.0	100.0
	Total	106	100.0	100.0	

There is a Lack of Functional oversight over risk mitigation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	4	3.8	3.8	3.8
	Agree	28	26.4	26.4	30.2
	Neutral	22	20.8	20.8	50.9
	Disagree	43	40.6	40.6	91.5
	Strongly Disagree	9	8.5	8.5	100.0
	Total	106	100.0	100.0	

There is a Lack of Experienced Oversight over risk mitigation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	5	4.7	4.7	4.7
	Agree	29	27.4	27.4	32.1
	Neutral	26	24.5	24.5	56.6
	Disagree	37	34.9	34.9	91.5
	Strongly Disagree	9	8.5	8.5	100.0
	Total	106	100.0	100.0	

There is a Lack of Formalised processes for risk mitigation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	5	4.7	4.7	4.7
	Agree	22	20.8	20.8	25.5
	Neutral	25	23.6	23.6	49.1
	Disagree	46	43.4	43.4	92.5
	Strongly Disagree	8	7.5	7.5	100.0
	Total	106	100.0	100.0	

Please indicate if there are any other factors/obstacles

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		105	99.1	99.1	99.1
	Lack of Training Opportunities	1	.9	.9	100.0
	Total	106	100.0	100.0	

How many permanent employees does your municipality have?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	101 - 250	3	2.8	2.9	2.9
	251 - 400	65	61.3	61.9	64.8
	401 - 550	19	17.9	18.1	82.9
	> 550	18	17.0	17.1	100.0
	Total	105	99.1	100.0	
Missing	System	1	.9		
Total		106	100.0		

What type of category is your municipality?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Category B - Local	82	77.4	77.4	77.4
	Category C - District	24	22.6	22.6	100.0
	Total	106	100.0	100.0	

What is the Highest Qualification you hold?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Post-graduate degree	9	8.5	8.6	8.6
	Degree	32	30.2	30.5	39.0
	Diploma	36	34.0	34.3	73.3
	Post-matriculation (other than the above)	16	15.1	15.2	88.6
	Matriculation certificate	12	11.3	11.4	100.0
	Total	105	99.1	100.0	
Missing	System	1	.9		
Total		106	100.0		

In which municipal department are you working?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Office of the municipal manager	13	12.3	12.4	12.4
	Financial Services	38	35.8	36.2	48.6
	Community Services	24	22.6	22.9	71.4
	Infrastructure Services	12	11.3	11.4	82.9
	Corporate/Strategic Services	17	16.0	16.2	99.0
	Other	1	.9	1.0	100.0
	Total	105	99.1	100.0	
Missing	System	1	.9		
Total		106	100.0		

Number of years' experience in local government/municipal specific experience?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Above 15 years	36	34.0	34.0	34.0
	11 - 15 years	22	20.8	20.8	54.7
	6 - 10 years	33	31.1	31.1	85.8
	0 - 5 years	15	14.2	14.2	100.0
	Total	106	100.0	100.0	

Descriptives

Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Lack of sufficient funding for risk mitigation	106	1	5	2.42	1.400
Lack of skills for risk mitigation	106	1	5	3.09	1.175
Lack of Experienced Oversight over risk mitigation	106	1	5	3.15	1.067
Lack of intellectual capital (know-how) of risk mitigation and systems	106	1	5	3.24	1.167
Lack of Functional oversight over risk mitigation	106	1	5	3.24	1.056
Lack of Formalised processes for risk mitigation	106	1	5	3.28	1.031
There is No Buy-in from senior management/council (Not seen as priority)	106	1	5	3.44	1.139
Lack of Proper Guidance/Frameworks available	106	1	5	3.47	1.114
There are No obstacles experienced at my municipality	106	1	5	4.33	.686
Valid N (listwise)	106				

Reliability

Scale: Human Resources:

Case Processing Summary

		N	%
Cases	Valid	106	100.0
	Excluded ^a	0	.0
	Total	106	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.924	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Integrity and Honesty	11.35	21.582	.782	.912
Recruitment and Selection	11.09	21.210	.744	.914
Skills and competence	11.12	20.471	.797	.909
Employee wellness	10.75	19.596	.819	.907
Employee relations	10.66	19.426	.838	.904
Retention	10.61	20.411	.672	.923
Occupational health and safety	11.05	20.674	.717	.917

Reliability

Scale: Information Technology

Case Processing Summary

		N	%
Cases	Valid	106	100.0
	Excluded ^a	0	.0
	Total	106	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
viii) .957	ix) 7

x) Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Knowledge and information management	11.45	21.869	.788	.954
Security concerns	11.51	23.205	.696	.961
Technology availability (uptime)	11.36	20.880	.878	.947
Applicability of IT infrastructure	11.26	20.444	.912	.944
Integration /interface of the systems	11.23	20.653	.865	.948
Effectiveness of technology	11.24	20.220	.922	.944
Obsolescence of technology	11.08	20.250	.886	.947

Reliability

Scale: Disaster recovery and Business

Case Processing Summary

		N	%
Cases	Valid	106	100.0
	Excluded ^a	0	.0
	Total	106	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.911	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Disaster management procedures	2.13	.687	.839	.
Contingency planning	1.98	.800	.839	.

Reliability

Scale: Compliance

Case Processing Summary

		N	%
Cases	Valid	106	100.0
	Excluded ^a	0	.0
	Total	106	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.943	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Failure to monitor or enforce compliance	8.13	9.678	.874	.924
Monitoring and enforcement mechanisms	8.05	9.493	.891	.921
Consequences of non-compliance	8.03	9.552	.849	.929
Fines and penalties paid	7.79	10.128	.856	.928
Litigation	7.81	10.383	.762	.944

Reliability

Scale: Financial Management:

Case Processing Summary

		N	%
Cases	Valid	106	100.0
	Excluded ^a	0	.0
	Total	106	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.926	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Cash flow adequacy and management thereof	8.24	9.515	.850	.910
Financial losses	8.17	9.190	.800	.912
Wasteful expenditure	8.19	9.012	.875	.905
Budget allocations	8.06	8.816	.792	.912
Financial statement integrity	8.08	8.764	.816	.910
Revenue collection	8.08	9.804	.633	.927
Increasing operational expenditure	7.91	8.677	.688	.927

Reliability

Scale: Political Environment

Case Processing Summary

		N	%
Cases	Valid	105	99.1
	Excluded ^a	1	.9
	Total	106	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.924	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Political unrest	5.09	4.425	.837	.900
Local, Provincial and National elections	5.18	4.092	.908	.839
Changes in office bearers	4.82	5.457	.822	.921

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
RRHR	106	100.0%	0	0.0%	106	100.0%
RRIT	106	100.0%	0	0.0%	106	100.0%
RRDR	106	100.0%	0	0.0%	106	100.0%
RRCE	106	100.0%	0	0.0%	106	100.0%
RRFC	106	100.0%	0	0.0%	106	100.0%
RRFM	106	100.0%	0	0.0%	106	100.0%
RRR	106	100.0%	0	0.0%	106	100.0%
RRPE	106	100.0%	0	0.0%	106	100.0%

Descriptives

		Statistic	Std. Error
RRHR	Mean	1.82	.073
95% Confidence Interval for Mean			
Lower Bound		1.68	
Upper Bound		1.97	
5% Trimmed Mean		1.76	
Median		1.71	
Variance		.562	
Std. Deviation		.750	
Minimum		1	
Maximum		4	
Range		3	

	Interquartile Range	1	
	Skewness	1.130	.235
	Kurtosis	1.298	.465
RRIT	Mean	1.88	.074
	95% Confidence Interval for Lower Bound Mean	1.74	
	Upper Bound	2.03	
	5% Trimmed Mean	1.84	
	Median	1.86	
	Variance	.581	
	Std. Deviation	.762	
	Minimum	1	
	Maximum	4	
	Range	3	
	Interquartile Range	1	
	Skewness	.563	.235
	Kurtosis	-.416	.465
RRDR	Mean	2.06	.080
	95% Confidence Interval for Lower Bound Mean	1.90	
	Upper Bound	2.22	
	5% Trimmed Mean	2.03	
	Median	2.00	
	Variance	.682	
	Std. Deviation	.826	
	Minimum	1	
	Maximum	5	
	Range	4	
	Interquartile Range	2	
	Skewness	.358	.235
	Kurtosis	-.622	.465
RRCE	Mean	1.99	.076
	95% Confidence Interval for Lower Bound Mean	1.84	
	Upper Bound	2.14	
	5% Trimmed Mean	1.97	
	Median	2.00	

	Variance	.607	
	Std. Deviation	.779	
	Minimum	1	
	Maximum	4	
	Range	3	
	Interquartile Range	1	
	Skewness	.379	.235
	Kurtosis	-.843	.465
RRFC	Mean	1.72	.078
	95% Confidence Interval for Lower Bound Mean	1.56	
	Upper Bound	1.87	
	5% Trimmed Mean	1.69	
	Median	1.50	
	Variance	.643	
	Std. Deviation	.802	
	Minimum	1	
	Maximum	3	
	Range	2	
	Interquartile Range	1	
	Skewness	.560	.235
	Kurtosis	-1.221	.465
RRFM	Mean	1.35	.049
	95% Confidence Interval for Lower Bound Mean	1.25	
	Upper Bound	1.45	
	5% Trimmed Mean	1.29	
	Median	1.07	
	Variance	.250	
	Std. Deviation	.500	
	Minimum	1	
	Maximum	3	
	Range	2	
	Interquartile Range	1	
	Skewness	1.754	.235
	Kurtosis	3.192	.465

RRR	Mean	2.00	.087
	95% Confidence Interval for Mean	Lower Bound	1.83
		Upper Bound	2.17
	5% Trimmed Mean	1.96	
	Median	2.00	
	Variance	.800	
	Std. Deviation	.894	
	Minimum	1	
	Maximum	5	
	Range	4	
	Interquartile Range	2	
	Skewness	.488	.235
	Kurtosis	-.252	.465
	RRPE	Mean	2.52
95% Confidence Interval for Mean		Lower Bound	2.32
		Upper Bound	2.72
5% Trimmed Mean		2.51	
Median		2.33	
Variance		1.113	
Std. Deviation		1.055	
Minimum		1	
Maximum		5	
Range		4	
Interquartile Range		1	
Skewness		.272	.235
Kurtosis		-1.128	.465

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
RRHR	.153	106	.000	.889	106	.000
RRIT	.138	106	.000	.914	106	.000
RRDR	.207	106	.000	.882	106	.000
RRCE	.156	106	.000	.900	106	.000
RRFC	.314	106	.000	.753	106	.000
RRFM	.258	106	.000	.733	106	.000
RRR	.217	106	.000	.837	106	.000
RRPE	.160	106	.000	.915	106	.000

a. Lilliefors Significance Correction

Nonparametric Correlations

Correlations

			RRHR	RRIT	RRDR	RRCE	RRFC	RRFM	RRR	RRPE
Spearman's rho	RRHR	Correlation Coefficient	1.000	.502**	.380**	.311**	.269**	.435**	.317**	.146
		Sig. (2-tailed)	.	.000	.000	.001	.005	.000	.001	.136
		N	106	106	106	106	106	106	106	106
RRIT	RRIT	Correlation Coefficient	.502**	1.000	.568**	.543**	.514**	.402**	.597**	.445**
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000
		N	106	106	106	106	106	106	106	106
RRDR	RRDR	Correlation Coefficient	.380**	.568**	1.000	.654**	.519**	.266**	.636**	.491**
		Sig. (2-tailed)	.000	.000	.	.000	.000	.006	.000	.000
		N	106	106	106	106	106	106	106	106
RRCE	RRCE	Correlation Coefficient	.311**	.543**	.654**	1.000	.615**	.291**	.586**	.508**
		Sig. (2-tailed)	.001	.000	.000	.	.000	.002	.000	.000
		N	106	106	106	106	106	106	106	106
RRFC	RRFC	Correlation Coefficient	.269**	.514**	.519**	.615**	1.000	.189	.624**	.577**
		Sig. (2-tailed)								
		N								

	Sig. (2-tailed)	.005	.000	.000	.000	.	.053	.000	.000
	N	106	106	106	106	106	106	106	106
RRF	Correlation Coefficient	.435**	.402**	.266**	.291**	.189	1.000	.338**	.326**
M	Sig. (2-tailed)	.000	.000	.006	.002	.053	.	.000	.001
	N	106	106	106	106	106	106	106	106
RRR	Correlation Coefficient	.317**	.597**	.636**	.586**	.624**	.338**	1.000	.716**
	Sig. (2-tailed)	.001	.000	.000	.000	.000	.000	.	.000
	N	106	106	106	106	106	106	106	106
RRPE	Correlation Coefficient	.146	.445**	.491**	.508**	.577**	.326**	.716**	1.000
	Sig. (2-tailed)	.136	.000	.000	.000	.000	.001	.000	.
	N	106	106	106	106	106	106	106	106

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

Nonparametric Correlations

Notes

Output Created	14-MAR-2018 12:27:52	
Comments		
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	106
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.

Syntax	NONPAR CORR	
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	/MISSING=PAIRWISE.	
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.01
	Number of Cases Allowed	262144 cases ^a

a. Based on availability of workspace memory

Correlations

		There are No obstacles experienced at my municipality	Lack of sufficient funding for risk mitigation	Lack of skills for risk mitigation	Lack of intellectual capital (know-how) of risk mitigation and systems	Lack of Proper Guidance/Frameworks available	There is No Buy-in from senior management/council (Not seen as priority)	Lack of Functional oversight over risk mitigation	Lack of Experienced Oversight over risk mitigation	Lack of Formalised processes for risk mitigation	
Spearman's rho	There are No obstacles experienced at my municipality	Correlation Coefficient	1.000	-.129	.026	.046	.031	.129	-.097	-.064	-.087
		Sig. (2-tailed)		.187	.794	.636	.756	.188	.325	.514	.376
		N	106	106	106	106	106	106	106	106	106
	Lack of sufficient funding for risk mitigation	Correlation Coefficient	-.129	1.000	.693**	.629**	.581**	.600**	.582**	.570**	.509**
		Sig. (2-tailed)	.187		.000	.000	.000	.000	.000	.000	.000
		N	106	106	106	106	106	106	106	106	106
	Lack of skills for risk mitigation	Correlation Coefficient	.026	.693**	1.000	.890**	.758**	.666**	.643**	.677**	.675**
		Sig. (2-tailed)	.794	.000		.000	.000	.000	.000	.000	.000
		N	106	106	106	106	106	106	106	106	106
	Lack of intellectual capital (know-how) of risk mitigation and systems	Correlation Coefficient	.046	.629**	.890**	1.000	.780**	.651**	.642**	.719**	.674**
		Sig. (2-tailed)	.636	.000	.000		.000	.000	.000	.000	.000
		N	106	106	106	106	106	106	106	106	106
Lack of Proper Guidance/Frameworks available	Correlation Coefficient	.031	.581**	.758**	.780**	1.000	.783**	.629**	.633**	.654**	
	Sig. (2-tailed)	.756	.000	.000	.000		.000	.000	.000	.000	
	N	106	106	106	106	106	106	106	106	106	
There is No Buy-in from senior management/council (Not seen as priority)	Correlation Coefficient	.129	.600**	.666**	.651**	.783**	1.000	.552**	.591**	.580**	
	Sig. (2-tailed)	.188	.000	.000	.000	.000		.000	.000	.000	
	N	106	106	106	106	106	106	106	106	106	
Lack of Functional oversight over risk mitigation	Correlation Coefficient	-.097	.582**	.643**	.642**	.629**	.552**	1.000	.892**	.805**	
	Sig. (2-tailed)	.325	.000	.000	.000	.000	.000		.000	.000	
	N	106	106	106	106	106	106	106	106	106	

Lack of Oversight mitigation	Experienced over risk	Correlation Coefficient	-.064	.570**	.677**	.719**	.633**	.591**	.892**	1.000	.841**	
		Sig. (2-tailed)	.514	.000	.000	.000	.000	.000	.000	.000	.	.000
		N	106	106	106	106	106	106	106	106	106	106
Lack of processes mitigation	Formalised for risk	Correlation Coefficient	-.087	.509**	.675**	.674**	.654**	.580**	.805**	.841**	1.000	
		Sig. (2-tailed)	.376	.000	.000	.000	.000	.000	.000	.000	.000	.
		N	106	106	106	106	106	106	106	106	106	106

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

Reliability

Scale: ORMS

Case Processing Summary

		N	%
Cases	Valid	106	100.0
	Excluded ^a	0	.0
	Total	106	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.917	9

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
There are No obstacles experienced at my municipality	25.34	59.522	-.034	.940
Lack of sufficient funding for risk mitigation	27.25	44.568	.701	.910
Lack of skills for risk mitigation	26.58	44.780	.856	.897
Lack of intellectual capital (know-how) of risk mitigation and systems	26.43	45.029	.845	.897
Lack of Proper Guidance/Frameworks available	26.20	46.160	.808	.900
There is No Buy-in from senior management/council (Not seen as priority)	26.23	46.805	.740	.905
Lack of Functional oversight over risk mitigation	26.43	47.372	.767	.904
Lack of Experienced Oversight over risk mitigation	26.52	46.576	.818	.900
Lack of Formalised processes for risk mitigation	26.39	47.649	.768	.904

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
ORMS	106	100.0%	0	0.0%	106	100.0%

Descriptives

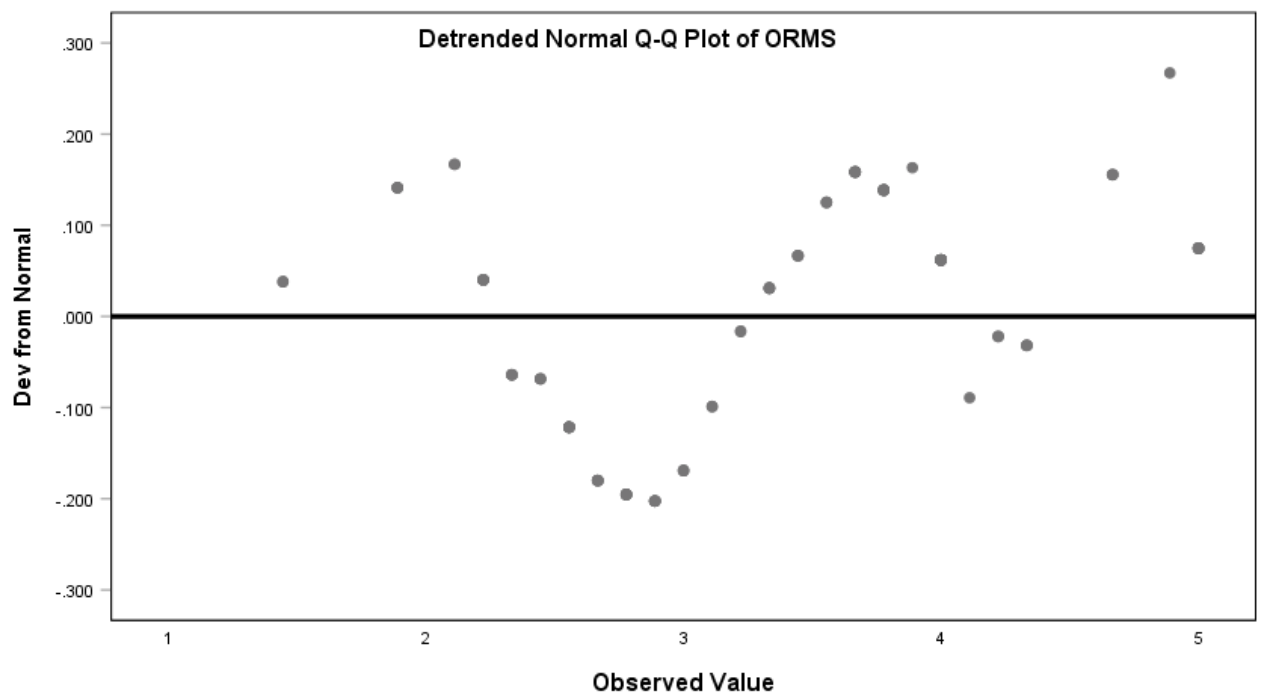
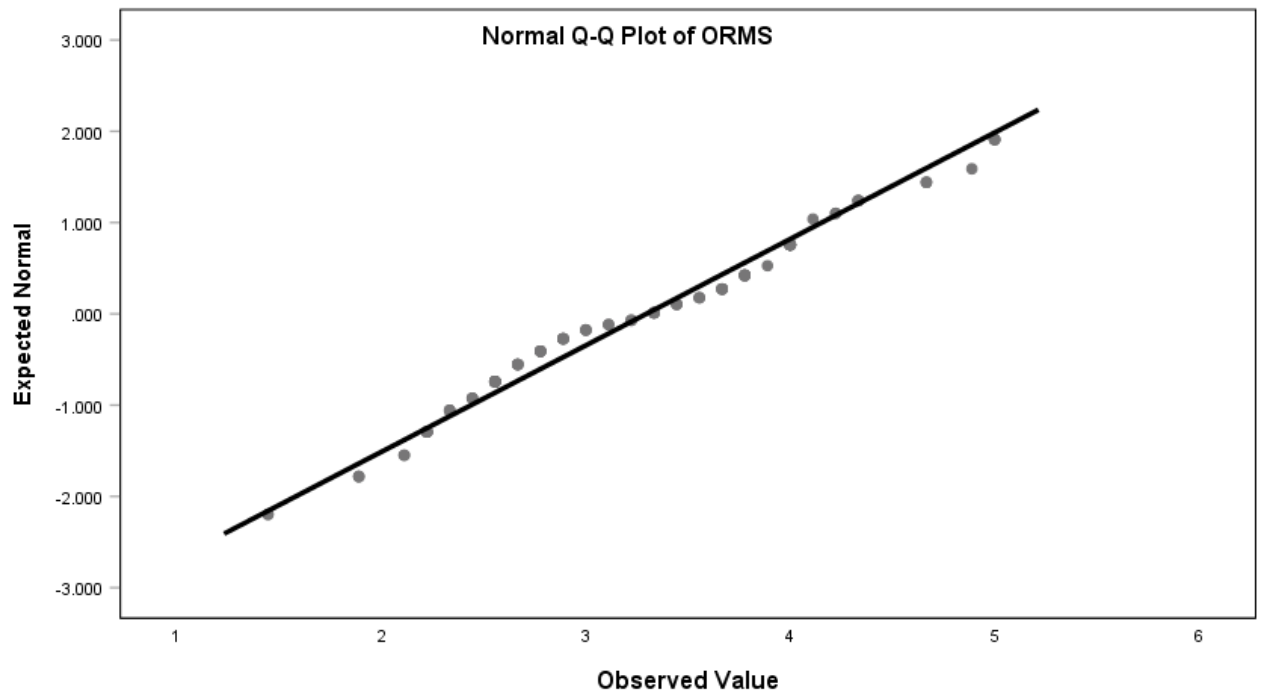
		Statistic	Std. Error	
ORMS	Mean	3.30	.083	
	95% Confidence Interval for Mean	Lower Bound	3.13	
		Upper Bound	3.46	
	5% Trimmed Mean	3.29		
	Median	3.33		
	Variance	.736		
	Std. Deviation	.858		
	Minimum	1		
	Maximum	5		
	Range	4		
	Interquartile Range	1		
	Skewness	.100	.235	
	Kurtosis	-.744	.465	

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ORMS	.098	106	.014	.971	106	.020

a. Lilliefors Significance Correction

ORMS



Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	RRPE, RRHR, RRCE, RRFM, RRFC, RRDR, RRIT, RRR ^b	.	Enter

a. Dependent variable: ORMS

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.489 ^a	.239	.176	.779

a. Predictors: (Constant), RRPE, RRHR, RRCE, RRFM, RRFC, RRDR, RRIT, RRR

b. Dependent variable: ORMS

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.482	8	2.310	3.810	.001 ^b
	Residual	58.820	97	.606		
	Total	77.302	105			

a. Dependent variable: ORMS

b. Predictors: (Constant), RRPE, RRHR, RRCE, RRFM, RRFC, RRDR, RRIT, RRR

Coefficients^a

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.198	.277		15.132	.000
	RRHR	-.136	.134	-.119	-1.016	.312
	RRIT	.146	.151	.129	.963	.338
	RRDR	.063	.141	.061	.450	.654
	RRCE	-.197	.148	-.179	-1.330	.187
	RRFC	.052	.138	.049	.380	.704
	RRFM	.258	.197	.151	1.310	.193
	RRR	-.389	.148	-.405	-2.633	.010
	RRPE	-.130	.106	-.160	-1.226	.223

a. Dependent variable: ORMS

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	RRR		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent variable: ORMS

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.445 ^a	.198	.191	.772

a. Predictors: (Constant), RRR

b. Dependent variable: ORMS

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.333	1	15.333	25.734	.000 ^b
	Residual	61.968	104	.596		
	Total	77.302	105			

a. Dependent variable: ORMS

b. Predictors: (Constant), RRR

Coefficients^a

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.151	.184		22.514	.000
	RRR	-.427	.084	-.445	-5.073	.000

a. Dependent variable: ORMS

Excluded Variables^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	RRHR	-.006 ^b	-.060	.952	-.006	.837
	RRIT	.085 ^b	.758	.450	.074	.617
	RRDR	-.002 ^b	-.019	.985	-.002	.576
	RRCE	-.102 ^b	-.952	.343	-.093	.670
	RRFC	-.024 ^b	-.215	.830	-.021	.643
	RRFM	.096 ^b	.957	.341	.094	.772
	RRPE	-.131 ^b	-1.074	.285	-.105	.520

a. Dependent variable: ORMS

b. Predictors in the Model: (Constant), RRR

Univariate Analysis of Variance

Between-Subjects Factors

	Value Label	N
What is the Highest Qualification you hold?	1 Post-graduate degree	9
	2 Degree	32
	3 Diploma	36
	4 Post-matriculation (other than the above)	16
	5 Matriculation certificate	12
Number of years' experience in local government/municipal specific experience?	1 Above 15 years	35
	2 11 - 15 years	22
	3 6 - 10 years	33
	4 0 - 5 years	15

Descriptive Statistics

Dependent variable: ORMS

What is the Highest Qualification you hold?	Number of years' experience in local government/municipal specific experience?	Mean	Std. Deviation	N
Post-graduate degree	Above 15 years	2.50	.079	2
	11 - 15 years	3.39	.864	2
	6 - 10 years	3.33	.943	2
	0 - 5 years	3.59	.421	3
	Total	3.25	.664	9
Degree	Above 15 years	2.90	.607	8
	11 - 15 years	3.46	1.084	7
	6 - 10 years	3.80	.720	12
	0 - 5 years	3.42	1.318	5
	Total	3.44	.918	32
Diploma	Above 15 years	2.91	.598	9
	11 - 15 years	3.19	.505	6
	6 - 10 years	3.60	.831	16

	0 - 5 years	4.04	.967	5
	Total	3.42	.817	36
Post-matriculation (other than the above)	Above 15 years	2.89	.643	9
	11 - 15 years	3.33	.791	4
	6 - 10 years	4.00	.314	2
	0 - 5 years	4.00	.	1
	Total	3.21	.737	16
Matriculation certificate	Above 15 years	2.48	.907	7
	11 - 15 years	2.67	1.281	3
	6 - 10 years	2.78	.	1
	0 - 5 years	3.78	.	1
	Total	2.66	.940	12
Total	Above 15 years	2.79	.661	35
	11 - 15 years	3.25	.863	22
	6 - 10 years	3.66	.761	33
	0 - 5 years	3.73	.931	15
	Total	3.29	.861	105

Tests of Between-Subjects Effects

Dependent variable: ORMS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	33.227 ^a	15	2.215	4.487	.000
Intercept	128.695	1	128.695	260.688	.000
Qualification	4.062	4	1.015	2.057	.093
Experience	7.259	3	2.420	4.901	.003
RRHR	2.017	1	2.017	4.087	.046
RRIT	.996	1	.996	2.018	.159
RRDR	.030	1	.030	.061	.806
RRCE	.465	1	.465	.941	.335
RRFC	.193	1	.193	.391	.533
RRFM	.644	1	.644	1.304	.256
RRR	3.099	1	3.099	6.278	.014
RRPE	.189	1	.189	.383	.537

Error	43.937	89	.494		
Total	1215.852	105			
Corrected Total	77.164	104			

a. R Squared = .431 (Adjusted R Squared = .335)

Univariate Analysis of Variance

Between-Subjects Factors

		Value Label	N
What is the Highest Qualification you hold?	1	Post-graduate degree	9
	2	Degree	32
	3	Diploma	36
	4	Post-matriculation (other than the above)	16
	5	Matriculation certificate	12
Number of years' experience in local government/municipal specific experience?	1	Above 15 years	35
	2	11 - 15 years	22
	3	6 - 10 years	33
	4	0 - 5 years	15

Descriptive Statistics

Dependent variable: ORMS

What is the Highest Qualification you hold?	Number of years' experience in local government/municipal specific experience?	Mean	Std. Deviation	N
Post-graduate degree	Above 15 years	2.50	.079	2
	11 - 15 years	3.39	.864	2
	6 - 10 years	3.33	.943	2
	0 - 5 years	3.59	.421	3
	Total	3.25	.664	9
Degree	Above 15 years	2.90	.607	8
	11 - 15 years	3.46	1.084	7
	6 - 10 years	3.80	.720	12
	0 - 5 years	3.42	1.318	5
	Total	3.44	.918	32
Diploma	Above 15 years	2.91	.598	9
	11 - 15 years	3.19	.505	6
	6 - 10 years	3.60	.831	16
	0 - 5 years	4.04	.967	5
	Total	3.42	.817	36
Post-matriculation (other than the above)	Above 15 years	2.89	.643	9
	11 - 15 years	3.33	.791	4
	6 - 10 years	4.00	.314	2
	0 - 5 years	4.00	.	1
	Total	3.21	.737	16
Matriculation certificate	Above 15 years	2.48	.907	7
	11 - 15 years	2.67	1.281	3
	6 - 10 years	2.78	.	1
	0 - 5 years	3.78	.	1
	Total	2.66	.940	12
Total	Above 15 years	2.79	.661	35
	11 - 15 years	3.25	.863	22
	6 - 10 years	3.66	.761	33
	0 - 5 years	3.73	.931	15
	Total	3.29	.861	105

Tests of Between-Subjects Effects

Dependent variable: ORMS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	30.888 ^a	9	3.432	7.046	.000
Intercept	203.303	1	203.303	417.367	.000
Qualification	3.605	4	.901	1.850	.126
Experience	8.352	3	2.784	5.715	.001
RRHR	1.016	1	1.016	2.085	.152
RRR	5.973	1	5.973	12.262	.001
Error	46.275	95	.487		
Total	1215.852	105			
Corrected Total	77.164	104			

a. R Squared = .400 (Adjusted R Squared = .343)

Univariate Analysis of Variance

Between-Subjects Factors

	Value Label	N
Number of years' experience in local government/municipal specific experience?	1 Above 15 years	36
	2 11 - 15 years	22
	3 6 - 10 years	33
	4 0 - 5 years	15

Descriptive Statistics

Dependent variable: ORMS

Number of years' experience in local government/municipal specific experience?	Mean	Std. Deviation	N
Above 15 years	2.82	.668	36
11 - 15 years	3.25	.863	22
6 - 10 years	3.66	.761	33
0 - 5 years	3.73	.931	15
Total	3.30	.858	106

Tests of Between-Subjects Effects

Dependent variable: ORMS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	26.035 ^a	4	6.509	12.822	.000
Intercept	282.454	1	282.454	556.454	.000
Experience	10.701	3	3.567	7.027	.000
RRR	10.691	1	10.691	21.062	.000
Error	51.267	101	.508		
Total	1229.296	106			
Corrected Total	77.302	105			

a. R Squared = .337 (Adjusted R Squared = .311)

APPENDIX E: GRAMMARIAN LETTER

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13 July 2018

EDITING & PROOFREADING

Cheryl M. Thomson

FACTORS AFFECTING IMPLEMENTATION OF RISK MANAGEMENT SYSTEMS AT MUNICIPALITIES IN THE OVERBERG DISTRICT, SOUTH AFRICA

Supervisor: Prof. J. Dubihlela

This is to confirm that I, Cheryl Thomson, executed the language and technical editing of the above-titled Master's dissertation of JEAN PIERRE ROSSOUW, student number 206064675, at the CAPE PENINSULA UNIVERSITY OF TECHNOLOGY in preparation for submission of this dissertation for assessment.

Yours faithfully



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