Guiding Criteria for an Operational Risk Management Framework for South African Municipalities

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ABSTRACT

Risk management forms a crucial part of the management of an organisation. Due to the increasing misconduct and mismanagement of organisations in developing countries, it is imperative to embed a risk management framework to assist management to be effective and prevent risk incidents from occurring. However, it is imperative that the components of a risk management framework be clearly defined and embedded in the organisation. This article investigates various views and approaches with the aim to identify criteria for the implementation of an operational risk management framework. These criteria could be used to determine how an organisation can embed a risk management framework, which can assist in the effective management of risks. The conclusions and recommendations of this study may also be applicable to any level of government as well as private organisations. In addition, the criteria can serve as a checklist to establish the status of implementation of a risk management framework and to assist in bridging a potential gap between current and best practices.

INTRODUCTION

Risk management is a fast growing discipline in most organisations worldwide, especially after various major incidents, which could be linked to a lack of adequate risk management practices. This view can be supported by incidents that started back in 1995 when the Barings Bank collapsed due to inadequate internal control...
measures, which can be directly linked to risk management. Since then there were many cases where a lack of adequate risk management caused financial losses. For example, the recent collapse of three Kenyan banks during 2016 due to poor supervision and oversight (The Risk Universe April 2016:7). Closer to South Africa, a case that is currently under investigation is that of African Bank. The Myburgh Commission found that some of the reasons for the downfall of African Bank are the gross negligence of senior management. According to a review by The City Press (2016), it was stated “The directors were collectively in breach of their fiduciary and other duties to the bank.” Specific reference was made to the Chief Executive who “fought with his auditors and co-directors on how to report risk and impairments on bad loans…” Unfortunately, there are other similar scenarios, which, in effect, can be attributed to a lack of an effective risk management framework, which, for example, includes the very important aspects of the role of the directors as well as the process of risk reporting. As a result, most organisations are moving closer to a risk-based management approach not only to ensure proactive risk management, but also to adhere to certain regulatory requirements related to governance and risk management.

A growing concern for South Africans is a general lack in the effective service provision of municipalities and a general increase in corruption and misspending of government funds. These concerns are causing widespread protest actions by the communities. According to the Institute for Security Studies (2009), the primary reason for these protest actions, seems to be dissatisfaction with the delivery of basic municipal services. Mileham (2014) inferred that some of the factors creating a perception of corruption and maladministration, as identified by the Public Protector, are dissatisfaction with poor service delivery, financial mismanagement and allegations of fraud and corruption.

In order to address these risk exposures for municipalities, the development and implementation of an operational risk management framework could be one way to establish a structured approach towards adequately coping with these risk-related incidents. However, the research question for this article is to what extent is a risk management framework embedded according to guiding criteria and principles within the local governments? As such, the purpose and focus of this research article is to identify and confirm guiding criteria and principles for the implementation of an operational risk management framework for municipalities. These criteria and principles aim to assist municipalities to embed a risk management framework, which could support the effective management of risk exposures. According to the Public Financial Management Act (PFMA) of 1999, section 38 (1)(a)(i), an accounting officer must, for example, include a fraud prevention plan as part of a risk management strategy. However, if there is an absence of a risk management framework, this accountability will be a difficult task. Therefore, it is essential that a risk management framework should be developed
and implemented. However, it is imperative to understand this concept and its components.

**RISK MANAGEMENT FRAMEWORK**

Rouse (2005) defined a framework as a conceptual structure to serve as support or guide of a process. According to ISO 73 (2009:2), a risk management framework can be seen as the components that serve as the foundation and guide for an organisation’s risk management program. Blunden and Thirlwell (2010:22) explained that risk frameworks provide a structure for implementing and the embedding of operational risk management. A risk management framework will ensure transparency regarding the risks of the organisation that will allow informed business decision-making (Girling 2013:12). According to the European Investment Fund (EIF) (2010:5), operational risk management frameworks are a set of integrated processes, tools and mitigation strategies that assist with the managing and measuring of operational risk. The Australian/New Zealand Standard (AS/NZS) (2004) inferred that a risk management framework can be described as a set of elements of an organisation’s management process to manage risks.

Based on the above views, it seems clear that a risk management framework can be seen as a conceptual structure consisting of a set of components to ensure effective risk management to support sound business decision-making. According to Alvarez (2005:227), a challenge for an organisation is to develop a risk management framework, which will comprise of all the facets of management. However, it is imperative to identify the detail on what an organisation wants to accomplish by developing and embedding a risk management framework. If it is just for the sake of having a risk management framework to, for example, tick a checklist, the total initiative would be nullified and the benefits of a practical risk management approach will be lost. As such, it is important to ensure that risk management creates value, which is supported by the International Organisation for Standardisation (ISO) 31000 (2009) where it is stated that risk management should contribute to the demonstrable achievement of objectives and improvement of performance of various facets of the organisation. This can be regarded as an important principle of an effective risk management framework. According to Young (2014:37), the aim of embedding a risk management framework is to ensure a well-defined move towards the management of risk. This should serve as a guideline on how to accomplish the following objectives: the establishment of an integrated risk management environment; development of a risk management culture; establishment and confirmation of roles and responsibilities relating to risk management; and ensuring a collective understanding of operational risk.
According to the ISO 31000 (2009:8 – 21), organisations should develop, implement and constantly improve a framework with the objective to incorporate a process for managing risk into the organisation’s overall governance; strategy; reporting processes; values; and culture. Girling (2013:12) mentioned that with a solid risk management framework an organisation could avoid bad surprises and equip itself with tools and contingency plans to be able to respond swiftly when an event does occur. Therefore, it can be concluded that a risk management framework could ensure an organisation to be proactive in managing the risks inherent to a risk event. According to COSO (2004), an objective of a risk management framework is to assist management to better deal with risk inherent in achieving business objectives.

COSO (2004), furthermore, offers an integrated framework as guidance to organisations to develop their internal risk management programs and identified the following components:

- Internal environment – which also includes the risk culture of the organisation and the organisational structure.
- Objective setting – includes the strategic objectives as well as the risk appetite.
- Event identification – consists of the identifying of the inherent and residual risks.
- Risk response – includes risk controls.
- Information and communication – includes the providing of information and integrated systems.
- Monitoring – consists of continuing evaluations.

The framework developed by the ISO 31000 (2009: 8 – 21) includes components which indicate a process of establishing a risk management framework. The elements are the following:

- Mandate and commitment – this, for example, entails the commitment by management to ensure effective risk management policies, the establishment of a risk culture and assignment of roles and responsibilities.
- Design the framework for managing risk – in order to implement a framework, it is stated that it is, firstly, essential to evaluate and understand the external and internal context of the organisation. The external environment refers to any external factors, which could influence the business of the organisation such as the economic environment, technology, social and cultural environment as well as regulatory requirements. The internal environment could include governance and organisational structure, business objectives and strategies and the organisation’s culture. Secondly, the framework should ensure the establishment of a risk management policy, which should link the organisation’s objectives and policies with the risk management policy. Thirdly, it is essential to allocate the accountability and responsibilities for risk management at all
management levels. The fourth requirement is that risk management should be integrated into all the organisation’s processes and specifically into the strategic plans. The next important requirement is the allocation of appropriate resources for risk management, especially regarding qualified and experienced staff and the supporting management systems. Finally, it is crucial to establish internal and external communication and reporting mechanisms. Internal reporting relates to the providing of adequate risk-related information to make affective business decisions. From an external perspective, it is important to communicate with the stakeholders as well as to report on risk management in terms of regulatory requirements.

- Implementing risk management – firstly, this requires the enactment of the developed risk management framework to manage the risks according to the risk management policy and regulatory requirements. Secondly, it includes the implementing of a risk management process, which should be tailored to the business processes of the organisation. The identified components of the risk management process are the following:
  - Establish the context – this includes the determining of the external and internal parameters to be considered when managing risks. During this step, specific objectives for risk management as well as responsibilities should be established. The risk criteria to evaluate the risks should also be determined during this activity, which can be regarded as an important part of determining a realistic risk appetite.
  - Risk assessment – this step involves the process to identify, analyse and evaluate the risk in order to support effective business decisions regarding the treating of the risks.
  - Risk treatment – this step consists of the process to formulate risk-mitigating plans and control measures for the evaluated risks. In this regard, it is important to allocate responsibilities to the staff who must implement these control measures.
  - Monitoring and review – the responsibility to monitor and review the risks should be specified. This responsibility is a continuous process to confirm that controls are effective and to identify any additional risks.
  - Recording the risk management process – this final component aims to ensure that the risk management activities are traceable, because records can provide the foundation for the improvement of the overall risk management approach. (ISO 31000, 2009: 8 – 21).

Based on the abovementioned various components of a risk management framework can be derived. By analysing the above, the following general components of a risk management framework can be identified:
- Risk management culture.
The idea is not to eliminate any of the components provided by the different views, but to identify components, which will cover the detail thereof. The aim is to establish a simple and holistic framework, which could assist to remove inconsistencies and ambiguity across organisations operating in a similar environment such as municipalities. It is therefore, necessary to deal with the abovementioned components in more detail in order to identify guiding criteria and principles for implementation. Figure 1 illustrates an approach to a risk management framework.

The figure indicates the four main components of a risk management framework. The bottom of the figure shows risk management culture as the underlying platform and risk governance as the overall management supported by a continuous integrated risk management strategy and risk management process. The next

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**Figure 1: Risk management framework**

Source: (Author’s own conceptualisation)
section deals with a risk management culture in order to determine its significance and to identify guiding criteria for implementation.

**Risk management culture**

According to Chapman (2011:288), a risk culture is the general business-wide view of how risk management should be implemented. Ashby, Palermo and Power (2014:27) inferred that a risk management culture is the norms and traditions of behaviour of individual and groups within an organisation that determine the way in which risks are identified, understood and acted on. In addition, Chapman (2011:288) stated that an organisation’s risk culture encompasses the general awareness, attitude, and behaviour of its employees towards the management of risks. According to a Basel Committee on Banking Supervision (BCBS) report (2014:6), the board of directors should establish strong risk management cultures. According to The Hong Kong Institute of Bankers (2013:29), a risk culture should be one of the main components of an operational risk management framework. According to Young (2014:59), a risk management culture must be established for the total organisation and involves all employees. In addition, it is stated that a risk culture should include the principles of managing risk as well as the potential value to the organisation in managing the risks. According to Hussein (2000:94), risk management needs to be embedded in an organisation’s culture and business managers need to understand the risk management framework and staff must be knowledgeable with the philosophy and approach. Because the involvement of all employees are emphasised, it can be deduced that a starting point for embedding a risk management culture could be a definition for risk management. In addition, it is necessary to identify the principles for risk management applicable to the organisation as well as to determine the value for the organisation to actually manage risks. Therefore, it can be derived that a risk management culture should be embedded in an organisation and include at least the following:

- A definition for risk management.
- The principles for managing risk.
- The value of risk management to the organisation.

A generally accepted definition for operational risk management is the definition by the Basel Committee on Banking Supervision (2003), namely that it is a loss resulting from inadequate or failed internal processes, people, systems or external events, which includes legal risk, but excludes reputational and strategic risks. Once a definition for risk management is established, it is necessary to identify the principles for managing risks. These principles should be specific to the organisation and guide all activities in terms of risk management. Example of typical risk management principles can be listed as follows:
● Develop and adopt a definition of risk management.
● Incorporate risk management in the daily processes.
● Establish a risk reporting and communication process.
● Ensure the implementation of a practical risk management process (Young 2014:60).

Although these principles are only examples, it is imperative that all employees are aware thereof and able to enforce and implement it during their daily activities. When these principles are adhered to, it should lead to the realisation of the value of risk management. Chapman (2011:288) stated that a well-defined risk management practice would count for little unless it is embedded within the organisation as a whole and part of the risk culture. This could be achieved by establishing risk management principles as part of the organisation's culture.

According to Potter and Early (2014:142), a values-driven risk management process can assist in managing risks driven by behaviour and the worth to the organisation in a manner that is consistent with the organisation's values. On the other hand, it can also be assumed that risk management should add value to the organisation. Once the value of risk management is known to all levels of management, it is envisaged that the implementation of risk management principles would be enhanced ensuring a risk management culture which could support the organisation's strive towards achieving business objectives. Examples of the value-add of risk management are as follows:

● Providing of reliable, relevant and timely risk information for adequate decision-making.
● Monitoring of risk trends to proactively determine preventative actions.
● Providing risk information as input for a realistic risk appetite (Young 2014:60).

In order to get the support of decision-makers for risk management, it is important to identify and understand the potential value-add to ensure a combined effort by all role-players when managing risks.

It seems apparent that the alignment of culture, principles, values and performance could lead to the effective management of risks on a continuous basis. Therefore, a conclusion is that the risk management culture forms an integral component of a risk management framework and could be viewed as important criteria when embedding a risk management framework.

According to the abovementioned review, the following criteria can be defined to establish an effective risk management framework in an organisation:

● Risk culture should be incorporated into a risk management framework and known by all employees.
● Risk management principles should serve as a guideline for risk management.
   • Embedded and known definition for risk management.
- Incorporated risk management into the daily activities of all employees.
- Established risk reporting processes throughout the organisation.
- Established risk management processes.
- Value of risk management should be clearly communicated to all stakeholders.
- Risk management information should be reliable and available for decision-making.
- Risk management should allow for proactive actions.
- Risk information should add value to determine a realistic risk appetite.

According to Young (2014:59), it takes a strong governance structure to establish and reinforce a risk management culture. Anwar (2013:3) mentioned that sound internal governance forms the foundation of an effective operational risk management framework and it is the responsibility of directors of organisations. Therefore, it is imperative to deal with risk governance as the next component of a typical risk management framework.

**Risk governance**

Blunden and Thirlwell (2010:39) stated that organisations are required to have good governance, as it is the starting point of sound operational risk management. According to (2011:12), corporate governance forms an essential part of risk management because it provides the top-down monitoring and actual management of risk in the organisation. The Hong Kong Institute of Bankers (2013:198) revealed that strong internal governance is at the heart of an effective risk management framework and it is the responsibility of management. According to the BCBS (2014:13), the board of directors should develop a clear, effective and robust governance structure that outlines well-defined, transparent and consistent lines of responsibility. In addition, according to the Public Finance Management Act of 1999 (38.1.a.i.), the accounting officer is responsible for the “effective, efficient and transparent systems of financial and risk management and internal controls”.

The Financial Stability Board (FSB 2013:iii) added to the previous view by inferring that risk governance is a framework which an organisation’s board of directors and management communicate and monitor activities to be aligned with a set risk appetite and within defined risk tolerance levels. According to The Treasury Board of Canada (2001:2), the purpose of a risk management framework is to provide guidance to promote the corporate risk management function, contribute to establishing risk management structures with roles and responsibilities and to propose a set of risk management practices. Therefore, it can be gathered that the risk management structures of an organisation should be established and the roles and responsibilities for risk management should be clearly defined. From the abovementioned, it is evident that the board of directors plays a vital role in
risk management and it is therefore important that roles and responsibilities must be clearly outlined. According to the Institute of Operational Risk (IOR) (2010), a board of director’s key responsibilities regarding operational risk are to:

- approve and regularly review the organisation’s risk framework and provide clear principles regarding the risk management framework;
- ensure that all employees at all management levels are clear as to their roles and responsibilities regarding risk management;
- approve the risk policies and set the risk appetite for various operational risks;
- evaluate risk reports on operational risk exposures, including risk appetites, in order to ensure appropriate and timely action is taken; and
- ensure that the risk framework and the relevant processes are audited on a regular basis according to independent audit standards.

The role of the board of directors is almost certainly one of the more important concerns of corporate governance regarding risk management. The efficiency of a board of directors can for example be assessed by using the following principles, stipulated by the King Report (2002):

- **Fairness**: all processes and systems of the organisation must be sensible and consider all involved role-players and the future of the organisation.
- **Transparency**: involves the ease with which someone external to the organisation is able to analyse the organisation’s actions, economic and non-financial status pertinent to the organisation’s business. As such, it determines how sound management is in providing information to reflect the actual situation of the organisation.
- **Independence**: entails the degree to which procedures are affected to address and avoid potential conflicts of interests, such as the composition of the board of directors and board of committees.
- **Responsibility**: allows for remedial action and disciplining negligence regarding the management of the organisation. The board of directors is accountable to the organisation and must perform responsibly towards all stakeholders.
- **Social responsibility**: ensures that a well-managed organisation is aware of, and will respond to social issues and placing a high priority on ethical values.
- **Discipline**: entails the devotion by senior management to adhere to performance that is generally acceptable and ethical.
- **Accountability**: comprises the allocation of accountability to those making decisions. This keeps stakeholders informed with the means to question and assess the actions of the board and its committees.

The aforementioned clearly emphasises the important role of the board of directors regarding risk management. It is also important that these roles and responsibilities be incorporated into a risk management policy.
abovementioned, the following criteria for effective risk management in terms of risk governance can be identified:

- Risk governance should be an integral part of a risk management framework.
- The role of the board of directors should be clearly stipulated and include the following:
  - Approval and regular review of the risk management framework.
  - Provide clear principles for risk management.
  - Approve risk management policies.
  - Set the risk appetite.
  - Evaluate risk reports and make timely decisions.
  - Ensure regular auditing of the risk management framework and processes.
  - Develop clear, effective and robust governance structures for the organisation.
  - Ensure transparent, well-defined and consistent lines of responsibilities throughout the organisation.

Regarding risk management, it is imperative that the roles and responsibilities of all employees are clearly stated (ISO 31000, 2009:8 – 21). The most important role-players, apart from the board of directors, can furthermore, be grouped as follows:

- **Business management** who should be responsible for managing risks within their areas of responsibility. They are also the risk owners and their primary responsibilities include risk identification and assessment. Risk assessment is a significant risk management activity to ensure a continuous risk management process and can be integrated into an organisation's strategy, business, budget and audit planning processes, instead of executed as an external independent process (Young 2008:41).
- **Risk management** should be responsible for setting risk policies, performing a monitoring role, coordinating risk reports and providing advice to business managers (Young 2014:55). According to Swenson (2003:23), a centralised risk management function should set risk management policies and facilitate operational risk reports.
- **Internal audit** should ensure an independent confirmation to top management that the risk management processes are adequate and being executed to the best interest of the organisation. According to Young (2014:57), internal audit should provide an overall assurance of the adequacy of risk management and can include the evaluation of controls and reviewing the competence and effectiveness of risk management processes.

In conclusion, Blunden and Thirlwell (2010:39) stated that good governance is about enabling the board and senior management to guide and direct the
risk strategy and to review its effectiveness. Therefore, the next component of a risk management framework, namely a risk management strategy will be addressed.

**Risk management strategy**

According to the Association of Insurance and Risk Managers (AIRMIC) (2010), a strategy sets out the long-term aims of the organisation and the strategic planning horizon for an organisation. Furthermore, it is stated that risk management is a central part of the strategic management of any organisation. However, a risk management strategy is derived from the organisation’s overall strategy. According to COSO (2004), strategic objectives are high-level goals that are aligned with the organisation’s mission, vision and strategic objectives. In considering these strategic objectives, management identifies risks associated with these strategic choices and considers the implications. In addition to this view, AIRMIC (2010) states that risk management should be a continuous process that supports the development and implementation of the organisation’s strategy. The actions of a typical strategic planning process can be stipulated as follows:

- **Vision** – defining the vision statement of the organisation to determine its future.
- **Mission** – aligning the organisation’s business functions to support the vision.
- **Internal and external environment** – evaluate the internal and external factors which could influence the product, service or success of the organisation.
- **Strategic goals and objectives** – define the strategic objectives of the organisation to ensure it is a successful organisation aligned with its vision and mission (Young 2014:44).

According to ISO 31000 (2009: 8 – 21), management should ensure to align risk management objectives with the overall objectives and strategies of the organisation. The setting of a realistic risk appetite for the organisation can be seen as a primary objective of a strategic risk management process. Girling (2013:238) inferred that risk appetite is the total risk the organisation is willing to take. Therefore, it is important that the formulation of the risk appetite forms an integral part of an organisation’s strategic planning process in order to ensure that the strategic objectives are aligned with the risk appetite. However, it is vital that the risk management process as a whole should be integrated into the strategic planning process of an organisation. If the aim of the strategic planning process is to determine the organisation’s objective, the aim of the strategic risk management process can be seen as the setting of a realistic risk appetite. This can be illustrated in figure 2.
An integrated strategic risk and management process could include the following steps:

- Collate data relevant to the business strategy and objectives, for example the applicable risk types and risk exposures.
- Evaluate the data to determine the potential influence of the risks on the business objectives.
- Set the risk appetite for each business objective in order to determine the tolerance levels for possible losses.
- Monitoring the risk management during the execution of the business objectives to ensure adequate controls and identifying possible new risk exposures that must be addressed (Young 2014: 44 – 45).

Chapman (2011:289) mentioned that a risk strategy is a description of the objectives of the risk management process and importantly should be expressed in terms of its contribution to the business objectives. This could, for example be achieved by means of including the risk appetite when defining the strategic objectives. The European Network and Information Security Agency (ENISA 2013) define a risk management strategy as an integrated business process which includes all risk management processes, activities, methodologies and policies carried out by the organisation. An integrated approach between strategic management and risk management is illustrated in figure 3.
This figure indicates that risk data is collated to identify the risks and serve as an input to determine the vision and mission of the organisation. Once determined, risks are evaluated as part of the internal and external analysis of the environment, which provides an input to determine the strategic goals and objectives in setting the risk appetite. Once the objectives and risk appetite are determined a continuous monitoring process ensures that control measures to manage the risks during the execution of action plans to achieve the objectives within the risk appetite are adequate. To ensure an effective strategic management process, it is necessary to integrate the various steps of a typical risk management process, which will be dealt with in the next section.
Risk management process

According to ISO 31000 (2009: 8 – 21), a risk management framework contributes to the effective management of risks by means of the application of a risk management process. Chapman (2011:137) supported this view and stated that to embed a risk management framework involves the implementation of a risk management process. According to ISO 31000 (2009: 8 – 21), a risk management process is one that systematically applies management policies, procedures and practices to identify, analyse, evaluate, treat, monitor and review risk. Girling (2013:219) inferred that an operational risk process is intended to identify, assess, control and mitigate and monitor operational risk. From the abovementioned, it is evident that there is typically a common perception of the parts of a risk management process. If the abovementioned views are analysed, the generic components of a risk management process can be recognised to be risk identification; risk evaluation; risk mitigation and control; and risk monitoring. A brief description of each of these components will be dealt with in the next section in order to conclude with the last component of an operational risk management framework.

Risk identification

Risk identification can be seen as an activity to identify the risk exposures that could possibly affect the successful achievement of business objectives of an organisation. Chapman (2011:159) concluded that risk identification is regarded as a process involving experienced staff who will generate a series of risks and opportunities that could be included in a risk register. This activity involves the analysis of business processes in terms of its objectives, which requires information to identify the inherent risks. According to ISO 31000 (2009: 8 – 21), risk identification aims to identify the risks that are relevant to the organisation’s strategic objectives. Therefore, the sources of risk, events or sets of circumstances and their potential consequences should be identified to generate a comprehensive list of risk exposures that could influence the accomplishment of business objectives. The responsibility for performing the risk identification process is that of the business owners who should ensure that the outcome is a realistic risk register of the identified risk exposures. As such, the risk registers should contain the identified risks and can then serve as a basis for the next component and activity of the risk management process, namely risk evaluation.

Risk evaluation

Risk evaluation can be regarded as the logical next step after the risks have been identified. These identified risks are assessed to determine its importance and to be able to determine mitigating and control measures. According to Croitoru
(2014:21 – 31), the aim of risk assessments is to perceive exposed processes carried out according to the likelihood of occurrences and the potential financial consequence for the organisation. Chapman (2011:197) reasoned that risk evaluation aims to assess the identified risks as well as potential opportunities for the business. As such, the risk evaluation process aspires to determine which risks require the attention of management. This process should entail the analysis of the identified risks in order to understand the risk and to provide an input to evaluate/assess the risks. According to ISO 31000 (2009:8 – 21), risk evaluation serves to assist in making decisions, based on the outcomes of risk analysis, about which risks need to be prioritised and treated. In addition, it can be concluded that risk evaluation entails the analysis of the identified risks to ascertain the potential likelihood and impact of the risks. It also involves the assessment of risk control measures, which deal with the identified risks. After assessing the control measures the residual risks can be finalised, which will also indicate the priority risks that should be managed by means of mitigation or additional control measures, which will be dealt with in the next section.

**Risk mitigation and control**

Risk control is regarded by many as an important part of a risk management process. According to Olsen and Wu (2008:73), risk control relates to implementing control measures to minimise the effect or avoid the consequence of risk events. These control measures can be reactive in nature, meaning controls will be put in place after an incident or proactive where resources are positioned to deal with incidents before they occur. According to Croitoru (2014:21 – 31), risk control endeavours to convert uncertainties into an advantage for the organisation, restricting the level of risk exposure. Chapman (2011:294) stated that the risk control measures must be relevant in terms of significant issues or events and associated with the primary business objectives. In addition, Chapman (2011:294) inferred that controls must be timeous so that there is enough time to act before negative events become incurable. Young (2014:47) inferred that the management of risk control measures should include the use of techniques to reduce the prospect of an incident, which could result in a loss. As such, its purpose is to eliminate or minimise the potential effect of the identified risk exposures.

According to the abovementioned views, it is clear that risk mitigation and control forms an imperative part of a risk management process. It is essential to prevent a loss from occurring or to minimise the negative effect if a risk incident should take place. In addition, it is also apparent that to be proactive decisions must be made timeously and at the right management levels (Young 2015:881 – 896).

In addition to the abovementioned importance of risk control, it is also necessary to note that risk management is a dynamic process, which requires the
continuous updating of the risk register according to changing circumstances that could lead to new risk exposures. This highlights the importance of a continuous risk monitoring process.

**Risk monitoring**

Young (2015:881 – 896) mentioned that risk monitoring should be performed regularly. According to ISO 31000 (2009:8 – 21), monitoring involves the following:
- analysing and learning lessons from events, changes and trends;
- detecting changes in the external and internal context including changes to the risk itself which may require revision of risk treatments and priorities; and
- ensuring that the risk control and treatment measures are effective.

Dowd, cited by Alexander (2003:46), revealed that the result of a risk identification and evaluation process is most likely a number of risk indicators, which could assist with the continuous monitoring of operational risks. According to ISO 31000 (2009:8 – 21), the monitoring of risks should be planned and form a component of a risk management process.

Chapman (2011:234) inferred that the main goal of the monitoring of risks is to observe the functioning of risk control actions and to advise on the need for proactive management intervention. The monitoring process will be sufficient when it has satisfied the following sub-objectives:
- The development of warning indicators.
- The monitoring of the internal and external context to ensure the determination of opportunities and risks.
- The timeous implementing of responses to risks and opportunities.
- The continuous updating of risk registers regarding changing circumstances and related actions.
- The reporting on risk management actions to provide a view on the progress made in the success or failure of these actions.
- Contingencies are revised to reflect the current risks and opportunities.

Cleary and Malleret (2006:79) stated that it is management’s responsibility to ensure that there are procedures in place to: monitor the events that could result in a loss; provide early warning of changing circumstances that could result in an increase in risk; and ensure that these observations are communicated promptly to the correct management level to address by means of appropriate decisions. According to ISO 31000 (2009:8 – 21), the results of monitoring the risks can be recorded and externally and internally reported on as appropriate. It is clear that risk reporting also forms a crucial part of risk monitoring and therefore the information stemming from the risk management process (risk identification, risk evaluation, and risk control) should be accurate and generated from reliable risk
management methodologies such as, for example, risk and control self-assessments, key risk indicators, and scenario planning. These methodologies fall outside the scope of this study and can be a subject for further research.

In order to serve as a guideline to embed an operational risk management framework, guiding criteria can be deduced from the aforementioned literature review and subsequent conclusions. Therefore, the next section will determine these guiding criteria.

**CRITERIA FOR AN OPERATIONAL RISK MANAGEMENT FRAMEWORK**

Criteria for an operational risk management framework aim to support organisations (municipalities) to manage their operational risk in an effective way. A list of the criteria for embedding an operational risk management framework can be arranged into the following primary categories:

- Components of an operational risk management framework.
- Risk management governance and the roles and responsibilities of role-players.
- Risk management culture.
- Risk management strategy.
- Risk management process.

Derived from the literature, the criteria for an operational risk management framework are set out in Table 1 according to the abovementioned categories.

To determine the applicability of the criteria identified above, a survey was used to confirm the criteria for embedding an operational risk management framework and to determine the current standing of implementation of an operational risk management framework by municipalities in South Africa. However, it is firstly necessary to conceptualise the context of the local government in South Africa.

**CONTEXT OF LOCAL GOVERNMENT IN SOUTH AFRICA**

Government in South Africa is structured in three spheres, namely: National Government; Provincial Government; and Local Government or Municipal Government. This article focusses on the municipal government, divided into the following categories of municipalities:

- Metropolitan Municipalities.
- District Municipalities.
- Local Municipalities.
### Table 1: Criteria for an operational risk management framework

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<th>Category</th>
<th>Criteria</th>
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| **Risk management framework**   | • An operational risk management framework should be a conceptual structure consisting of components of risk governance, risk culture, risk strategy and risk management process.  
• Operational risk management framework should contribute to the achievement of business objectives.  
• Operational risk management framework should serve as a guideline to:  
  ▶ Establish an integrated risk management environment.  
  ▶ Develop a cultural awareness.  
  ▶ Develop roles and responsibilities.  
  ▶ Create a common understanding of operational risk management.  
• Operational risk management framework should lead to a proactive approach to operational risk management. |
| **Risk management governance**  | • The board of directors should develop a clear, effective and robust risk governance structure that outlines well-defined, transparent and consistent lines of responsibility.  
• The board of directors and management should communicate and monitor activities to be aligned with a set risk appetite and within defined risk tolerance levels.  
• Risk management structures of an organisation should be established and the roles and responsibilities for risk management should be clearly defined.  
• The board’s key responsibilities regarding operational risk should include:  
  ▶ approve and regularly review the organisation’s risk framework and provide clear principles regarding the risk management framework;  
  ▶ ensure that all employees at all management levels are clear as to their roles and responsibilities relating risk management;  
  ▶ approve the risk policies and set the risk appetite for various operational risks;  
  ▶ evaluate risk reports on operational risk exposures, including risk appetites, in order to ensure appropriate and timely action is taken; and  
  ▶ ensure that the risk framework and the relevant processes are audited on a regular basis according to independent audit standards.  
• Business management should be responsible for managing risks within their areas of responsibility.  
• Risk management should be responsible for setting risk policies, performing a monitoring role, coordinating risk reports and providing advice to business managers.  
• Internal audit should ensure an independent confirmation to top management that the risk management processes are adequate to ensure the best value to the organisation. |
<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk management culture</td>
<td>● Risk culture should encompass the general awareness, attitude and behaviour of employees toward risk management.</td>
</tr>
<tr>
<td></td>
<td>● Risk culture should be an integral part of a risk management framework and known by all employees.</td>
</tr>
<tr>
<td></td>
<td>● Risk culture should include the principles as a guideline for risk management:</td>
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<tr>
<td></td>
<td>○ Embedded and known definition for risk management.</td>
</tr>
<tr>
<td></td>
<td>○ Incorporated risk management in daily activities.</td>
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<tr>
<td></td>
<td>○ Establish a risk reporting and communication process.</td>
</tr>
<tr>
<td></td>
<td>○ Established risk management processes.</td>
</tr>
<tr>
<td></td>
<td>● Risk culture should entail a value-driven approach.</td>
</tr>
<tr>
<td></td>
<td>○ Providing reliable, relevant and timely risk information for decision-making.</td>
</tr>
<tr>
<td></td>
<td>○ Monitor trends for proactive preventative actions.</td>
</tr>
<tr>
<td></td>
<td>● Providing risk information to set a realistic risk appetite.</td>
</tr>
<tr>
<td>Risk management strategy</td>
<td>● Management should ensure the alignment of risk management objectives with the objectives and strategies of the organisation.</td>
</tr>
<tr>
<td></td>
<td>● The setting of a realistic risk appetite for the organisation should be a primary objective of a strategic risk management process.</td>
</tr>
<tr>
<td>Risk management process</td>
<td>● A risk management framework should include the implementation of the risk management process.</td>
</tr>
<tr>
<td></td>
<td>● Sources of risks and their potential consequences can be identified to generate a comprehensive list of risks that can potentially negatively influence the achievement of business objectives.</td>
</tr>
<tr>
<td></td>
<td>● Identified risks should be included in a risk register.</td>
</tr>
<tr>
<td></td>
<td>● Identified risks should be assessed to determine its importance and to be able to determine mitigating and control measures.</td>
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<tr>
<td></td>
<td>● Risk evaluation should assist in making decisions to prioritise risks that must be treated.</td>
</tr>
<tr>
<td></td>
<td>● Risk control should include an activity of assessing and applying controls to reduce or avoid the consequence of risk exposures and events.</td>
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<tr>
<td></td>
<td>● Risk monitoring should be a continuous process that is a component of a risk management process.</td>
</tr>
<tr>
<td></td>
<td>● Risk monitoring should ensure that there are effective procedures in place to determine the events that could cause or increase risks.</td>
</tr>
<tr>
<td></td>
<td>● Risk monitoring should ensure that there are early warning mechanisms in place to identify increasing risks, and that these observations are communicated swiftly to the correct management levels for appropriate decisions.</td>
</tr>
</tbody>
</table>

Source: (Author’s own conceptualisation)
Metropolitan Municipalities were established in densely concentrated centres of economic activity in South Africa. They also accommodate a large number of citizens who often lack secure and decent access to basic services. These municipalities are managed by a Metropolitan Council responsible for the following key roles:

- City-wide spatial integration and socially inclusive development.
- Promotion of equity, social justice and economic prosperity.
- Promotion of local democracy.

When analysing the detail functions related to each of the abovementioned roles, it becomes clear that risk management should form an imperative part at this government level. There are currently eight Metropolitan Municipalities in South Africa, illustrated in Table 2.

There are currently 44 District Municipalities and 226 Local Municipalities, focusing on growing local economies and providing infrastructure and services to their communities (South African Government internet source).

According to The White Paper on Local Government (1998:62), District Municipalities provide the consistency across the country and ensure relationships with Local Municipalities based on the circumstances in each locality.

Due to a general assumption that risk management is still at a grass root level in most local government departments (municipalities), it was decided

<table>
<thead>
<tr>
<th>#</th>
<th>Metropolitan Municipality</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Buffalo City Metropolitan</td>
<td>Eastern Cape</td>
</tr>
<tr>
<td>2</td>
<td>City of Cape Town Metropolitan</td>
<td>Western Cape</td>
</tr>
<tr>
<td>3</td>
<td>City of Ekurhuleni Metropolitan</td>
<td>Gauteng</td>
</tr>
<tr>
<td>4</td>
<td>City of Johannesburg Metropolitan</td>
<td>Gauteng</td>
</tr>
<tr>
<td>5</td>
<td>City of Tshwane Metropolitan</td>
<td>Gauteng</td>
</tr>
<tr>
<td>6</td>
<td>eThekwini Metropolitan</td>
<td>KwaZulu-Natal</td>
</tr>
<tr>
<td>7</td>
<td>Mangaung Metropolitan</td>
<td>Free State</td>
</tr>
<tr>
<td>8</td>
<td>Nelson Mandela Bay Metropolitan</td>
<td>Eastern Cape</td>
</tr>
</tbody>
</table>

Source: (The Local Government System in South Africa, internet source)
to concentrate the risk management survey at the Metropolitan level, with the view to possibly expand this research and the results to the District and Local Municipalities in the future.

**RESEARCH METHODOLOGY**

As part of the empirical study of this article, the eight Metropolitan Municipalities of South Africa were approached to participate in a survey. The aim of the survey was to determine the relevance of the criteria for an operational risk management framework as well as to confirm the current status of implementation of such a framework by the municipalities. The questionnaire invited respondents to indicate their views and experiences regarding specific questions on the identified criteria related to an operational risk management framework as well as their views on the status of implementation on a 5-point Likert scale. Descriptive analysis was used to clarify the response according to the following scale: “1. To no degree; 2. To some degree; 3. To a moderate degree; 4. To a degree; 5. To a full degree”.

The data was collated by means of a closed-ended questionnaire, which was distributed to the respondents who were identified as the employees involved in risk and compliance management, internal audit, financial management and business management. The primary reason for distributing the questionnaire to the aforementioned was that these positions can be seen as the key role-players in an organisation’s risk management processes. The results of the survey are dealt with in the next section.

**RESEARCH RESULTS**

The questionnaire was distributed to various role-players of the Metropolitan Municipalities via LimeSurvey and individual contacts. A 65% response rate was recorded of which the results were used for analysis purposes. Most of the respondents either were in business management (30.8%) or risk management (30.8%), indicating that the response should be reasonably accurate in terms of the concepts and management of risks, because they can be seen as the primary role-players regarding risk management.

Regarding the years of experience, 31% of the respondents indicated that they have more than 10 years’ experience, while 27% have between 5-10 years’ experience. As such it can be deduced that the respondents have a high level of experience in their municipalities and potential exposure to risk management. On the other hand, 42% of the respondents indicated that they have less than 5
years’ experience within their respective municipalities. In terms of risk management the response shows that 28% of the respondents have more than 10 years’ experience, while 35% have between 5 to 10 years’ and 26% between 3 to 5 years’ experience. As such, an assumption is that risk management is still a fairly new concept for the majority of role-players of the Metropolitan Municipalities. However from the years’ of experience of the respondents in the business combined with that of risk management, it can be concluded that the response can be used to derive acceptable conclusions and recommendations in terms of the risk management concepts covered by the questionnaire.

According to the response on the question if an operational risk management framework is embedded in an organisation, 80.8% of the respondents agreed “to a full degree” that it should be embedded. However, only 23.1% of the respondents indicated that it is embedded “to a degree” and “to a full degree”, 42.3% “to a moderate degree”, 19.2% “to some degree” and 15.4% “to no degree”. From these percentages, it can be concluded that embedding an operational risk management framework is still in progress and therefore not yet fully functional in most of the municipalities.

The components of an operational risk management framework were identified as risk culture, risk strategy, risk governance and risk management process. According to the response (illustrated in figure 4), a risk management process is regarded as more important than the other parts of an operational risk management framework, followed by risk governance, risk culture and risk strategy.

**Figure 4: Components of an operational risk management framework**

![Risk Management Components](attachment:Figure_4.png)

*Source: (Author’s own data)*
This response also coincides with the order of priority of the components indicated by the respondents. Although the literature emphasises all four components as part of an operational risk management framework, it can be deduced that when a risk management framework is being developed, it could start with the establishing of a risk management process. The risk management process usually concerns the identification, assessment, control and monitoring of risks and as such can be regarded as an indication on what risk management is and how it can be managed. Therefore, according to the response, the risk management process is the most important and shows that it is a crucial part of developing and implementing an operational risk management framework. The second most important component is indicated as risk governance. A reason for this response can be deduced from the fact that risk governance is addressed in the Public Finance Management Act, where the role of the Accounting Officer is stipulated regarding risk management. Although the components of risk culture and risk strategy are indicated as components of an operational risk management framework, they are indicated as the least important. It is, however, clear that these two components (culture and strategy) are not currently an integral part of a risk management framework and seems to be in a process of development. In response the question to what degree does management ensure the alignment of risk management objectives with the municipality’s objectives and strategies, only 7.7% indicated that it is the case, while 30.3% indicated that is the case to “no” or “some” degree. This clearly confirms that the integration of risk and strategic management processes are still at a grass roots level. In addition, the formulation of a risk appetite is a result of a successful integrated approach to a strategic and risk management process (Refer to Figure 3). According to the response, 65.4% indicated that the setting of a realistic risk appetite is currently a primary objective of a strategic risk management process. It can thus be deduced that risk management is currently not an integral part of the municipalities’ strategic planning processes.

The response indicated that 92.3% agreed “to a degree” and “to a full degree” that an operational risk management framework should be incorporated into a risk policy. However, only 30% indicated that a risk policy is implemented in their municipality “to a degree” and “to a full degree”. Thirty-four percent indicated that it is implemented “to a moderate degree”, which indicates most municipalities are still in the process of developing and implementing an approved risk management policy.

The research indicated that 69.2% of the respondents agreed “to a degree” and “to a full degree” that a risk management framework should assist in being proactive in terms of risk management. However, 19.2% indicated that a risk management framework is assisting in being proactive “to a degree” and “to a full degree”; while 61.6% indicated that it is assisting “to a moderate degree” and “to
some degree”. It can thus be deduced that a risk management framework is not currently fully effective in the majority of municipalities to manage risks.

Regarding the roles and responsibilities of the board concerning operational risk management, the following were identified in order of priority:

- Approve the risk policies and set the risk appetite.
- Approve and regularly review the organisation’s risk framework.
- Evaluate risk reports to ensure appropriate and timely action is taken.
- Ensure that all employees at all management levels are clear as to their roles and responsibilities concerning risk management.
- Ensure that the risk framework and the relevant processes are audited on a regular basis.

From the response, it can be deduced that the approval role of the board concerning risk management is regarded as more important than the other actions such as evaluating the risk reports and ensuring that all employees are clear on their roles and responsibilities towards risk management.

The response, furthermore, indicated that 69.2% of the respondents agreed “to a degree” and “to a full degree” that an operational risk management framework should assist in a municipality being proactive in managing its risks. However, 19.2% indicated that this is currently happening, while the majority (61.6%) indicated that the risk management framework is assisting the municipality to be proactive regarding risk management “to a moderate” and “to some degree”. It can therefore be derived that an operational risk management framework is currently not effective in assisting municipalities to be proactive in risk management. In order to exploit the benefits of a risk management framework, it is essential that municipalities consider developing and implementing such a framework.

Regarding the inclusion of the roles and responsibilities of the primary role-players in the risk management framework, 57.7% of the respondents are of the opinion that the roles and responsibilities of business managers regarding risk management should be included in a risk management framework. Hundred percent agreed that it should include that of risk managers and 19.2% that of internal audit. The response concerning the current situation indicated that 12.2% of the respondents agreed “to a degree” and “to a full degree” that the roles and responsibilities for risk management by business managers is currently included in the risk management framework, 30.8% indicated that it includes the roles and responsibilities of risk management and 11.5% that of internal audit. From the response, it can be deduced that most respondents agreed that the roles and responsibilities regarding risk management by business managers and risk managers should be included in the operational risk framework. Although the current situation seems to require attention, the response confirms that the operational risk management framework for most municipalities seems to be in a development
mode and although the roles and responsibilities seem to be defined, it must still be refined and embedded within the municipalities.

Sixty-nine per cent of the respondents indicated that a risk culture should encompass the general awareness, attitude and behaviour of employees towards risk management “to a degree”. However, the response also indicates that 19.2% indicated that this is currently the case “to a degree”, while the majority (61.6%) indicated that it is “to a moderate” or “some degree” the case within their municipalities. This response indicates that the risk culture is not yet embedded in the majority of the municipalities and therefore the benefits of general awareness, attitude and behaviour of employees are not fully exploited.

According to the literature, a risk management culture should include risk management principles. Figure 5 indicates the response regarding important risk management principles.

According to the response, 88.4% of the respondents agreed “to a degree” and “to a full degree” that a risk reporting and communication process is an important principle of a risk culture. However, only 15.3% is of the opinion that it is currently being regarded “to a degree” and “to a full degree” as a principle of an operational risk culture, although 50% indicated that it is “to a moderate degree” part of a risk culture. Regarding risk management as a daily activity and a principle of a risk culture, 50% of the respondents indicated that it should be a principle “to a degree”, although only 15.4% indicated that it is currently the case for their municipalities “to a degree”. Forty-two per cent indicated it as a principle “to a moderate degree”. All the respondents regard a definition of operational risk as the most important principle, although only 23% agreed “to a degree” and...
“to a full degree” that it is currently seen as a principle of a risk culture. From the response it can be deduced that the three listed principles are regarded as part of a risk culture, however, the current views indicated that it is still not incorporated fully, indicating that the establishment of a risk culture within the municipalities are still in a development phase.

The literature confirmed that a risk culture should be based on a value-driven approach. Three main value-driven activities were identified and the response on the opinion and the current status in municipalities are reflected in figure 6.

The response indicates that 69.2% of the respondents indicated that providing risk information to set a realistic risk appetite is a value-driven activity that forms part of a risk culture, although 46.1% of the respondents indicated that this activity is currently forming part of their risk culture. This seems to be aligned with the overall conclusion that the implementation of a risk management culture still requires attention. Response indicated that monitoring trends for proactive preventative actions is being implemented “to a degree” and “to a full degree” by 76.9% of the respondents, which is almost aligned with the opinion (85%) that it should form part of a risk culture in terms of a value driven approach. It can be deduced that this action is fairly well developed and implemented by most of the responding municipalities. The third activity of providing reliable, relevant and timely risk information for decision-making indicates a response where 77% indicated that it should be a value driven activity “to a degree” and “to a full degree”. The current situation is almost aligned with this view, where 73%, indicated that the activity is at an acceptable level for the responding municipalities. From the overall response it can be deduced that the
municipalities are at a satisfactory level of implementing value-driven activities as part of a risk culture.

The literature review indicated that management should ensure that risk management objectives are aligned with the organisation’s objectives and strategy. According to the response, 84.6% of the respondents indicated that they agree with this view “to a degree” and “to a full degree”. However, 23.1% of the respondents indicated that they agree “to a degree” and “to a full degree” that this is the current situation for their municipalities. A response of 65% indicated that the risk management objectives are aligned “to some degree” and “to a moderate degree” with the objectives and strategy of their municipalities. This indicates that the alignment of the risk objectives and the objectives and strategy of the municipalities still requires some attention and development in order to ensure this important requirement of a risk management framework is embedded.

The development and implementation of an operational risk management process is regarded as important to ensure a number of actions. These actions and

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**Figure 7: Important actions to embed a risk management process**

<table>
<thead>
<tr>
<th>Action</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk monitoring as a continued process</td>
<td>15.4%</td>
</tr>
<tr>
<td>Risk monitoring for early warning</td>
<td>14.4%</td>
</tr>
<tr>
<td>Risk control measures</td>
<td>46.1%</td>
</tr>
<tr>
<td>Evaluate risks to assist in decision-making</td>
<td>61.5%</td>
</tr>
<tr>
<td>Assess identified risks</td>
<td>57.7%</td>
</tr>
<tr>
<td>Compile a risk register</td>
<td>76.9%</td>
</tr>
<tr>
<td>Risk identification</td>
<td>80.7%</td>
</tr>
</tbody>
</table>

*Source: (Author’s own data)*
the corresponding response of the current perceived status within the municipalities are reflected in figure 7.

According to the response, 80.7% of the respondents agreed that risks are identified, which also corresponds with the compiling of a risk register agreed to by 76.9% of the respondents. This indicates that municipalities are adequately identifying risks and registering it in a risk register. Risk identification is also regarded as the first step of an operational risk management process, followed by the next step, namely to assess and evaluate the identified risks. These activities were rated as being implemented by 57.7% and 61.5% respectively. This also indicates an acceptable level of development and implementation of a risk management process. The control component of a risk management process was rated at 46.1%, indicating that the control and mitigating processes are still not adequately applied to proactively manage the identified and assessed risks. The respondents agreed that the monitoring of the risk management processes is still not at an acceptable level of implementation. Risk monitoring as an early warning process and as a continued process were rated as implemented “to a full degree” or “to a degree” by 14.4% and 15.4% respectively. As such, it can be deduced that the responding municipalities adequately implement most components, apart from risk monitoring.

**CONCLUSION**

This study aimed to provide some insights on concepts and views of an operational risk management framework by means of a literature review. In addition, the study aimed to develop guiding criteria that could be used by municipalities to develop and implement such a framework. It is evident from the literature review that an operational risk management framework should be beneficial to the organisation and be included in its strategic management processes. According to the literature, the main components of an operational risk management framework were identified as a risk culture, a risk strategy, risk governance and a risk management process. The components were analysed in detail in order to identify criteria that could be used as guidelines when establishing an operational risk management framework. These criteria were subsequently subjected to a survey among Metropolitan Municipalities in South Africa to firstly, determine relevance and secondly to determine the current standing of implementation of these criteria, which could add to benefits of embedding an operational risk management framework.

According to the response, it was found that the first component and the related criteria of a risk management culture is an important aspect, however, the respondents indicated that it is still not embedded to an adequate degree.
The second component of a risk management strategy was also found to be in a developing phase, especially concerning the integration of risk management objectives with that of the business strategy and objectives. In this regard, it is recommended that the approach to an integrated strategic and risk management process, illustrated by Figure 3, be considered as a guideline to achieve this objective. The figure indicates how the components of a risk management process can be integrated into a strategic planning process. According to the response, the components of a risk management process are implemented by most municipalities and therefore it should not be difficult to integrate these activities into a strategic planning process.

The third component namely that of risk governance, were indicated as being developed and implemented to a satisfactory level, which can primarily be attributed to the role and responsibilities of the Accounting Officer of a municipality reflected in the PFMA. The fourth component being a risk management process was found to be adequately developed and implemented by the respondents. A risk management process can also be seen as a starting point for risk management, as it usually starts with the identification of risks, followed by registering these risks in a register where after it is assessed, evaluated and controlled. The final activity of a risk management process, which is risk monitoring, was however found to be in a developing phase by the majority of the respondents.

The identified criteria for the development and implementation of an operational risk management framework were found to be applicable. Therefore, the conclusions identified from the empirical analysis can be summarised into the criteria that can assist municipalities to develop and embed a practical operational risk management framework in accordance with the latest approaches and governance in risk management. In addition, the criteria in Table 1 can serve as a checklist to evaluate the status of the implementation of such a framework. It could also be beneficial to address current uncertainties on the concept of an operational risk management framework and therefore addresses the research question of this article namely: are there clear guiding criteria for developing and implementing an operational risk management framework? To address this research question, the purpose of the article was to specify criteria for an operational risk management framework, derived from a literature review. In addition, the criteria can ensure that operational risk management is effective and form part of municipalities’ strategy and objectives. Although this article focused on the Metropolitan Municipalities in South Africa, the criteria can be regarded as generic. As such, it can be used by the District and Local Municipalities (or any other organisation) to develop and embed an operational risk management framework to ensure a proactive approach to saving costs, preventing losses and managing risks.
REFERENCES


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