University of KwaZulu-Natal

Value of enterprise risk management: Cross-sectional study of management perceptions at eThekwini Municipality

by

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DECLARATION

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Abbreviations

ERM   Enterprise Risk Management

COSO   Committee of Sponsoring Organisations of the Treadway Commission

Constitution   Constitution of the Republic of South Africa

Title

Value of enterprise risk management: Cross-sectional study of management perceptions at eThekwini Municipality

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Abstract as detailed

Key issue that this study addresses is the perceptions over enterprise risk management. Existing, are various debates over the value of enterprise risk management. There are compliance requirements and good governance recommendations for the implementation of enterprise risk management, however, organisations are constantly faced with the challenge of demonstrating the value of enterprise risk management to the end that executives are questioning the contribution, especially in times of rationalization and cost containment. Therefore, the purpose of the study was to explore the perceptions of enterprise risk management at eThekwini Municipality. This was a cross-sectional study conducted among 43 Risk Champions at eThekwini Municipality using a self-administered questionnaire. The entire population of Risk Champions was surveyed and hence the sample is the same as the population. The data lead to the following constructs of study: Resources relates to the level of establishment of enterprise risk management, Factors that affect implementation regarding enterprise risk management and adding of value, Alignment of ERM and governance process together with strategic thinking. These constructs are useful to understanding the perceptions of managers at eThekwini Municipality. Results found a significant relationship between resources and the implementation of enterprise risk management. There was also a relationship between

value and the implementation of enterprise risk management. Most respondents was in agreement that risk features in the strategy process of their departments with a significant portion remain neutral, perhaps indicating that they are not sure regarding risk's involvement in the strategy process of the department. The findings assisted in informing the enterprise risk management policy and strategy at eThekwini Municipality.

Chapter 1: Overview of the study

1. Introduction

Key issue that this study addresses is the perceptions over enterprise risk management. There are various existing debates over the value of enterprise risk management. There are compliance requirements and good governance recommendations for the implementation of enterprise risk management, however, organisations are constantly faced with the challenge of demonstrating the value of enterprise risk management to the end that executives are questioning the contribution, especially in times of rationalization and cost containment. Currently, there is limited studies that attempts to display the correlation between enterprise risk management and value for the organisation. eThekwini Municipality is no exception to this view with management constantly questioning the value that enterprise risk management adds or offers to the organisation. To address this problem, the purpose of the study was to explore the perceptions of enterprise risk management at eThekwini Municipality.

This chapter details the background of this study, focusing on the required research, the statement of the actual problem, the study purpose including the overall and specific objectives together with research questions, the expected results, scope or delimitations of the study, anticipated shortcomings or limitations, structure of the dissertation together with assumptions.

1.1 Study background

Enterprise risk management (ERM) has evolved as a universally accepted approach to risk management in organisations, moving away from the traditional silo mentality. Literature reviewed indicates that management perceptions affect the success of the implementation of ERM in business to add value to operations and drive strategies (Gatzert & Martin, 2015). Studies have been completed on management perceptions on enterprise risk management in forestry organisations (Eriksson, 2014), the shaping of perceptions in enterprise risk management in small to medium enterprises as dictated by owners characteristics (Falkner & Hiebl, 2015), demand for the alignment of governance

with business strategies and enterprise risk management business intelligence tools that successfully contribute to ERM effectiveness (Wu, Chen, & Olson, 2014),   ERM's dynamic ability to assist organisations in turbulent times and inconsistencies around the foundational components of ERM limiting comparability (Nair, Rustambekov, McShane, & Fainshmidt, 2014), ERM is concerned with much more than hazard risks which casualty actuaries primarily focus on creating a framework that pins together the various parts of actuarial areas of focus to gain a picture of the whole discipline and thus focusing on key areas of profitability, consistent results and creating value (Connair, 2013), due to not defining how ERM is used in practice academics are struggling to ascertain the linkage of practicing ERM and effect or value added to organisations and hence a minimum contingency framework consisting of various variables are be considered (Kaplan & Mikes, 2014), there is limited linkage between risk management enterprise drivers and implemented practices of risk management with a framework being suggested to marry these variables so that a conclusion can be derived (Hudin & Hamid, 2014), with ERM playing a prominent role in strategic planning and managers being increasingly held accountable for risks, it is likely that the organisations will direct increasing resources to enterprise risk management (Dickinson, 2001). There has been much acceptance that a renewed approach to risk should be one of enterprise wide risk management and not just risk management. Professionals from various fields are of the view that this renewed wider and holistic view of risk is all encompassing. Further, work in the ERM space has not really moved in line with areas of strategy, change management, planning and other relevant topics due to various perceptions of ERM that remain untapped and still to be explored (Bromiley, McShane, Nair, & Rustambekov, 2015).

To understand the perceptions enterprise risk management, chapter 2 attempts to understand the relationship between resources and enterprise risk management, governance processes & strategic thinking and enterprise risk management and lastly the relationship between value and enterprise risk management. All of the above has been summarized below are under these respective sub-sections.

1.1.1 Resources and enterprise risk management

Resources is a key ingredient in most processes to ensure success. To successfully implement enterprise risk management in organisations, there needs to be a certain level of resources that are afforded to this function. This area considers the impact that the level of resources has on the implementation of enterprise risk management. Under this sub-section, the following six areas are covered: dedicated personnel for risk management; management has given priority to risk management on the organogram; risk management is graded at the correct level to attract the required resources; risk champions packages are flexible enough to attract the required resources; risk management training has been provided to risk champions; and access to risk software has been made available.

In the insurance industry which is risk based, studies have been conducted to ascertain the value that ERM delivers. Lechner and Gatzert (2017) found that there is a positive relationship to value in insurance organisations that utilised ERM versus organisations that did not, thereby contributing to firm value. However, there were some limitations like that of the small sample size utilised and so on (Hoyt & Liebenberg, 2011). A study on the adoption of ERM as a practice in the long run effect on the organisation has yield some interesting results. It was found that there is very little effect on current value to the firm (Bangaan Abdullah, Janor, Abdul Hamid, & Yatim, 2017) in cases where ERM was adopted in the previous year, taking time to reflect investment in ERM. In fact, in certain instances it was found that there was decrease in earnings volatility, reduction in the weighted average cost of capital and an increase in profit and return on capital, where ERM was applied (Lai & Shad, 2017). Whilst markets responded positively to the appointment of a Chief Risk Officer which is closely aligned to the establishment of ERM in the organisation, there is minimum evidence to support the reduction in earnings volatility with the adoption of ERM and hence value derived from ERM (Pagach & Warr, 2010).

The financial crises in 2007 has forced the re-visitation of ERM and whether it adds value to an organisation as it failed to do its job (Allayannis, 2017). Many players like regulators, financial institutions, professional bodies and corporations at large have started to

reassess the impact of ERM on the economic situation that companies find themselves in at the recessionary period with massive displacements and layoffs (Bednarzik, Kern, & Hisnanick, 2017). These organisations also found that there was a need to consider integrated or enterprise risk management as opposed to the traditional silo based approach of individual risk management that does not talk to each other (Abkowitz & Camp, 2017). This study found that the results of previous research was ambiguous of whether ERM is directly related to firm value, however, they have found that as ERM increases so does the firm value increase as well, regardless in which industry the company is operating. Variables such as beta, size of the firm, profits its generates and level of financial leverage all affect the organisations value whereas the dividend policy and sales or revenue of the firm does not (Bertinetti, Cavezzali, & Gardenal, 2013, July).

Research is still being undertaken to understand the impact of enterprise risk management on organisations. Currently, there is limited evidence indicating a direct correlation with resilience and implementation of ERM. Further, there are many papers on how enterprise risk management should look but limited information on the actual steps of implementation required. Current studies attempt to unpack the impact of enterprise risk management on organisations, especially their resilience and ability to add value and impact on profitability; however, there is no conclusive evidence as yet. There is much uncertainty regarding the influence of ERM on the organisation and therefore, the perceptions of enterprise risk management in organisations have not been fully explored and remain to be understood. The problem to be understood is the perceptions of enterprise risk management at eThekwini Municipality. The research question is: What is the perception of eThekwini Municipal managers on the role of ERM. The study focuses on management perceptions of enterprise risk management at eThekwini Municipality. Perceptions are shaped by beliefs and seeing the beliefs are the center of this Classical Decision theory, there is a relation of this theory to this study that is proposed.

1.1.2   Risk management, governance processes and strategic thinking

For any process to be taken seriously in an organisation, there has to be alignment with the strategy and it needs to be rolled out in a properly governed manner. Risk Management is one such process that sits together with strategy setting and deals with

good governance in an organisation. Therefore, the establishment of good governance and strategic thinking was considered here. Under this sub-section, the following six areas for covered: risk features in the strategy process of the department; risk is consulted in determining the appropriate strategy for the department; risk is the foundation to strategy and governance processes of the department; opportunities are pursued even if it involves some degree of uncertainty; department executives view risk as inextricably linked to development of strategy; and good governance is risk based.

Alignment is often internally focused consuming too much resources, rather alignment with higher risk areas is required (Tavis, 2017). If strategy is risk aligned, profitability is increased (Wanjohi & Omwenga, 2017). ERM requires an integrated approach to risk management which necessitates alignment of strategy, corporate governance and risk (Bromiley et al., 2015). ERM is a key enabler to company strategy and governance processes (Elahi, 2013). ERM provides a dynamic capability for organisations to be agile and respond in various conditions (Nair et al., 2014). Risk assessment frameworks are used to direct strategy to prevent degeneration of seeds (Thomas-Sharma, Andrade-Piedra, Carvajal Yepes, Hernandez Nopsa, Jeger, Jones, Kromann, Legg, Yuen, Forbes, & Garrett, 2017). Conceptual risk frameworks better informs decision making by focusing on opportunities to reduce risks (Gwinn, Axelrad, Bahadori, Bussard, Cascio, Deener, Dix, Thomas, Kavlock, & Burke, 2017). Risk management in forestry organisations are underpinned by owners subjective perception of risks (Eriksson, 2014). Considering cost versus benefit, additional resources demanded by ERM contributes to good governance and strategy alignment (Dey, Clegg, & Cheffi, 2013).

Good governance is the cornerstone to risk management which directs strategy in developing urban settlements that are safe and resilient to adverse weather conditions (Murray, 2017). Strategic choices and governance are challenges that need to be managed in addressing disaster risk management (Stavenhagen, 2017). Opportunities are pursued even if it involves some level of uncertainty (Uygur, 2017). There is a positive correlation with the degree of uncertainty and levels of profitability (Amoroso, Moncada-Paternò-Castello, & Vezzani, 2017). By also focusing on opportunities, ERM increases identification and management of strategic risks (Connair, 2013). ERM is understood as

a core ingredient of good governance and strategy implementation (Fraser & Simkins, 2016). ERM encourages accountability in organisations (Tekathen & Dechow, 2013). Involvement of senior management is key to aiding strategy setting and the governance base in the organisation (Zhao, Hwang, & Low, 2013).

Management through in-depth practical understanding of business is well positioned to contribute to shaping enterprise risk management practices (Bromiley et al., 2015). Organisations that adopted a strategic approach to ERM enjoyed enhanced flexibility and improved performance (Arnold, Benford, Hampton, & Sutton, 2012). The Basel Committee from the financial services sector, in setting the reporting requirements for risk, sets the foundation for governance (Grody & Hughes, 2016). Significant governance and corporate failures are indicative of challenges in implementing ERM which is left to practitioners to influence executive management about (Mikes & Kaplan, 2013). ERM does not explicitly deal with understanding the maximum financial impact an organisation can face before it ceases to exist (Alviniussen & Jankensgard, 2015). ERM must be flexible and adaptable to contribute to achievement of organisations objectives (Clyde-Smith, 2014). Enterprise sustainability risk management ensures organisational strategy and governance requirements are met, resulting in creation of value (Soomro & Lai, 2017).

1.1.3 Risk management and value

In these times of cost containment where organisations are forced into doing more with less, value is an obvious requirement that is occupies the front seat of agendas. Risk management consumes resources and risk management functions are constantly being asked the question regarding the value that it contributes to the organisation as a whole. Under this sub-section, the following six areas were covered: risk contributes to performance scorecard; risk is taken seriously by officials; risk is welcomed by officials; risk is missed is absent from monthly meeting agendas; risk champions are given adequate time at department meetings; and risk champions are frequently called on to input into decisions.

While ERM adds value to organisations process in the form of efficiencies and effectiveness, management need to be patient as implementation takes time (Gates,

Nicolas, & Walker, 2012). ERM considers risks in a holistic manner and requires the appropriate risk culture as a foundation for good implementation (Gatzert & Martin, 2015). In the water industry, it was found that strong implementation and consistent monitoring of ERM results in strong performance and ultimately sustainability (Daniel & Sojamo, 2012). A proxy measure devised by Standards and Poors contend that there is a positive relationship with traditional risk management implementation and firm value but no further increase in value from the implementation of ERM (McShane, Nair, & Rustambekov, 2011). Individuals dedicated to looking after risk and reporting directly to the Chief Executive Officer provided the greatest value to the organisation as part of risk implementation (Grace, Leverty, Phillips, & Shimpi, 2015). If there is no risk management system in place in Chinese construction firms, this may lead to risks not being cascaded to operational levels (Xianbo, Bon-Gang, & Pheng, 2012). In certain instances ERM is seen as a performance rather than a risk management system (Schiller & Prpich, 2014). More advanced implementation of ERM provides companies with better abilities to be agile in various market conditions (Nair et al., 2014).

Organisations that are at an infancy stage with the implementation of ERM have difficulty in determining whether ERM is adding value or not (Roslan & Dahan, 2013). Four core components of ERM needs to be implemented for the implementation to be considered good and setting it apart from firms not implementing ERM (Lundqvist, 2014). The more mature the ERM function, the greater the value for the organisation with risk culture being implemented from top to bottom being key (Farrell & Gallagher, 2015).

There is much ambiguity regarding the value ERM is adding with unhappiness being expressed on current risk frameworks (Mikes & Kaplan, 2015). ERM leads to a company being more agile and hence capitalising on opportunities, increasing competitiveness (Brustbauer, 2016). ERM adds economic value to the firm which takes into account the companies cost of capital that investors utilise to invest (Shad & Lai, 2015). Presence of barriers make organisations unaware of the value that ERM has to offer (Zakuan, 2012). ERM assists organisations to manage risks so that objectives may be achieved, contributing to performance and adding value (Lai & Shad, 2017). Depending on circumstances, individual risk management may be an enabler to ERM which increases

firm value (Lin, Wen, & Yu, 2012). It is possible to package and quantify risks according to various contexts or settings to arrive at the best value for the organisation (Choi, Ye, Zhao, & Luo, 2016). The perception of ERM effectiveness is related to the frequency of risk assessments, reporting and techniques used for risk management (Paape & Speklé, 2012). Whilst there is much agreement on the technical aspects of ERM, there are conflicting views on whether ERM adds value to the organisation (Haji, Isa, & Zainuddin, 2014).

In Western United States it was found that more resources are afforded to analysing the effects of drought rather than preventing the effects of it in the first place (Fontaine, Steinemann, & Hayes, 2012). Whilst risk champions are embedded in line departments, they is no certainty whether they are given enough time at department meetings (Ching & Colombo, 2014). In universities in the United Kingdom, risk champions are more frequently called upon to input into decision making (Soin & Collier, 2013).

1.2 Focus of the study

This study is about the perceptions of enterprise risk management at eThekwini Municipality. Perceptions differ amongst individuals. Some may believe that enterprise risk management adds value whereas others may not. It is important to understand the impact that enterprise risk management is having at eThekwini Municipality. Therefore, this study assists in understanding how management perceives the value derived from enterprise risk management.

1.3 Problem statement

Existing, are various debates over the value of enterprise risk management. There are compliance requirements and good governance recommendations for the implementation of enterprise risk management, however, organisations are constantly faced with the challenge of demonstrating the value of enterprise risk management to the end that executives are questioning the value added, especially in times of rationalization and cost containment. As is the case at eThekwini Municipality, there are unanswered questions or uncertainties regarding the value of enterprise risk management in organisations as evidenced in the short review of literature in the background hence, the research problem

was the perceptions of eThekwini municipality managers on the role of enterprise risk management.

1.4 Purpose of the study

Following from the study background, the focus of the study and problem statement, the main objective of the study was to determine the management perceptions of ERM at eThekwini Municipality.

1.5 Objectives

The detailed objectives of my study was as follows:

- To identify the relationship between resources and the level of establishment of ERM at eThekwini Municipality.
- To identify the factors that affect the implementation of ERM and whether ERM adds value to eThekwini Municipality.
- To identify the alignment of ERM to governance processes and strategic thinking at eThekwini Municipality.
- To provide input into the review of the ERM policy and strategy which is part of the ERM Framework of eThekwini Municipality.

1.6 Hypothesis

$H_{1.0}$ There is no relationship between resources and the level of establishment of ERM at eThekwini Municipality.

$H_{1.1}$ There is a relationship between resources and the level of establishment of ERM at eThekwini Municipality.

$H_{2.0}$ ERM does not add value to eThekwini Municipality.

$H_{2.1}$ ERM adds value to eThekwini Municipality.

$H_{3.0}$ There is no alignment of ERM to governance processes and strategic thinking at eThekwini Municipality.

$H_{3.1}$ There is alignment of ERM to governance processes and strategic thinking at eThekwini Municipality.

1.7 Motivation of the study

The area of formalised enterprise risk management is a fairly new initiative for local government. Municipalities have been practicing enterprise risk management on an informal basis like most organisations in the past with no holistic approach to measurement and monitoring thereof. As this function has been rolled out, there has been many change management issues experienced in adopting this process. The compliance directives in legislation like the Municipal Finance Management Act and good practice guidelines like the King Report has assisted this process. The enterprise risk management function requires much investment in resources if it is to be embedded properly. Many organisations are reluctant to invest resources that results in risk maturity past compliance requirements to influence decision making which is the aim of implementing enterprise risk management. Therefore, this study is trying to identify the factors that affect the implementation of ERM and whether ERM adds value to eThekwini Municipality, identify the alignment of ERM to governance processes and strategic thinking at eThekwini Municipality and provide input into the review of the ERM policy and strategy which is part of the ERM Framework of eThekwini Municipality.

1.8 Significance of the study

Since this study is surveying the Risk Champions who are practically on the ground implementing the risk management program, their feedback on the questionnaire is invaluable to inform the objectives of the study. This study also provides a dip stick analysis of feedback from Risk Champions, whether enterprise risk management is adding value to the organisation or not.

1.9 Research Methodology

To gather data, a cross-sectional study was conducted among all the 43 Risk Champions using a self-administered questionnaire. The 43 Risk Champions representing all the

various units in the organisation and hence the element of bias to any one or a group of units is removed. The recruitment of respondents was done by speaking to the Risk Champions at meetings and requesting them to complete the survey, explaining to them that their input is invaluable as it will be taken into account to improve the risk management process at eThekwini Municipality. The results of the survey was analysed and used to conclude on the findings. More specifically, a phenomenological research design was followed as the experiences of managers at eThekwini Municipality was explored, i.e. the phenomenon of perceptions.

1.10   Outcomes expected from the study

The outcome of this study contributed to being able to understand managers' perceptions at eThekwini Municipality. These findings assisted in informing the enterprise risk management policy and strategy at eThekwini Municipality. In addition, the resultant findings may be utilised by similar entities in this industry, i.e. other metros in the country to obtain an understanding of the perceptions of enterprise risk management within metros in South Africa and how it affects decisions regarding enterprise risk management.

1.11   Scope or delimitations of this study

Focus of the study was on perceptions of management on enterprise risk management at eThekwini Municipality. This study did not cover both the public sector in its entirety, rather only the eThekwini Municipality as part of the eight metros within the local government sector, specifically considering management perceptions on enterprise risk management.

1.12   Anticipated shortcomings or limitations of the study

All industries are not taken into account by the study, rather just the local government industry, specifically metropolitan municipalities and in particular, eThekwini Municipality. Other organisations within the public sector may have other specific factors like different structures, organizational cultures, differing skills, situational differences, differing budgets and various other differing factors that distinguish eThekwini Municipality from them. Further, eThekwini Municipality does not have dedicated risk personnel in each department and follows the risk champions' model to embed risk in the organisation which

may differ to other organisations configuration, however, the eThekwini Municipality being category A municipality with a committee mayoral system structure, reports on matters relating to risk at the Audit Committee which plays the oversight and deliberation role for the Executive Committee and Council.

1.13   Study assumptions

A definite certain level of knowledge in enterprise risk management by management perceptions was assumed. Risk Champions are individuals that are properly trained in the function of enterprise risk management together with ongoing updates and communication sessions to assist them to understand risk. Further, Risk Champions are exposed to leadership organisations in the form of quarterly contact sessions with the risk professional body in South Africa together with networking with other risk professionals in the province. The risk department is in constant communication with the Risk Champions in the organisation to ensure support and assistance is provided where needed. It is therefore submitted that Risk Champions possess a certain level of skill related to enterprise risk management and hence a certain level of knowledge in enterprise risk management was assumed in selecting Risk Champions.

1.14   Conclusion

We see from this chapter that in the area of enterprise risk management at eThekwini Municipality, there remains unanswered questions as to the value that enterprise risk management is adding to the organisation which is also the case in many organisations around the world. Hence, the main purpose of this study to address the problem statement was to determine the perceptions of enterprise risk management at eThekwini Municipality. The constructs of resources and enterprise risk management; risk management, governance processes and strategic thinking; together with risk management value were the key focal points of this study. The significance of this study has practical learnings for the organisation with assumptions, scope or delimitations and anticipated shortcomings or limitations detailed to contextualise the findings.

2. Theoretical Framework and Literature Review

2.1 Introduction

The focus of this research is the perceptions of management on enterprise risk management at eThekwini Municipality. Key issue that this study addresses is the perceptions over enterprise risk management. Existing, are various debates over the value of enterprise risk management. There are compliance requirements and good governance recommendations for the implementation of enterprise risk management, however, organisations are constantly faced with the challenge of demonstrating the value of enterprise risk management to the end that executives are questioning the contribution, especially in times of rationalization and cost containment. Currently, there is limited studies that attempts to display the correlation between enterprise risk management and value for the organisation. To address this problem, the purpose of the study was to explore the perceptions of enterprise risk management at eThekwini Municipality. A critical analysis of the denotation of literature reviewed, highlighting major offerings of important studies, major gaps and flaws, the necessity for further research and contributions to or extension of knowledge specific to this area was completed.

2.2 Theoretical review

In selecting literature for review purposes, the Classical Decision theory formed the basis of review for the study. Originating in the twentieth century, the above theory is centered on the notions of conditions, outcomes and actions. This particular theory concerns itself on the rationality of instruments which relates itself with the way agents accomplish goals, relative to their individual beliefs. Decisions are taken under one of three conditions, i.e. risk (notwithstanding uncertainty of outcomes there is an understanding of probabilities); certainty (action outcomes have certainty attached to them), and uncertainty (unknown probabilities of outcomes). Decisions are made in various ways under conditions of uncertainty, however, the agents probabilities which are subjective are utilised in decision making under risk (Brustbauer, 2016). The study focuses on management perceptions of enterprise risk management at eThekwini Municipality. Perceptions are shaped by beliefs and seeing the beliefs are the center of this Classical Decision theory, there is a relation of this theory to this study that is proposed.
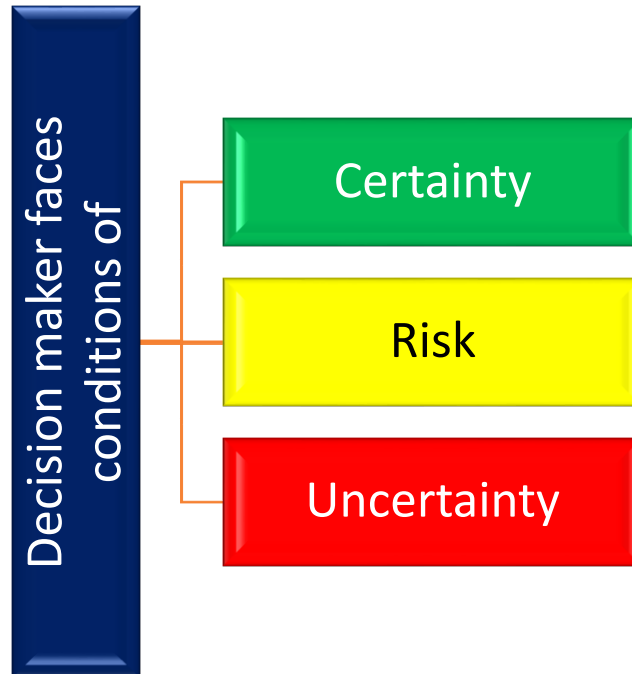
Figure 2.1: Classical Decision Theory

As per the Classical Decision Theory, risks are a concept of various possible occurrences which has embedded in it socio-human processes that are uncertain (Gheorghiu, Vidrascu, & Niculescu, 2014). As organisations are making decisions as to the value, level of resources and strategy and governance on the level of implementation of ERM, they are faced with uncertainty, certainty and risk.

2.3 Empirical review of literature

The Committee of Sponsoring Organizations which is part of the Treadway Commission (COSO) refers to enterprise risk management (Commission & (COSO), 2004) as a process which is implemented by both an organisations board and other persons, used in crafting strategy across the entity which is intended to bring to fore possible events that may have an effect on the organisation, dealing with risk within it appetite, to result in reasonable assurance over the realisation of organisational objectives.

With dependent variable being enterprise risk management and the independent variables of Resources, Value and Governance & Strategy, we explored literature that is directed at assisting us to determine the relationship between resources and the level of

establishment of enterprise risk management at eThekwini Municipality, determine whether enterprise risk management adds value to eThekwini Municipality and alignment of enterprise risk management to governance processes and strategic thinking at eThekwini Municipality. We will explore each of these independent variables in relation to the dependent variable in the next few sub-sections.

2.3.1 Resources and enterprise risk management

2.3.1.1 Dedicated personnel for risk management

ERM is widely accepted as the method to identify, analyse and manage risk in organisations. The dedicated support from management and the organisation(Liu, Low, & Zhang, 2017) in general is key to the successful implementation of ERM. It was found that the support of top management, the audit committee and the existence of a chief risk officer which all talk to resources being afforded to the implementation of ERM is a key ingredient (Mensah, 2016).Having dedicated resources is imperative to the proper management of risk in an organisation. Stroke is major cause of death in the United States of America. It has been shown that dedicated resources attending to patients as they come into the hospital is a key factor in saving their lives (Doberstein, Torabi, Yan, Mctaggart, Doberstein, & Jayaraman, 2017). Therefore, it can be concluded that without the presence of dedicated resources to manage risk, proper risk management may not be in place.

Enterprise risk management in small and medium sized enterprises is mainly undertaken by the owner and/or a relatively small or limited management team (Falkner & Hiebl, 2015). The lack of resources in these enterprises is a key constraining factor in implementing an enterprise risk management solution in the organisation. Entrepreneurs in this form of business do not view the opportunity side of uncertainty as a focus area. Secondly, the impact of potential negative consequences is focused on and not on the likelihood of the uncertainty. Thirdly, most entrepreneurs would prefer precision in estimation of risk but have failed to single out or identify an accurate measure of risk (Falkner & Hiebl, 2015). Resources availability in an organisation is key to the implementation of ERM. In SMEs generally, we find that there is an absence of an abundance of resources akin to those in well-established larger firms. SMEs have less of

an incentive to implement ERM and hence well-established organisations have ERM programs at a far higher levels of development than SMEs or family orientated businesses. Whilst management is SMEs may know their business well, they may not be identifying and seizing all the opportunities in maximizing their growth potential (Brustbauer, 2016).

The level of ERM implementation across organisations vary due to many reasons amongst which, is the availability of resources. Owner managed business, due to the limited availability of resources do not dedicate much resources to the implementation of ERM (Paape & Speklé, 2012). From the resource limitations and absence of a scientific way to identify and manage risk in small to medium sized enterprises, risk in these institutions is largely shaped by the entrepreneur's experience, capacity to manage risks and perceptions of risks, which is reliant on these very limited personal and organisational resources shaping the enterprise risk management approach (Falkner & Hiebl, 2015).

In view of the limited resources available, larger firms are more likely to have well established enterprise risk management functions than small to medium sized enterprises where not much effort is placed on identification, analysis and management of risks, following a passive approach to enterprise risk management (Brustbauer, 2016). In unpacking enterprise risk management in small and medium sized businesses, highlights the importance therein and the fact that the characteristics of the owners in these businesses play a pivotal role in business strategies in these organisations. For certain steps in the enterprise risk management process, only theoretical research is available. The sophistication and risk appetite of the organisation may increase with an increase in the size of the firm (Falkner & Hiebl, 2015). Since 1994, municipalities in South Africa started implementing the Disaster Management Act that deals with disasters and how to prevent and prepare to respond to these events. It was found that there are limited cases where personnel have been dedicated to disaster risk management activities as they are busy with other duties in various municipal units (Wentink & Van Niekerk, 2017). Therefore, the limitation of dedicated personnel for risk management activities, which disaster is part of, is supported by this case on hand.

2.3.1.2 Management has given priority to risk management

Risk management must be given priority in terms of staffing and other resource requirements. Resources are on constant constraint in organisations, especially considering the tough economic climate that we operate in which may cause exit of skilled resources (Russo, Pires, Perelman, Gonçalves, & Barros, 2017). Given these limitations, management is constantly toiling with optimising the allocation of scarce resources. For a proper implementation of ERM, management must allocate sufficient human and other resources (Zhao et al., 2013). Resources has been identified as a key input into the implementation of ERM. Companies are constantly trying to do more with less, especially considering the economic times that companies find themselves in. Having said this, management should allocate sufficient resources to the proper implementation of ERM (Zhao et al., 2013). The recognition of ERM and Supply Chain Risk Management is on the raise but there is limited integration in key areas like capabilities, resources and strategies. Companies are also questioning the amount of resources that need to be applied to enterprise risk management activities that establish mitigation plans to manage the achievement of objectives and prevent disruptions to operations. The reason for this is that there are no studies that actually quantify the actual return from investment of resources in ERM implementation in the organisation (Curkovic, Scannell, Wagner, & Vitek, 2013).

2.3.1.3 Management of risk is graded at correct levels, attracting appropriate resources

It is necessary to ensure that management of risk is graded at correct levels to attract required resource just as in any position in the organisation to contribute positively to profit (Song, 2017). There is more and more emphasis on companies to provide resources to ensure that ERM is given dedicated support in the form of expertise. The SEC in America has contemplated having specific disclosures for qualifications of directors with regards to risk management experience (Baxter, Bedard, Hoitash, & Yezegel, 2013). This confirms the move towards grading risk management expertise that is required at the correct level.

2.3.1.4 Risk Champions packages

Human beings are motivated not only by financial gain. This is due to human beings attaching much importance to other factors except monetary gain. School teachers were found to be motivated by not only salary but other factors like working conditions, flexibility, respect from the community and satisfaction once pupils do well (Nyamubi, 2017). Similarly, Risk Champions are human beings that are motivated not only by financial gain but also flexible conditions of employment. Rigid staff policies and procedures do not contribute to staff needs in detail and hence does not make the job more appealing to them. Public Services in Singapore have a low staff turnover rate due to the fact that flexible staff policies and procedures dictate the quality of performance of the employee and ultimately the organisation (Tessema, Gok, Ngoma, Tesfayohannes, & Fernando, 2017). Risk Champions that are exposed to flexible staff policies and procedures, result in more appealing jobs.

2.3.1.5 Risk management training

Risk management training is a key ingredient in embedding enterprise risk management and reducing the risk of sub-optimal embedding materialising (Gilchrist, Storr, Chapman, & Pell, 2017). This training requires organisations to allocate adequate resources to ensure that staff are appropriately trained in the responsibilities of risk management. In public sector health risk departments, it was found that proper level of financial support and administration provision were important in contributing towards the competency of staff that responded to risks to the extent that higher level of training was required to ensure that staff were up to speed with risk management competencies (Hao, Ren, Wu, Hao, Sun, Ning, & Ding, 2017). Therefore staff that are provided with adequate risk management training are better equipped to carry out their responsibilities. Risk management training is important to improving the risk culture and risk maturity in an organisation which requires investment by allocating resources to this initiative. Staff involvement in risk management process at Safaricom was not at the optimum level to contribute to the proper embedding of enterprise risk management (Omuga, 2017). This is due to the limited level of investment in resources with regards to training in risk management which should be in place.

2.3.1.6 Access to risk software

Access to risk management software is a key resource in the implementation of enterprise risk management. The software CRISIS is a valuable tool that allows users to perform hazard assessments around the world (Aguilar-Meléndez, Schroeder, De la Puente, González-Rocha, Rodriguez-Lozoya, Córdova-Ceballos, Calderón-Ramón, Escalante-Martínez, & Laguna-Camacho, 2017). This proves that users should have access to the risk software to perform the needed analysis to be in a position to appropriately analyse risks. There are various business intelligence tools and techniques that contribute successfully worldwide to the effectiveness of ERM. Further, tools on risk management have also benefitted from the various business intelligence tools and technics that have been developed which indicate the need for resources in managing risk (Wu et al., 2014). There is increasing interest over ERM and it is seen as a critical management tool in identifying and analysing risks. Many factors determine the level of implementation of ERM in the organisation amongst which revenue and profitability are included, hence linking resources to the level of implementation of ERM (Yazid, Razali, & Hussin, 2012). Resources play a key role in the implementation of ERM in the organisation. It is also difficult to readily source ERM professionals in the market and hence many organisations opt to outsource the resourcing of their ERM functions in order to meet the current demand from ERM with a view of gradually staffing up their functions internally (Bowling & Rieger, 2005).

2.3.2   Risk management, governance processes and strategic thinking

2.3.2.1 Risk features in the strategy process of the department

An organisation that aligns risk and strategy is poised for strategic advantage. Often alignment is extremely internally focused, consuming too much resources and hence the need to align strategy in areas of high risk in order to achieve the vision of the organisation (Tavis, 2017). Risk and strategy must be aligned. There is a positive correlation between the implementation of risk management and profitability of the organisation which is what strategy tries to achieve (Wanjohi & Omwenga, 2017). If risk and strategy is aligned, profitability is increased. In this world of uncertainties, ERM is becoming a key enabler to companies strategy and governance processes. These in turn direct the

competitiveness of these institutions with ERM being a key initiator to this process (Elahi, 2013). ERM involves an integrated approach to management of risks companies' face, which in first instance necessitates alignment of strategy, corporate governance and risk. Scholars and practitioners need to embark on a more detailed stance regarding activities and processes for the implementation of risk to be more effective which assists in aligning organisational systems and planning approaches with ERM (Bromiley et al., 2015). Enterprise risk management is considered a dynamic capability for organisations to respond in turbulent periods. It was found that organisations that possessed superior enterprise risk management capability had enjoyed a smaller decrease in share price in downturns and superior profits in upturns. Organisations require various sorts of agile abilities in responding to various changes in environments (Nair et al., 2014).

2.3.2.2 Risk is consulted in determining the appropriate strategy for the department

Risk management should inform strategy. The risk assessment framework has been utilised to direct the strategy to prevent degeneration of seeds (Thomas-Sharma et al., 2017). This shows that risk management is used to direct strategy. ERM demands additional resources but considering the cost versus benefit analysis, it is well worth the trouble as ERM contributes to the good governance and strategy alignment (Dey et al., 2013). Risk management informs decision making and decision making is part of strategy execution. A conceptual health risk framework focuses on best opportunities to reduce environmental risks which better informs decision making (Gwinn et al., 2017). Therefore risk management is informing strategy through informing decision making. Private forest owners in Sweden are in general not concerned about risks in a forest. Forest owners risk perceptions and responses are centered on perceived control and risk responses. Risk management in forests is underpinned by their owners' subjective perception of risks which are not necessarily correlated to forest regulators and research institutions (Eriksson, 2014).

2.3.2.3 Risk is the foundation to strategy and governance processes of the department

Risk forms the cornerstone to strategy and good governance processes in an organisation (Gachie & Govender, 2017). Good governance is rated extremely important in developing safety and resiliency to adverse weather conditions urban settlements

(Murray, 2017). Therefore good governance is imperative to risk management which directs the strategy in developing urban settlements that are safe and resilient to adverse weather conditions. Disaster risk management implementation is driven by strategic choices and governance. Climate change risk is not the actual problem, rather governance and strategic choices, i.e. the manner in which people at various levels in an organisation respond to the natural crises risk which is exemplified by the growth in urban areas (Stavenhagen, 2017). Therefore, strategic choices and governance are challenges that need to be managed in addressing disaster risk management implementation, displaying that risk is the foundation to strategy and governance processes in the organisation.

2.3.2.4 Opportunities are pursued even if it involves some degree of uncertainty

People go after opportunities even if there is some level of uncertainty involved in it. This is the essence of business. Entrepreneurs are making judgments about the future by evaluating opportunities in terms of uncertainty of outcomes (Uygur, 2017). This proves that opportunities are pursued when there are uncertain outcomes involved. Risk is not only the negative consequences, rather the opportunities that are also presented to management. By adopting an integrated approach to risk management like ERM, management increases their chances of not missing out on the identification and management of strategic risks (Connair, 2013). Business decisions are made in the midst of opportunities which involve a certain degree of uncertainty. There is a positive correlation with the degree of uncertainty and levels of profitability that may ensue (Amoroso et al., 2017). Therefore, for opportunities to be ceased, uncertainty is a pre-requisite and the higher the degree of uncertainty, the more profitable the opportunity may be.

2.3.2.5 Risk as inextricably linked to strategy

ERM has come to be understood as a recognition and core ingredient of good governance and strategy implementation. A number of studies are showing that Regulators, Boards and Senior Management who are implementing ERM are aligning to their governance and strategy initiatives in the organisation. It is proposed that where there is strong implementation of ERM, management will see this as essential for proper and good

governance and strategy implementation (Fraser & Simkins, 2016). In identifying critical success factors that impact ERM, the involvement of senior or top management is a key ingredient which in turn aids the strategy setting and the governance base in the organisation (Zhao et al., 2013). In contrast, ERM, instead of unpacking corporate affairs in an easy to understand manner, it unveils or brings out the identification of risks and processes and encourages accountability in organisations, raising doubt of the effect of ERM on governance and strategy in companies (Tekathen & Dechow, 2013).

2.3.2.6 Good governance

Business executives, research institutions and academic individuals have subscribed to good governance which dictates alignment with governance processes in an organisation and its strategic thinking (Lin, MacMinn, Tian, & Yu, 2017). The need for management involvement in ERM research has been highlighted. ERM in its infancy stages, has largely been confined to the finance and accounting industries, missing the input from management. Further, relevant studies in the management of enterprise risk, strategic thinking, change in organisations and other relevant areas have not informed enterprise risk management (Viscelli, Hermanson, & Beasley, 2017). The effect of ERM on corporate culture is not properly articulated in studies and whilst literature describes what ERM should look like in organisations, limited literature attempts to provide a step-by-step approach to implement ERM. Management, through their in-depth understanding of business is well positioned to contribute practically to shaping enterprise risk management practices in organisations to talk to practical business operational issues (Bromiley et al., 2015). ERM has been positioned as a strategic focus for management to facilitate global governance relationships that enhance effectiveness of international supply chain relationships. Organisations that adopted a strategic approach to ERM, enjoy enhanced flexibility and improved performance (Arnold et al., 2012).

The Basel Committee that set reporting requirements for risk, sets the foundation for the governance of the organisation as it relates to risk which in turn influences strategy (Grody & Hughes, 2016). The use of a mathematical model in embedding ERM is evident in streamlining the strategic and governance decisions to be made by an organisation. This model constrains the various risks that the organisation faces in trying to achieve its

objectives (Ai, Brockett, Cooper, & Golden, 2012). ERM strategies are utilised in developing operating and regulatory frameworks within which business exist, limiting risk and providing an environment that is conducive to collaboration of research. ERM is useful in determining opportunities to exploit the identified gaps to be competitive. ERM was utilised to define the operations and governance framework of the organisation and must be flexible and adaptable in order to achieve the objectives of the organisation (Clyde-Smith, 2014).

Significant governance and corporate failures is highly indicative of challenges associated with ERM being properly implemented in organisations (Viscelli et al., 2017). ERM may take an active role is driving strategy and governance processes around allocation of resources, planning and reward systems or may assume a more passive contingency role of looking at the demands, opportunities and politics of the situation and closing the gaps left by other assurance providers. Either way, it is up to ERM practitioners whether they ensure that their function is seen as, and is important in the eyes of executive management (Mikes & Kaplan, 2013). Notwithstanding that ERM is integrated enterprise wide and brings all risks together in understanding the exposure that an organisation faces, it does not explicitly deal with the maximum financial impact that a business can endure before it goes bust, i.e. the worst case scenario. This risk bearing capacity of the firm is negatively correlated to the required cashflow requirements. So whilst corporate policy is driven by ERM, it is not explicit regarding maximum financial impact and hence directing strategy in the organisation (Alviniussen & Jankensgard, 2015). Enterprise sustainability risk management is supported by the foundations of enterprise risk management and sustainability management. Enterprise risk management and sustainability management through the framework of enterprise sustainability risk management contributes to the sustainability of organisations by ensuring that the organisations strategy and governance requirements are met and further resulting in the creation of value (Soomro & Lai, 2017).

2.3.3 Value

2.3.3.1 Risk contributes to performance scorecard

As ERM is rolled out in organisations, there is much uncertainty in the market whether ERM adds value to business or not (Mikes & Kaplan, 2015). Notwithstanding this, there is limited research in this area of whether ERM adds value to the organisation. While trying to quantify the approximate value that ERM adds to the firm, another method would be to consider the effect of ERM on strategic goals of the organisation (Viscelli et al., 2017). Early research done by COSO indicate that ERM aids increased understanding, adds value, improves efficiency, reduces compliance costs, improves transparency and reduces earnings volatility (Callahan & Soileau, 2017). ERM assist in improving company performance by providing executives with improved information to make better decisions and hence adding value in this way(Florio & Leoni, 2017). Further, it takes time to implement the ERM process so companies have to be patient in order to realise the value from the implementation process of ERM (Gates et al., 2012).

The factors that affect the implementation of enterprise risk management in an organisation and whether enterprise risk management adds value to organisation's performance are key questions which occupy the minds of management when evaluating the enterprise risk management function (Haji et al., 2014). The magnitude of the company and the level of organizational ownership are positively related to company performance and value creation (Abdallah & Ismail, 2017). The relationships of other determinants of enterprise risk management show results in differing directions, eroding consistency (Gatzert & Martin, 2015). An enterprise risk management system facilitates the better management of an organisation's risks in a holistic manner through the synergistic effects of managing cross cutting risks (Klein & Ruark, 2017). Human and financial resources together with IT systems are seen as limitations to the implementation of enterprise risk management. Further, the appropriate culture and incentives are necessary to make certain of a successful implementation of enterprise risk management (Gatzert & Martin, 2015). Often there are insufficient details regarding the embedding and implementation of ERM. This particular shortcoming is substituted by existence of a Chief Risk Officer or in part by key risk wording to indicate the level of risk implementation

(Grace et al., 2015). Studies regarding the value that enterprise risk management creates are normally completed via surveys (Gatzert & Martin, 2015).

In the water industry, ERM has been identified as a critical tool to understand objectives, identify risks, monitoring and mitigating risks, increasing transparency and accountability in the company, with ultimate focus on sustainability (Daniel & Sojamo, 2012). ERM also assists in conversion of some of these negative consequences into opportunities (Volkov, McIntyre, & Prina-Mello, 2017). It further allows for oneness of purpose and alignment of vision across all levels in the organisation. Once this ERM tool is in place, constant review is required to ensure that it is relevant to keep the organisation on course. Therefore, a strong implementation and maintenance of ERM as a tool results in superior performance, meeting objectives and ultimately great value and sustainability (Daniel & Sojamo, 2012). State departments in the United States found the risk register tools to be extremely useful in implementing ERM together with other initiatives as well (O'Har, Senesi, & Molenaar, 2017).The relationship between ERM and firm value has been scant previously. There was a lack of an effective measure/proxy that could relate the implementation of ERM to firm performance and hence firm value. The measure or proxy that has been identified with is used by Standards and Poors, indicating that there is positive relationship between increasing levels of Traditional Risk Management and firm value but there is no further increase in value for organisations obtaining a higher level of ERM implementation (McShane et al., 2011). Technology firms in Malaysia found that there was a decrease in firm value implementation of ERM, suggesting that the effects of ERM implementation may be taking some time to show (Bangaan Abdullah et al., 2017). While previous studies have suggested that ERM adds value, the actual aspects of ERM that add value for the firm was undertaken. It was found that the multiple approach of a simple economic model, identified individuals just looking after risk and reporting directly to the Chief Executive Officer contributes to the largest increase in firm value. The efficiency of cost and revenue is also positively impacted by ERM (Grace et al., 2015). Effective implementation of ERM in Chinese Construction firms in Singapore suggests that it improves efficiency, risk communication and embedding of a great risk culture. On the contrary, where there is no risk management system in place, this may lead to non-cascading of risk to lower levels of the firm and improved efficiencies (Xianbo et al., 2012). More advanced ERM ability is

correlated with a relatively small decline in an organisations share value in the recessionary period of the 2008 financial crises and with better profitability during the upturn of the market. It is evident that organisations require various types of capabilities to be agile enough to respond to various circumstances in the market (Nair et al., 2014). ERM suggests that to achieve maximum benefit, an organisation should consider a portfolio of risks to inform its strategy, however, in doing so, ERM ignores the interdependencies amongst risks. Further, ERM in certain instances amounts into a performance rather than a risk management system (Schiller & Prpich, 2014).

2.3.3.2 Risk is taken seriously by officials

The main purpose of this study was to develop a framework to analyse the effect on organisational culture and firm performance amongst listed companies in Malaysia in measuring the valued added to the organisation which are similarly sized to eThekwini Municipality in South Africa. ERM is considered in a holistic manner in managing risk in an organisation (Klein & Ruark, 2017). Previous papers have found that the more the organisation is practicing ERM, the more prepared it is to address potential threats that beset it (Woods, Linsley, & Maffei, 2017). There exists an overall feel amongst researchers including risk practitioners that business performance is positively correlated with practice of ERM (Florio & Leoni, 2017). Further, there has been positive response from various leaders in business as to the value that ERM adds to their organisation. Having said the above, it was noted that there appears to be lack of practice of ERM amongst Malaysian listed organisations. There are various factors that determine the value that ERM adds to the organisation with risk culture being one of the key areas. It is extremely important that ERM is embedded at all levels of the organisation. ERM increases efficient use of capital and return on equity as their companies are in a better position to identify all risks, however, this is lacking in Malaysian organisations (Roslan & Dahan, 2013). ERM is also used as mechanism to overcome the agency problem in companies as it aligns the interests of shareholders and managers (El-Jor, 2017). This study found that taking the above into account, ERM is still very much in its infancy stages in Malaysian organisations and hence not capitalising on the full potential value from embedding ERM (Roslan & Dahan, 2013). Therefore, it is difficult to indicate whether ERM is adding value in this instance or not.

There is much inconsistency regarding the core components of enterprise risk management which makes comparisons challenging (Kozup, 2017). Four principal components have been suggested, the first two dealing with the general internal governance environment and control of an organisation, the third one dealing with the enterprise risk management activities of the organisation and lastly the attributes of ERM being implemented. All four components need to be implemented to result in a good implementation of ERM, where the fourth component separates ERM and non-ERM firms (Lundqvist, 2014). The view out there is that the more mature the ERM implementation, the greater the value delivered to the organisation. Organisations that have reached higher implementation of maturity value lead to greater value for the firm. The most important aspect of the implementation of ERM is the cascading of the correct risk culture throughout the organisation from the top to the bottom and hence increasing the value to the organisation (Farrell & Gallagher, 2015).

2.3.3.3 Risk is welcomed by officials

There are many views that support risk management to be mature (Wibowo & Taufik, 2017), however, this view is different. The stance taken is that there is much ambiguity in ERM and it is still maturing with much still to be proven. In fact, many practitioners expressed their discontent for the existing ERM frameworks in place and hence not adding much value (Mikes & Kaplan, 2015). The implementation of ERM has a positive effect on the competitiveness of the company and hence adding value to the organisation. The more agile the company is in identifying, analyzing, monitoring and managing its risks, the greater the chance for seizing opportunities to grow the firm (Brustbauer, 2016). There appears to be a positive correlation between ERM and the economic valued added to a firm which takes into account the companies cost of capital which is a measure that investors utilise to value a company. The components of structure, governance, and process representing ERM was utilised to come to this conclusion of value that ERM adds to the organisation (Shad & Lai, 2015).

The adoption of ERM and contribution to value to the firm is positively correlated. ERM reduces the gap between targeted and actual performance and ensures economic value added to the organisation (Lai & Shad, 2017). The implementation of ERM in turn is highly

dependent on the degree to which organisations identify, analyse, rate, rank, monitor and respond to risks in their environments. Presence of barriers and factors that contribute to ERM implementation make companies unaware of the value that ERM has to offer to the organisation (Zakuan, 2012). There is a strong link between ERM and firm performance measured through Economic Value Added in Malaysian companies (Roslan & Dahan, 2013). The implementation of ERM reduces the Weight Average Cost of Capital, increases Net Operating Profit After Tax and Return of Invested Capital. This study assists risk practitioners and academics in utilising ERM to manage risks to an acceptable level in pursuit of organisational objectives thereby contributing to organisational performance and demonstrating value(Lai & Shad, 2017). Individual Risk Management may or may not be an enabler of ERM which may add value to the organisation. It was found that ERM reduces expensive Individual Risk Management like reinsurance, however, it increases the cost of areas that are under implemented such as the area of derivatives. Therefore, depending on circumstances, Individual Risk Management may be an enabler to ERM which may add value to the organisation (Lin et al., 2012).

Although risks and risk management is intense and sometimes not so easy to understand or comprehend, it is possible to quantify and package risks according to various unique environments, thereby adding value in that context or setting. It is also preferred for organisations to consider various methods and its interrelatedness and benchmark risk implementation to arrive at the best value for the organisation (Choi et al., 2016). Consistent with previous studies, ERM is affected by the compliance environment, industry attributes, the structure of ownership and various internal factors. The perception of value of ERM effectiveness is related to the frequency of risk assessments, reporting and techniques used for risk management (Paape & Speklè, 2012). There is certain view that there is uncertainty whether ERM adds value to organisations. Whilst there is much agreement with the technical aspects of ERM, there are conflicting views regarding the effect that ERM has on the value of the organisation and its effectiveness in managing risks (Haji et al., 2014). Therefore, there are various views on whether ERM is adding value to organisations.

2.3.3.4 Risk is missed

Being prepared for a drought is a primary defense mechanism in managing against the effects of drought. In Western United States, it was found that more resources are allocated to analyzing the effects of drought Fontaine et al. (2012) rather than monitoring mechanisms to prevent the effects of drought in the first place. One of the key recommendations that was made included frequent monitoring and communication which talks to risk being present on monthly meetings agendas to be managed (Fontaine et al., 2012).

2.3.3.5 Risk Champions given adequate time at department meetings

It is unclear whether risk champions are given sufficient time at department meetings to carry out their responsibilities in respect of risk management. Many organisations adopt a centralised risk management function with risk champions that are embedded in line departments (Ching & Colombo, 2014). This confirms that whilst risk champions are embedded in line departments, we are not certain what is meant by embedded.

2.3.3.6 Risk Champions frequently called on to input into decisions

Risk Champions should be called upon for input into decision making as they are aware of the risks the organisation faces by virtue of the supporting role they play in the risk management process. Universities in the United Kingdom have a much higher level of oversight than previously in the form of risk champions, audit committees and risk committees (Soin & Collier, 2013). This shows that risk champions are called upon to input into decision making.

2.4 Summary of major contributions, flaws and gaps

2.4.1 Summary of major contributions of significant studies

Resources for ERM are generally insufficient or concentrated to top management levels without corresponding personnel for embedding the process into operations. ERM is valued by business, however, there is much uncertainty regarding the specific and direct correlation of implementation of ERM and value for the enterprise. ERM is inextricably linked to governance and strategy and in fact is a key ingredient. Enterprise risk management in the main is undertaken by the owner and a small management team in

small to medium enterprises with lack of resources being a major limiting factor. The characteristics of the owner play a pivotal role in the business strategies of the organisation. The size of the company and the level of organisational ownership are positively related to company performance and value creation. The value that enterprise risk management creates is normally determined through the use of surveys. The new approach to risk which aligns enterprise risk management, governance and strategic thinking in an organisation has been widely accepted by business executives, research institutions and academic individuals. Various business intelligence tools and techniques contribute successfully worldwide to effectiveness of ERM. ERM is considered as an ever evolving set of capabilities to respond in a crises situation. Comparisons are challenging as the core components of enterprise risk management vary amongst risk models. The risk perceptions and responses of forest owners focus around perceived control and risk responses.

2.4.2 Major flaws and gaps

2.4.2.1 Enterprise risk management resources

The aim was to figure out whether there is dedicated personnel that are allocated for risk management in the organisation. While Mensah (2016) found support of top management, the audit committee and existence of a chief risk officer contribute to personnel available for risk management, this is not the full suite of personnel that is required. According to Wentink and Van Niekerk (2017), in a disaster risk management operation in a municipal environment which only covers an aspect of total enterprise risk management in the organisation, it was found that there are limited cases where personnel have been solely dedicated to disaster risk management activities. Although organisations are required to do more with less resources Zhao et al. (2013), it not clear whether management has given priority to risk management in organisations. Further as limited studies actually quantify the return from investment of resources in ERM implementation in the organisation Curkovic et al. (2013), this is an area to be considered. Although the SEC in America has contemplated having specific disclosures for qualifications of directors with regards to risk management experience (Baxter et al., 2013), this just deals with top management. There is remains a gap regarding the proper

grading of risk resources within the ERM department and risk champions at operations. Per Nyamubi (2017), in a schooling environment human beings are motivated not only by financial gain but other factors of flexibility like working conditions and respect from communities not correlating with the setting of risk champions in the corporate world environment. Although Public Services in Singapore have a low staff turnover rate due to flexible staff policies and procedures dictating quality of performance (Tessema et al., 2017), it does not specifically cover risk champions in this environment. In public sector health risk departments, proper level risk management training were important in contributing towards competency of staff that responded to risks speedily (Hao et al., 2017). This finding was limited to public sector health risk departments which is only one department in the ambit of eThekwini Municipality that varies in nature and size. Although the CRISIS software is a valuable tool that allows users to perform hazard assessments around the world (Aguilar-Meléndez et al., 2017), it is limited to hazard risk assessments and not enterprise wide risk assessments.

2.4.2.2 Governance, Strategy linked to enterprise risk management

Although there is risk and strategy alignment internally, there is an absence of studies on alignment of strategy in areas of high risk to achieve the vision of the organisation (Tavis, 2017). It is claimed that risk management is an input into determination of the appropriate strategy for the organisation but the exact manner in which risk management affects strategic choices are not covered (Gwinn et al., 2017). Whilst it is claimed that risk management is the foundation to strategy and governance, exact linkages are not expounded on (Murray, 2017). Opportunities are pursued even if there is some level of uncertainty attached to it but the exact level to which organisations commit to opportunities is not clear (Amoroso et al., 2017).There is a proposal that organisations that have strong implementation of ERM, will view this as essential for good governance and strategy implementation (Fraser & Simkins, 2016). Whilst significant governance and corporate failures are indicative of challenges in implementation of ERM, the exact challenges are not detailed (Mikes & Kaplan, 2013).

2.4.2.3 Value of enterprise risk management

There is no direct correlation between risk management and performance (Gates et al., 2012). Whilst top management attitude or tone from the top is extremely important to embedding the correct risk culture, there is no quantification of the exact value that ERM adds to the organisation (Farrell & Gallagher, 2015). There are mixed or conflicting views amongst officials whether ERM is adding value to their organisation (Haji et al., 2014).There is limited literature on the frequency of existence of risk on the monthly agendas of department meetings (Fontaine et al., 2012).It is unclear whether risk champions are given sufficient time at department meetings and further what is meant by embedded in the organisation (Ching & Colombo, 2014).Whilst universities in the United Kingdom have a much higher level of oversight than previously in the form of risk champions and risk and audit committees (Soin & Collier, 2013), there is uncertainty on whether this is consistent in other organisations, like local government.

2.5 Conclusion

As can be seen from above, this chapter covered the theoretical framework and literature review. The classical decision theory was utilised to underpin this study due to the close relationship of the tenants of this study to the theory itself. Literature was critically analysed under the three constructs which explored literature that directed us to determine the relationship between resources and the level of establishment of enterprise risk management, determine whether enterprise risk management adds value and alignment of enterprise risk management to governance processes and strategic thinking. Further, major findings, flaws and gaps of important studies were highlighted.

Chapter 3: Methodology

3. Introduction

This chapter encompasses the design of research, area of study, the targeted population, sample of the population, techniques of sampling, size of sample, instruments used in research, preliminary testing, reliability and validity, techniques used to collect data, analysis of data, consideration of ethics and the framework of conceptualisation.

3.1   Research paradigm

To gather data, a cross-sectional study has been conducted among all the 43 Risk Champions using a self-administered questionnaire. The 43 Risk Champions are management that represent all the various units in the organisation and hence the element of bias to any one or a group of units has been removed. The recruitment of respondents was done by speaking to the Risk Champions at meetings and requesting them to complete the survey, explaining to them that their input is invaluable as it will be taken into account to improve the risk management process at eThekwini Municipality. The results of the survey was analysed and used to conclude on the findings.

In qualitative research, the approach followed is mainly exploratory, in an attempt to understand rationale, views and motivations. This approach provides insight into the actual problem or assists in developing ideas or unravel thought trends, views and immerse deeper into the actual problem. The methods used may vary between unstructured or partially structured techniques. Some of the more common methods may include discussion in groups, interviews and observations.

Quantitative research is utilised to quantify the actual problem using numerical data or generated statistics that may be interpreted. This method quantifies defined variables, views, opinions and generalises results from a population. It is further used to uncover patterns in research. It is more structured than qualitative research, which, amongst others may take the form of hard copy or online surveys, interviews and self-administered questionnaires.

Seeing that the research questions are quantitative in nature, a quantitative research design was followed. More specifically, an explanatory research design was followed as the experiences of managers at eThekwini Municipality was explored, i.e. their perceptions as detailed in the self-administered questionnaire An exploratory design would have been inappropriate as the researcher does understand the concept of enterprise risk management, the people at eThekwini Municipality and situation at eThekwini Municipality regarding enterprise risk management. Further, a descriptive research design is inappropriate as the researcher has set out to find out the perceptions of risk champions at eThekwini Municipality without being presumptuous about the outcome.

3.2   Study area

The study was conducted at eThekwini Municipality. The reason for choosing eThekwini Municipality was due to the fact that the researcher is in the employ of this organisation and hence easy access to managers to complete the questionnaire, who he is in direct contact with throughout the year. eThekwini Municipality is one of the eight category A metropolitan municipalities in the country as per chapter 7 of the South African Constitution and learnings from this study may be used by other metropolitans bearing in mind their specific context differences. The researcher works in the area of enterprise risk management and has a genuine and keen interest in the area of study. Further, this study may contribute directly to shaping the enterprise risk approach and strategy at eThekwini Municipality.

3.3   Target population

The participants included all the 43 Risk Champions. This was the target population as well. The 43 Risk Champions representing all the various units in the organisation and hence the element of bias to any one or a group of units was removed. The recruitment of respondents was done by speaking to the Risk Champions at meetings and requesting them to complete the survey, explaining to them that their input is invaluable as it will be taken into account to improve the risk management process at eThekwini Municipality.

3.4 Sample size

Since the participants included **all** the 43 Risk Champions, the entire population which cuts across the entire municipality was tested and hence there was no sampling that was done with any relevance to a sample size.

3.5 Sampling techniques

Since the participants included all the 43 Risk Champions using a self-administered questionnaire, the entire population which cuts across the entire municipality was tested and hence there was no sampling that was done. Based on this, sampling techniques are irrelevant.

3.6 Research instruments

A self-administered questionnaire survey was utilised to solicit responses from the target population. The first part of the questionnaire consists of 5 questions that relate to demographic data of gender, age, years of experience in local government, organisational placement and educational level. The second part of the questionnaire compromises 18 questions that are related to three specific themes of value of enterprise management, resources afforded to enterprise risk management and governance & strategy linked to enterprise risk management as it relates to the level of implementation of enterprise risk management. Under the constructs of resources, statements include areas of dedicated personnel for risk management, priority given to risk management on the organogram, correct grading of risk management to attract appropriate resources, the flexibility of risk champions' packages to attract required resources, the provision of training for risk champions and access to risk management software. Included in the construct of value, statements related to the contribution of risk to achievement of the scorecard, risk being taken seriously by officials in the department, risk being missed if not on the department monthly agenda, risk champions being given time at department meetings and risk champions are frequently called upon for input into decisions in the department. As part of the governance and strategy construct, statements include areas of risk featuring in strategy process of the department, risk being consulted in determining the appropriate strategy of the department, risk being the foundation of strategy and governance processes in the department, opportunities being pursued even if it involves some degree

of uncertainty, department executives viewing risk as inextricably linked to development of strategy and good governance is risk based.

3.7   Instrument pre-testing

Using a selected intended sample, a preliminary or initial study has been conducted after the development of the survey to determine the appropriateness of the questionnaire survey. This was done by issuing to 10 people in the risk management field that are not part of the organisation surveyed and did not form part of the population the questionnaire was issued to. The questionnaire was considered to be appropriate based on the feedback received from the preliminary or initial study.

3.8   Reliability and validity

To secure reliability of research, procedures have been documented in as many practical and actual steps followed so as to be detailed. In addition, a detailed database and case study protocol has been established so that others may be able to follow. Transcripts utilised are intended to be free from obvious errors during the transcription. Preference is offered to specificity rather than being general. The Cronbach's Alpha measures that level of reliability and if the value if 70% or more, then reliability is assured. The Cronbach's Alpha returned a value of 89.9% and therefore the reliability is good.

3.9   Data collection techniques utilised

The technique that was utilised in collecting data was decisive selection of locations or individuals for this study undertaken, i.e. locations and individuals which assisted in greatest understanding of the problem and answering the identified research questions. It is for this reason that management with risk management relevant training and experience was selected. All of the Risk Champions are properly trained in enterprise risk management and hence they will be answering the questions from knowledgeable point of view. A manual questionnaire was issued and results obtained after completion by participants. Pre-testing has been conducted on a focused group of 10 individuals that are not part of the survey and the organisation surveyed but have the required knowledge on the subject matter to ensure the validity and reliability of the instrument.

3.10   Data analysis

The analysis of data has taken place when all the data was collected. Computer assistance has been used to analyse the data. Computer software SPSS was utilised to analyse the data. Data analysis has been done on two distinct levels, i.e. the general and detailed levels. The detailed level includes each step. Common areas identified with respect to main areas revealed have been analysed more in depth. Descriptive and inferential statistics have been performed. Descriptive statistics included questions around demographics, followed by the six questions under each area or objective. From an inferential perspective, the Spearman rank-order correlation analysis was performed comparing each area against the area that is linked to each objective against each other to determine the respective p values to determine the relationship, i.e. resources, value and strategy & governance. A mean rank analysis between Age with the variables of Resources, Value & Strategy & Governance was performed. A further mean rank analysis between Gender with the variables of Resources, Value & Strategy & Governance was performed. A binomial logistic regression analysis was performed to estimate the probability of the outcome, i.e. the level of establishment of enterprise risk management is performing well in the department occurring or not. In addition, this test was used to determine the effect of the independent variables of resources, value and governance & strategy on the dependent variable of level of establishment of enterprise risk management performance.

3.11   Consideration of ethical issues

A complete consideration of ethical issues at various stages have been undertaken, i.e. preceding the start, at start, while collecting data, at analysis including at reporting, storing together with sharing of data. The process includes the approved gatekeeper's letter, i.e. a duly approved letter by Head: eThekwini Municipal Academy affording approval to proceed with this study. This proposal has been furnished to the ethics clearance office of UKZN, which has been fully approved with ethical clearance issued. I have abided by the UKZN plagiarism policy.

3.12 Measurement of variables and conceptual framework

Enterprise risk management is the dependent variable. The independent variables are the Resources, Value and Governance & Strategy. Relationship between resources and the level of establishment of enterprise risk management at eThekwini Municipality, factors that affect the implementation of enterprise risk management and enterprise risk management adding value to eThekwini Municipality and alignment of enterprise risk management to governance processes and strategic thinking at eThekwini Municipality has been measured by utilising questionnaires. A pictorial of the conceptual framework has been outlined diagrammatically as follows:

Independent Variables   Dependent Variable
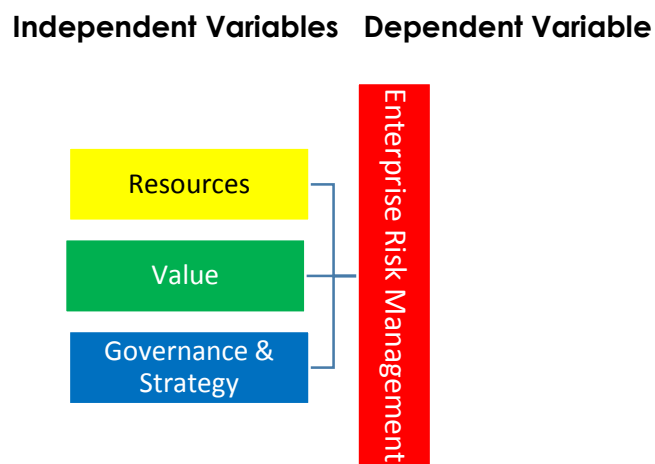
Figure 3.1: Conceptual Framework

The conceptual framework drawn above shows the interactions between the independent and dependent variables.

- Resources and enterprise Risk Management
- Value factors that affect implementation of enterprise risk management
- Risk management, governance processes and strategic thinking
- Core components of enterprise risk management

3.13 Conclusion

Since this was a quantitative study and explanatory approach was followed as the researcher does understand the concept of enterprise risk management, the people at

and the situation at eThekwini Municipality regarding enterprise risk management. The study area was carefully selected based on accessibility and seeing that the entire target population of risk champions was covered, there was no sample size as all 43 risk champions were surveyed. A self-administered questionnaire was utilised with instrument pre-testing completed. The Cronbach's alpha returning an 89.9% assured reliability for the study. A combination of descriptive and inferential statistics was successfully and meaningfully carried out in the study. The impact of the independent variables of resources, value and governance & strategy was considered in relation to dependent variable of enterprise risk management.

4. Results

4.1 Introduction

This section deals with the analysis of the data collected. The entire population consists of 43 participants. The entire population of 43 participants were surveyed utilising a self-administered questionnaire. This was the target population as well. The analysis in this section is split into descriptive and inferential statistics. To gather data, a quantitative study was conducted by a survey being issued to all participants mentioned above. The results of the survey is analysed below under the following constructs: Resources relates to the level of establishment of enterprise Risk Management, Factors that affect implementation regarding enterprise risk management and adding of value, Alignment of ERM and governance process together with strategic thinking. Further, level of establishment of enterprise Risk Management performance construct is also considered, which the dependent variable is. These constructs are useful to understanding the perceptions of managers at eThekwini Municipality.

4.2 Descriptive Statistics

4.2.1 Demographics

The demographic analysis is presented below in terms of gender, age, years of experience in local government, cluster placement in the organisation and education level. **Figure 4.1** below depicts the split of the survey between male and female participants that formed part of the analysis. The participants provided a very near to balanced spilt between males and females.
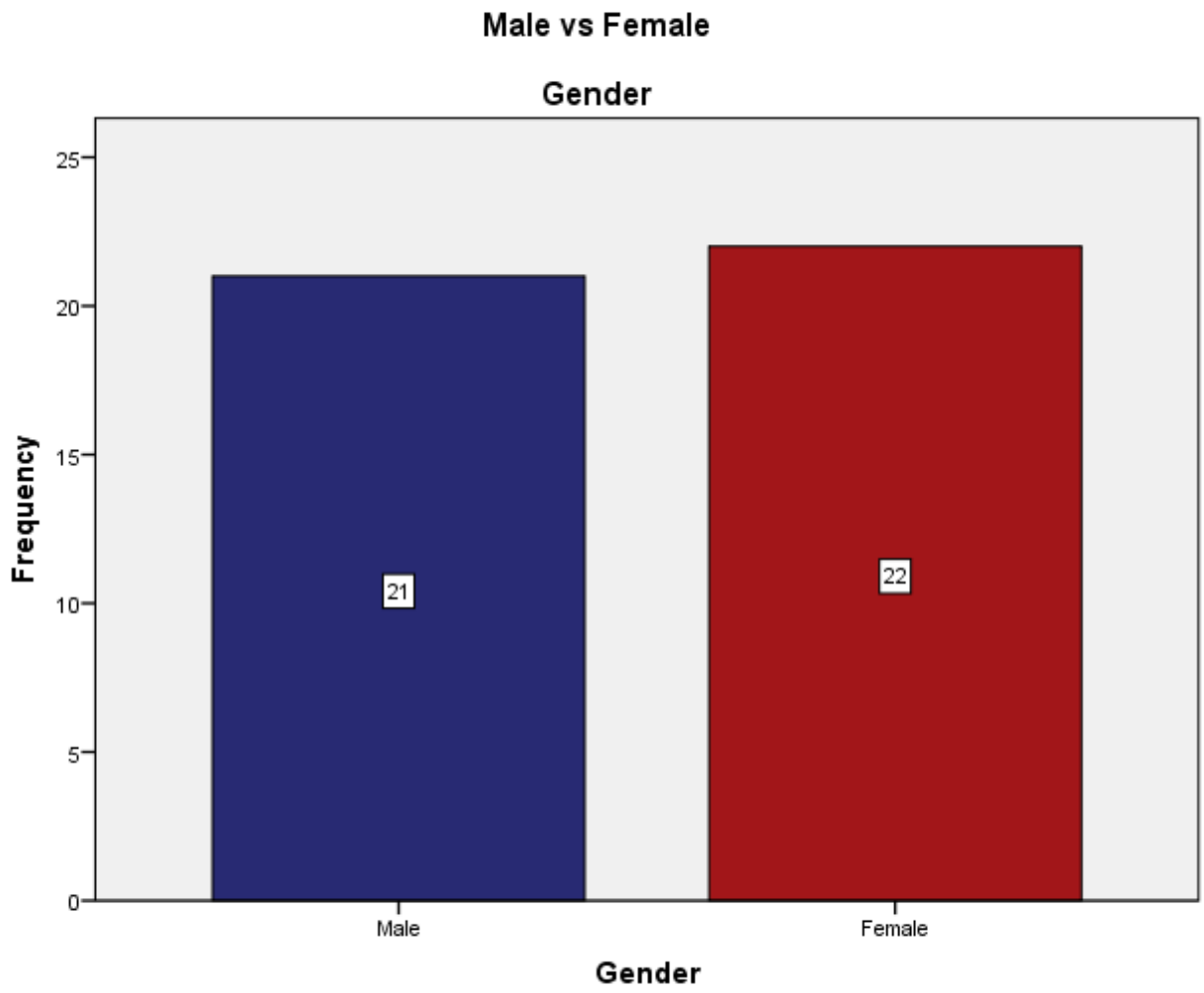
Figure 4.1: Male versus Female

Figure 4.2 provides a distribution of the various age groups of participants. It is evident that a majority of the participants are above 30 years of age with the highest portion between 41-50 years and significant portion between 31-40 years and over 50 years. Clearly, there are minimum younger Risk Champions below 31 years and is perhaps due to the fact that it ordinarily takes many years of experience to reach a management level.
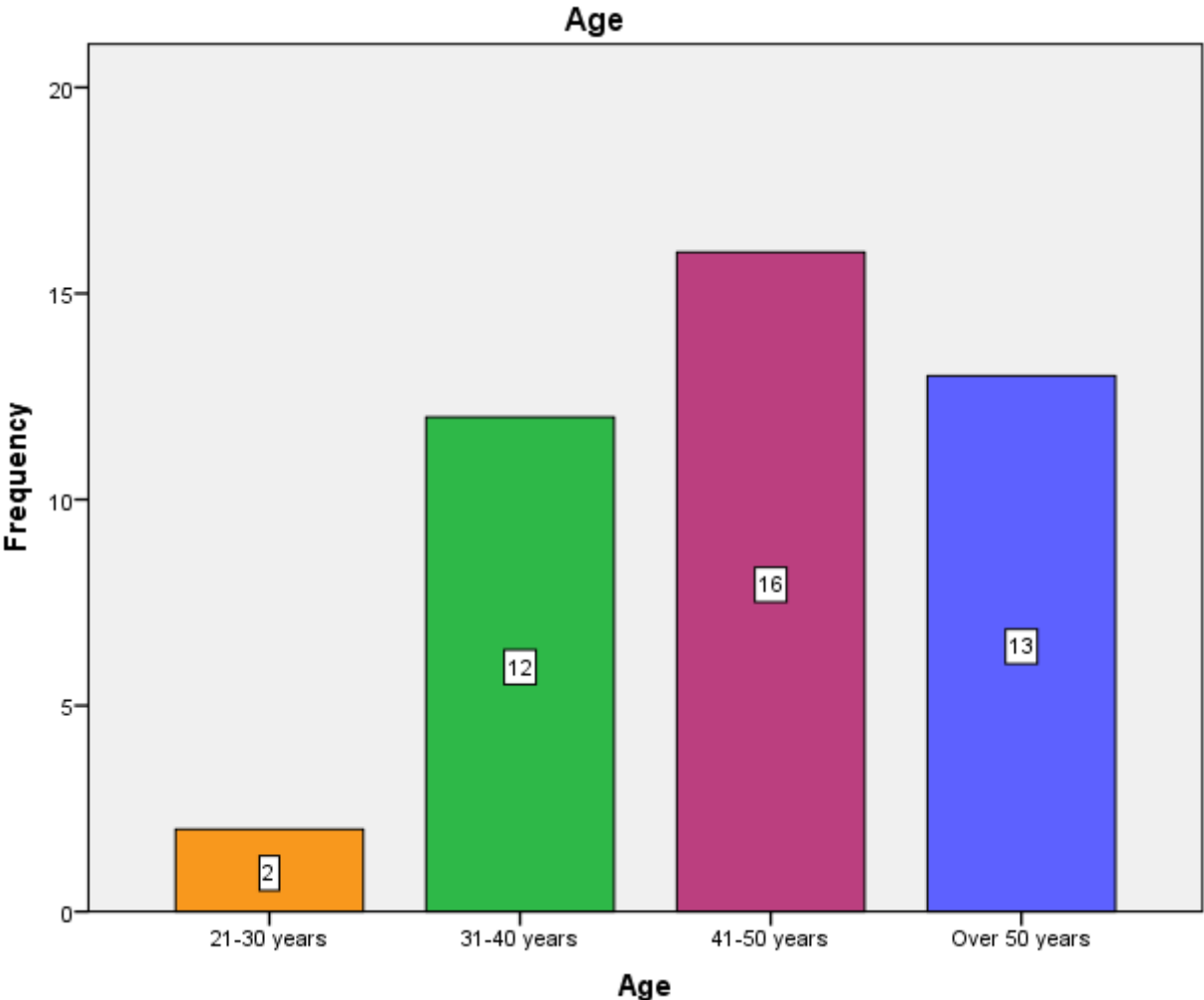
Figure 4.2: Age of participants

Figure 4.3 displays the spread between years of experience amongst the participants. It is evident that a majority of the participants have more than 10 years' experience in local government. The majority lying in the space of more than 10 years of experience speaks to the wealth of general experience levels of managers at eThekwini Municipality.
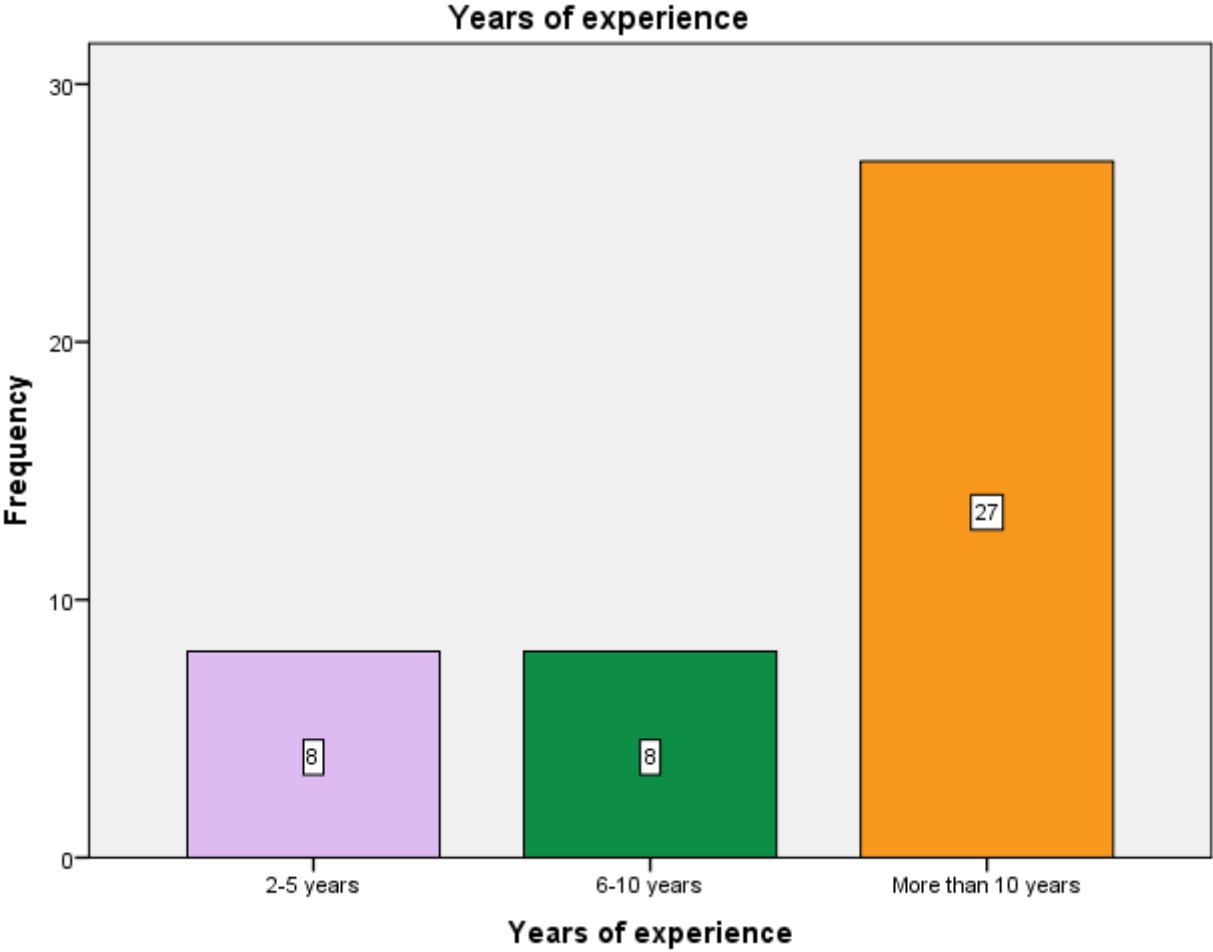
Figure 4.3: Years of Experience

Figure 4.4 shows the cluster placement of the participants of the study. It is evident that a majority of the clusters have between 14% to 16.3% representation with Human Settlement, Engineering and eThekwini Transport Authority at the lowest at 7%, followed by Treasury and Trading Services at 9.3% each. This is reflective of the number of Risk Champions and units that there are present within each cluster.
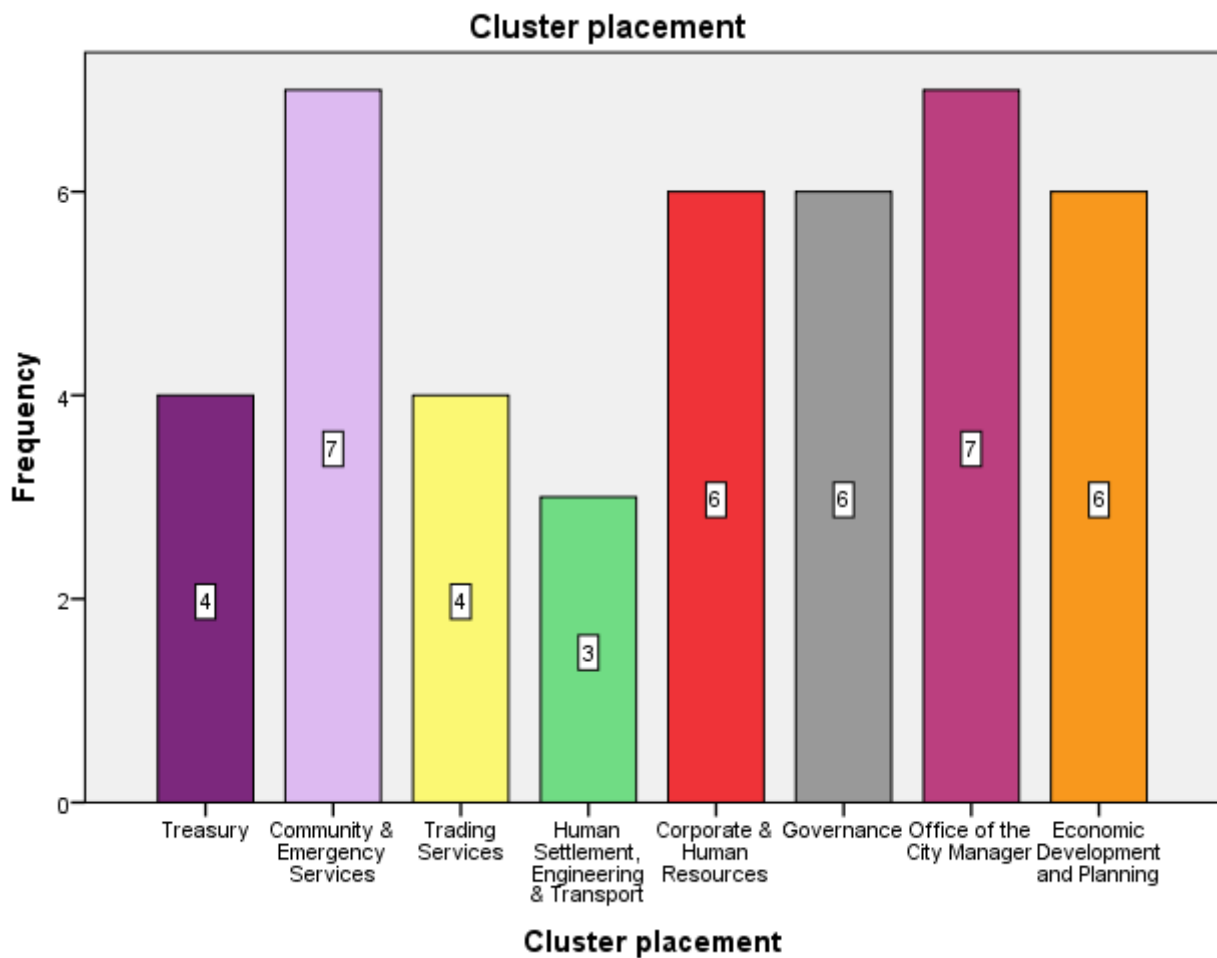
Figure 4.4: Cluster placement within the municipality

Figure 4.5 shows the stratification of the highest education level amongst the participants of the study. It is evident that a majority of the participants have a degree or diploma or an equivalent qualification a small group size with masters and honors and minimum with PHD qualifications. This spread is generally reflective of the scarcity of honors, masters and PHD qualifications. This is also reflective of the fact that many management positions at eThekwini Municipality just require a degree or diploma or equivalent as a qualification.
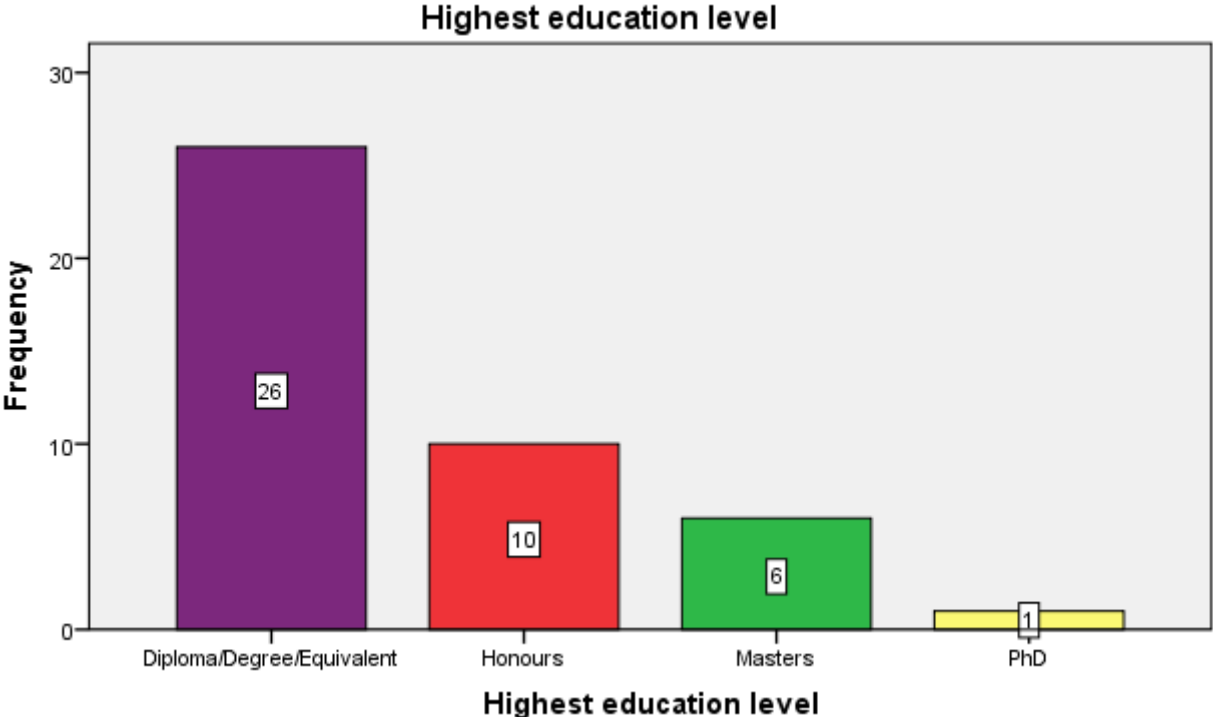
Figure 4.5: Highest education level of participants

4.2.2 Resources relates to the level of establishment of enterprise Risk Management

Figure 4.6 below shows the six questions that were asked under the construct of resources as it relates to the level of establishment of enterprise Risk Management.
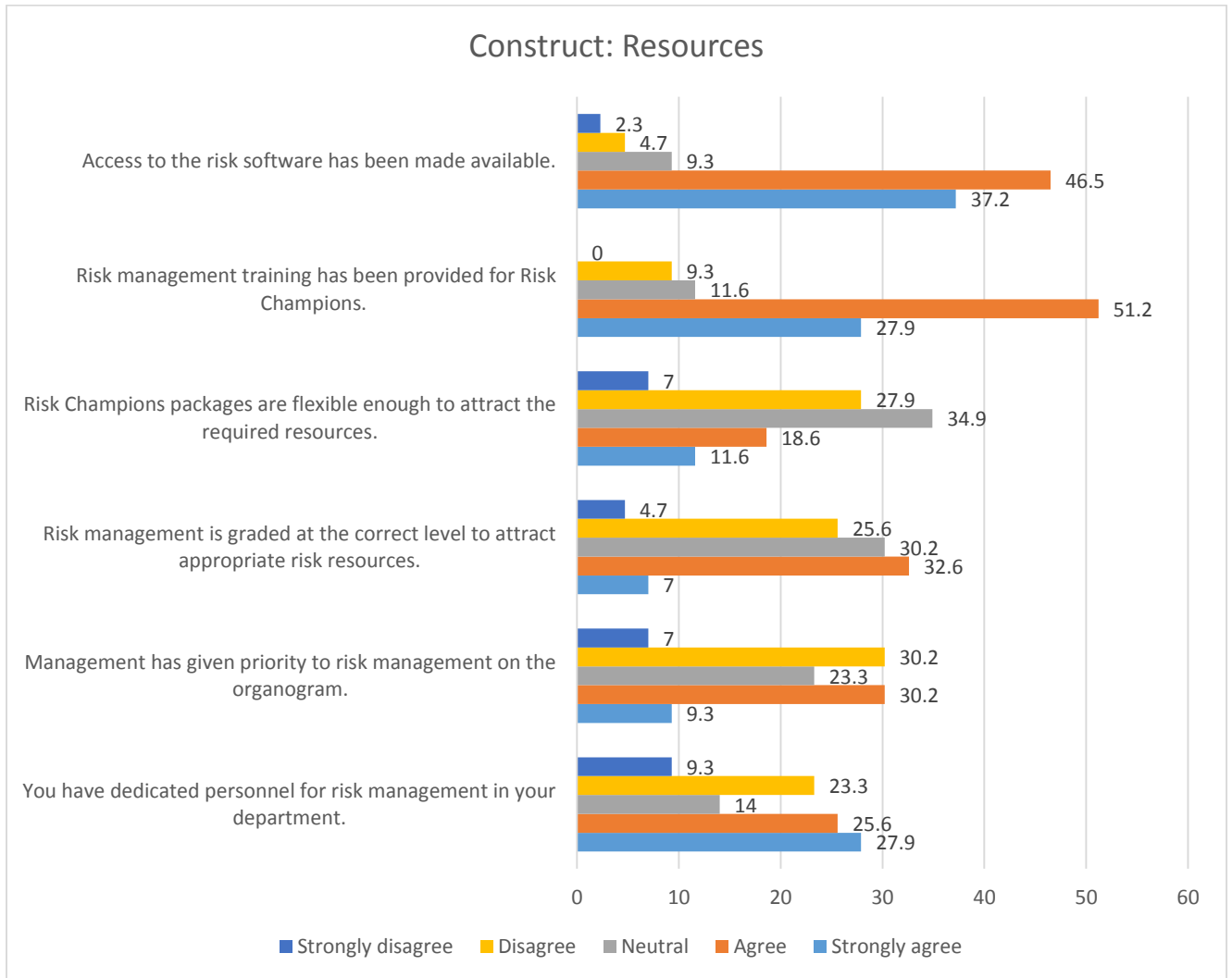
Figure 4.6: Construct of resources as it relates to the level of establishment of enterprise risk management

We can see from **Figure 4.6** above that more than half of the respondents, i.e. 54% agreed and strongly agreed that there are dedicated personnel for risk management in their department. A significant portion (28.6%) of respondents collectively strongly disagree and disagree to having dedicated personnel for risk management in their

departments. A minority (14%) of remain neutral on this question, possibly signaling that risk management may be amongst a few limited tasks for the Risk Champion in question.

With regard to the responses as to whether management has given priority to risk management on the organogram, the results show a fairly even spread strongly disagreeing and disagreeing (37.2%) that management has given priority to risk management on the organogram when compared to the respondents agreeing and strongly agreeing (39.5%) that management has given priority to risk management on the organogram. This still leaves a notable portion (23.3%) of respondents with a neutral feeling. This may be reflective of the various levels of seriousness that management views the risk function with.

The outcome of responses as to whether risk management is graded at the correct level to attract appropriate risk resources, shows very few respondents took up an extreme view as strongly agree or strongly disagree with this statement with a fairly even spread between agree, neutral and disagree.

The responses as to whether risk champions' packages are flexible enough to attract the required resources reveals that the minority of the respondents are in the extreme cases of strongly disagree (7%) and strongly agree (11.6%) totally with a higher percentage strongly agreeing. A majority (34.9%) of respondents are neutral in response, possibly indicating the unawareness of how risk packages at eThekwini Municipality compare with other organisations for them to assume a definitive position on this matter. Having said this, a higher portion disagree with a lower portion agreeing that risk champions packages are flexible enough to attract the required resources, indicating some level of agreement that flexibility in risk champions packages are absent.

The results of whether risk management training has been provided for Risk Champions shows that a majority (79.1%) of the respondents either agree or strongly agree that risk management training has been provided to Risk Champions. This is reflective of the quarterly training that is held at the Risk Champions Forum, training at risk assessment and ad hoc requests coming through to the risk department. A minority (9.3%) of the respondents disagree that risk management training has been provided to Risk

Champions with nobody strongly disagreeing and a similar minority (11.6%) portion selecting neutral.

The results of whether risk software has been made available to risk champions reveals that a majority (83.7%) of the respondents either agree or strongly agree that risk software has been made available. This is reflective of the dedicated support of the administration personnel that the risk department makes available for issues related to the risk software. A minority (16.3%) feel otherwise with just an insignificant portion disagreeing and strongly disagreeing that access to risk software has been made available.

Table 4.1 below depicts the frequency distribution for the resources construct. The cut-off value of 18 and above being returned as a valid percentage from participants equates to 81% of participants agreeing that resources has a bearing on the level of establishment of enterprise risk management.

Table 4.1: Frequency distribution for the resources construct

Overall scores	Frequency	Percent	Cumulative Percent
12.00	2	4.7	4.7
13.00	2	4.7	9.3
14.00	1	2.3	11.6
16.00	2	4.7	16.3
17.00	1	2.3	18.6
18.00	5	11.6	30.2
19.00	5	11.6	41.9
20.00	5	11.6	53.5
21.00	4	9.3	62.8
22.00	2	4.7	67.4
23.00	4	9.3	76.7
24.00	2	4.7	81.4
26.00	2	4.7	86.0
27.00	2	4.7	90.7
28.00	1	2.3	93.0
29.00	2	4.7	97.7
30.00	1	2.3	100.0
Total	43	100.0	

4.2.3 Factors that affect implementation regarding enterprise risk management and adding of value

Figure 4.7 below shows the six questions that were asked under the construct of value as it relates to the level of establishment of enterprise risk management.
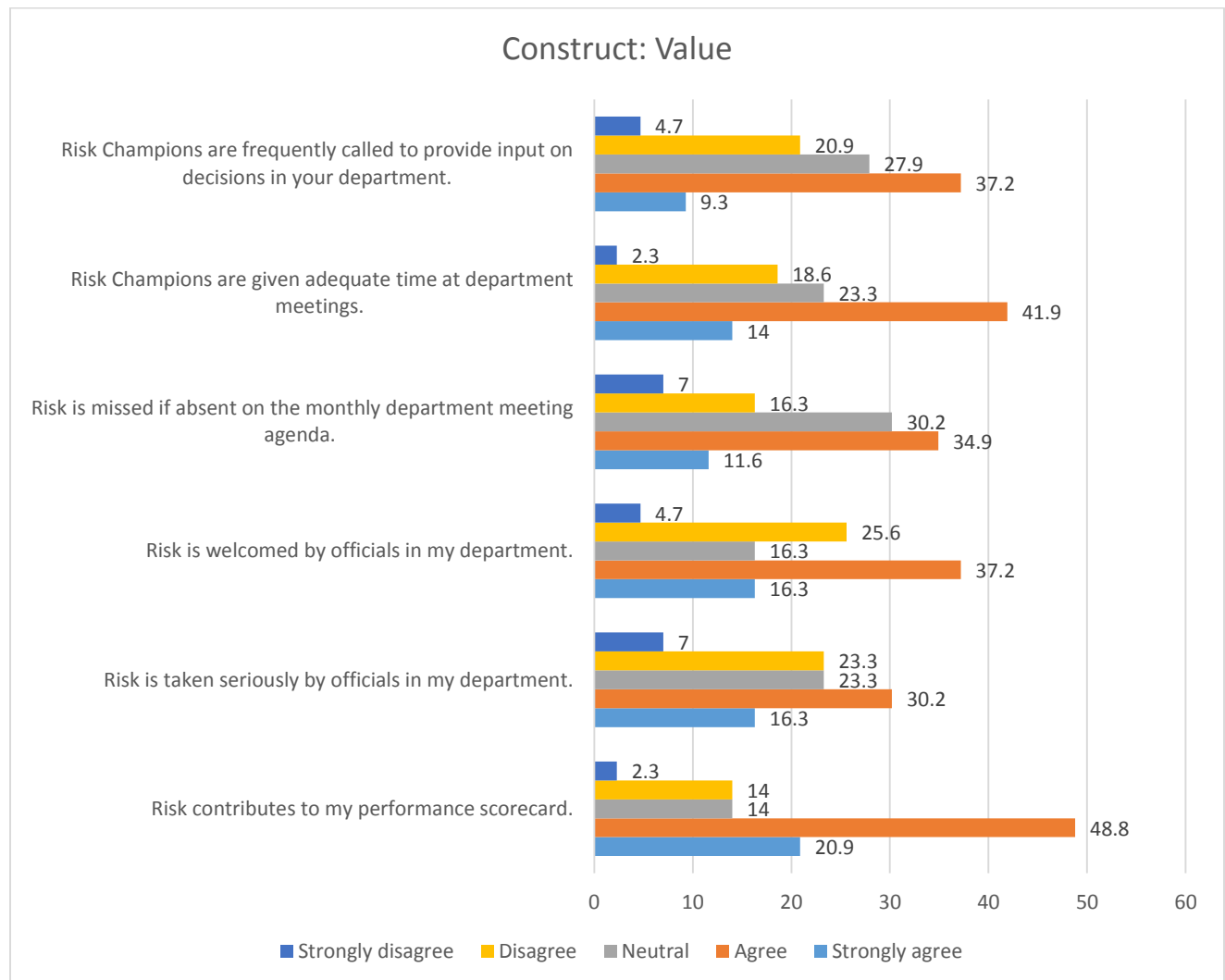

Figure 4.7: Construct of value as it relates to the level of establishment of enterprise risk management

The results whether risk contributes to risk champions' scorecards shows that a majority (69.7%) of respondents either agreed or strongly agreed that risk contributes to their performance scorecard. This is perhaps due to the fact that risk management has been

added a mandatory key performance indicator for management in the organisation. Only a small portion (2.3%) strongly disagree with and equal balance of each disagreeing and remaining neutral as to whether risk contributes to risk champions' scorecards.

The results whether risk is taken seriously by officials in their department shows that almost half (46.5%) strongly agree or agree that risk is taken seriously by officials in their department, a significant portion disagreeing or strongly disagreeing with strongly disagreeing being in the minority from the two. A sizeable portion responded neutral. This is reflective of the slightly progressive risk culture in the municipality with almost 50% believing that risk is taken seriously by officials in their departments.

The results whether risk is welcomed by officials in their department shows that a majority (53.5%) of respondents either strongly agree or agree that risk is welcomed by officials in their department. A minority (4.7%) strongly disagree. A significant portion disagrees with this statement and a sizable portion remain neutral. This possibly reflects the attitude of various management throughout the organisation and their understanding of the risk management process.

The results whether risk is missed on the monthly department meeting agenda shows that a majority (46.5%) of respondents either strongly agree or agree that risk is missed on the monthly department meeting agenda. A minority (7%) strongly disagree. A significant portion remain neutral on this statement. This possibly reflects the positive results that certain units are seeing from risk management and a significant number of departments not really seeing the value of risk management coming through emphatically.

The results of whether risk champions are given adequate time at department meetings shows that a majority (55.9%) of respondents either strongly agree or agree that risk champions are given adequate time at department meetings. A minority (2.3%) strongly disagree. A significant portion remain neutral on this statement and some portion disagreeing with this statement. This shows that more than 50% of our departments are seeing the value of the risk process or complying with a sizable percentage being indifferent to the process and recognizable segment disagreeing with this statement.

The results of whether risk champions are frequently called upon to provide input on decisions in their department shows that a majority (46.5%) of respondents either strongly agree or agree that risk champions are frequently called upon to provide input on decisions in their department. A minority (4.7%) strongly disagree. A significant portion remain neutral and disagreeing with this statement. This shows that nearly half of the departments are seeing the value that risk thinking brings to the table and are hence inviting risk champions to provide input on decisions in their department.

Table 4.2 below depicts the frequency distribution for the value construct. The cut-off value of 17 and above being returned as a valid percentage from participants equates to 79% of participants agreeing that value that risk brings to the organisation has a bearing on the level of establishment of enterprise risk management.

Table 4.2: Frequency distribution for the value construct

Overall scores	Frequency	Percent	Cumulative Percent
12.00	2	4.7	4.7
13.00	1	2.3	7.0
14.00	4	9.3	16.3
15.00	1	2.3	18.6
16.00	1	2.3	20.9
17.00	3	7.0	27.9
18.00	3	7.0	34.9
19.00	3	7.0	41.9
20.00	4	9.3	51.2
21.00	4	9.3	60.5
23.00	6	14.0	74.4
24.00	2	4.7	79.1
25.00	3	7.0	86.0
26.00	2	4.7	90.7
27.00	3	7.0	97.7
30.00	1	2.3	100.0
Total	43	100.0	

4.2.4 Alignment of ERM and governance process together with strategic thinking

Figure 4.8 below shows the six questions that were asked under the construct of governance and strategic thinking as it relates to the level of establishment of enterprise risk management.

Construct: Strategy & Governance

Good governance is risk based.
- 2.3
- 9.3
- 60.5
- 27.9

Department executives view risk as inextricably linked to the development of strategy.
- 18.6
- 27.9
- 46.5
- 7

Opportunities are pursued, even if they involve some degree of uncertainty.
- 11.6
- 34.9
- 41.9
- 7

Risk is the foundation to strategy and governance processes in your department.
- 14
- 39.5
- 37.2
- 9.3

Risk is consulted in determining the appropriate strategy for the department.
- 14
- 32.6
- 34.9
- 16.3

Risk features in the strategy process of your department.
- 9.3
- 25.6
- 48.8
- 16.3

■ Strongly disagree ■ Disagree ■ Neutral ■ Agree ■ Strongly agree

Figure 4.8: Construct of governance and strategic thinking as it relates to the level of establishment of enterprise risk management

The results of whether risk features in the strategy process of their departments show an overwhelming portion (65.1%) of respondents either strongly agree or agree that risk features in the strategy process of their departments. A minority (9.3%) disagree with no one strongly disagreeing. A significant portion remain neutral on this statement, perhaps indicating that they are not sure regarding risk's involvement in the strategy process of the department.

The results of whether risk is consulted in determining the appropriate strategy for the department show a majority (51.2%) of respondents either strongly agree or agree that risk is consulted in determining the appropriate strategy for the department. A minority (2.3%) strongly disagrees and a small portion disagreeing. A significant portion remain neutral on this statement, perhaps indicating that they are not sure whether risk is consulted in determining the appropriate strategy of the department.

The results of whether risk is the foundation to strategy and governance processes in the department show a majority (46.5%) of respondents either strongly agree or agree that risk is consulted in determining the appropriate strategy for the department. A minority (14%) disagrees with no one strongly disagreeing. A significant portion remain neutral on this statement, perhaps indicating that they are not sure whether risk forms the basis of governance and strategy in the department.

The results of whether opportunities are pursued, even if they involve some degree of uncertainty with a majority (48.9%) of respondents either strongly agreeing or agreeing that opportunities are pursued, even if they involve some degree of uncertainty. A minority (11.6%) strongly disagrees with small portion disagreeing. A significant portion remain neutral on this statement. This shows the general risk averse nature of departments with less than 50% pursuing opportunities that involve an element of risk.

The results of whether department executives view risk as inextricably linked to the development of strategy show that a majority (53.5%) of respondents either strongly agree or agree that department executives view risk as inextricably linked to the development of strategy. A small portion of respondents disagrees (18.6%) with no one strongly disagreeing. A sizeable portion remain neutral on this statement. This shows that majority of the departments view risk as extremely important and inseparable from the development of strategy.

The results of whether good governance is risk based shows that a majority (88.4%) of respondents either strongly agree or agree that good governance is risk based with minorities disagreeing (2.3%) and being neutral (9.3%). This shows that a mass majority agree that in order to achieve good governance, risk is essential.

Table 4.3 below depicts the frequency distribution for the strategy and governance construct. The cut-off value of 19 and above being returned as a valid percentage from participants equates to 81% of participants agreeing that strategy and governance in the organisation has a bearing on the level of establishment of enterprise risk management.

Table 4.3: Frequency distribution for the strategy and governance construct

Overall scores	Frequency	Percent	Cumulative Percent
14.00	1	2.3	2.3
15.00	2	4.7	7.0
16.00	2	4.7	11.6
17.00	2	4.7	16.3
18.00	1	2.3	18.6
19.00	4	9.3	27.9
20.00	7	16.3	44.2
21.00	1	2.3	46.5
22.00	7	16.3	62.8
23.00	3	7.0	69.8
24.00	4	9.3	79.1
25.00	3	7.0	86.0
26.00	1	2.3	88.4
27.00	2	4.7	93.0
28.00	1	2.3	95.3
29.00	1	2.3	97.7
30.00	1	2.3	100.0
Total	43	100.0	

4.2.5 Level of establishment of enterprise risk management

The performance of the level of establishment of enterprise risk management in the department has been measured under this construct. This is also the dependent variable. One can see the results of the survey to this question below in **Figure 4.9**. Majority of the participants agree that the level of establishment of enterprise risk management in their departments are performing well.

The level of establishment of Enterprise Risk Management is performing well in your department.

Figure 4.9: The level of establishment of enterprise risk management is performing well in your department

Table 4.4 below depicts the frequency distribution for the level of establishment of enterprise risk management performance construct. The cut-off value of agree and strongly agree returned as a valid percentage from participants equates to 74% of participants agreeing that the level of establishment of enterprise risk management is performing well in their department.
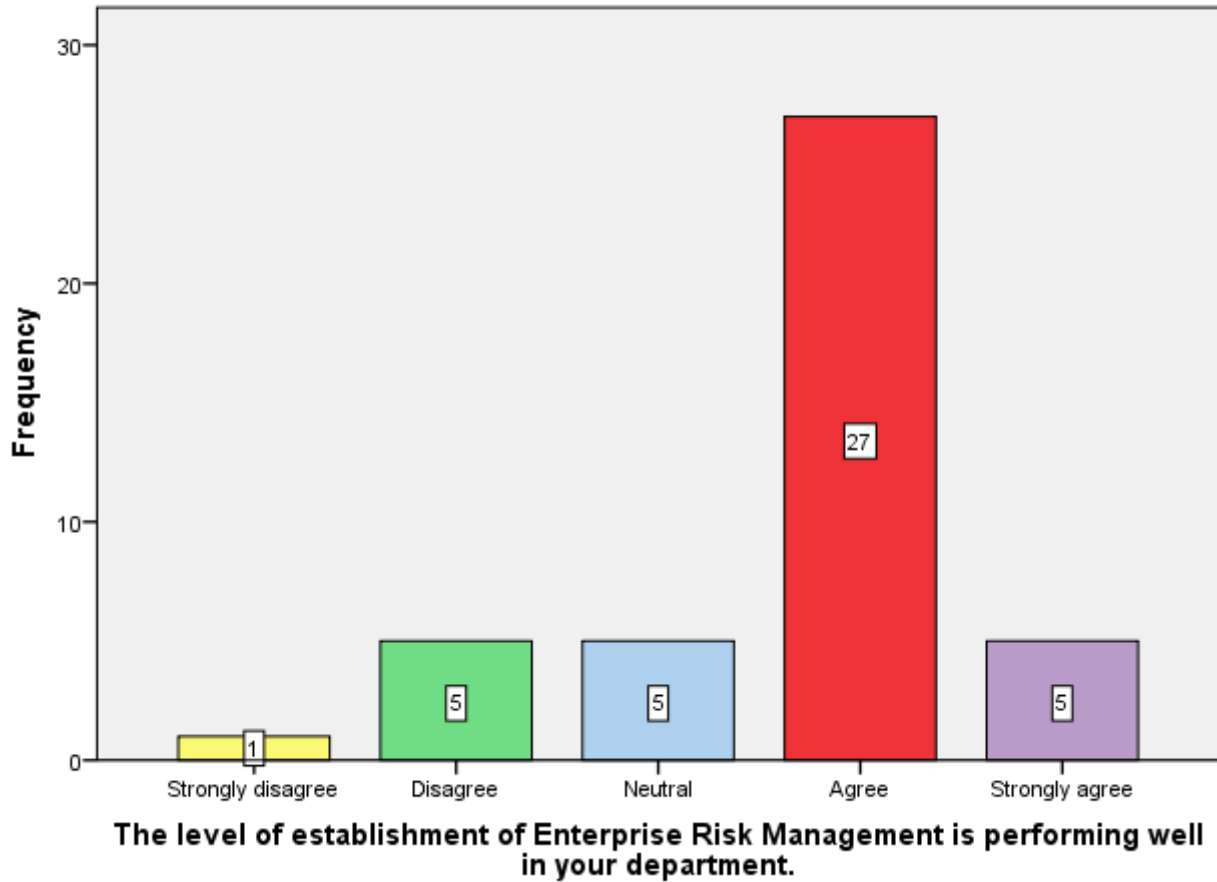
Table 4.4: Frequency distribution for the level of establishment of enterprise risk management is performing well in your department.

The level of establishment of enterprise risk management is performing well in your department.			
	Frequency	Percent	Cumulative Percent
Strongly disagree	1	2.3	2.3
Disagree	5	11.6	14.0
Neutral	5	11.6	25.6
Agree	27	62.8	88.4
Strongly agree	5	11.6	100.0
Total	43	100.0	

4.3 Inferential Statistics

4.3.1 Correlation

Correlation, known as a bivariate analysis technique that considers the strength of association amongst two variables and in which direction the relationship exists. Spearman's rank-order correlation is a nonparametric version of the well-known Pearson product-moment correlation. The direction and strength of relationship that exist between two monotonic variables are known as the Spearman's correlation coefficient, i.e. ρ, also indicated by rs.

The pre-requisite is that there must be two variables that are either interval, ratio or ordinal which is the case in question. There is a monotonic relationship when the value of one variable increases as the value of the other variable increases or the value of one variable increases as the value of the other variable decreases. A monotonic relationship is important for the use of the Spearman correlation, otherwise if there is a linear relationship, then the Pearson correlation would be more apt. A ρ value of less than 0.05 indicates a strong correlation between the variables.

The Spearman's rank-order correlation analysis measuring each of the three constructs against each other in this study, i.e. resources, value and strategy & governance has been undertaken and displayed in the **Table 4.5** below.

There is a strong or significant correlation between resources and value. There is also a strong positive correlation between resources and strategy & governance. Similarly, there is a strong or significant correlation between value and resources and between strategy & governance and resources. There a strong or significant correlation between strategy & governance and value. This above is possibly the case as if there is enough resources, significant value can be derived for the organisation. Further, since there is an extremely strong or significant correlation between strategy & governance and value, it shows that significant investments in strategy & governance delivers great value for the organisation.

Table 4.5: Spearman's rank-order correlation analysis

Correlations			Resources	Value	Strategy & Governance
Spearman's rho	Resources	Correlation Coefficient	1.000	.561[**]	.541[**]
		Sig. (2-tailed)	.	.000	.000
		N	43	43	43
	Value	Correlation Coefficient	.561[**]	1.000	.722[**]
		Sig. (2-tailed)	.000	.	.000
		N	43	43	43
	Strategy & Governance	Correlation Coefficient	.541[**]	.722[**]	1.000
		Sig. (2-tailed)	.000	.000	.
		N	43	43	43
**. Correlation is significant at the 0.01 level (2-tailed).					

Table 4.6 below considers the mean rank analysis between Gender (male and female) with the variables of Strategy & Governance, Resources and Value. As we can see from the mean rank values below the values for male and female are similar. Further, it is worth noting that in all three cases of Strategy & Governance, Resources and Value, the mean rank for females are higher than males but only marginally.

Table 4.6: Mean rank analysis between Gender and variables of Strategy & Governance, Resources and Value

Ranks					
	Gender	N	Mean Rank	Sum of Ranks	ρ value
Strategy & Governance	Male	21	19.79	415.50	0.256
	Female	22	24.11	530.50	
	Total	43			
Resources	Male	21	20.38	428.00	0.407
	Female	22	23.55	518.00	
	Total	43			
Value	Male	21	19.57	411.00	0.214
	Female	22	24.32	535.00	
	Total	43			

Table 4.7 below considers the mean rank analysis between Age with the variables of Resources, Value & Strategy & Governance. As we can see from the mean rank values below the values for all 4 age groups in each area of Resources, Value & Strategy & Governance, are similar. Further, it is worth noting that in all three cases of Resources, Value & Strategy & Governance, the mean rank for age groups 21-30 and 31-40 years are higher than the older age groups.

Table 4.7: Mean rank analysis between Age and variables of Resources, Value and Strategy & Governance

Ranks				
	Age	N	Mean Rank	ρ value
Resources	21-30 years	2	35.50	0.02
	31-40 years	12	30.54	
	41-50 years	16	21.06	
	Over 50 years	13	13.19	
	Total	43		
Value	21-30 years	2	37.25	0.012
	31-40 years	12	28.25	
	41-50 years	16	21.75	
	Over 50 years	13	14.19	
	Total	43		
Strategy & Governance	21-30 years	2	36.00	0.087
	31-40 years	12	27.25	
	41-50 years	16	19.50	
	Over 50 years	13	18.08	
	Total	43		

With a binomial logistic regression analysis, a prediction that the probability of an observation falling into one of two categories of a dependent variable which is based on one or more independent variables is undertaken. The independent variables in question are resources, value and strategy & governance and the dependent variable being level of enterprise risk management performance. Therefore, we tried to understand whether the level of establishment of enterprise risk management performance may be predicted by resources, value and strategy & governance.

In **Table 4.8** below we tried to understand how much of variation in the dependent variable may be explained by this model. The Cox & Snell R Square and the Nagelkerke Square values, which are sometimes referred to as pseudo R2 values, are methods that are utilised to calculate this variation. Interpreting the table below, we can say that this model

indicates that there is a variation in the dependent variable, level of establishment of enterprise risk management, from 52% to 73%.

Table 4.8: Binomial logistical regression analysis – model summary

		Cox & Snell R	Nagelkerke R
		Model Summary	
Step	-2 Log likelihood	Square	Square
1	51.961[a]	.052	.073
a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.			

With Binomial logistic regression, an estimate of the probability of an outcome occurring is ascertained. If this estimate probability is equal to or greater than 0.5, then this outcome is classified as occurring, i.e. more than an even chance that the level of establishment of enterprise risk management is performing well in the department. However, if the probability is less than 0.5, the outcome that the level of establishment of enterprise risk management is performing well in the department, is classified as not occurring. Therefore, we need to assess the effectiveness of he predicted classification against the actual classification. For this purpose, **Table 4.9** comes into play. The classification table depicts that this rule allows for correct classification of 27/29 = 93% of the cases where the predicted outcome of the level of establishment of enterprise risk management is performing well was observed, i.e. sensitivity of prediction, occurrence percentage correctly predicted. Further, it is evident that 4/14 = 28% may be correctly classified as where the predicted outcome of the level of establishment of enterprise risk management is performing well was not observed, known as the specificity of prediction, i.e. percentage of non-occurrences cases predicted correctly. On an overall basis, predictions were 31 out of 43 times correct, returning an overall success rate of 72%. The following error rates are emanate. A false positive is when we predict that the outcome will occur but in fact it does not, i.e. this prediction was incorrect 10 times with a false positive rate of 10/37 = 27%. A false negative would be to predict that outcome will not occur when it in fact does

occur. I.e. our decision rule predicted a decision of "No" 6 times. This prediction was incorrect 2 times, returning a false negative rate of 2/6 = 33%.

Table 4.9: Classification table

<table>
<tr><th colspan="7">Classification Table[a]</th></tr>
<tr><td></td><td></td><td></td><td colspan="3">Predicted</td></tr>
<tr><td></td><td></td><td></td><td colspan="2">The level of establishment of enterprise risk management is performing well in your department.</td><td rowspan="2">Percentage Correct</td></tr>
<tr><td></td><td>Observed</td><td></td><td>No</td><td>Yes</td></tr>
<tr><td rowspan="2">Step 1</td><td rowspan="2">The level of establishment of enterprise risk management is performing well in your department.</td><td>No</td><td>4</td><td>10</td><td>28.6</td></tr>
<tr><td>Yes</td><td>2</td><td>27</td><td>93.1</td></tr>
<tr><td colspan="3">Overall Percentage</td><td></td><td></td><td>72.1</td></tr>
<tr><td colspan="7">a. The cut value is .500</td></tr>
</table>

The Wald column/test refers to the statistical significant of the independent variables of resources, value and strategy and governance. Column Sig. below displays the statistical significance of the test. We note from the results delivered resources (p=.431) weighed heavily with the prediction/model whereas value (p=.638) and strategy & governance (p=.973) did not. Further, these variables in the equation also predict the probability of the level of establishment of enterprise risk management is performing well based on a unit change in the dependent variable, keep all other independent variables constant, i.e. the chance of having the level of establishment of enterprise risk management is performing well is 1.075 times greater when adequate resources are made available.

Table 4.10: Variables in the equation

<table>
<tr><th colspan="8">Variables in the Equation</th></tr>
<tr><td></td><td></td><td>B</td><td>S.E.</td><td>Wald</td><td>df</td><td>Sig.</td><td>Exp(B)</td></tr>
<tr><td rowspan="4">Step 1[a]</td><td>Resources</td><td>.072</td><td>.092</td><td>.620</td><td>1</td><td>.431</td><td>1.075</td></tr>
<tr><td>Value</td><td>.053</td><td>.112</td><td>.221</td><td>1</td><td>.638</td><td>1.054</td></tr>
<tr><td>Strategy & Governance</td><td>.005</td><td>.134</td><td>.001</td><td>1</td><td>.973</td><td>1.005</td></tr>
<tr><td>Constant</td><td>-1.894</td><td>2.067</td><td>.839</td><td>1</td><td>.360</td><td>.150</td></tr>
<tr><td colspan="8">a. Variable(s) entered on step 1: Resources, Value, Strategy & Governance.</td></tr>
</table>

4.3 Conclusion

Descriptive and inferential statistics were performed on the feedback from participants of the survey that yielded interesting results. There was a close balance between male and female participants with majority of participants in the three older age groups selected. Massive experience of more than 10 years was eminent from many participants. Participants were from all clusters in the municipality with the highest education level mainly in the diploma or degree or equivalent space. Frequency distributions were carried out and interpreted across the three constructs. The inferential statistics included a correlation analysis, Spearman rank-order correlation analysis, a mean rank analysis and a Binomial logistical regression analysis to make the results meaningful.

5. Discussion, Conclusions and Recommendations

5.1 Introduction

The key issue that this study addressed was the perceptions over enterprise risk management at eThekwini Municipality. As we acknowledged, there are various debates over the value of enterprise risk management. There are also compliance requirements and good governance recommendations for the implementation of enterprise risk management, however, organisations are constantly faced with the challenge of demonstrating the value of enterprise risk management to the end that executives are questioning the contribution, especially in times of rationalisation and cost containment. Currently, there are limited studies that attempted to display the correlation between enterprise risk management and value for the organisation. To address this problem, the purpose of the study was to explore the perceptions of enterprise risk management at eThekwini Municipality. To specifically address this problem, the detailed objectives of this study was as follows:

- To identify relationship between resources and the level of establishment of ERM at eThekwini Municipality.
- To identify the factors that affect the implementation of ERM and whether ERM adds value to eThekwini Municipality.
- To identify the alignment of ERM to governance processes and strategic thinking at eThekwini Municipality.
- To provide input into the review of the ERM policy and strategy which is part of the ERM Framework of eThekwini Municipality.

The hypothesis then was set to find out whether there is a relationship between resources and the level of establishment of ERM at eThekwini Municipality, whether there is alignment of ERM to governance processes and strategic thinking at eThekwini Municipality and whether ERM adds value to eThekwini Municipality.

Literature was critically analysed in the three constructs linked to the objectives and hypothesis of this study, i.e. value, resources and strategy & governance as it relates to the level of establishment of ERM.

In the previous chapter, the results of the self-administered issued questionnaire was produced which dealt with demographic information and then information relating to each construct by asking six questions each under the relevant constructs of resources and strategy and governance as it relates to the level of establishment of ERM.

This chapter now deals with discussion of the results from the previous chapter in line with the objectives, hypothesis, theoretical framework, critical analyses of literature, and various questions surveyed under each objective.

From the inferential analysis performed, some key findings were imminent. A Spearman's rank-order correlation was performed measuring each of the three constructs against each other in this study, i.e. resources, value and strategy & governance. The results of this analysis shows that there is a strong or significant correlation between resources and value. There is also a strong positive correlation between resources and strategy & governance. Similarly, there is a strong or significant correlation between value and resources and between strategy & governance and resources. There a strong or significant correlation between strategy & governance and value. This above is possibly the case as, if there are enough resources, significant value can be derived for the organisation. Further, since there is an extremely strong or significant correlation between strategy & governance and value, it shows that significant investments in strategy & governance delivers great value for the organisation.

A mean rank analysis between Gender (male and female) with the variables of Strategy & Governance, Resources and Value. We found from the mean rank values that the values for male and female are similar. Further, it is worth noting that in all three cases of Strategy & Governance, Resources and Value, the mean rank for females are higher than males but only marginally.

From performing a mean rank analysis between Age with the variables of Resources, Value & Strategy & Governance, we saw from the mean rank values that the values for all 4 age groups in each area of Resources, Value & Strategy & Governance, are similar. Further, it was worth noting that in all three cases of Resources, Value & Strategy &

Governance, the mean rank for age groups 21-30 and 31-40 years was higher than the older age groups.

5.1.1 Objective 1: To identify relationship between resources and the level of establishment of ERM at eThekwini Municipality

Under this construct the objective of this research attempted to identify relationship between resources and the level of establishment of ERM at eThekwini Municipality. It therefore follows that the hypothesis was set to find out whether there is a relationship between resources and the level of establishment of ERM at eThekwini Municipality. In terms of the theoretical framework, the Classical Decision Theory was utilised where perceptions are shaped by beliefs and seeing this study is considering the perceptions of managers at eThekwini, this theory is apt. The Classical Decision Theory further indicates that decisions are made under three conditions, i.e. certainty, uncertainty and risk (Brustbauer, 2016). Now, if we consider the variables of resources and ERM, we can see from the empirical review that views are based on the above three conditions of certainty, uncertainty and risk.

Specifically, considering each of the questions that relate to the resources and enterprise risk management, we find the following:

A majority of the respondents agreed or strongly agree to having dedicated personnel in their department for ERM. This finding ties into the literature review that indicates that larger organisations like eThekwini Municipality have well established ERM functions (Brustbauer, 2016). Having said the above, there significant portion that strongly disagrees and disagrees to this statement, which reflects the capacitation issues that are varied across the municipality. This shows that each department has a different resource level when it comes to ERM capacitation. The literature on the disaster management activities of a municipality not having dedicated resources for risk management activities which form part of ERM, aligns with the sentiment from the remaining significant portion of respondents that strongly disagree and disagrees to this statement (Wentink & Van Niekerk, 2017).

With respect to the statement of management giving priority to risk management on the organogram, the results depicted a fairly even spilt of between disagreement and agreement with a notable portion being neutral, reflecting the various views of management from the different departments. These results coincide with the findings from the literature review where certain organisations, due to tough economic times are questioning the value added by ERM and therefore are constantly optimising the use of resources and hence these organisations are finding that there are not enough resources be allocated to ERM (Zhao et al., 2013). On the same breath, there are organisations that, whilst recognising these tough economic conditions, indicate that there must be sufficient resources applied to ERM for the organisation to function properly (Zhao et al., 2013). Corresponding to the neutral respondents, certain organisations are questioning the investment in ERM as no studies actually quantify the actual return from investment in ERM (Curkovic et al., 2013).

The response to the correct grading of risk personnel to attract the appropriate resources did not receive any extreme views of strong disagreement or strong agreement. There is almost an even spread between disagree, neutral and agree to this statement. This reflects the varied awareness of risk personnel in each department of the specialised risk qualification and experience that is being demanded on a day to day basis. This correlates to the literature review where the SEC in America has contemplated having specific disclosures for risk management experience of directors, confirming the move towards grading risk management expertise at the correct and required level (Baxter et al., 2013).

The flexibility of risk champions' packages statement was responded to in majority with a neutral stance, indicating the unawareness of most risk champions regarding the flexibility of packages of risk champions in the industry at large in order to benchmark their packages accordingly. Having said this, from the remaining portion a higher significant amount disagreed than agreed that risk champions packages are flexible enough. The literature review in this area found that staff are motivated not only be money but other working conditions that talk to the flexibility of the job which ultimately contribute to the performance of the job (Nyamubi, 2017). The high amount disagreeing that their jobs have enough flexibility, speaks to the unhappiness and inflexibility that certain risk

champions experience from their jobs and hence ties into the literature which indicates that flexibility in jobs results in more appealing jobs (Tessema et al., 2017).

Training is important in any field to ensure that employees are accordingly empowered to perform their jobs correctly. A majority of the respondents either agreed or strongly agreed that risk management training has been provided to them. This correlates with the literature reviewed where it was found that staff required proper and high levels of training to be better equipped to carry out their risk responsibilities (Hao et al., 2017).

When comes to the availability or access to risk software, a majority of the respondents either strongly agree or agree that access to the risk software has been made available which speaks to the literature review that indicates the usefulness and capability of providing risk software to enable risk assessments around the world (Aguilar-Meléndez et al., 2017).

5.1.1.1 Conclusions relating to Objective 1

Based on the discussion above, one can see that there is definitely a relationship between resources and the implementation of enterprise risk management. Dedicated personnel allows for the proper embedding of the enterprise risk management process, however, this is not available in all departments across eThekwini Municipality. With respect to management giving priority to risk management on the organogram, this is a debatable area as we are in tough economic conditions so management is certain areas are reluctant to prioritize risk management on the organogram, also bearing in mind that there are limited studies actually quantifying the actual return from investment in ERM. The response to the correct grading of risk personnel to attract the appropriate resources, reflects the varied awareness of risk personnel in each department of the specialised risk qualification and experience that is being demanded on a day to day basis. The neutral response to flexibility of risk champions' packages indicates the unawareness of most risk champions regarding the flexibility of packages of risk champions in the industry at large in order to benchmark their packages accordingly and the high amount disagreeing that their jobs have enough flexibility, speaks to the unhappiness and inflexibility that certain risk champions experience from their jobs. Majority of risk champions indicated that training and access to risk software was in place for them.

5.1.1.2 Recommendations relating to Objective 1

Based on the conclusions above, the following recommendations should be considered by eThekwini Municipality to ensure that the resources positively influence the implementation of enterprise risk management:

- Dedicated personnel should be continued in departments where there are in place and the organisation should consider identifying dedicated personnel for the implementation of risk in the remaining departments.
- ERM activities needs to demonstrate their value to management in the respective departments after which management should take notice and prioritize risk resources on the organogram.
- Risk personnel need to be made aware of the industry norms for the correct grading of risk personnel and flexibility of risk packages in the industry by perhaps sharing the results of some of the benchmark studies that the Institute of Risk Management South Africa has undertaken.
- Training should continue as being carried out and dedicated support for access to software and related issues should continue to be offered.

5.1.2 Objective 2: To identify relationship between value and the level of establishment of ERM at eThekwini Municipality

Under this theme the objective of this research attempted to identify relationship between value and the level of establishment of ERM at eThekwini Municipality. It therefore follows that the hypothesis was set to find out whether there is a relationship between value and the level of establishment of ERM at eThekwini Municipality. In terms of the theoretical framework, the Classical Decision Theory was utilised where perceptions are shaped by beliefs and seeing that this study is considering the perceptions of managers at eThekwini, this theory is apt. The Classical Decision Theory further indicates that decisions are made under three conditions, i.e. certainty, uncertainty and risk (Brustbauer, 2016). Now, if we consider the variables of value and ERM, we can see from the empirical review that views are based on the above three conditions of certainty, uncertainty and risk.

Specifically, considering each of the questions that relate to value and enterprise risk management, we find the following:

Most respondents were of the view that risk contributes to their scorecard. Considering the literature reviewed, one can see that there are various views regarding whether risk contributes to performance scorecards. Certain companies believe that it takes time to properly implement the ERM process so companies need to be patient to realise the value from the implementation process (Gates et al., 2012). Some companies say that strong implementation of ERM as a tool results in superior performance and hence contributing to the performance scorecard (Daniel & Sojamo, 2012). Further, in some cases, there was a lack of an effective measure/proxy that could relate implementation of ERM to firm performance and hence firm value (McShane et al., 2011). Technology firms in Malaysia were of the view that the effects of ERM takes time to show as there was an apparent decrease in firm value on implementation of ERM (Bangaan Abdullah et al., 2017). The cost versus benefit of implementing ERM was really worth the while according to others (Grace et al., 2015). Chinese construction companies in Singapore suggests that ERM improves efficiency, risk communication and embeds a great risk culture (Xianbo et al., 2012). Still some indicate the more advances in ERM capability correlated with relatively small decline in organisations share value in recessionary periods and with better profitability during an upturn of the market (Nair et al., 2014). Certain organisations believe that ERM in some instances amounts to a performance rather than a risk management system (Schiller & Prpich, 2014). Therefore, one can see that there is a mixed bag of views from various organisations but what makes the majority of respondents at eThekwini Municipality take up the view that risk contributes to their scorecard, is because it is a mandatory key performance indicator. The quantum that risk carries as part of performance may be not be significant though.

Almost half of the respondents agreed or strongly agreed that risk is taken seriously by officials in their department. From the literature review, organisations that have taken risk seriously and cascaded the correct risk culture in the organisation, have seen the value it brings to the organisation which correlates to the situation in certain departments in eThekwini Municipality. A sizable portion of the respondents was neutral and disagree. In

the literature review, ERM was found to be at an infancy stage amongst listed companies in Malaysia and hence not being taken very seriously as yet (Roslan & Dahan, 2013). This talks to the low implementation of ERM in certain departments within eThekwini Municipality.

A majority of respondents either strongly agree or agree that risk is welcomed by officials in their department. In the literature reviewed, the more agile the organisation is in identifying, analysing, monitoring and managing its risks, the greater the chance of ceasing opportunities to grow the firm and hence risk is welcomed by officials (Brustbauer, 2016). Further, there appears to be a positive correlation between ERM and economic value added to the firm (Shad & Lai, 2015). A significant portion disagrees with this statement and a sizable portion remain neutral which possibly reflects the attitude of various management throughout the organisation and their understanding of the risk management process. This correlates with the literature reviewed where views are that there are much ambiguity in ERM and it is still maturing with much to be proven and hence not adding much value (Mikes & Kaplan, 2015). Further the presence of barriers and factors that contribute to ERM implementation make companies unaware of the value that ERM has to offer to the organisation (Zakuan, 2012). In addition it was found in literature that, depending on the circumstances, Individual Risk Management may be an enabler to ERM which may add value to the organisation and hence welcomed by officials (Lin et al., 2017). Whilst there are much agreement with the technical aspects of ERM, there are conflicting views regarding the effect that ERM has on the value of the organisation and its effectiveness in managing risks which correlates with the neutral responses received from the respondents (Haji et al., 2014).

A majority of respondents either strongly agree or agree that risk is missed on the monthly department meeting agenda with a significant portion remaining neutral on this statement which possibly reflects the positive results that certain units are seeing from risk management and a significant number of departments not really seeing the value of risk management coming through emphatically. This correlates with the literature reviewed in that it was found that one of the key recommendations that was made to put proactive

mechanisms in place to manage risks, was the monitoring thereof which talks to risk being present on monthly meeting agendas (Fontaine et al., 2012).

A majority of respondents either strongly agree or agree that risk champions are given adequate time at department meetings with a significant portion remaining neutral on this statement and some portion disagreeing with this statement. This shows that more than 50% of eThekwini Municipality departments are seeing the value of the risk process and complying, with a sizable percentage being indifferent to the process and recognizable segment disagreeing with this statement. From the literature reviewed it is unclear whether risk champions are given adequate time at department meetings with it being uncertain what is embedded risk champions in line departments (Ching & Colombo, 2014). This therefore ties up the significant portion of respondents were neutral depicting this unclearness.

A majority of respondents either strongly agree or agree that risk champions are frequently called upon to provide input on decisions in their department with a significant portion remain neutral and disagreeing with this statement. This shows that nearly half of the departments are seeing the value that risk thinking brings to the table and are hence inviting risk champions to provide input on decisions in their department. This correlates with the literature reviewed as universities in the United Kingdom have much higher level of oversight by various bodies including risk champions (Soin & Collier, 2013).

5.1.2.1 Conclusions relating to Objective 2

Based on the discussion above, one can see that there is definitely a relationship between value and the implementation of enterprise risk management. The majority of respondents at eThekwini Municipality take up the view that risk contributes to their scorecard which is because it is a mandatory key performance indicator. The quantum that risk carries as part of performance may be not be significant though. Almost half of the respondents agreed or strongly agreed that risk is taken seriously by officials in their department. This talks to the low implementation of ERM in certain departments within eThekwini Municipality. Whilst a majority of respondents either strongly agree or agree that risk is welcomed by officials in their department, there are conflicting views regarding

the effect that ERM has on the value of the organisation and its effectiveness in managing risks which correlates with the neutral responses received from the respondents.

With majority of respondents either strongly agreeing or agreeing that risk is missed on the monthly department meeting agenda reflects the positive results that certain units are seeing from risk management and a significant neutral number of responding departments not really seeing the value of risk management coming through emphatically. With majority of respondents either strongly agreeing or agreeing that risk champions are given adequate time at department meetings shows that more than 50% of eThekwini Municipality departments are seeing the value of the risk process and complying with a sizable percentage being indifferent to the process. Seeing that a majority of respondents either strongly agree or agree that risk champions are frequently called upon to provide input on decisions in their department, this equates to nearly half of the departments seeing the value that risk thinking brings to the table and are hence inviting risk champions to provide input on decisions in their department.

5.1.2.2 Recommendations relating to Objective 2

Based on the conclusions above, the following recommendations should be considered by eThekwini Municipality to ensure that the implementation of enterprise risk management adds value to the organisation:

- The risk management weighting on the scorecards of departments and management should be significant enough to warrant management to take risk seriously.
- ERM activities needs to demonstrate their value to management in their respective departments for risk to be welcomed in their departments.
- The areas or departments in which risk is adding value should be showcased organisation wide to build the awareness and affinity to risk management in the minds of management.

5.1.3 Objective 3: To identify relationship between governance & strategic thinking and the level of establishment of ERM at eThekwini Municipality

Under this construct the objective of this research attempted to identify relationship between governance & strategic thinking and the level of establishment of ERM at eThekwini Municipality. It therefore follows that the hypothesis was set to find out whether there is a relationship between governance & strategic thinking and the level of establishment of ERM at eThekwini Municipality. In terms of the theoretical framework, the Classical Decision Theory was utilised where perceptions are shaped by beliefs and seeing this study is considering the perceptions of managers at eThekwini, this theory was apt. The Classical Decision Theory further indicates that decisions are made under three conditions, i.e. certainty, uncertainty and risk (Brustbauer, 2016). Now, if we consider the variables of governance & strategic thinking and ERM, we can see from the empirical review that views are based on the above three conditions of certainty, uncertainty and risk.

Specifically, considering each of the questions that relate to governance & strategic thinking and enterprise risk management, we find the following:

An overwhelming portion of respondents either strongly agree or agree that risk features in the strategy process of their departments. From the literature review we find that organisations where risk and strategy are aligned are set for strategic advantage and it is especially necessary to align high risk areas to strategy in order to achieve the vision of the organisation (Tavis, 2017). At eThekwini Municipality, risk and strategy go hand in hand in most areas and hence the feedback from the respondents. Literature also indicates that there is a positive correlation between implementation of risk management and profitability and in eThekwini Municipality's case service delivery, hence the overwhelming positive response from the participants (Wanjohi & Omwenga, 2017). Further, literature indicates that ERM is becoming a key enabler to organisations strategy and governance process which is being experienced at eThekwini Municipality and hence the positive response to this statement (Elahi, 2013). A minority disagree with no one strongly disagreeing. A significant portion remain neutral on this statement, perhaps indicating that they are not sure regarding risk's involvement in the strategy process of

the department. This ties in with the some of the literature reviewed which indicates that scholars and practitioners need to embark on a more detailed stance regarding activities and processes for the implementation of risk to be more effective which assists in aligning organisational systems and planning approaches with ERM (Bromiley et al., 2015).

A majority of respondents either strongly agree or agree that risk is consulted in determining the appropriate strategy for the department. The literature reviewed shows that risk is utilised to direct strategy and also that ERM is worth the cost as the benefit contributes to good governance and strategy alignment (Dey et al., 2013). Literature also indicates that risk management informs decision making which is part of strategy execution speaking to the results of the respondents that agree that risk is consulted in determining the appropriate strategy at eThekwini Municipality (Thomas-Sharma et al., 2017). A minority strongly disagrees and a small portion disagreeing. A significant portion remain neutral on this statement, perhaps indicating that they are not sure whether risk is consulted in determining the appropriate strategy of the department.

A majority of respondents either strongly agree or agree that risk is consulted in determining the appropriate strategy for the department. This ties in with the literature reviewed which indicates that risk forms the cornerstone to strategy and good governance processes in an organisation (Murray, 2017). Further, literature reviewed reinforces this view by indicating that disaster risk implementation is driven by strategic choices and governance with climate change not being the actual problem (Stavenhagen, 2017). A minority disagrees with no one disagreeing. A significant portion remain neutral on this statement, perhaps indicating that they are not sure whether risk forms the basis of governance and strategy in the department.

A majority of respondents either strongly agree or agree that opportunities are pursued, even if they involve some degree of uncertainty. Literature reviewed indicates that entrepreneurs make judgments about the future by evaluating opportunities in terms of uncertainty of outcomes which speaks to the responses received from the survey (Uygur, 2017). Also the return is higher when uncertainty is higher. A minority strongly disagrees with small portion disagreeing. A significant portion remain neutral on this statement. This

shows the general risk averse nature of departments with less than 50% pursuing opportunities that involve an element of risk.

A majority of respondents either strongly agree or agree that department executives view risk as inextricably linked to the development of strategy. This correlates with the review of literature that show that ERM has is being recognized as a core ingredient of good governance and strategy implementation (Fraser & Simkins, 2016). This shows that majority of the departments view risk as extremely important and inseparable from the development of strategy. A small portion of respondents disagrees with no one strongly disagreeing. A sizeable portion remain neutral on this statement dovetailing with certain literature that show ERM as unpacking corporate affairs in an easy to understand manner, it unveils or brings out the identification of risks and processes and encourages accountability in organisations, raising doubt of the effect of ERM on governance and strategy in companies (Tekathen & Dechow, 2013).

A majority of respondents either strongly agree or agree that good governance is risk based with minorities disagreeing and being neutral. This shows that a mass majority agree that in order to achieve good governance, risk is essential. This ties in with the literature reviewed as the Basel Committee that set reporting requirements for risk, sets the foundation for the governance of the organisation as it relates to risk which in turn influences strategy. Further, this is reinforced where ERM was utilised to define the operations and governance framework of the organisation. In addition, Enterprise Sustainability Risk Management contributes to the sustainability of organisations by ensuring that the organisations strategy and governance requirements are met and further resulting in the creation of value.

5.1.3.1 Conclusions relating to Objective 3

Most respondents was in agreement that risk features in the strategy process of their departments with a significant portion remaining neutral, perhaps indicating that they are not sure regarding risk's involvement in the strategy process of the department. Majority of respondents are in agreement that risk is consulted in determining the appropriate strategy for the department with a significant portion remaining neutral, perhaps indicating that they are not sure whether risk is consulted in determining the appropriate strategy of

the department. Most respondents either strongly agree or agree that opportunities are pursued, even if they involve some degree of uncertainty with a significant portion remaining neutral on this statement. This shows the general risk averse nature of departments with less than 50% pursuing opportunities that involve an element of risk. Majority of respondents are in agreement that department executives view risk as inextricably linked to the development of strategy with a sizeable portion remaining neutral on this statement, perhaps not seeing the direct linkage. Most respondents agree that good governance is risk based with minorities disagreeing and being neutral. Sustainability Risk Management ensures that the organisations strategy and governance requirements are met resulting in the creation of value (Soomro & Lai, 2017).

5.1.3.2 Recommendations relating to Objective 3

Based on the conclusions above, the following recommendations should be considered by eThekwini Municipality to ensure that there is a positive relationship between the implementation of enterprise risk management and governance & strategic thinking at eThekwini Municipality:

- It must be communicated where risk features in the strategy and governance process of the department and where it does not, departments must be encouraged to follow this route, showing the value from implemented departments.
- Departments must be encouraged to take risk to improve service delivery but in a managed fashion so that there is no undue exposure to the organisation and it is within the risk appetite and tolerance levels.
- It should be continuously reinforced that good governance is risk based in training sessions on good governance practices in the organisation.

5.2 Need for more research

There is a need for more robust research into the perceptions of ERM in firms so that the unlocking of the embedding process can take place and understand whether management see ERM as a value adding exercise that assists business.

5.3 Contribution to or extended knowledge in the area

This research made an attempt in understanding the perceptions of management at eThekwini Municipality regarding enterprise risk management in an effort to assist management to add value to the organisation.

5.4 Conclusion

Based on the results performed it can be seen that there definitely a relationship between resources and the level of implementation of enterprise risk management and also value and the level of implementation of enterprise risk management. However with risk featuring in the strategy and governance process of their departments, most respondents agree that this is the case. What is also noteworthy is that there is a significant portion of respondents that were neutral, perhaps unaware of whether risk is consulted in determining the appropriate strategy and governance processes of their departments.

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7. Appendix A – Ethical Clearance

UNIVERSITY OF
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INYUVESI
YAKWAZULU-NATALI

07 August 2017

Mr Amith Sukhnandan (981194466)
Graduate School of Business & Leadership
Westville Campus

Dear Mr Sukhnandan,

Protocol reference number: HSS/1157/017M
Project title: Value of enterprise risk management: Cross-sectional study of management perceptions at eThekwini Municipality

Full Approval – Expedited Application
In response to your application received on 21 July 2017, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and FULL APPROVAL for the protocol has been granted.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shenuka Singh (Chair)

/ms

Cc Supervisor: Mr Christopher Chikandiwa
Cc Academic Leader Research: Dr Muhammad Hoge
Cc School Administrator: Ms Zarina Bullyraj

">Humanities & Social Sciences Research Ethics Committee
Dr Shenuka Singh (Chair)
Westville Campus, Govan Mbeki Building
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Telephone: +27 (0) 31 260 3587/8350/4557 Facsimile: +27 (0) 31 260 4609 Email: ximba@ukzn.ac.za / snymanm@ukzn.ac.za / mohunp@ukzn.ac.za
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8. Appendix B – Survey

Demographic Data

1. Gender (Tick as applicable)

a) Female ( )   b) Male ( )

2. What is your age bracket? (Tick as applicable)

a) 21-30 years   ( )

b) 31-40 years   ( )

c) 41-50 years   ( )

d) Over 50 years ( )

3. How many years have you served in a local government?

a) Less than 2 years   ( )

b) 2-5 years   ( )

c) 6-10 years   ( )

d) More than 10 years   ( )

4. Your current cluster placement is:

a) Treasury ( )

b) Community and Emergency Services ( )

c) Trading Services ( )

d) Human Settlement, Engineering and Ethekwini Transport Authority ( )

e) Corporate and Human Resources ( )

d) Governance ( )

e) Office of the City Manager ( )

f) Economic Development and Planning ( )

5. What is your highest education level?

a) Diploma/Degree/Equivalent ( )

b) Honours ( )

c) Masters ( )

d) PhD ( )

Please answer the following questions:

Questions	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. You have dedicated personnel for risk management in your department.					
2. Management has given priority to risk management on the organogram.					
3. Risk management is graded at the correct level to attract appropriate risk resources.					
4. Risk Champions packages are flexible enough to attract the required resources.					
5. Risk management training has been provided for Risk Champions.					
6. Access to the risk software has been made available.					
7. Risk contributes to my performance scorecard.					
8. Risk is taken seriously by officials in my department.					
9. Risk is welcomed by officials in my department.					
10. Risk is missed if absent on the monthly department meeting agenda.					
11. Risk Champions are given adequate time at department meetings.					
12. Risk Champions are frequently called to provide input on decisions in your department.					
13. Risk features in the strategy process of your department.					
14. Risk is consulted in determining the appropriate strategy for the department.					
15. Risk is the foundation to strategy and governance processes in your department.					
16. Opportunities are pursued, even if they involve some degree of uncertainty.					
17. Department executives view risk as inextricably linked to the development of strategy.					
18. Good governance is risk based.					
19. The level of establishment of Enterprise Risk Management is performing well in your department.					

9. Appendix C – Gate Keepers Letter

Pod 1, Second Floor, Intuthuko Junction, 750 Mary Thiphe Street, Umkhumbane, Cato Manor, Durban 4001.
Tel: 031 322 4513, Fax: 031 261 3405, Fax to email: 086 265 7160, Email: mile@durban.gov.za, Website:
www.mile.org.za
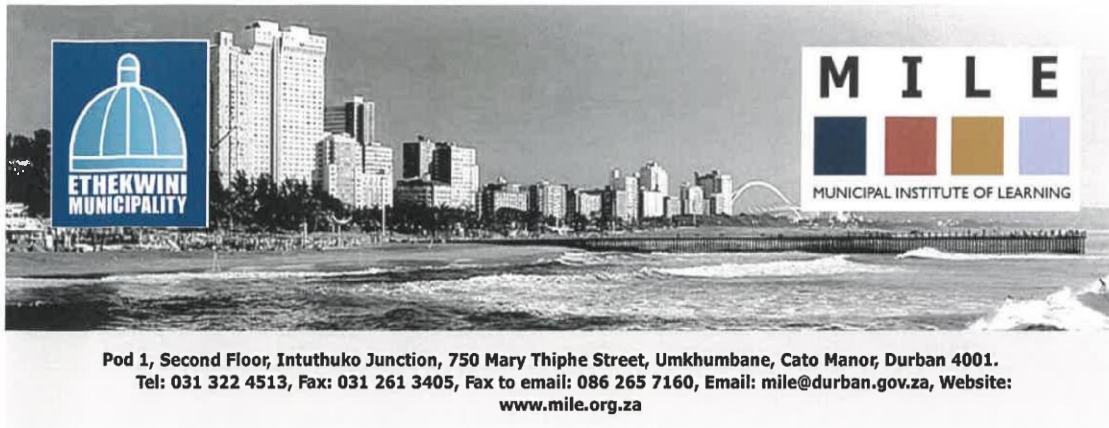
For attention:
Chair of Ethics Committee
College of Law and Management Studies
University of KwaZulu Natal
Westville Campus
Durban
4001

15 June 2017

RE: LETTER OF SUPPORT TO A.SUKHNANDAN, STUDENT NUMBER 981194466- GRANTING PERMISSION TO USE ETHEKWINI MUNICIPALITY AS A CASE STUDY

EThekwini Municipality Audit and Risk Assurance Services (EMARAS) and eThekwini Municipal Academy (EMA), have considered a request from **Mr Amith Sukhnandan** to use eThekwini Municipality as a research study site leading to the awarding of a Master's degree in Business Administration entitled: *"Management Perceptions Of Enterprise Risk Management at eThekwini Municipality".*

We wish to inform you of the acceptance of his request and hereby assure him of our utmost cooperation towards achieving his academic goals; the outcome which we believe will help our municipality improve its service delivery. **In return, we stipulate as conditional that he presents the results and recommendations of this study to the related unit/s on completion of his research study.**

Phillip Ntsimane
Chief Audit Executive (Head: EMARAS)

Dr M. Ngubane
Head: eThekwini Municipal Academy
eThekwini Municipality

10. Appendix D – Turn-it-in Report

paper text:

Title Value of enterprise risk management (ERM): Cross-sectional study of management perceptions at eThekwini Municipality Name Sukhnandan Amith Affiliation of author A mini-dissertation, contributing towards to the awarding of the Master of Business Administration degree, submitted to the Business School which is part of the University of KwaZulu-Natal, 2017. Abstract as detailed Key issue that this study addresses is the perceptions over enterprise risk management. Existing, are various debates over the value of enterprise risk management. There are compliance requirements and good governance recommendations for the implementation of enterprise risk management, however, organisations are constantly faced with the challenge of demonstrating the value of enterprise risk management to the end that executives are questioning the contribution, especially in times of rationalization and cost containment. Therefore, the purpose of the study was to explore the perceptions of enterprise risk management at eThekwini Municipality. This was a cross-sectional study conducted among 43 Risk Champions at eThekwini Municipality using a self-administered questionnaire. The entire population of Risk Champions was surveyed and hence the sample is the same as the population. The data lead to the following constructs of study: Resources relates to the level of establishment of Enterprise Risk Management, Factors that affect implementation regarding enterprise risk management and adding of value, Alignment of ERM and governance process together with strategic thinking. These constructs are

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Title
Value of enterprise risk management (ERM): Cross-sectional study of management perceptions at eThekwini Municipality

Name
Sukhnandan Amith

Affiliation of author
A mini-dissertation, contributing towards to the awarding of the Master of Business Administration degree, submitted to the Business School which is part of the University of KwaZulu-Natal, 2017.

Abstract as detailed
Key issue that this study addresses is the perceptions over enterprise risk management. Existing, are various debates over the value of enterprise risk management. There are compliance requirements and good governance recommendations for the implementation of enterprise risk management, however, organisations are constantly faced with the challenge of demonstrating the value of enterprise risk management to the end that executives are questioning the contribution, especially in times of rationalization and cost containment. Therefore, the purpose of the study was to explore the perceptions of enterprise risk management at eThekwini Municipality. This was a cross-sectional study conducted among 43 Risk Champions at eThekwini Municipality using a self-administered questionnaire. The entire population of Risk Champions was surveyed and hence the sample is the same as the population. The data lead to the following constructs of study: Resources relates to the level of establishment of Enterprise Risk Management, Factors that affect implementation regarding enterprise risk management and adding of value, Alignment of ERM and governance process together with strategic thinking. These constructs are useful to understanding the perceptions of managers at eThekwini Municipality. Results found a significant relationship between resources and the

1 | Page