

Trends in risk-disclosure practices of South African listed companies

**A research report submitted by
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Declaration

I hereby declare that this research report is my own unaided work. It is submitted in partial fulfillment of the degree of Master of Commerce by Coursework and Research Report at the University of the Witwatersrand, Johannesburg. It has not been submitted elsewhere for the purpose of being awarded another degree or for examination purposes at any other university.

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I List of abbreviations

ABBREVIATION/ACRONYM	DESCRIPTION
Basel III	The Third Basel Accord
Board	The Board of Directors
E&Y	Ernst & Young
IRC	International Integrated Reporting Committee of South Africa
IIRC	International Integrated Reporting Committee
IODSA	Institute of Directors, South Africa
JSE	Johannesburg Stock Exchange
King-III	The King Report on Governance for South Africa – 2009
KPI	Key Performance Indicators

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III ABSTRACT

This research examines trends in risk-disclosures in the annual reports of companies which have a primary listing on the Johannesburg Stock Exchange [JSE]. A risk-disclosure checklist, based on the relevant academic and professional literature, was developed by the researcher and used to quantify changes in the frequency of risk-disclosures from 2010 to 2012. The research also examines the extent to which information is integrated in the annual reports under review, identifying weaknesses for the attention of preparers and users of such reports. Results suggest that there has been an increase in the quantum of risk-disclosure and an increased awareness of the importance of complementing traditional financial reporting with a more comprehensive review of organisations' key risks and their sustainability in the short-, medium- and long-term. In some cases, however, the added risk-disclosure comes with repetition, the inclusion of generic risk information, and a lack of integration between risk-based disclosures and other key financial and non-financial metrics.

CHAPTER ONE - INTRODUCTION

1.1 Context of the research

Recent corporate failures have led stakeholders to question the ability of the existing financial reporting system to provide relevant information for decision-making purposes. Financial information alone does not provide enough insight to form a comprehensive picture of the performance and ability of organisations to create and sustain value (Ramsden, 2010; Bansal et al, 2009; Abdo and Fisher, 2007; Bauer et al, 2004). The inability of organisations to anticipate and react to risk has been recognised as one of the main reasons for these corporate failures (International Integrated Reporting Committee of South Africa [IRC], 2011; Rossouw, 2005; Vaughn and Ryan, 2006; Abdo and Fisher, 2007).

The emergence of integrated reporting is, in part, a reaction to this (IRC, 2011). Integrated reporting seeks to combine reporting of both financial and non-financial information in a way that promotes corporate strategy in a transparent manner, aiming to provide benefits to a range of stakeholders. It also includes a specific focus on the relevance of risk-management and the disclosure of information about an organisation's risk profile to stakeholders (Rensburg and Botha, 2013).

South Africa is regarded as leading the way in corporate governance and the integrated reporting initiative (Rensburg and Botha, 2013). The introduction of 'The King Report on Governance for South Africa – 2009' [King-III] (effective date March 2010) now requires companies listed on the JSE to integrate sustainability reporting into their financial reporting. (Institute of Directors, South Africa [IODSA], 2009) Integrated reporting is now required by listed companies within South Africa through King-III in an 'apply or explain' approach – King-III envisages an integrated report that provides accurate, reliable, credible financial and non-financial information to various stakeholders that will ensure short-term profitability and long-term sustainability (Marx and van der Watt, 2011).

King-III is a code of corporate policies and conduct which looks beyond the corporation itself to its impact on the larger community, encouraging companies to be 'good' corporate citizens (Mammatt et al, 2009; Smith and Perks, 2010; Barrier, 2003). King-III defines integrated reporting as 'the holistic and integrated representation of the company's performance in terms of both its finances and its sustainability'. The integrated report links social, economic, environmental and social issues to strategy, ensuring that consequences of social and environmental behaviour are linked to financial outcomes. This allows disclosure of the inter-connectivity of governance and strategy to risks and opportunities,

and gives a holistic representation of a company's performance in terms of finance and sustainability. This additional disclosure provides commercial, social and environmental context to the financial performance of a company, allowing stakeholders the ability to assess short-, medium- and long-term value creation, resulting in more informed decision-making (IODSA, 2009; IODSA, 2010; Adams, 2012; Eccles and Saltzman, 2011; Ramsden, 2010; E&Y, 2011; KPMG, 2011; E&Y, 2010; E&Y, 2011a; E&Y, 2011b).

The 'Governance of Risk' chapter in King-III places emphasis on risk-management and disclosure with the intention of assisting the Board of Directors [Board] to define roles and responsibilities for risk-management. More broadly, King-III encourages the development of a 'culture of risk-management', a message iterated by the integrated reporting initiative (E&Y, 2009; IRC, 2011; International Integrated Reporting Committee [IIRC], 2011; Coetsee, 2011; KPMG, 2012). This goes hand-in-hand with investors re-evaluating the role that corporate governance plays in their investment policies, incorporating corporate governance considerations into their valuations and investment decision-making (Bauer et al, 2004; Lamont, 2012)

Integrated reporting provides a platform for strategic stakeholder communication. In theory, it should provide stakeholders with relevant and material information, including the identification of material issues, the impacts of these issues and their relationship with the principle risks and opportunities. A risk profile can then be developed which protects stakeholder value and operates within the company's internal and external boundaries, allowing performance to be measured and effectively communicated to stakeholders (Mammatt et al, 2009; Anand, 2010; IRC, 2011; Armbruster and Clay, 2011).

1.2 Research question

This research examines and investigates the trends in risk-disclosures of South African listed firms after the introduction of King-III. It explores emerging themes in organisations' risk-disclosures and the practical application of the new governance of risk chapter, introduced in King-III within integrated reports.

1.3 Purpose and relevance of the research

Control and risk assessment have been prioritised as a key area for Boards with the realisation that they are accountable for the quality of risk processes within an organisation, as well as increased involvement regarding risk-management procedures (SpencerStuart,

2010). Risk-management is an essential part of corporate governance as it assists companies to identify threats and opportunities and to take action. Financial risk-management is becoming more important as a result of globalisation, and as sources of risk increase within the business (Brezeanu and Al Essawi, 2011). As discussed in Section 1.2, risk-management and communication of risk-related issues to stakeholders are treated as key components of the corporate governance and integrated reporting agenda (IODSA, 2009; IRC, 2011).

As risk plays a central role in corporate governance, this study will explore the trends in risk-disclosure of firms listed on the Johannesburg Stock Exchange (JSE) post 2010. In doing so, it makes an important contribution to the prior literature by exploring the effects of the integrated reporting initiative on South African corporate disclosures which, to date, have not specifically examined trends and themes of risk-related disclosure. Obstacles to integrated reporting include: limited guidance, few published examples and uncertainty from potentially conflicting guidance (Rensburg and Botha, 2013). Although the Big Four audit firms are providing valuable guidance on how to compile an integrated report (for example, see E&Y, 2009; E&Y, 2011; E&Y, 2011b; Matthews, 2011; KPMG, 2010; Deloitte, 2011; Armbruster and Clay, 2011), there is currently no enforced framework for preparing an integrated report, with the result that integrated reporting is still a work in progress¹ (Eccles and Saltzman, 2011; Ismail et.al, 2012). Preparers of integrated reports have been challenged by limited and only draft guidance, with tight reporting deadlines and limited examples of best practice to refer to. Both the local and international discussion papers provide principle-based guidance without a detailed framework of what is expected to be included in the report (Watson, 2012).

During December 2013, the International Integrated Reporting Initiative released their framework for integrated reporting, containing guidance for organisations to produce true integrated reports. This document is principle-based and contains suggestions of what kind of information should be included in an integrated report to allow communication to stakeholders of short-, medium- and long-term value creation (IIRC, 2013). Having been only recently published, the framework has not yet been examined in detail and applied by preparers with the result that there are few practical examples of excellent integrated risk-disclosures. The IIRC's report is also largely consistent with the preceding discussion paper

¹ The IIRC released a framework for integrated reporting during December 2013. The framework had not, however, been widely applied at the time of carrying out this research. Future research will, therefore, need to assess the impact of the framework on the preparation of integrated reports in South Africa and other jurisdictions.

(see IIRC, 2011) and does not give detailed guidance regarding risk-disclosures. Therefore, understanding how companies are interpreting the requirements to prepare an integrated report, by analysing the disclosures found in the reports, will be of interest to both academics and practitioners wishing to understand how organisations are implementing the recommendations of King-III, the IRC and the IIRC. This is especially true when it comes to risk-related disclosure, given the importance of effective risk-management (Mammatt et al, 2009; IRC, 2011; E&Y, 2011; Ramsden, 2010), as well as the progressive nature of integrated reporting, (E&Y, 2011b; Eccles and Saltzman, 2011; Rossouw, 2009; Matthews, 2011).

Finally, the research will also make an important contribution to corporate governance literature. South Africa is the first country in practical terms to mandate² the preparation of an integrated report in an effort to improve the relevance and quality of corporate reporting. There has, however, been little research on the effect of integrated reporting on local companies (Solomon and Maroun, 2012). By providing a detailed account of how risk-disclosures in the annual/integrated reports of South African listed companies is changing, this study will, therefore, answer important questions in academic research. The study is also the first to deal explicitly with an analysis of trends and patterns of risk-disclosure in a South African setting.

1.4 Definition of terms

‘Corporate governance’ – a control mechanism through which organisations are directed and regulated, allowing efficient operation of the corporation on behalf of the suppliers of capital, in order to ensure that an adequate return on their investment is paid.

‘Risk-management’ - the set of processes that management use to identify, analyse and respond appropriately to risks that might adversely affect the realisation of the organisation’s business objectives.

‘Average risk ratio’ – this is calculated as the number of times the word ‘risk’ is mentioned in the integrated report over the total number of pages in the report.

² The JSE’s listing rules require companies to comply with King-III (and prepare an integrated report) or provide reasons for not doing so. Practically, the result is that the preparation of integrated reports is a de facto mandatory requirement.

‘Average risk-disclosure ratio’ – this is calculated as the average risk-disclosure score over the total number of pages in the report.

‘Risk-disclosure score’ – the level of risk-disclosure in each set of annual/integrated reports over total available score per the risk-disclosure matrix (relative measure of risk). Refer to Section 3.4 for further detail.

1.5 Limitations of the study

Firstly, the scope of the study includes the analysis of companies with their primary listing³ on the JSE which have consistently published annual/integrated reports between 1 March 2010 and 31 March 2013. Due to inherent time and cost restrictions, the study did not examine all companies listed on the JSE and the final sample only included entities listed on the main board. To retain the South African-specific focus of this study, risk-disclosure trends in other jurisdictions were not dealt with. In addition, the study excludes companies that are in the Financial Services industry segment due to the amount of very specific risk-disclosure required by various regulations such as the Third Basel Accord [Basel III],

Secondly, due to the restrictions on sample sizes and interpretive analysis of the data (see Section 3), findings may not be reproduced exactly and conclusions may not be generalisable. In particular, this study is limited to the largest number of companies per sub sector ranked in terms of their market capitalisation, and that they might not, therefore, necessarily be representative of the risk-disclosures of smaller listed companies, unlisted entities or public sector institutions.

Finally, in order to limit the extent of subjectivity, no effort is made to gauge the quality of risk-disclosure. The research is concerned only with exploring trends and patterns of risk-disclosures in a sample of integrated reports. An assumption is made that the total number of integrated reports analysed will be sufficient to gain adequate data on corporate financial reporting, and that the risk-disclosures are valid, accurate and complete.

1.6 Report structure

The structure of the remainder of this report is as follows. Chapter 2 reviews the literature, beginning with an analysis of both the Agency and Stakeholder Theories and the resultant

³ Only companies with a primary listing are subject to the requirements of King-III and the recommended preparation of integrated reports.

change in corporate governance systems. An analysis of the corporate failures and the relationship to corporate governance is then discussed, followed by a review of the corporate governance landscape in South Africa. The next section examines King-III and the importance of the integrated report. The chapter concludes by discussing the importance of risk-management as well as suggested disclosures in terms of risk governance, analysed as part of the literature. Chapter 3 details the research methodology used in this study, the research instrument and the data collection. Chapter 4 reviews the results from the data analysis, examining the overall risk-disclosure scores, the disclosures per theme, as well as using various statistical techniques to allow patterns and themes to emerge. Chapter 5 contains the conclusion and recommendations for future research. Appendix A contains the research instrument used to compile the data for analysis.

CHAPTER TWO – LITERATURE REVIEW

2.1 Agency and stakeholder theory

A widely documented problem throughout the literature relates to the separation between ownership and management within a company, which necessitates mechanisms to be put in place to monitor and control the performance of management by shareholders of the company (Abdo and Fisher, 2007; Rossouw et al, 2002; De Jong et al, 2005). Agency theory has its roots in the agency-principal relationship, which suggests that there is a contract between one party, namely the principal, and another party, the agent. In general terms, the principal engages the agent to perform services on their behalf, causing a delegation of authority. Suppliers of finance do not have full control over how the money that they invest is utilised and have very little influence in terms of any of the decision-making processes within the organisations that they invest in. The agency problem is essentially one of a conflict of interest, caused by separation in ownership and control and the resultant need for monitoring. Agency risk relates to the risk that management would act in their own self interest and take actions that deviate from firm value maximisation, creating a conflict of interest between management and shareholders, where management could engage in activities that are not in line with the objective of maximising shareholder wealth (Ramly, and Rashid, 2010; John and Senbet, 1998; Bhojraj and Partha, 2003; Dulewicz and Herbert, 2004).

Whilst agency theory suggests that corporations exist to maximise profits for shareholders, and that other stakeholders are considered only as far as they affect the strategic goals that affect shareholders, (Rossouw, 2005) stakeholder theory looks at the wider interests of society in general and acknowledges that there are many stakeholders who are affected by decisions and the nature of these relationships is very important. According to stakeholder theory, companies have a social responsibility that requires them to consider all interests of parties that are affected by their actions. It is important to make strategic decisions that encompass social responsibilities as there is a positive correlation between corporate social responsibility and financial performance. (Dulewicz and Herbert, 2004; Mariri and Chipunza, 2011; Braxton, 2010). The evolution from agency to stakeholder theory, therefore, has important implications for corporate governance systems.

2.2 The role of corporate governance

2.2.1 The influence of stakeholder theory on corporate governance

Corporate governance is a control mechanism through which organisations are directed and regulated, allowing efficient operation of the corporation on behalf of the suppliers of capital, in order to ensure that an adequate return on their investment is received. Corporate governance standards are standards that set commonly accepted patterns of corporate behaviour and are used as a means to improve management quality in economic entities. They represent a practical way to give management the freedom to achieve the company objectives in an efficient, effective and transparent manner. Simplistically speaking, the manager raises funds from investors and then utilises these funds to conduct business and make a profit. The financier, therefore, requires the expertise of the manager to generate returns but must ensure that the manager utilises the resources efficiently and effectively. The abuse of the control function by management is to the detriment of the owners, and this forms the basis of corporate governance, which reduces this potential conflict of interest through effective monitoring, reducing expropriation and misallocation of funds, increasing productivity and providing management with a long-term planning horizon (Rossouw et al, 2002; Shleifer and Vishny, 1997; Bhojraj and Partha, 2003; Thlon, 2011).

Corporate governance controls the relationship between the Board, shareholders and management to ensure the resolution of agency conflicts. Corporate governance specifies the rules of business decision-making within a company with an aim to protect investors and allow them to realise an appropriate return whilst also allowing organisations to pledge to stakeholders that they are committed to being honest and fair in all business practices, and that they are fully transparent and accountable. (Gill, 2012; Thlon, 2011; John and Senbet, 1998)

Post-Enron, there has been a shift in corporate governance from the traditional focus on agency conflict to one that seeks to protect not only investors but also stakeholders. Previously, the focus was on using corporate governance as a mechanism to allow shareholders to trust management with safeguarding their investments, ensuring value maximisation for shareholders but excluding certain stakeholder interests, as well as overlooking the environmental and social impacts of corporate conduct, leading to management making decisions which were shareholder-centric and which protected only shareholder interests. Corporate governance now addresses many issues relating to ethics, accountability, transparency and disclosure, including corporate social responsibility, which

uses corporate governance as a vehicle for incorporating social and environmental concerns into business decision making processes. (Gill, 2012; Thlon, 2011)

Corporate governance represents a long-term view that integrates environmental and social responsibilities in analysing risks, discovering opportunities and allocating capital in the best interest of the shareholder. By ensuring that appropriate corporate policies and procedures are well-defined, communicated and understood, operational governance programmes can improve decision-making, joining stakeholders together in a business-driven collaboration that creates an enterprise that is strong and focussed on the future (Mariri and Chipunza, 2011; Lamont, 2012). Trust in corporations is on the decline, with the expectation that the adherence to good corporate governance practices and principles will turn the tide of low trust in corporations and their leaders. (Rossouw, 2009; Bansal et al, 2009)

2.2.2 Corporate governance in South Africa

South Africa is one of the largest and most developed economies in Africa.. One of the reasons for this relates to the leadership that South Africa has exhibited in corporate governance, although the country has its own unique characteristics – including a high crime rate, sluggish economy and a great deal of political instability. A relatively high quality of corporate governance is especially important in a developing market where foreign capital investment is essential for the growth of companies. Corporate governance mechanisms in South Africa were borne from market pressures and are pivotal to the success and revitalisation of capital markets and prospects for the economy (Vaughn and Ryan, 2006; Abdo and Fisher, 2007; Malherbe and Segal, 2001).

South Africa is a pioneer and has always been in the forefront of corporate governance standards and disclosures, leading the way in environmental, social and governance disclosures and, therefore, attracting international investors' attention (Mans-Kemp et al, 2012). Key reform initiatives were developed in South Africa and during 1992, a crucial time in South Africa's history before the first independent democratic election, former South African Supreme Court Judge, Mervyn King, was approached to chair a private sector body to formulate South Africa's first corporate governance guidelines. The first draft of the King Code, issued in 1994, led the way in international corporate governance, promoting the highest standard of corporate governance in South Africa by advocating an integrated approach to governance that is in the interest of a wide range of stakeholders, and dictates a minimum standard through a principle-based approach. This inclusive approach has been

fundamental to the long term corporate successes in South Africa (Vaughn and Ryan, 2006; Rossouw et al, 2002).

Developing or transitioning economies have additional challenges to face when implementing corporate governance, including control structures, weak judicial and legal systems, under developed institutional investors, as well as limited financial and human resources. In South Africa this becomes even further complicated by specific domestic issues that require special attention, including cultural differences, the incidence of HIV/AIDS, environmental issues relating to mining, as well as unionised labour issues and Black Economic Equity (BEE) issues. South Africa-specific factors also include a high level of poverty and unemployment and significantly skewed income distribution. South Africa has a unique socio-political context that requires careful navigation and balance (Vaughn and Ryan, 2006; Kakabadse et al, 2002).

In a South African context when compared to global corporate governance, there are a number of developmental initiatives that the government has put in place (for example, Health and Safety, BEE) and businesses are called to play a more active role in society (Mariri and Chipunza, 2011). The King report institutionalised corporate governance and ethics by instilling an integrated, inclusive approach to good governance that is in the interest of a wide range of stakeholders and relies on the fundamental principles of good financial, social, ethical and environmental practices. (Nkomo, 2003)

The King report was first issued in 1994 under the mandate of including specific South African corporate governance issues into one code. This was then revised into King-II as a result of the changes in laws and accounting standards and reissued in 2002. King-III was subsequently released by the IODSA in September 2009 as a result of a number of factors. Firstly, changes in legislation necessitated a revisit of King-II, including the new Companies Act as well as other stringent legislation changes. Secondly, there were a number of changes in global corporate governance standards, and finally the expectations of stakeholders shifted (E&Y, 2010). Previously, this code was voluntary but the King-III revision has made integrated reporting compulsory for JSE listed firms through the JSE listing rules, although the provisions in King-III are through an 'apply or explain' approach (Mans-Kemp et al, 2012).

King-III suggests suitable and effective frameworks to be put in place that ethically respond to and help to navigate decision-making strategies for sustainable development and transformation in South Africa. The purpose of King-III is to promote the highest standards of

governance within South Africa, looking beyond the financial and regulatory aspects to include the social, ethical and environmental best practice in South African firms and instill triple-bottom-line reporting that has a wide and broad based inclusive approach, placing social responsibility at the forefront of the corporate governance agenda (SpencerStuart, 2009). This integrated approach presents a dynamic vision to reporting, with disclosure being of fundamental importance. Significant events, both positive and negative, that could have an impact on a company's share price should be disclosed because investors require not only financial information but information that they can draw conclusions from as to the sustainability of the company (Barrier, 2003). Focus has shifted from profits for shareholders alone to the recognition that business has a responsibility to those that give it licence to operate – its stakeholders. Doing business in an ethical manner results in respect and support of all parties with which the company interacts and also contributes to profitability. King-III envisages an integrated report that provides accurate, reliable, credible financial and non-financial information to various stakeholders that will ensure short-term profitability and long-term sustainability (Mammatt et al, 2009; Smith and Perks, 2010).

2.3 The changing face of corporate governance

2.3.1 Corporate failures

During 2008, the global financial crisis revealed a level of naivety regarding governance, regulators and Boards with regard to their responsibilities relating to overseeing firms that were considered to be 'too big to fail', and revealed certain blatant failures of corporate governance codes and risk-management practices. A number of famous corporate failures have occurred over the past decade, including Enron, Worldcom, Parmalat, Maxwell, and Daewoo, to name a few internationally. South Africa has not been immune to these disasters, with Regal Bank and Leisurennet ranking amongst the list of local corporate failures, demonstrating the growing need for transparency within corporate reporting. These failures have highlighted the importance of corporate governance with both shareholders and the public becoming more concerned regarding how companies are governed as a result of the growing number of corporate scandals, as well as concerns for the sustainability of the environment and globalisation of economies (Abdo and Fisher, 2007; Coetzee and Lubbe, 2013; Turnbull, 2010; Ntim et al, 2013).

Corporate governance has attracted public attention as a result of both the successes and failures of large corporations. Problems have ranged from collapse of stock markets, dubious accounting practices, abuse of corporate power to criminal investigations, as well as

specific corporate governance failures such as agency problems, conflict of interest, inexperienced directors, and unequal share rights. Recent societal trends and events, including the global financial crisis, persistent socio-economic inequality, resource constraints and climate change to name but a few, have resulted in an increasing level of turbulence and uncertainty with corporate governance coming into the limelight (IRC, 2011; Roussow, 2002; Kakabadse et al, 2002; Alhaji and Fauziah, 2012; Rossouw, 2005).

The collapse of companies during the global financial crisis have led stakeholders to question the ability of the existing financial reporting system to provide relevant information for decision-making as current reporting focuses mainly on historical information and does not give sufficient attention to the future prospects of the company, and also does not adequately address financial risks, despite the length and complexity of reporting requirements. In addition, the volume of natural and labour-related incidents have highlighted the broad spectrum of risks that can threaten the sustainability of a business, leaving investors with inadequate information in order to make assessments of how the company has considered and addressed its sustainability. It has become clear that financial measurements alone cannot provide sufficient insight (Bansal et al, 2009; IRC, 2011; Ramsden, 2010; Watson, 2012). These corporate scandals have, however, acted as an influence for change, partially as a result of a decrease in shareholder confidence, as well as the effect that this has on undermining the level of investment, both local and foreign. Although the bottom line is important, the overall transparency, accountability and fairness to all stakeholders are vital factors in building a level of trust with stakeholders (Kakabadse et al, 2002).

The McKinsey Investor Opinion Survey of 2002 (McKinsey & Company, 2002) shows that corporate governance represents a huge concern to investors in emerging markets, and that investors pay attention to corporate governance disclosures, impacting on valuations of companies. When making an investment decision between companies with similar financial performance, the survey showed that investors will pay a premium of between 23 and 28 percent for a company that demonstrates good corporate governance. This indicates that shareholders value corporate governance and consider it when making investment decisions, and are willing to pay more for shares from a company with good corporate governance when compared to a company that is poorly run with the same financial performance. In this Survey, the Board's practices are considered to be at least as important as the financial information, and shareholders indicated that they would pay more for shares in a well governed company (Rossouw, et al, 2002; Abdo and Fisher, 2007; Vaughn and Ryan, 2006; Kakabadse et al, 2002). This is a clear indication that companies need to give

the correct level of attention to corporate governance as it is an important indicator of economic stability and the growth prospects of the company. The financial crisis further underscored the importance of risk-management in pursuance of business strategy, and operational crises over the last few years have raised concerns regarding the effectiveness of the supervision and execution of controls and the need to implement the right level of control to manage operational risk and maximise performance within legal boundaries and the risk threshold. This requires a strong operational risk methodology that defines the risk profile and an underlying developed understanding of the business processes and operations (Abdo and Fisher, 2007; Lamont, 2012; Ladd, 2010; Ntim et al, 2013).

King-III has placed an emphasis on the duties and responsibilities of the Board in relation to their monitoring abilities (IODSA, 2009). As mentioned previously, Boards in South Africa face greater complexity and are increasingly in the spotlight as the pressure to enhance corporate governance standards mounts. There is a continuous move towards transparency and accountability for the impact on the community that firms cannot ignore. The Board, shareowners and regulators have shifted their focus to risk oversight and risk governance (SpencerStuart, 2009; Davis and Lulomnik, 2011). The integrated report is a means of communication which provides investors with information that is required to evaluate and assess sustainability and the long-term viability of an organisation (IODSA, 2010).

2.3.2 Integrated reporting and King-III

King-III encourages integrated reporting because governance, strategy and sustainability are seen to be inseparable and are inextricably linked to an organisation's success. Integrated reporting offers a unique opportunity to centre business reporting on strategy and creation of value, i.e. how a business is using the capital invested by shareholders (Matthews, 2011; IRC, 2011; IODSA, 2010; Adams, 2012; Eccles and Saltzman, 2011). The IIRC defines an integrated report as 'a concise communication about how an organisation's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term'. Emphasis is placed on the connectivity of information that allows a full picture of performance and sustainability to be conveyed to stakeholders (IIRC, 2013; IODSA, 2009; Watson, 2012). King-III suggests listed companies in South Africa issue an integrated report that allows an integrated representation of a company's performance in terms of both finance and sustainability, and reports on aspects that are essential to any company's success, including strategy, corporate governance, effective risk-management processes, financial performance and overall sustainability reporting. This allows the company to express relationships amongst these

items and provides a connection between the various concepts that give stakeholders the ability to assess short-, medium- and long-term value creation and sustainability and make more informed decisions (IODSA, 2009; KPMG, 2011; E&Y, 2011; E&Y, 2010; IRC, 2011; E&Y, 2011a; E&Y, 2011b; E&Y, 2009; Ramsden, 2010).

Integrated reporting creates a formal communication and allows the assessment of the organisation's future viability against not only historical financial information, but also forward-looking environmental, social and governance criteria. This is important because a company does not act in isolation and its success is reliant on society, the environment and the global economy. It also allows executives to develop a better understanding of what drives the company and what the risks and opportunities are (E&Y, 2011b). The integrated report is the outcome of business strategy and reporting of management processes, one of the key principles being combining disclosure on strategy, risk, performance and sustainability. The integrated report links social, economic, environmental and social issues to strategy, forcing the link between consequences of social and environmental behaviour to financial outcomes. King-III refers to integrated reporting as more than just the combination of the annual report and sustainability report – it allows organisations to integrate sustainability into the day-to-day business strategy and operations and results in a holistic process, resulting in a report that not only explains how sustainability is connected to the organisation's strategy but also how sustainability performance, risk and targets are measured and monitored. In order to be effective, integrated reporting needs to be simple, meaningful, readable and relevant to an ever widening range of stakeholders, meeting their needs and is intended to be the primary means of communication to stakeholders. (E&Y, 2011b; E&Y, 2009; IRC, 2011; Ramsden, 2010; KPMG, 2011; E&Y, 2011; E&Y, 2010; E&Y, 2011a).

A survey was conducted by Ernst & Young in 2011 to obtain current market views on the values, challenges, content and process of integrated reporting, with 25 companies on the JSE across a range of sectors participating. The current market view as per the survey results shows that the main value perceived by the market is that it will focus companies on material issues and impacts that are relevant to stakeholders. One of the key items raised in the survey related to perceptions of internal benefits including the redefining of and refocusing on strategy, improved definition and collection of key performance indicator data, improvement of stakeholder interactions, the need to report on future sustainability as well as to improve risk-management and identify and capitalise on opportunities and efficiency improvements (E&Y, 2011).

Integrated reporting creates the link between governance and strategy to risks. Processes need to be developed which enable monitoring and analysis, stakeholder engagement, setting targets and acceptable deviations from these targets (IRC, 2011; Ramsden, 2010). Integrated reporting enhances risk-management because risks can be considered from an integrated perspective, encouraging innovation and giving the organisation a competitive edge as new opportunities identified are exploited and provide a platform for strategic stakeholder communication. The benefits of integrating include the viewing, weighting and prioritising of stakeholder concerns, as well as organisational values being clarified and the goals and objectives being developed to align with core values. The information presented should include identification of material issues, impacts and relationships and any related risks and opportunities for current and future activities. The process followed should also be documented within the integrated report used to identify and address concerns. A risk profile should be developed that protects stakeholder value and operates within the companies' internal and external boundaries, allowing performance to be measured and effectively communicated to stakeholders. This allows a meaningful roadmap with both short-term and long-term strategies that rely on benchmarks to measure success (Mammatt et al, 2009; Anand, 2010; IRC, 2011; Ambrester and Clay, 2011).

2.3 Risk governance

2.3.1 The importance of risk-management

As mentioned previously, the Board is an important internal control mechanism in the corporate governance process, being ultimately responsible for the long-term health and survival of the corporations, and plays an important monitoring role as they are the primary means for shareholders to exercise control over top management. As a result of the Board's understanding of the fundamental issues within the company, they are responsible for informing and approving the goals of the organisation and the direction of the strategy being employed to achieve those goals, whilst taking into account ethical considerations in each decision made. The Board enables the company to create value within given constraints, challenges, resources and the external environment in which it operates (Naidoo, 2011; John and Senbet, 1998; IRC, 2011; IODSA, 2009; Daily and Dalton, 1994). Boards are responsible for overseeing the business strategy, a key element being the identification of potential threats, as well as opportunities to ensure that organisations remain dynamic. Part of the Board's responsibility is to consider the validity of decisions and to evaluate the merit of planned business actions. Boards are also key in overseeing risk-management, and, recently, have been conducting more in-depth views of risk that are much broader in scope

and influenced by real life scenarios, including health and safety, environmental concerns, IT development, security, industrial relations as well as the corporate reputation, to name but a few. They are responsible for assessing the impact of these risks and ensuring that the level of risk taken remains within the norms and risk appetite of the firm (Jensen, 2001; Hauswirth et al, 2012).

Control and risk assessment has been prioritised as a key focus area for most Boards with the realisation that they are accountable for the quality of risk processes within an organisation, as well as increased involvement regarding risk-management procedures (SpencerStuart, 2010). Risk-management can be defined as the set of processes which management use to identify, analyse and respond appropriately to risks that might adversely affect the realisation of the organisation's business objectives. Risk-management includes the development of a risk-management framework and appropriate structures, processes and systems established by management that will ensure that the risk philosophy is incorporated into the daily tasks and activities of the organisation. Risk-management is a systematic process followed within an organisation that allows identification, assessment and management of risks at both a strategic and operational level. Further, risk-management relates to monitoring and responding to events that could adversely affect the organisation (Anand, 2010; Jubb, 2011; Coetzee and Lubbe, 2013).

Risk reporting is an essential component of integrated reporting, and all risks that are critical to the business should be disclosed. Currently, the general trend is that only risks which are controlled by financial instruments are being discussed, leaving an incomplete picture of all risks and the management thereof. Shareholders want to know how environmental, social and governance issues have impacted on the scope of the business to operate and generate profits, and how these issues and risks have been managed and the impact on value and sustainability (Bray, 2011).

An integrated risk-management approach functions through the co-ordination and identification of multiple sources of risk inside the company using a continuous process that permeates all processes of company activities and focuses on employees on every level. The risk-management processes should be integrated into the business, and include identification, analysis, mitigation, monitoring and reporting of risk, including risk evaluation and quantification if practicable. This requires effort to be co-ordinated and well planned, with a proper risk-management policy defined, as well as levels of risk tolerance to allow calculated risks to be taken. This should also be regularly reviewed, and the monitoring and

evaluation of risk-management processes should determine whether the company is on track to meet its objectives (Bhimani, 2009; Sarens et al., 2009, IODSA, 2009).

A shared understanding of risk-management and standardised risk processes is essential within the organisation. Risks need to be measured as inherent risk, residual risk, velocity of the risk and any external factors that influence the risk. The company should identify key risks that are both repeatable and measurable and set a risk appetite that defines the level of risk that the company is willing to tolerate to ensure that it meets its business strategy. Risk appetite is the level of enterprise-wide risk that leaders are willing to take in pursuit of strategy, acquisitions, new products and market expansions, and are usually defined as a monetary amount or key ratio/percentage. This risk appetite is important at both the entity-wide level and the business unit level and it is equally as important to have a defined link between strategic direction and the ultimate level of risk that management and Board are willing to accept. All risks need to be considered – including financial, operational, compliance and reputational risks. There needs to be a culture of risk-management embedded into the policies and procedures at all levels and all employees should consider risk in the performance of their jobs. Risk tolerance can be said to represent the union of strategic objectives and risk assessment (Lamont, 2012).

Risk-management allows identification of, not only threats, but also opportunities and uses substance over form to represent these risks to shareholders. The IASB issued guidelines on issues that management should consider when presenting commentary in support of their financial information that includes key trends, factors, risks, strategies and the effectiveness thereof in order to supplement and complement the financial information (IASB, 2010). Compliance with risk-management and regulations is a vital element for any business to protect its reputation and build a competitive and sustainable brand. Risk-management and understanding key risk factors allows the business to take affordable, acceptable and business advantageous risks by a well informed Board. The fast pace and complexity of modern business makes corporate governance essential for survival, and the fact that the company is seen to be in good hands leads to external investment, good employees, positive media relations and more business from clients (Peacey and Cooper, 2012).

Management suggests strategies that seem sound, but the Board need to analyse and contextualise these strategies in terms of industry trends, the company's internal risk appetite, as well as what is best for long-term shareholder value. The Board discuss risks that are deemed to be the most material, to which the company is most vulnerable and that have serious potential impact on the organisation. The Board is tasked to examine and

debate key risks and opportunities that could hinder achievement of strategic goals and will allow wealth to be created on a sustainable basis. The external environment is never static and therefore it is important that the Board adapt the mission, vision and strategy of the business, and never underestimate the power of the future (Sheehan, 2011; Ramsden, 2010).

A clear link between strategy, action and value needs to be made so that the information gap that leads investors to price in risks that are adequately managed can be closed. There is a positive correlation between company value and financial risk-management and, therefore, it is important for the financial management of an organisation to enhance risk mitigation techniques that support wealth accumulation, and give the necessary attention to risk-management. Global companies are becoming more accountable to multiple stakeholders, and risk governance assists organisations with the process of protecting shareholder value whilst increasing bottom line accountability (Hoffman, 2011; Brezeanu and Al Essawi, 2011; Demidenko and McNutt, 2010).

A process to be followed suggested by the IODSA (2010) is the integration of the business strategy to governance and sustainability, including the identification of significant and material issues as well as defining this identification process. In addition, key performance indicators (KPI's), actions and intended outcomes should be formulated for each risk and progress reported to the Board as frequently as considered necessary, depending on the materiality of the risk. The relationship between the risks should be identified and any impact on revenue, expenses, investments, cash-flows or operational performance measures should be quantified accordingly. Management incentives should be aligned with the continuous measurement of applicable KPI's (IODSA, 2010).

Coetzee and Lubbe (2013) analyse the concept of assessing risk maturity in South Africa by utilising a risk maturity scorecard in order to assess how comprehensive the risk-management strategy is within organisations. Although risk-management is a fairly new concept for organisations, the evolution of corporate governance has identified formalised risk-management frameworks as an effective way to assist management with their responsibilities in terms of risk governance. It is important to note that acceptance of a level of risk is essential to ensure that there are adequate opportunities for organisations to grow profitably. Risk-management is unique to each organisation and it is at the discretion of each organisation what quality and quantity of activities should be implemented to manage risks – this is referred to as the risk maturity of an organisation (Coetzee and Lubbe, 2013).

A study examining whether the quality of firm level corporate governance has any effect on the quality and extent of corporate risk-disclosures in South Africa was conducted during 2013 by Ntim et al. Results of this study show evidence of a general increase in the corporate risk-disclosure level throughout the period analysed and indicate that corporate risk-disclosures have not converged and are still not similar among the companies investigated (Ntim et al, 2013).

2.3.2 Requirements of risk-management reporting in terms of King-III

As mentioned previously, integrated reporting contextualises financial results by looking at the positive and negative impacts surrounding those results and how the company will enhance the positives and eliminate or reduce the negatives (IODSA, 2010). King-II suggested that risk-management processes were to be assessed at least annually, but King-III has taken this one step further and wants assurance to be given on the effectiveness of risk-management and a comment to be made on the level of risk maturity. Risk-management is essential for any organisation, not only because it is a central component of corporate governance and required by both King-III and the Companies Act, but also because the link between risk and strategy cannot be separated. An entirely new chapter has been included in King-III that deals specifically with risk-management, entitled 'Governance of Risk'. The new King-III principles for risk are intended to assist the Board to focus on defining roles and responsibilities for risk-management, and to encourage inclusive risk-management approach within organisations. Therefore organisations are encouraged through King-III principles to consider risks within a defined risk framework (E&Y, 2010; Coetsee, 2011; KPMG, 2012).

KPMG suggests a number of directives regarding the Board's responsibility for risk governance and practical steps, in its publication entitled *Toolkit for the Company Director*. Risk is described as a fundamental part of business that cannot be avoided, and so must be managed – the key is to balance the risk taken between with the rewards earned (KPMG, 2012). It is vital that proper risk frameworks are developed in order to mitigate key risks. The Board should identify risks and opportunities in every area including human, social, environmental, manufacturing and economic capital and analyse each resource that is required to run the company that could pose a threat to success, and actively manage each risk according to the threat or opportunity it materially poses (Coetzee and Lubbe, 2013; IODSA, 2010).

According to research, currently not all firms are adhering to all elements in King-III with regard to risk-management and, therefore, development of future applicable and comprehensive guidelines and legislation is important to enhance application (Coetzee and Lubbe, 2013). The International Integrated Reporting Initiative released their framework for integrated reporting in December 2013 – a principle-based document containing guidance for organisations to produce true integrated reports. The framework references that the focus of integrated reporting is to explain to stakeholders (specifically those providing financial capital) how an organisation creates value over time, referencing interdependencies and strategies essential in the ability of an organisation to create value over the short, medium and long term. This ability to create value for the organisation is inextricably linked to the value that it creates for others, hence the need to report in an integrated manner (IIRC, 2013).

Within the framework for integrated reporting released by the IIRC, information considered to be useful to stakeholders when assessing the organisation's ability to create value were identified. Specifically, the IIRC lists risks and opportunities as a content element, stating that the integrated report should answer the question *'What are the specific risks and opportunities that affect the organisation's ability to create value over the short, medium and long term, and how is the organisation dealing with them?'* A number of items were mentioned that could be disclosed to answer this question. Examples include the identification of the specific sources of risks and opportunities, as well as the assessment of the probability, magnitude and mitigation steps relating to each risk and opportunity. Identification of associate strategic objectives, strategies, policies, targets and key performance indicators are also suggested (IIRC, 2013).

The risk chapter within King-III, as well as the disclosures referred to in the prior literature above, is the focus of this exploratory research. To this end, the suggested disclosures in the literature have been grouped into a number of themes by the researcher as documented below (This process is further explained in more detail in Section 3).

Overall Risk-disclosures

There are a number of key requirements within the Governance of Risk chapter, including the overall responsibility of the Board to govern and report on risk within the organisation, with an appreciation that strategy, risk, performance and sustainability are inseparable (KPMG, 2009).

Further, it is the responsibility of the Board to acknowledge that performance, strategy, sustainability and risk are inseparable, and that the development of an integrated risk-management framework is essential in the implementation of King-III. The Board is also responsible for approving a documented risk policy and management plan that is appropriate, and distributing this widely throughout the organisation to all employees, establishing the risk strategy in the culture of the organisation. The Board should then disclose its view on the effectiveness of the risk-management process and any unusual risks. It is also the Board's responsibility to ensure that there is a framework developed to help to anticipate unpredictable risks. (E&Y, 2010; E&Y, 2009a; KPMG, 2011; KPMG, 2009; KPMG, 2012)

Risk-management Policy and Plan

The responsibilities relating to the risk-management policy include the design, implementation and monitoring of the risk-management plans in order to give the Board assurance regarding the effectiveness of the risk-management process. The Board is responsible for the approval of a formal risk policy and management plan that is appropriate. The risk-management plan should aim to bring the organisation to its desired level of risk maturity, reflecting what needs to be improved and the timelines for these improvements. The goal of the risk-management plan is to establish an awareness of risk within the organisation and ensure that risk is being managed in an appropriate manner on a day-to-day basis. The Board is responsible for ensuring frameworks and methodologies are implemented to improve the probability of anticipating unpredictable risks (E&Y, 2010; E&Y, 2011; E&Y, 2009a; KPMG, 2011; KPMG, 2009; KPMG, 2012; PWC, 2009; Coetzee and Lubbe, 2013).

Delegation of Risk Responsibilities

King-III suggests that the risk-related responsibilities should be specified within the Board charter and terms of reference, and that the Board should be able to demonstrate that it has dealt with the governance of risk comprehensively and satisfied itself that risk assessments, responses and interventions are effective (KPMG, 2009; KPMG, 2012).

The Board can be assisted in carrying out their risk responsibilities, and can delegate the execution of the risk-management either to management, a Chief Risk Officer, the Audit Committee or a specific Risk Committee with defined responsibilities to assist in embedding risk-management the day-to-day running of the business (E&Y, 2010; E&Y, 2009a; PWC, 2009; KPMG, 2009).

King-III suggests that internal audit should follow a risk-based approach, and the internal audit planning should include an assessment of risks and opportunities facing the organisation, aligning with the risk assessment process whilst considering the risk maturity of the organisation itself. The Board is also responsible for ensuring that there is an effective risk-based internal audit function. An integral part of risk-management relates to the function that the audit committee fulfils, with an overview of financial reporting risks, internal financial controls, fraud and IT risks relative to reporting. The Board should receive assurance from both management regarding the effectiveness of risk-management, as well as a written assessment from internal audit of both the internal controls and risk-management (KPMG, 2009; PWC, 2009; KPMG, 2012).

Currently, Boards are divided over whether to form a specialist risk committee or include risk-management as a responsibility of the audit committee, with the debate centred on the omission of risks by either committee (SpencerStuart, 2010). King-III refers to the decision to delegate being based on a number of factors. The Audit Committee should have an in-depth understanding of the significant actual and potential financial and non-financial risks that affect the integrated report and ensure that they are adequately addressed in terms of financial reporting, including the evaluation of the Internal Audit function. The Internal Audit function will then in turn evaluate the efficiency of the Audit Committee, as well as the risk-management policies and processes. King-III suggests that a risk committee should be appointed by the Board, with a minimum of three members and can consist of executive and non-executive directors, as well as senior management and independent risk experts and should meet at least twice a year. The Board is responsible for evaluating the performance of this committee. (E&Y, 2011; KPMG, 2009)

Risk Tolerance Levels

When considering strategic risk, excessive risk aversion is not synonymous with creation of longer term value, and this is the reason why when approving the risk-management policy for the organisation, it is vital to define the level of risk tolerance considered to be acceptable, and setting the risk appetite of the organisation. A risk and control framework should be developed against which risk assessments can be conducted, including the setting of boundaries of how much risk the organisation and its business units should be prepared to accept in operations, facilitating management's ability to set a proportional response to risk in the context of business objectives. This assists management in considering how much risk is appropriate. Both risk practice (defined as the policy, guidelines and procedures) and risk tolerance should be aligned to ensure the proper evaluation of risk-management and control activities set in consideration to the risk appetite

to determine boundaries of acceptable risk-management and performance (KPMG, 2012; E&Y, 2011). King-III defines risk appetite as the level of risk that executive management or the Board is willing to accept on an aggregate basis in respect to strategic and business objectives. Each risk should be aligned with its impact and likelihood ratings to determine how significant the risk is and whether the organisation is able to accept the risk. (E&Y, 2011)

Risk Assessment

The Board is responsible for determining the level of risk tolerance, ensuring that risk assessments are carried out on a continual basis (at least annually) with each risk-management policy, practice, procedure, strategy or program including an element of risk assessment, with limits and thresholds being put in place (E&Y, 2009a; IODSA, 2010). King-III requires that there is formal risk assessment – it envisages a continuous monitoring of the entity's risk profile rather than a once-off annual assessment. A well-structured and systematic process is crucial as any risk not identified cannot be managed. The first important step is to identify the organisation's strategic objectives and map these strategies as they are intended to be used as each strategy will expose the organisation to a different type of risk. The process of risk identification should be divorced from quantification of potential effect on the company or likelihood of materialising at the initial stage to prevent risks from being automatically de-prioritised. The Board's responsibility includes the review of the company's risk register with risks quantified where possible, and to ensure that management implements appropriate risk-management responses and these responses are monitored. Both inherent and residual risks should be viewed in order to prioritise and direct resources to the correct risk (E&Y, 2011; KPMG, 2009; KPMG, 2012).

Monitoring of risk-management

The Board is responsible for ensuring that management consider and implement appropriate risk responses and continually monitor risk. Monitoring should occur as frequently as required by the risk itself and be reported to the Board along with the metrics that have exceeded the baseline. Risk indicators should also be identified and monitored for significant changes and events which effect the risk profile and the environment in which the organisation operates (KPMG, 2012; IODSA, 2010).

Key Risk-disclosures

Deloitte and Touche (2008) suggest that the directors' report should contain a description of the principal risks and uncertainties facing the company. This is extremely important given the current economic climate and the relevance and importance to readers of the financial

report. Types of risks that should be disclosed include strategic, operational and financial risks. Generally, these risks are disclosed in a tabular format with an evaluation of the impact and the actions surrounding the risk. (Deloitte, 2008) Undue, unexpected, and unusual risks should be defined in order to be useful to the user, as well as defining materiality thresholds. The Board's responsibility includes the review of the company's risk register with risks quantified where possible to ensure that management implements appropriate risk-management responses and these responses are monitored. Both inherent and residual risks should be viewed in order to prioritise and direct resources to the correct risk (E&Y, 2011; KPMG, 2009; KPMG, 2012).

Within the financial impact section, for each of the key material issues (economic, environmental and social) the strategy, implementation, initiatives, management approach, risks and opportunities, material financial and non-financial indicators, a high level narrative description of the performance and objectives, as well as targets for current and future years, are suggested to be disclosed. (E&Y, 2011a)

There are a number of minimum *disclosure requirements* in terms of the Risk Governance Chapter within King-III. These include a statement from the Board on three items relating to risk. Firstly, the Board need to disclose their responsibility for risk, and how they have satisfied themselves that risk assessments, responses and interventions are effective. This includes disclosing where the risks exceed or deviate materially from the risk appetite set. Secondly, they are required to include key sustainability risks, responses and the residual sustainability risks in terms of their risk assessment. Lastly, there needs to be a risk-disclosure where any undue, unexpected and unusual risks that have been taken in pursuit of reward as well as material losses and causes need to be disclosed, including quantification and impact of the risks as well as responses and interventions that were implemented in order to prevent the reoccurrence. (E&Y, 2010; E&Y, 2009; PWC 2009; KPMG, 2009; KPMG, 2012)

Additional disclosure from Literature review

In paper 3, the IODSA (2010) suggests that integrated reporting should be the outcome of certain information collection processes within the organisation. Actual performance with regard to each issue and risk identified should be reported to stakeholders through the integrated report, including the target set, baseline, prior year performance and benchmarking against peers, industry norms or national averages. All issues that are pertinent to the business should be reported to give a complete and balanced view of the organisation. Reporting is resource-intensive and, therefore, companies are expected to

transition into a fully integrated report, with some companies being well into this process and some at the very beginning of implementation. It is essential that processes are in place in order to allow the complete, timely, accurate and accessible risk-disclosures to stakeholders (IODSA, 2010; E&Y, 2009a).

Ernst and Young (2011a) suggest a content outline for risk-disclosures, as well as where they should be disclosed in the various sections of the report, which will be detailed in the subsequent paragraphs. Examples include, within the Chairman's statement, the broad positive and negative aspects of the company's performance in terms of ethics, economic, social and environmental aspects, as well as commentary on major issues and trends and the impact that these have on the company. E&Y also propose that within the CEO's statement, suggested disclosure includes the information on the company's integrated strategy, as well as information on market trends and issues and the link to company's integrated strategy and key financial and sustainability priorities. Further, within the overview section, suggested disclosures include the company's strategy, mission and values within a triple bottom line context, as well as the economic, environmental and social material issues and how the sustainability issues are identified by the company (E&Y, 2011a).

In the sustainable development performance section, the programmes put in place and energy management plans are suggested be disclosed, as well as accounting policies and reporting standards used for measurement and include the definitions of the Key performance indicators [KPI's], a prior year comparison to current year targets, any indirect company impacts and any forward-looking information and plans to reach targets. Within the financial performance section, financial results should be contextualised by reporting on the positive or negative impact that the company has had on stakeholders and the effectiveness of internal controls and risk-management process (E&Y, 2011a). The audit committee are responsible for ensuring that there is a combined risk approach to address significant and material risks (PWC, 2009; KPMG, 2012).

A separate section for risk-disclosures that contains all key risks is suggested by E&Y, including sustainability risks and the responses to those risks and any residual risks. The impact, responses and interventions with regard to material losses and the quantification of these losses, as well as current, imminent and envisaged risks that threaten sustainability and a statement from the Board on their view of effectiveness of the risk-management process (E&Y, 2011a).

The next chapter will detail the research methodology used to answer the research question.

CHAPTER THREE – RESEARCH METHODOLOGY

This chapter is structured as follows: Section 3.1 contains an examination of the mainstream accounting research or positivist paradigm, followed by a discussion of the interpretative methodology in an attempt to contextualise the selection of the interpretative research framework. A discussion on how the research instrument was derived, and how it was used to address the research question is included in Section 3.2. Sections 3.3 - 3.5 discuss both the population and sampling methods, as well as how the data will be collected and managed. Due to the exploratory nature of this study, the manner in which validity and reliability is ensured is dealt with in Section 3.6.

3.1 Research design

3.1.1 Research frameworks

Chau (1986) describes three research paradigms in accounting, which can be differentiated based on their ontology, epistemology and methodology. Positivism represents a research framework that aims to observe objectively and measure phenomena numerically and, therefore, is generally performed using unbiased, scientific, and quantitative means. This scientific method has become the main research framework used in accounting research in South Africa (Coetsee, 2011; Merkl-Davies et al, 2011). Within a positivist research framework, the focus of the researcher is verification and measurability of phenomena in order to develop and test a theory, based on the premise that the researcher is a passive and independent observer. Generally, quantitative research methods are employed in this paradigm to collect data and develop these through various means into numeric measures allowing the utilisation of statistical data analysis techniques to test theories through hypothesis (Creswell, 2009; Coetsee 2011 and Merkl-Davies et al, 2011).

In contrast, the interpretative paradigm has its foundation in exploring the interactions between social factors and enhancing understanding of how social order is both produced and reproduced. Interpretative research is driven by the utilisation of a subjective epistemological stance, relating to the creation of knowledge with the acceptance of the fact that this knowledge creation cannot be divorced from the researcher who created it. The methodology aims to capture meanings and interpretations whilst acknowledging the researcher's subjectivity (Merkl-Davies et al, 2011; Creswell 2009). Interpretive studies rely on the researcher as the research instrument and are subjective in nature, with themes

emerging by reading and re-reading the text. Through this process of interpretation, a deeper understanding is gained, contributing to the existing pool of knowledge (Coetsee, 2011; Maroun, 2012; Solomon and Maroun, 2012; Creswell, 2009). Unerman (2000) notes that subjectivity does not itself pose threats to the validity and reliability of a study. Indeed, the acknowledgement of this subjectivity, together with a complete and transparent description of the analysis process allows for an in-depth analysis of the subject matter which more traditional scientific methods cannot provide (Elo and Kyngas, 2008; Unerman, 2000). Interpretative research styles tend to be more qualitative with a higher degree of subjectivity than positivist methodologies. This does not, however, mean that interpretive research cannot make use of quantitative techniques to some extent (Creswell, 2009). Coetsee (2011), for instance, provides examples of studies employing mixed methods, in an exploratory setting, with the aim of highlighting the perceptions of stakeholders and the functioning of social and cultural variables which impact governance systems (Creswell, 2009; Merkl-Davies et al, 2011; Coetsee, 2011).

This study explores the trends in risk-disclosure in listed firms in South Africa after the introduction of King-III in March 2010⁴ with the aim of contributing to the growing body of work exploring the effect of integrated reporting on South African corporate disclosures (Section 1.3). Due to the research being exploratory in nature, the interpretative accounting research framework is predominantly used to examine and investigate these trends. A disclosure checklist, based on emerging risk-disclosure themes identified in King-III and the prior literature (Section 2.3.2) is interpretively developed by the researcher. Various risk-disclosure scores can then be computed, as discussed in Section 3.4 (adapted from Marx and Van Dyk, 2010; Barac et al, 2011). Using a combination of statistical techniques, changes in the nature and extent of risk-disclosures can be identified and interpretively analysed by the researcher (Section 3.4). Although the method is primarily quantitative, the aim of the research is to explore emerging risk-disclosure themes, indirectly highlighting the practical application of the 'Governance of Risk' chapter (King-III) by preparers of integrated reports. The use of an interpretive-inspired technique is also justified by the absence of research of this nature and the difficulty of developing a generally accepted disclosure quality scale needed for more scientific methods (Creswell, 2009; Merkl-Davies et al, 2011).

⁴ Following King-II, the JSE requires listed companies to include in their annual report a disclosure of how they have complied with Corporate Governance principles. The introduction of King-III now requires JSE listed companies to integrate sustainability reporting into their financial reporting. (IODSA, 2009)

3.2 Research approach

This research makes use of a multi-phase approach for collecting and analysing data. Firstly, a detailed content analysis of the prior corporate governance literature, including King-III and the discussion papers on integrated reporting, is used to identify key risk-disclosure themes and requirements (Section 2.3.2; Section 3.2.1). The risk-disclosure matrix (Appendix A) is then used to determine a risk-disclosure score (Section 3.4) and drive the initial analysis of risk-disclosures in the annual/integrated reports under review. This is complemented by an interpretive text analysis to identify key examples for highlighting disclosure themes or trends (Section 4).

Content Analysis

Leedy and Omrod (2010) describe content analysis as a comprehensive, methodical assessment of a particular body of material for the purpose of identifying and categorising the underlying material into patterns, themes or biases and which can also be used to develop a deeper understanding of what the relevant communication means through thorough analysis of the contents. Content analysis is concerned with the underlying meaning, intentions, consequence and context, and can be used to analyse theoretical issues with the intention of improving the understanding of various types of data, allowing inferences to be made from the underlying data to provide context, knowledge and new insights and serve as a practical guide in which to action this information.

Accounting researchers have employed content analysis for a number of years in order to interrogate narratives through the extraction and analysis of data, and it is the most frequently used research method within corporate reporting research. Broadly speaking, there are two approaches to content analysis: mechanistic content analysis, where a dichotomous categorical index is used to score the completeness of information disclosed against a specific guideline which allows a numerical score to be produced from which conclusions can be drawn regarding disclosure practices, compliance with disclosure and a ranking between narratives. This form of content analysis is used to convert text into numerical scores and indices to draw statistical inferences about the types and intent of narrative disclosure. Although content analysis is subjective, when executed in a systematic and transparent manner this method enhances the understanding of corporate communication within an organisation (Elo and Kyngas, 2008; Leedy and Omrod, 2010).

The alternative is interpretative content analysis, where the actual content of the narrative is analysed to understand disclosure practice (Beck et al, 2010; Elo and Kyngas, 2008; Merkl-

Davies et al, 2011). Previous research and underlying theory will determine the choice of coding categories, as well as the sample selection and unit of analysis to ensure that the purpose of the study is fulfilled. This means that content analysis relates to the research methodology for analysing textual data but its use is dependent on the research paradigm of the research (Merkl-Davies et al, 2011; Creswell 2009; Elo and Kyngas, 2008).

Ultimately, the research question and aim of the study determine the selection of the research framework (Coetsee, 2011; Merkl-Davies et al, 2011; Creswell, 2009), and the specific selection and type of content analysis depends on the research question and purpose of the study. In this case, the first stage of this research makes use of an interpretively inspired content analysis to identify specific risk-disclosures and themes (categories) to compile the risk-disclosure matrix (Appendix A).

Development and application of the risk-disclosure matrix

Unerman (2000) referred to qualitative content analysis as being used to condense raw data into various categories through deduction and interpretation. This process begins with the underlying theory and relevant research being thoroughly understood through a literature review, and is followed by a set of systematic and transparent procedures that serve to interrogate the data and sort into the relevant categories (Unerman, 2000).

This research follows a similar approach to Marx and van Dyk (2010) and Unerman (2000). The literature relating to corporate governance and sustainability development and practices was reviewed and summarised by the researcher. The process began with a detailed reading of the relevant corporate governance literature to provide a theoretical frame of reference (Section 2.1 to Section 2.3). The relevant academic and professional literature was then reviewed systematically (Unerman 2000) to identify preliminary disclosure themes or categories. The researcher then concentrated on the King-III provisions, particularly the 'Governance of Risk' chapter. The entire chapter was interrogated on a line-by-line basis, with each principle being analysed in detail and formulated into a number of statements. Themes emerging from the literature regarding suggested disclosures were then aligned and incorporated into the risk-disclosure matrix to form the research instrument (Appendix A). The scorecard entries were further grouped into categories and themes by the researcher, similar to the approach followed by Solomon and Maroun (2012) in their analysis of the influence of King-III on social, ethical and environmental reporting on integrated reporting.

The disclosures were also classified as ‘to be disclosed’⁵ by King-III and ‘recommended’⁶ by King-III by the researcher based on the suggestions made within King-III and from the review of the literature (Appendix A).

The content analysis and coding process allowed the researcher to complete a risk-disclosure score as discussed in more detail in Section 3.5 (adapted from Marx and Van Dyk, 2010; Solomon and Maroun, 2012).. This numerical score allows conclusions to be drawn regarding risk-disclosure practices (Marx and Van Dyk, 2010; Solomon and Maroun, 2012). The approach is similar to that followed by Barac et al (2011) who also utilised content analysis to review the state of governance practices at higher education institutions in South Africa by assessing the corporate governance disclosures in annual reports using content analysis to extract empirical evidence. Content analysis was selected as the research methodology to analyse the annual reports because the technique allows extraction of information not explicitly presented in a quantified and structured format but is implicit in the text. As is the case with this research, content analysis provides a systematic, cost effective and replicable technique for compressing text into fewer content categories through explicit rules of coding and involves the selection of analytical categories within the context of the material being analysed (Barac et al, 2011)

The content analysis process followed by the researcher was predominately deductive, meaning that analytical categories were derived from both the existing research and underlying theory. It should also be noted that the content analysis process was iterative. As the researcher reviewed and coded reports, this led to the refinement of disclosure codes or categories presented in Section 2.4 and Appendix A. To ensure focus, the research question was always kept in mind, and the researcher constantly referred to the unit of analysis (being risk-disclosure provisions) to ensure that the analysis was effective (Merkl-Davies, 2011; Elo and Kyngas, 2008).

Interpretative text analysis

The second phase of the research made use of interpretative text analysis in order to provide additional insights and explore trends in risk-disclosure and the patterns emerging from the integrated reports. For example, disclosures that highlight excessive repletion or a change in focus from shareholder to stakeholders (Solomon and Maroun, 2012) were used

⁵ For example “The Board should disclose any current, imminent or envisaged risk that may threaten the long-term sustainability of the company” – principle 4.10, par. 55 of King-III

⁶ For example “The risk-management plan should clearly identify responsibilities for monitoring risks” – principle 4.8, par. 47 of King-III

to highlight themes emerging in the risk-disclosure sections of the reports. As with all interpretive-inspired studies, the researcher became an integral part of the data collection and analysis process. Themes emerged during the course of coding the reports (as discussed above) and were extracted by reading and re-reading the text in an iterative process, and the text analysis and interpretation were reliant upon the researcher's expertise and assumptions made (Solomon and Maroun, 2012; Merkl-Davies et al, 2011). On occasion, the interpretive text analysis led to additional review and re-coding of risk-disclosures but no significant changes to the risk-disclosure scores resulted (adapted from Merkl-Davies et al, 2011; Creswell, 2009).

3.3 Population size and sample

This study focuses on the risk-disclosures as suggested by King-III (Chapter 4 – the Governance of Risk) by JSE listed companies post 1 March 2010 that are contained within the integrated report. In accordance with the Guidance letter on Integrated Reporting issued by the JSE on 27 June 2013, it was confirmed that Integrated Reporting is applied on an 'apply or explain' basis (Lexis Nexis, 2013).

Data was collected from annual/integrated reports of companies listed on the JSE from 1 March 2010 to 31 March 2013, allowing for a lag period for companies to have implemented the suggested risk-disclosure requirements in King-III into their integrated reports. Only integrated/annual reports will be reviewed; complementary information such as sustainability reports or independent company overviews will not be analysed. This is in keeping with the focus on integrated reports as the primary means of communicating with stakeholders (IRC, 2011; IIRC, 2011).

Out of the total eligible population of 177, a final sample of 39 companies resulted. Similarly to Abdo and Fisher (2007), a cross-section of companies on the JSE was selected over a total of 8 sectors, allowing for an exploration of the relationship between risk-disclosure across companies and industry sectors. The companies within the sector were then ranked in terms of market capitalisation from highest to lowest as at 31 March 2013, and the sample selected from the highest market capitalizations. Only listed companies with their primary listing on the JSE (which consistently published an annual or integrated report over the three year period under review) were considered. Dual listed companies who are not primarily listed on the JSE are not required to produce an integrated report and were therefore been omitted from the study. The availability of reports was also taken into consideration. Only

reports available at the time that the research was conducted were included in the population. The sample selected has been summarized in Table 1 below:

Table 1: Sample Selected

Sector	Total No of Companies	Sample Selected⁷
Additional	1	0 ⁸
Basic Materials	36	6
Consumer Goods	20	6
Consumer Services	36	6
Financials	70	0 ⁹
Health Care	8	4
Industrials	61	6
Oil & Gas	1	1
Technology	11	6
Telecommunications	4	4
Total Population	248 ¹⁰	
Excluding Financial Services	71	
Remaining Population	177	39
Companies excluded as a result of criteria applied ¹¹		1
Number of reports to be analysed		114

The sample size is relatively small (39% coverage). Text analysis is, however, an extremely labour-intensive process, where smaller sample sizes are acceptable because the outcome is not meant to be generalised (Solomon and Maroun, 2012; Merkl-Davies et al, 2011). Rather, individual annual/integrated reports were examined in detail to highlight key themes in the information contained therein; giving insights into the research question (Merkl-Davies et al, 2011). A similar interpretive method of research was used by Solomon and Maroun (2012) to explore the impact of integrated reporting on social, ethical and environmental reporting. A small sample was used because of the exploratory nature of this study and

⁷ The sample was selected from the applicable industry sectors as follows: half of the companies in the sector were selected, with the proviso that where this number was more than 6, a maximum of 6 were selected and a minimum of 4 companies.

⁸ Financial Service companies were specifically excluded from the study because of the quantum of disclosure required for financial instruments in terms of IFRS7 as well as in Basel-III

⁹ Financial Service companies were specifically excluded from the study because of the quantum of disclosure required for financial instruments in terms of IFRS7 as well as in Basel-III

¹⁰ Population determined as: all companies listed on the JSE as at 31 March 2013 less those which did not have published reports for the three consecutive years ending 31 March and companies which were dual listed

¹¹ Upon review of sample selected, one company selected in the sample did not produce financials for the three consecutive years indicated in the sample due to a merger and was therefore omitted.

analysed in detail to reveal unique insights into the research question (Solomon and Maroun, 2012).

3.4 Data collection and analysis

Each company's annual/integrated report was analysed using the disclosure matrix as discussed in Section 3.1. A score of '0' or '1' was used to indicate the presence or absence of the respective risk-disclosure metric. No effort was made to assess the quality of the disclosure. The level of risk-disclosure was depicted by the ratio of the disclosure per set of annual/integrated report to the total disclosures per the scorecard for each category under review, developing a relative measure of risk-disclosure. By applying this factual scoring approach objectively quantifiable and comparable data was obtained (Abdo and Fisher, 2007). Also, during the data collection phase, other variable information was collated from each company's annual/integrated report. This included the total number of pages of the report, the number of times the word 'risk' was mentioned, as well as the number of pages contained in a separate disclosure section for risk (if applicable) and whether the company had a King-III disclosure checklist.

As discussed in Section 3.1, each of the reports was read several times during the data collection process. Since the reports were in an electronic format, any preliminary identification was indicated by highlighting the relevant text. The analysis of the data entails a process of reading and re-reading to identify certain words or phrases that represent a disclosure within the risk-disclosure matrix, which were recorded on an excel spreadsheet, with a tab for each company being analysed. In addition, during the design phase of the risk-disclosure scorecard, key words for each disclosure were identified by the researcher and assigned to each category. These keywords were used to search within each integrated report after the data has been extracted to ensure that no disclosures were omitted, and that the data extracted from each report was complete.

Using the risk-disclosure scores, a disclosure frequency table was generated, showing the level of risk-disclosure for each company, for each year. Various descriptive statistics, including the identification of trends in disclosure levels over the three year period for each company, as well as across the industry sectors were analysed (Section 4). Included in the analysis is the frequency of disclosure table for each year per disclosure theme, as well as for the 'recommended' and 'to be disclosed' classifications. Descriptive statistics (such as the mean, median, variance and standard deviation) were presented in tabular format as well as visually. The analysis was complemented by computing risk ratio score (Section 1.4)

in order to highlight the extent to which risk-disclosures were integrated in the annual reports (adapted from Solomon and Maroun, 2012; Carels et al, 2014).

One-way within subjects (repeated measures) ANOVA tests were then performed to assess whether or not there is a statistically significant difference year-on-year in the extent of disclosure per disclosure theme (Section 4.2). Assumptions for the ANOVA were met. These include that there are no significant outliers in the differences between the related groups. The Mahalanobis Distance D^2 was used to assess adherence to this assumption, with a case with a probability of D^2 that is less than 0.001 considered to be a multivariate outlier. The residuals were also approximately normally distributed and 'robust' to violations of normality. The final assumption that was met was sphericity, where variances of differences between all combinations of related groups must be equal.

Using the other variable information gathered during the data collection including: the total number of pages of the report; the number of times the word 'risk' was mentioned; the number of pages contained in a separate disclosure section for risk (if applicable) and whether the company had a King-III disclosure checklist, various descriptives are presented, including the calculation of a risk ratio for the companies over the years analysed, as well as per sector. A Spearman's Rank Order Correlation [rho] was used to calculate the strength of the relationship between sets of data. Spearman's rho is a non-parametric alternative to Pearson's product-moment correlation and makes no assumption regarding the distributions of variables in the population. Spearman's test ranks the data first and then applies Pearson's equation to these ranks (Field, 2005). Spearman's rho was selected to determine if there is any correlation between the disclosure themes, overall risk-disclosure scores and other variables as a result of the departure from normal of the distributions of the variables. Different authors suggest different interpretations of the correlation coefficient. Guidelines as suggested by Cohen (1988) were used for this analysis as follows: $r=.10$ to $.29$ or $r=-.10$ to $-.29$ represents a small significance; $r=.30$ to $.49$ or $r=-.30$ to $-.49$ represents a medium significance and $r=.50$ to 1.00 or $r=-.50$ to -1.00 represents a large significance (Cohen, 1988). (As the Spearman's rho is a non-parametric test, it provides useful complementary evidence in support of the results generated by the ANOVA¹².)

A K-means clustering was selected to analyse the data further. The intention was not to triangulate results using multiple statistical techniques in a positivist sense. Instead, the

¹² Although the assumptions for the use of the ANOVA were met, the non-parametric analysis provides evidence in support of the results generated by the ANOVA (Section 4.2.2). This provides additional assurance that the results of the study are valid.

cluster analysis (similar to factor analysis) is used in an interpretive context to highlight risk-disclosure themes or categories. The appropriateness of the choice and use of this technique was also confirmed by an independent statistician. Cluster analysis is a multivariate, exploratory technique designed to reveal natural groupings that may exist in the data themselves. The goal is to partition a set of observations into two or more groups based on the similarity of observations on a set of specified characteristics, attempting to maximise the homogeneity of objects within clusters while also maximising the heterogeneity between the clusters. As the intention was to aggregate the findings (Section 4.3) and add to the exploratory potential of the study, traditional robustness tests or measures, such as tests for normality, tests for homoscedasticity and the Chronbach alpha were not included.

The observations used for the clustering were the standardised version of the 2012 values of the total number of pages in a report, the number of times 'risk' was mentioned, the total risk-disclosure score, and whether the company had a separate risk-disclosure section and a King-III disclosure checklist. The K-means cluster was used in this study, where 'K' refers to number of clusters and 'means' refers to the fact that the centroid method (mean of each cluster's cases) is used to calculate distance (Hair et al, 2010).

Throughout the analysis of the integrated reports, a number of specific themes or patterns emerged either within a particular company, as an industry or throughout the total sample. Certain excerpts within the integrated reports were identified by the researcher and in order to interpret and convey themes and messages are presented in the analysis (See section 3.2 for discussion on the interpretive text analysis process).

3.5 Data management

The integrated report (or annual report as detailed above) for each company which forms part of the sample was extracted from the company's official website and saved in a designated folder for ease of reference and identifiability. An Excel workbook will be used to capture the data extracted from the qualifying reports with a worksheet for each company under examination.

3.6 Validity and reliability

Validity is determined by the sample size selected. The sample in this study was purposefully selected to ensure a range of companies across various industries so not to bias the sample. The relatively small sample size is not, in itself, a threat to validity and

reliability. As discussed in Section 3.3, text analysis in itself is an extremely labour-intensive process, where smaller sample sizes are acceptable because the outcome is not meant to be generalised: rather, each source of data is interrogated to extract the information contained therein, giving insights into the research question (Merkl-Davies et al, 2011; Creswell 2009).

Reliability and quality of content analysis result from providing an adequate and transparent description of both the analysis process¹³ and results to a sufficient level of detail that allows an in-depth understanding of how the analysis was carried out, as well as strengths and limitations inherent in the methodology. Although the development of the disclosure checklist (Section 2) is informed by the provisions of King-III, and relevant academic literature, the interpretive analysis of the annual/integrated reports means that replication of this study in a positivist sense could prove problematic (Elo and Kyngas, 2008). This is not, however, a threat to validity or reliability of the research. The aim of interpretive-inspired research is to explore the underlying subject matter, rather than study it in a purely scientific fashion (Maroun, 2012; Merkl-Davies et al, 2011).

Research quality was safeguarded by piloting the disclosure checklist to ensure its completeness and appropriateness using two sets of annual/integrated reports (Creswell, 2009). The initial pilot process, as well as the final risk-disclosure matrix (Appendix A), was also reviewed by an independent researcher to ensure completeness. As a final check, the researcher confirmed – where possible – that the disclosure score assigned to companies was consistent (in terms of ranking) with similar studies evaluating the disclosure of listed South African companies (these included Solomon and Maroun, 2012; Makiwana and Padia, 2011; E&Y, 2011)

An iterative data collection and analysis process (Section 3.1) involving the methodical reading of annual/integrated reports; cross-referencing of relevant disclosures to the checklist; and consistent application of the checklist adds to the reliability of the findings (Merkl-Davies et al, 2011; Creswell, 2009). As such, although the researcher is inextricably part of the data collection and analysis process, adequate steps were taken to ensure result validity (Solomon and Maroun, 2012; Merkl-Davies et al, 2011). In particular, an ANOVA, Spearman Rho and K-cluster analysis was used to provide aggregated or summarised results, reducing the extent to which the researcher was involved in the reduction of findings.

¹³ All decisions have been documented as transparently as possible so that steps can easily be retraced

These techniques also provided consistent results (Section 4.2) giving additional assurance that findings are relevant and reliable.

Where using an ANOVA, the researcher also tested for normality of data and homogeneity of variances to ensure the valid application of the parametric technique. In addition, a non-parametric test (the Spearman Rho) was purposefully selected to provide complementary evidence. The researcher also included a K-cluster analysis as an 'objective' means of summarising results and highlighting important themes or issues identified during the initial analysis phase (Section 4.1). Ultimately, this ensures that the results are documented in a clear and concise fashion to ensure transparency of the findings, allowing readers to assess the arguments raised and reach their own conclusions (Elo and Kyngas, 2008).

The following section contains the results of the analysis performed.

CHAPTER FOUR - RESULTS

4.1 Chapter outline

This section is divided into two sub-sections. In the first, a descriptive review is performed on various risk-disclosure metrics. This includes an analysis of the overall risk-disclosure scores and a review of the themes and patterns from the interpretive text analysis. The frequency of individual disclosure themes is analysed, together with the disclosure classifications and related statistics. Other variables, including the number of total pages in each report, the number of 'risk' mentions and the length of the separate risk-disclosure sections were used to create various ratios to contribute to the discussion. The sub-section concludes with Spearman's correlation co-efficient analysis, examining the relationships between the variables, disclosure themes and risk-disclosure scores.

The second section examines disclosure trends per sector. A K-means clustering is performed on the 2012 values, allowing the formation of four clusters, utilising the various attributes and then analysing per sector featuring the a market capitalisation comparison across clusters.

4.2 Descriptive statistics

4.2.1 Total risk-disclosure matrix scores

As noted in Section 3.5, data was collected from a sample of 39¹⁴ companies in the risk-disclosure matrix. Figure 1 depicts the risk-disclosure matrix scores for each company per year from the risk-disclosure matrix (Appendix A).

¹⁴ During testing it was noted that one of the companies in the sample selected based on market capitalisation on 31 March 2013 did not have three consecutive annual reports due to a merger in 2011 and was, therefore, excluded from the analysis, leaving 38 companies in the sample tested.

Figure 1: Risk Disclosure Matrix Score - Total sample

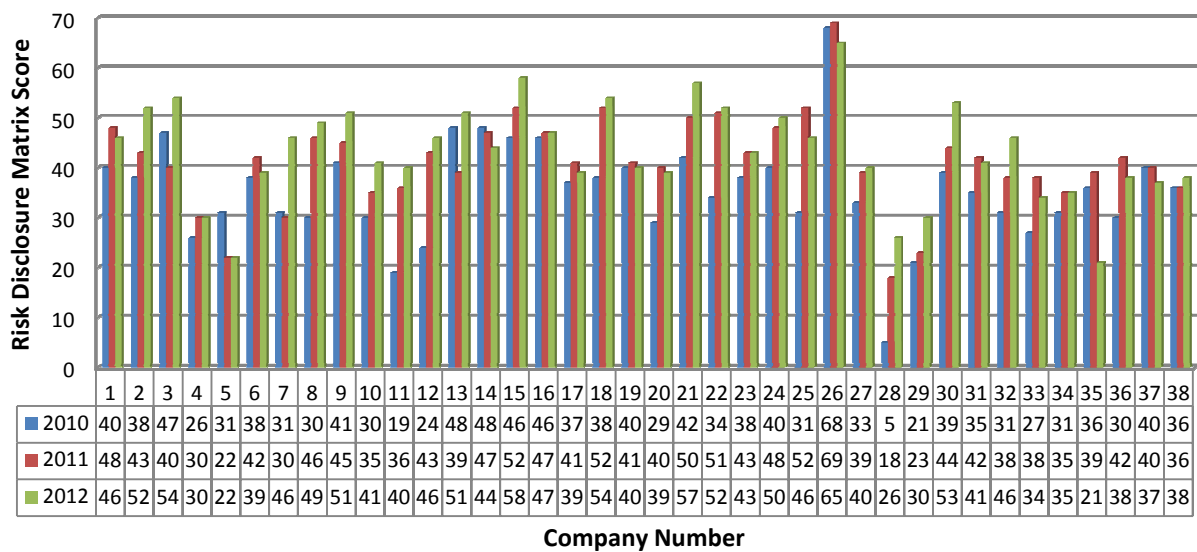


Figure 1 reveals a general increase in the volume of risk-disclosures in most of the integrated reports year-on-year, with the average of the risk-disclosure scores increasing from 35.37 in 2010 to 41.21 in 2011 and increasing to 43.16 in 2012. This is consistent with the findings of Ntim et al (2013) where results showed evidence of a general increase in the corporate risk-disclosure level throughout the period analysed.

An increase in the integration of risks in specific integrated reports in the sample was also noted. Information presented in the reports under review included material issues, impacts and principle risks and opportunities for current and future activities. Certain companies had a significant amount of well laid-out information regarding risk, across all of the disclosure categories identified. An excellent example of the integration of risk was noted in the 2012 integrated report of Company 12. This report contained a comprehensive risk-management policy, definitions of ‘materiality’, a summary of each material sustainability risk, as well as each operational and country review, identifying what the key risks are and how they link to the objectives of the company. Also included in the integrated report was a risk matrix which identified the potential impact and likelihood of each risk, as well as details on mitigating controls and action plans.

EXTRACT 1: COMPANY 12 (2012)

Description of risk	Without mitigating controls		With mitigating controls		Mitigation/Controls/ Opportunities
	Likelihood	Impact	Likelihood	Impact	
STRATEGIC					
Projects	M	M	L	L	Robust project management programmes and contracts with contractors
Delays in new projects and operational expansions					Dedicated project management teams overseeing project implementation and monitoring project milestones
Cost overruns					Adequate insurance and retentions
Failure to meet design specifications					Opportunity: Knowledge-sharing from experience with previous projects within the group

In Ernst & Young's *Excellence in Integrated Reporting Awards 2013*, Company 12 was one of their top ten best integrated reports: it was specifically noted that one of the reasons for this related to the disclosure in terms of strategy, goals and objectives that were clearly set out in the report. Disclosures included detailed information against previous performance, as well as objectives and targets and the major risk areas (E&Y, 2013).

Another example of a clear understanding of the purpose of integrated reporting was Company 2, with an overall risk-disclosure score of 52 in 2012. This report contains a section entitled 'Strategic risks' which details the reasons and criteria why risks are considered material; how they are managed; and actual performance in terms of set criteria, as well as the organisation's commitments for the future. In previous years, the information was present in a number of different sections but in 2012, the information was condensed into consecutive sections, adding value to the user and making the risk-management policy and process transparent and understandable. For example, Extract 2 highlights the emphasis placed on stakeholders' objectives, communication and risk monitoring and review (Company 2):

EXTRACT 2: COMPANY 2 (2012)



Both Company 12 (at 6% above the mean risk-disclosure level) and Company 2, (at 20% above the mean risk-disclosure level) were noted as having an excellent level of information and easy-to-use risk information, integrating strategy and risk-management into their reports.

Company 26 had the highest risk-disclosure score. It was also noted as having excellent user-friendly and understandable risk-disclosure information. In 2012, Company 26 disclosed not only how key stakeholders were identified and consulted, but also the issues identified by stakeholders and how management addressed each concern. Material issues were then presented in a tabular format, combining the definition of the risk, the response strategy of the organisation and the status of this mitigation strategy. Where applicable, the material issues are cross referenced within the integrated report where further detail on the risk given and key performance indicators can be found. In another section of the report, a '2012 Integrated performance scorecard' is presented, containing not only financial, but non-financial measures with targets set in the previous year, progress towards those targets and new targets set for the next financial year. Key environmental issues are further defined and mitigation strategies are detailed in the next section of the financials. A detailed and specific risk-management policy and plan is presented in a separate section dealing with overall risk review, including definitions of 'risk tolerance' and 'appetite' and information on how risks are assessed. The extract from the financials illustrates the level of detail and cross referencing included in the financials (Company 27, 2012):

EXTRACT 3: COMPANY 26 (2012)

	Material issues	Response strategy	Status
Regulatory	 Increasingly onerous regulatory environment in South Africa The nature, complexity and increase of legislation is making manufacturing in SA uncompetitive.	• Ensure an effective and appropriately skilled compliance function in place. • Allocate capital to ensure compliance. • Lobby industry and state bodies to ensure regulatory environment congruent with a competitive manufacturing industry.	• PPC has a compliance function in place and group-wide compliance to legislation is monitored. • Western Cape modernisation programme progressing satisfactorily. Appropriate budgets in place to cater for upgrades at other sites. • Engaging with relevant industry and state bodies on: – Developing an appropriate carbon tax strategy – Waste handling legislation – Air emission legislation.

This relationship between the risk-disclosure score and the quality of the risk-disclosure noted in Company 26 was not, however, a common occurrence. In a number of reports there was little or no change in the wording of the risk-disclosures. This repetition of disclosure from one year to the next does little to enhance the usefulness of the integrated report for stakeholder decision-making (Solomon and Maroun, 2012; Carels et al, 2014). Likewise, the provision of only generic and unsubstantiated risk-management information is not consistent with the need for high quality integrated reporting (IRC, 2011). For example, several cases were noted where risk-management information made no reference to specific outcomes or tangible measurements. Examples are noted below.

‘Risks are continually being identified and mitigated in terms of a process that involves allocating responsibility, developing action plans, and monitoring compliance with these action plans.’ (Company 17, 2010, pg. 26/2011, pg. 36)

‘The objective of risk management in the Group is to establish an integrated and effective risk management framework within which important risks are identified, quantified and managed in order to achieve an optimal risk/reward profile. An integrated approach ensures that risk management is incorporated into the day-to-day operational management processes and therefore allows management to focus on core activities.’ (Company 19, 2010, pg. 63/2011, pg. 62/2012, pg. 69)

There was little indication of which ‘risks’ the above companies were referring to coupled with a lack of detail on exactly how risk-identification and management policies and procedures *actually function*. Although the reports made reference to an ‘integrated

approach' for risk-management and disclosure, there were few or no examples and a lack of clear cross-referencing between risk and other sections of the 'integrated reports'. In several instances, generic risk-management disclosures were repeated verbatim over the period analysed. This is consistent with Mayorga and Sidhu (2012) who found that, although there was a reasonable level of compliance because of 'boilerplate' disclosures, the information provided in these disclosures was not informative and fails to achieve the intended effect of integrated reporting (Mayorga and Sidhu, 2012).

In light of this fact, it should be noted that the risk-disclosure scores (Figure 1) measure the quantum, rather than the quality, of the risk-disclosure in the reports reviewed. While there are some examples of excellent integrated reports where companies scored well on the disclosure checklist (For example, Company 2, 12 and 26) generic risk-management disclosure can result in annual reports with a high disclosure score but which are not fully aligned with the principle of providing integrated decision-useful information to users of the reports. In fact, of all companies under review, including those with above average scores, at least some degree of repetition, or the provision of only generic information, was noted.

In summary, the initial analysis of the integrated reports highlighted an increase in the quantity of risk-related information included in the reports. There were examples of companies providing high quality reports which scored well on the disclosure checklists (see also E&Y, 2012; Solomon and Maroun, 2012). In contrast, many companies included only generic information in their reports which accounted for most of the increase in disclosure scores from 2010 to 2012. Overall, whether increase in disclosure score is indicative of a legalistic application of codes of governance or the growing awareness of the importance of risk-management by companies requires additional analysis.

4.2.2 Disclosure theme statistics

In Section 2.3.2, various disclosure themes in the risk-disclosure matrix (Appendix A) were identified. These disclosure themes reveal characteristics regarding the total risk-disclosure scores.

Repeated Measure ANOVA

The aggregated disclosure theme data for the companies was used to conduct a one-way within subjects (repeated measures) ANOVA, which revealed a statistically significant year-on-year difference of the extent of disclosure for each disclosure theme (Table 2).

Table 2: Repeated Measure ANOVA

Theme:	Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Overall risk-disclosures	Year	0.194	3.851b	2	32	0.032	0.194
	Wilks' Lambda	0.806	3.851b	2	32	0.032	0.194
	Hotelling's Trace	0.241	3.851b	2	32	0.032	0.194
	Roy's Largest Root	0.241	3.851b	2	32	0.032	0.194
Delegation of responsibilities	Year	0.223	5.180b	2	36	0.011	0.223
	Wilks' Lambda	0.777	5.180b	2	36	0.011	0.223
	Hotelling's Trace	0.288	5.180b	2	36	0.011	0.223
	Roy's Largest Root	0.288	5.180b	2	36	0.011	0.223
Risk tolerance levels	Year	0.229	3.871b	2	26	0.034	0.229
	Wilks' Lambda	0.771	3.871b	2	26	0.034	0.229
	Hotelling's Trace	0.298	3.871b	2	26	0.034	0.229
	Roy's Largest Root	0.298	3.871b	2	26	0.034	0.229
Risk-management policy and plan	Year	0.183	3.817b	2	34	0.032	0.183
	Wilks' Lambda	0.817	3.817b	2	34	0.032	0.183

These statistics suggest that the introduction of King-III in 2009, and focus on risk by the integrated reporting initiative (2009/2010), has led to an initial increase in risk-disclosures from 2010 to 2011, consistent with the findings of Solomon and Maroun (2012) and Makiwana and Padia (2011). This corroborates the overall annual increase as noted in the overall risk-disclosure scores in Figure 1.

Descriptive statistics per disclosure theme

The frequency of disclosure for each company, using an aggregated disclosure count for each disclosure theme (Section 2.3.2), is presented in Table 3 below.

Table 3: Frequency of Disclosure table

<u>Theme:</u>	<u>Measure</u>	Descriptive Statistics		
		<u>2010</u>	<u>2011</u>	<u>2012</u>
Overall risk-disclosures	Mean	2.32	2.61	2.76
	Median	2	2.5	3
	Std. Deviation	1.016	1.054	1.125
	Minimum	0	0	0
	Maximum	5	5	5
Delegation of responsibilities	Mean	7.39	8.32	8.29
	Median	7	8	8
	Std. Deviation	2.175	1.947	1.902
	Minimum	1	3	4
	Maximum	12	12	12
Risk tolerance levels	Mean	1.53	2.11	2.03
	Median	1.5	2	2
	Std. Deviation	1.179	1.11	1.284
	Minimum	0	0	0
	Maximum	5	5	5
Risk-management policy and plan	Mean	4.24	4.92	5.21
	Median	4	4	4.5
	Std. Deviation	2.562	2.735	2.35
	Minimum	0	0	1
	Maximum	14	14	11
Monitoring of risk-management	Mean	4.82	5.13	5.47
	Median	5	5	6
	Std. Deviation	2.091	2.056	2.31
	Minimum	1	0	0
	Maximum	8	8	10
Key risks	Mean	2.92	3.76	4.45
	Median	3	4	4
	Std. Deviation	1.915	1.974	2.243
	Minimum	1	1	1
	Maximum	9	9	9

Risk assessments	Mean	6.16	6.82	6.89
	Median	7	7	8
	Std. Deviation	2.15	2.065	2.115
	Minimum	1	0	1
	Maximum	9	9	10
Additional disclosures	Mean	5.97	7.53	8.03
	Median	6	8	8
	Std. Deviation	2.625	2.512	2.296
	Minimum	0	0	1
	Maximum	11	11	12

Table 3 indicates that for the years under review, 6 out of the 8 themes increased year-on-year, with the exception being the relatively flat means in the 'Delegation of responsibilities' and 'Risk tolerance' themes. This suggests that this disclosure was already present before the introduction of King-III. For a number of the disclosure themes, there were companies which did not disclose any of the risk-disclosures in the disclosure theme – this was noted in every theme except in the 'Key risks' theme.

The increase in the level of disclosure noted in the majority of themes, together with the minimums remaining at zero for the majority of the disclosures themes, indicates that the IRC and King-III did not have the consistent effect of increasing disclosures. This raises concerns about whether companies are complying with disclosures required, without giving due consideration to the value that the disclosures could add. The highest level of disclosure was noted in the 'Risk-management policy and plan' category with 14 disclosures in both 2010 and 2011 from this theme, further discussed below. To further assess these disclosure themes, possible risk-disclosures were classified as 'to be disclosed' and 'recommended' by King-III in each disclosure theme (as per Section 3.2.2). Table 4 presents the descriptive statistics for these classifications.

Table 4: Frequency of 'To be disclosed' and 'Recommended'

Classification:	Measure	Descriptive Statistics		
		2010	2011	2012
To be disclosed	Mean	1.66	2.16	2.34
	Median	2	2	2
	Std. Deviation	1.072	1.151	1.4
	Minimum	0	0	0
	Maximum	4	5	6
Recommended	Mean	33.68	39.03	40.79
	Median	35	39.5	41.5
	Std. Deviation	9.696	8.9	9.008
	Minimum	5	18	20
	Maximum	64	65	61

Out of the possible 8 risk categories 'to be disclosed', the maximum number of disclosures occurred in 2012. In each year under review, there was at least one company that did not disclose any of the 'to be disclosed' risks. The average number of 'to be disclosed' risks increased over the three years from 1.66 in 2010 to 2.16 in 2011 to 2.34 in 2012.

The 'to be disclosed' disclosures relate to core disclosures which are relevant to every company, for example that 'The Board should also disclose its views on the effectiveness of the company's risk-management processes in the integrated report'. The recommended disclosures are optional for companies, for example 'The risk-management plan should clearly identify responsibilities for monitoring risks'. Out of the possible 101 risk-disclosures in the 'recommended' classification, the maximum level of disclosure was during 2011 (Score = 65), dropping to a score of 61 in 2012, whilst the average number of disclosures increased from 33.68 in 2010 to 39.03 in 2011 to 40.79 in 2012. This generic increase in both classifications indicates that companies do not view the classification between 'to be disclosed' and 'recommended' as significant when deciding what disclosure should be included in their integrated reports, resulting in a checklist attitude. For example, in the 'Overall risk-disclosures', 87% of the reports disclosed that the Board is responsible for the overall governance of risk, a 'recommended disclosure', while only 26% of the companies disclosed an overall view on effectiveness of risk-management, one of the 'to be disclosed' classifications.

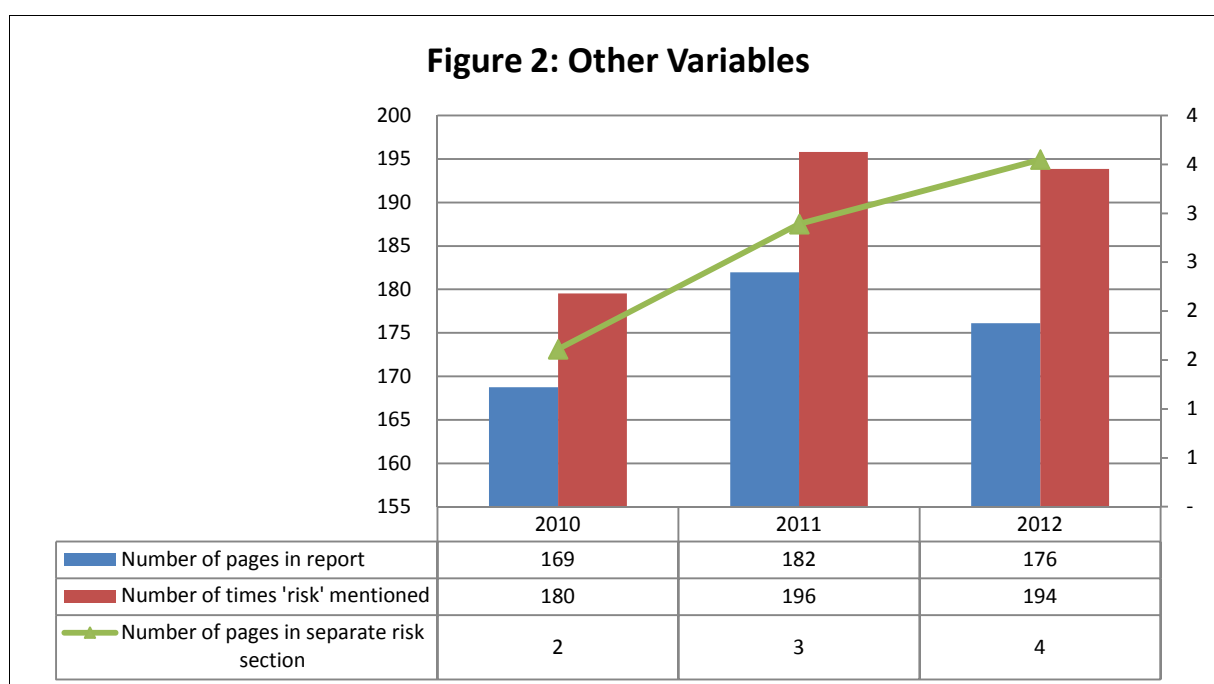
Similarly, high risk-disclosure was noted in the 'Delegation of responsibilities' theme, although the nature of disclosure in this theme relates mainly to the delegation by the Board surrounding responsibility for risk-management, as well as the charters and mandates detailing these responsibilities. Therefore, this type of risk-disclosure does not necessarily improve the quality of the risk-disclosure in the integrated reports but contributes significantly to the risk-disclosure scores.

The highest level of disclosure was noted across the 'Risk assessments' disclosure theme, with 36 companies specifically disclosing having an ongoing risk assessment process that included risk identification. In the 'Additional disclosures' theme, it was also noted that 36 companies contextualised their financial results in some manner by reporting on positive and negative impacts that the company has on stakeholders and the effectiveness of internal controls and the risk-management process, a crucial element of risk-disclosure in integrated reporting. The overall risk-disclosure scores revealed the highest overall score was Company 26, with consecutive scores of 68, 69 and 65 for the years in review. In 2012, of

the total 65 risk-disclosures, only 4 fell in the 'To be disclosed' category, meaning that only half of the possible 'to be disclosed' risk-disclosures were included in the annual report. This affirms the view that companies are applying King-III as a disclosure checklist, providing only the information that they feel obligated to disclose.

Other Variables

As per Section 3.5, a number of variables were included in the data collection, including: the total number of pages, the number of times 'risk' was mentioned, the number of pages in the separate risk-disclosure section and whether or not the company had a separate King-III disclosure checklist. Figure 2 represents the average statistics.



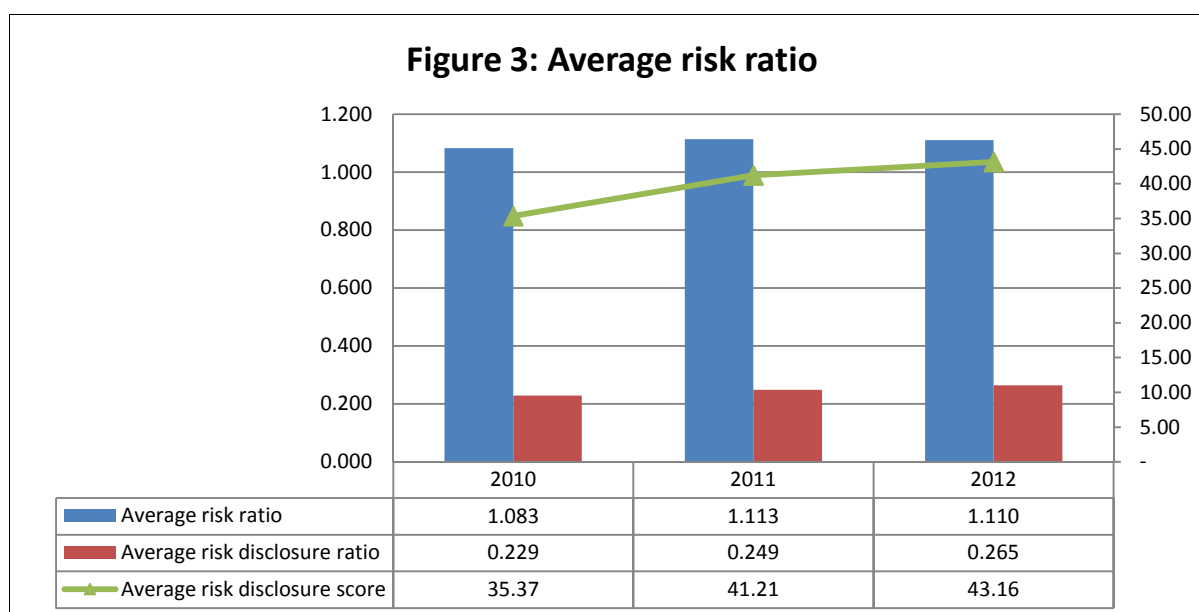
The average number of pages in the report increased from 168.76 in 2010 to 181.95 in 2011 and then decreased to 176.11 in 2012. The average number of pages in the separate risk-disclosure section increased from 1.61 in 2010 to 2.89 in 2011 to 3.55 in 2012. The average number of times the word 'risk' is mentioned in the report increased from 179.55 in 2010 to 195.79 in 2011 and then remained fairly consistent at 193.84 in 2012.

A factor contributing to the increase in the number of times 'risk' was mentioned in the integrated reports could be the repetition of risks in a number of different sections in the reports, as discussed in Section 4.2.1. Several companies had annual reports with a considerable amount of repetition in some risk elements, such as safety issues appearing in almost every section of the report, with the exception of the annual financial statements. This

calls into question the link between financial and non-financial disclosures and the extent to which information is being appropriately integrated in the annual reports.

Ernst and Young (2012) note that there was a correlation between length and effectiveness, with shorter integrated reports generally having more relevant disclosure. Mayorga and Sidhu (2012) also noted concerns regarding the volume and complexity of the information being disclosed as it can be both distracting and confusing to users who are trying to establish what is relevant for decision-making.

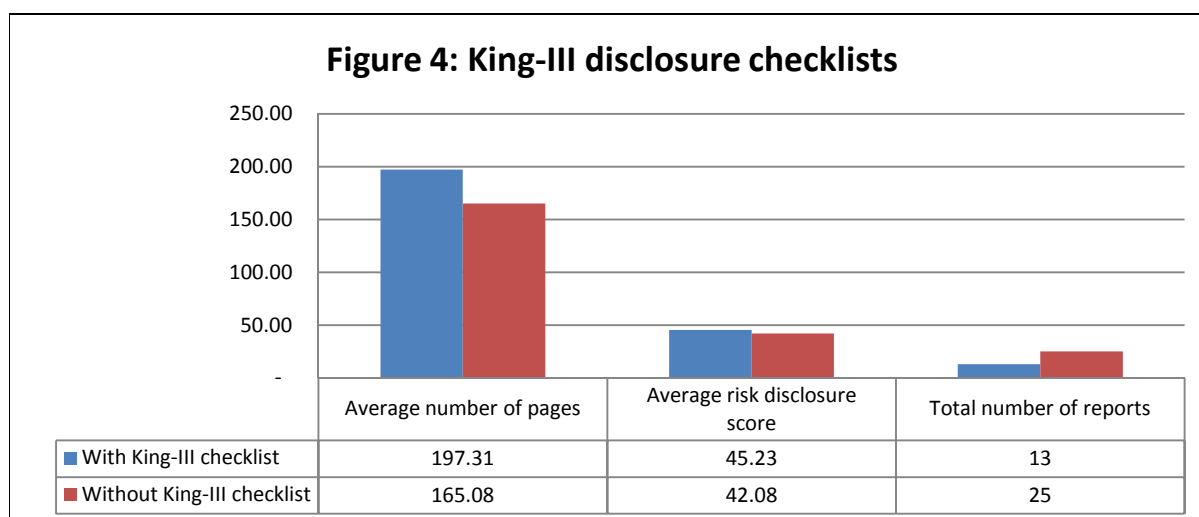
Using both the number of times 'risk' is mentioned in the report and the total number of pages in the report, a 'risk ratio' was computed and presented in Figure 3. In addition, the risk-disclosure scores were compared to the number of pages in the report per year analysed to calculate a risk-disclosure score per page, and presented in Figure 3.



On average, in 2010 the number of 'risk' mentions matched the number of pages in the report (1.083 mentions per page), while in 2011 and 2012, the number of 'risk' mentions exceeded the number of pages in the report (1.11 mentions per page). At least one company had fewer mentions than pages in all three years, with 2012 having at least one company with approximately one mention for every 3 pages. From the reports analysed, it was interesting to note that the pattern in the number of 'risk' mentions per page varied significantly across companies. For example, Company 24 starts in 2010 with a ratio of almost 2 mentions per page, dropping to just under 1 mention per page and dropping further to approximately one mention every three pages whilst the risk-disclosure score increased from 29 in 2010 to 40 in 2011, and remained flat in 2012.

Overall, Figure 3 - read with Figure 1 in Section 4.2.1 - suggests that, although there has been an increase in the extent of risk-related disclosure, this has gone hand-in-hand with an increase in the length of the report. The result is that the average quantity of risk information per section of the report has remained relatively unchanged from 2010 to 2012. Taking into account the extent of repetition noted in Section 4.1 this implies that first sets of integrated reports have not achieved the objective of providing high quality, succinct information to stakeholders. The same conclusion can be reached when considering the results in Section 4.2.2 where the increase across disclosure themes and classifications indicates that companies are applying King-III as a 'tick box' disclosure checklist, and providing only the information that they feel obligated to disclose.

Instances where high disclosure scores (Figure 1) and reports of above average length were most common was when the company included a disclosure checklist. This is highlighted by Figure 4 which shows the average page length, risk-disclosure score for companies with and without a disclosure checklist in their annual or integrated report during 2012. During 2010, only 1 company in the sample had a separate checklist, with this increasing to 5 in 2011 and a further 13 in 2012, as depicted below.



Company 30, for example, included a 57 page King-III disclosure checklist in their 2012 integrated report, increasing the total number of pages in their reports from 2010 to 2012 by 90%, with a corresponding increase in their risk-disclosure scores by only 36%, from 39 to 53. Also worth noting is that the number of times the word 'risk' was mentioned increased over the same period by 240%, as depicted in Figure 4. The increase in risk-disclosure scores, as well as the risk-disclosure score per page, can be attributed mainly to the inclusion of the King-III disclosure checklist with short phrases fulfilling the disclosure score criteria, but not enhancing either usefulness or understanding of the risks that the company faces. The increase in the 'risk' mentions without a corresponding increase in the risk-

disclosure scores supports conclusions regarding the increase in quantity but not necessarily quality disclosures.

On average, in 2010, the risk-disclosure score per page was 0.229, increasing to 0.249 in 2011 and further to 0.265 in 2012, reflecting the increase in the total risk-disclosure scores. Figure 4 shows that companies are not providing 'denser' information, but simply increasing the volume, with a corresponding increase in the number of pages in the reports. This is not in line with the vision of King-III and the IRC - that integrated reporting should enable the organisation to integrate sustainability into the day-to-day business strategy and operations, resulting in a comprehensive process represented in a report that not only explains how sustainability is connected to the organisation's strategy but also how sustainability performance, risk and targets are measured and monitored (E&Y, 2011b; E&Y, 2009; IRC, 2011). To examine this in more detail, the relationship between the 'classes' of risk-disclosure was analysed using a Spearman's Correlation Coefficient Analysis.

Spearman's Correlation Coefficient

In order to determine whether there are relationships between pairs of the risk-disclosure information variables, these were subjected to Spearman's correlational analysis for the 2012¹⁵ risk-disclosure (Section 3.5).

Table 5: Spearman's Correlation Coefficient

	Overall risk-disclosure	Delegation of responsibilities	Risk tolerance levels	Risk-management policy plan	Monitoring of risk-management	Key risks	Risk assessments	Additional disclosures	Risk-disclosure score	Pages in separate risk section	Pages – King-III disclosure checklist	Number of 'risk' mentions	Total number of pages in report
Overall risk-disclosure	1												
Delegation of responsibilities	.360*	1											
Risk tolerance levels	.451**	0.292	1										
Risk-management policy plan	.562**	0.199	.521**	1									
Monitoring of risk-management	.481**	0.26	0.182	.404*	1								
Key risks	.360*	0.292	.669**	.578**	.407*	1							
Risk assessments	0.132	0.095	.509**	0.244	0.223	.440**	1						
Additional disclosures	-0.053	-0.152	.456**	0.061	-0.239	.327*	.366*	1					
Risk-disclosure score	.606**	.408*	.797**	.718**	.523**	.847**	.560**	.375*	1				
Pages in separate risk section	0.125	0.121	0.196	0.014	-0.267	0.013	-0.087	.411*	0.133	1			
Pages – King-III disclosure checklist	0.318	0.095	.494**	0.102	-0.218	0.17	0.138	.504**	.358*	.357*	1		
Number of 'risk' mentions	0.083	0.183	-0.083	-0.023	0.15	0.095	-0.177	0.027	0.096	0.225	-0.048	1	
Total number of pages in report	0.268	0.236	0.089	0.101	-0.045	0.045	-0.18	0.18	0.177	.652**	0.255	.460**	1

*. Correlation is significant at the 0.05 level (2-tailed).

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

¹⁵ 2012 was selected for analysis due to the quantum of the risk-disclosures within the reports, and as this is the most recent data in the sample it was considered most worthwhile to use this data.

The Spearman's rho revealed some statistically significant relationships in the variables analysed. As expected, there was a significant relationship between the risk-disclosure scores and each of the disclosure themes. The highest correlation was noted between the 'Key Risk' theme and the risk-disclosure score ($r_{s(38)}=0.847, p<0.5$).

Companies with high 'Risk Assessment' disclosures tend to disclose both risk tolerance levels and key risks but did not include significant disclosure on risk monitoring and risk-management. This could suggest that, while generic disclosures are provided in terms of how risks are assessed and at what tolerance levels, the detailed policies and procedures on how risks are dealt with is lacking, supporting the argument of risk-disclosure being dealt with only to meet legal requirements (Section 4.2).

The total number of pages in the report is not correlated to any of the disclosure themes or to the overall risk-disclosure score. A high correlation is only noted between the total number of pages in the report and the number of times 'risk' is mentioned, supporting the argument that the length of the report does not have an effect on the quality of the risk-disclosures (see also Figure 4). In addition, companies with King-III disclosure checklists tend to have higher disclosure scores (Figure 4) but this is not necessarily resulting in more useful reporting.

Companies with a separate risk-disclosure section tend to have more disclosures in the 'Additional disclosures' theme. This includes information on sustainability performance against targets, forward-looking information, risk-management plans and an indication of the risk impacts on stakeholders. Companies which have higher 'Additional disclosure' scores were, however, also more likely to include a King-III checklist in their annual report.

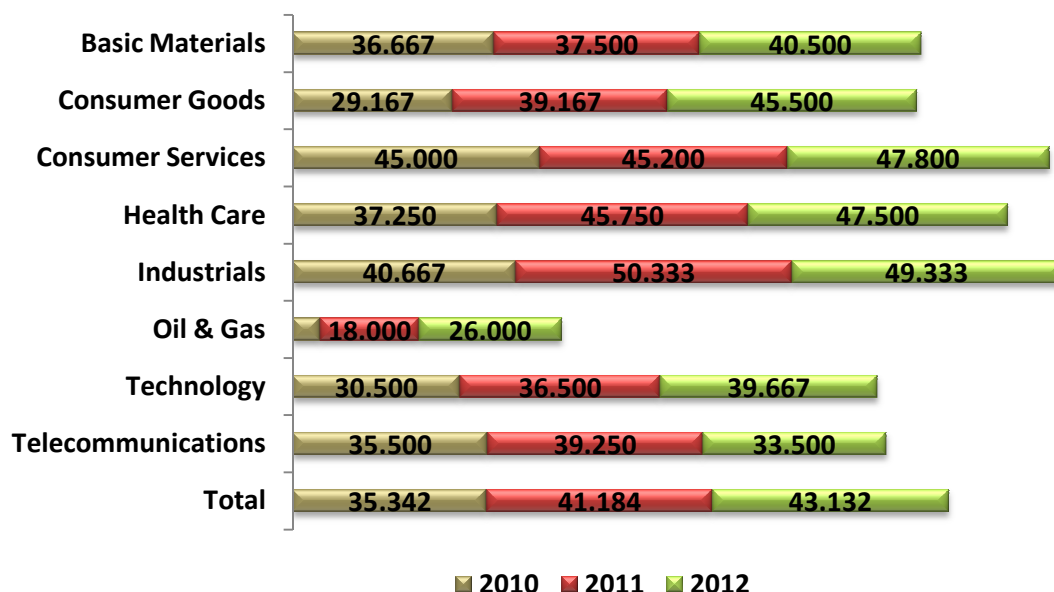
Finally, it was noted that the 'Delegation of Responsibilities' disclosures were not significantly correlated with other disclosure themes. This can be attributed to the nature of disclosures included in this theme. The low correlation with other key risk-disclosure themes, coupled with a significant correlation with the total risk-disclosure score does, however, suggest that 'delegation of responsibility' disclosures may be inflating the disclosure score (and length of the reports) without adding much value for stakeholders.

In order to interrogate relationships between the classes of disclosures, the next section concentrates on risk-disclosure scores, disclosure themes per sector.

4.3 Industry sector comparisons

A cross-section of companies on the JSE was selected over a total of 8 sectors in order to allow for an exploration of the relationship between risk-disclosure across companies and industry sectors (Section 3.3). Figure 8 represents the level of risk-disclosure in each sector within the sample:

Figure 5: Mean Risk Disclosure Scores per Sector



The Basic Materials, Technology and Communications sector were noted as being below the average disclosure scores, with the lowest level of risk-disclosure noted in the Oil and gas sector, however this result is distorted as there was only one company in the sample (Section 3.3). The second lowest mean level of disclosure was noted in the Technology sector, followed closely by the Telecommunications sector, where the majority of the disclosures were in the Delegation of Responsibilities disclosure theme. As noted in Section 4.2.2, this category does not necessarily translate to an improved quality of risk-disclosure.

The highest level of disclosure was in the Industrial sector, consisting mainly of companies with diversified lines of business. Due to this diversification it is expected that the number of risk-disclosures will be larger. The extraction nature of the companies in the Basic Materials sector (predominantly mining companies) leads to an expectation of high overall disclosure scores as a result of their impact on the environment and the sensitivity of communities to these negative impacts (Carels et al, 2014). The average risk-disclosure scores in the Basic Materials sector, however, stayed fairly consistent throughout the period analysed, increasing slightly to 40.5 in 2012. A possible reason for the fairly consistent risk-disclosure

scores over the period is the incorporation into the integrated reports of risk-disclosures found previously within the separate sustainability reports which were already being issued by the majority of mining companies in this sample.

Figures 6 and 7 contain the average risk ratio (the number of times 'risk' is mentioned in the report over the total number of pages in the report) and the average risk-disclosure score per page (average risk-disclosure over the total number of pages in the report).

Figure 6: Average risk ratios per Sector

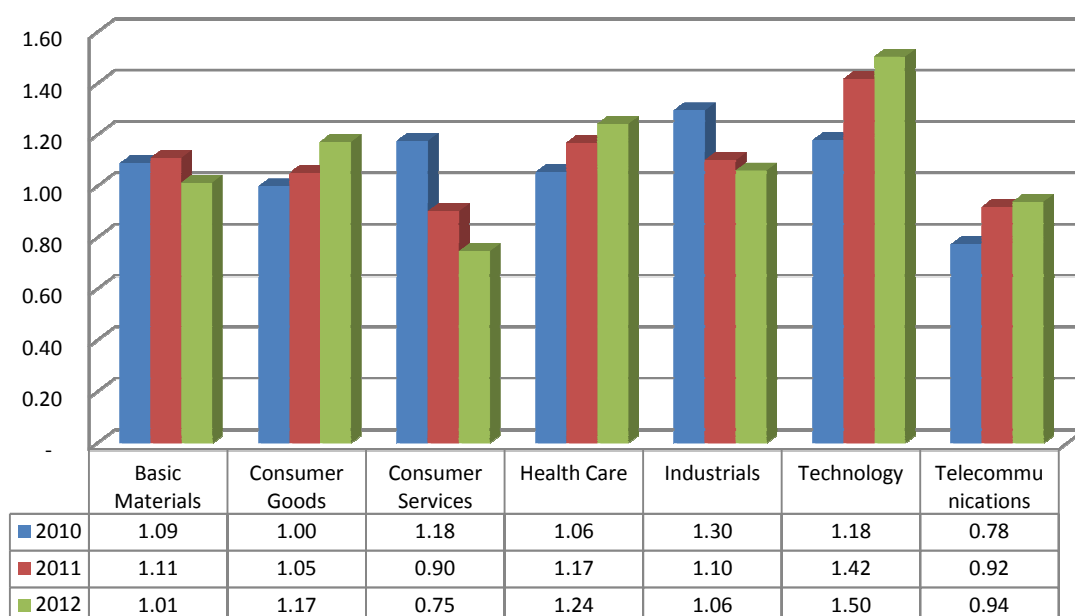
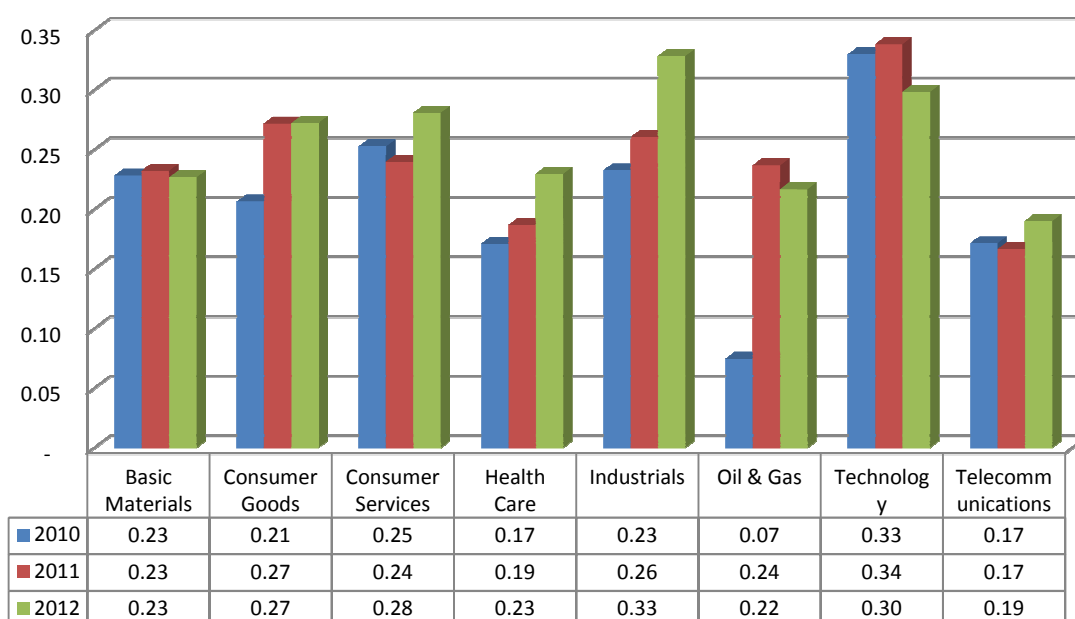


Figure 7: Average risk disclosure ratio per Sector



The sector analysis of the average 'risk' mentions per page reveals marked discrepancies in the trends between sectors. In the Consumer Services sector, the ratio between the number of 'risk' mentions and the total number of pages has dropped significantly over the period under review from 1.18 to 0.75, whilst the average risk-disclosure score per page has remained relatively flat (0.25 in 2010 to 0.28 in 2013). This indicates that companies in the Consumer Services sector may have consolidated their risk-disclosure into concise sections of their reports, with 80% of the companies having a separate risk-disclosure section. This trend was also noted in the Industrials sector, where there was a pronounced increase in the average risk-disclosure score per page and a decrease in the number of 'risk' mentions.

On the other hand, the 'risk' mention ratio has increased in the Technology sector with a corresponding increase in the risk-disclosure scores year-on-year, which could be an indicator of generic disclosures increasing. Although Spearman's correlation coefficient (Table 5) indicates a relationship between risk-disclosure scores and the risk ratio, it seems that this relationship cannot be generalised across sectors.

K means clustering

As referred to in Section 3.4, a K-Means cluster analysis was performed, using a standardized version of the 2012¹⁶ values. A four cluster solution was found and is interpreted below. The four clusters were characterised by making inter-cluster centroid value comparisons for each of the different frequency variables and also by comparing all centroid values to the overall mean frequency value.

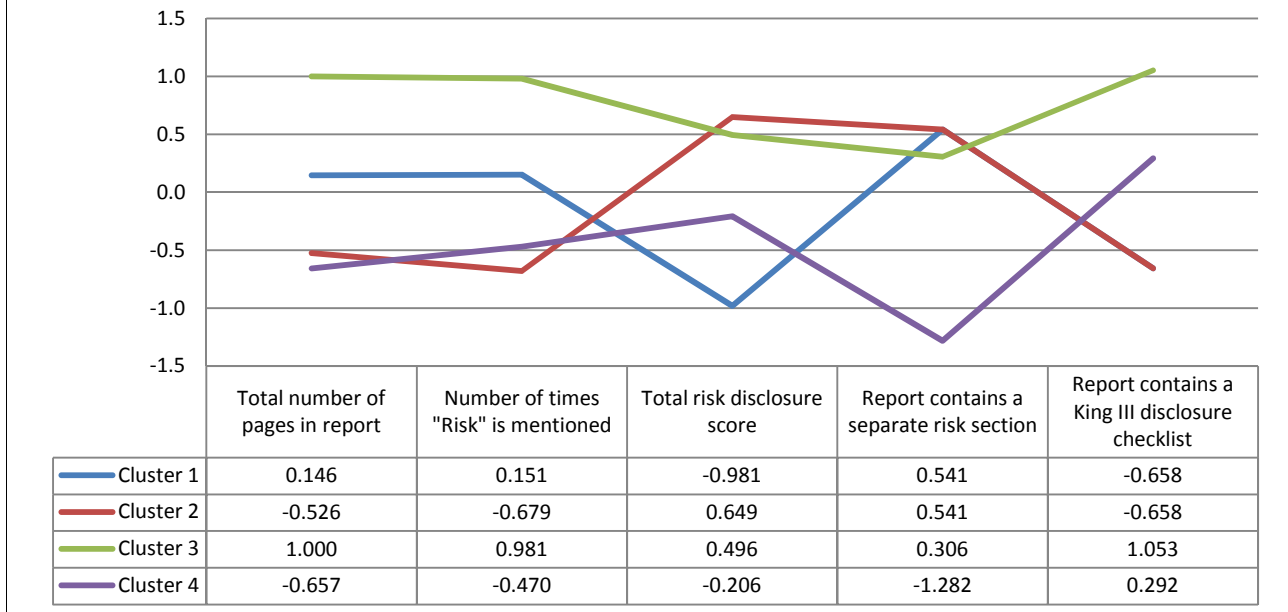
Table 6: Descriptive Statistics used for K means clustering

2012	Unstandardised: Descriptive Statistics				Unstandardised: Descriptive Statistics			
	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation
Total number of pages in report	96	346	176.11	53.73	-1.52	1.92	0.00	0.91
Number of times 'risk' is mentioned	51	371	193.84	78.32	-1.44	1.76	0.00	0.91
Total risk-disclosure score	21	65	43.13	9.82	-2.25	2.23	0.00	1.00
Report contains a separate risk section	0	1	0.77	0.43	-1.80	0.54	0.00	1.00
Report contains a King-III disclosure checklist	0	1	0.31	0.47	-0.66	1.48	0.00	1.00

Figure 8: represents the Mean Z scores per Cluster.

¹⁶ Consistent with the selection for Spearman's rho, 2012 was selected as this is the most recent data in the sample and gives an indication of the latest risk-disclosure within the integrated reports of the companies in the sample.

Figure 8: K means clustering Mean Z scores



Cluster 1: Long reports with average risk-disclosure

These companies demonstrate, on average, the lowest risk-disclosure scores of the four groups. They tend not to have a King-III checklist but have slightly longer reports. The number of times that the word 'risk' is mentioned is above the average score for all companies under review. Cluster 1 companies tend to have a separate risk section. On average, they have more scores (60%) above (but not high above) the overall average than below.

Cluster 2: Short reports with good risk-disclosure

These companies demonstrate, on average that they have well below the average number of report pages and of 'risk' mentions compared to the sample as a whole. They generally do not have a King-III checklist but often include a separate risk section in their reports. The reports disclose substantially more of the risk-disclosures than the overall mean. On average, they have more scores (60%) above the overall average than below.

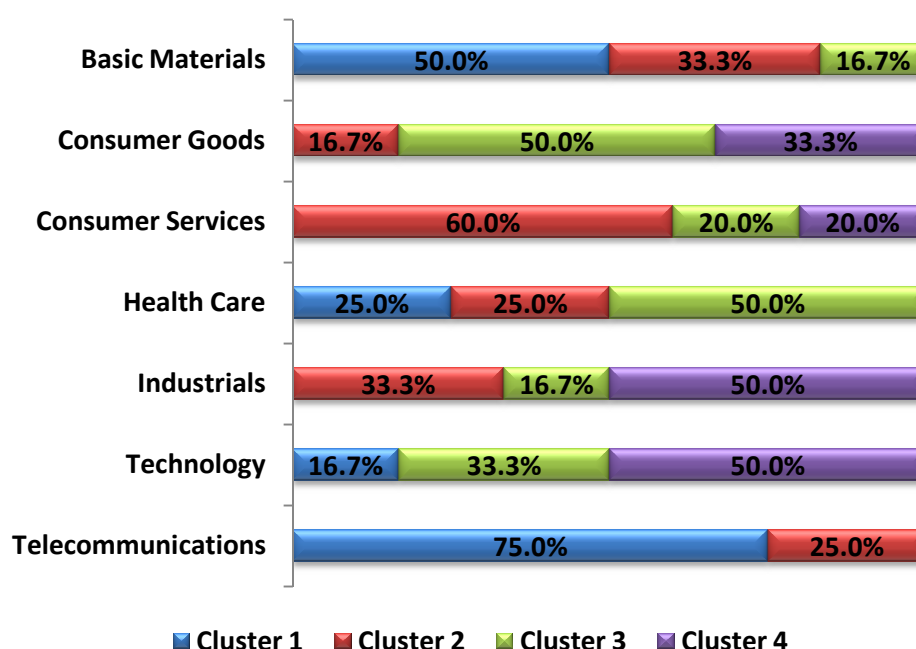
Cluster 3: Long reports with excellent risk-disclosure

These companies demonstrate, on average, that they have substantially more report pages and 'risk' mentions than the sample as a whole and they tend very strongly to have a King-III checklist while also tending towards having a separate risk section but to a lesser degree. They have also disclosed more of the risk-disclosures than the sample as a whole. On average, all their scores are above the overall average with more than half (60%) being very high.

Cluster 4: Short reports with poor risk-disclosure

These companies demonstrate, on average, that they have fewer report pages, fewer 'risk' mentions and have disclosed fewer risk-disclosures than the sample as a whole. They also tend very strongly towards not having a separate risk section but have a King-III checklist. On average, 80% of their scores are below the overall average and one score (20%) is only slightly above the overall average.

Figure 9: Sector split per cluster:



Basic Materials are predominantly in Cluster 1, suggesting a propensity for longer reports but with lower risk-disclosure scores and a risk mention ratio. This indicates a 'tick-box attitude' to risk-disclosure possibly due to higher levels of regulation in the industry. Another reason for the clustering may be the high public scrutiny of the mining sector resulting in companies being unwilling to risk decreasing the length of their reports in case anything is omitted. This leads to a tendency to emphasise and repeat risks in various sections of the report.

It was, however, noted that the mining industry leaders fall into Cluster 2, where shorter, more integrated reports are prepared, including a separate risk-disclosure section. These companies had above average risk-disclosure and risk ratio scores. As argued by Carels et al (2014), with these companies established as 'credible' leaders in the mining sector, they are able to provide higher quality integrated reports. In contrast, second-tier members of the industry rely heavily of longer reports, including significantly more detail, to signal to stakeholders that they have provided the relevant risk-related information. It may also be the

case that these smaller concerns have fewer resources and less expertise to prepare the same quality integrated reports as their larger counterparts.

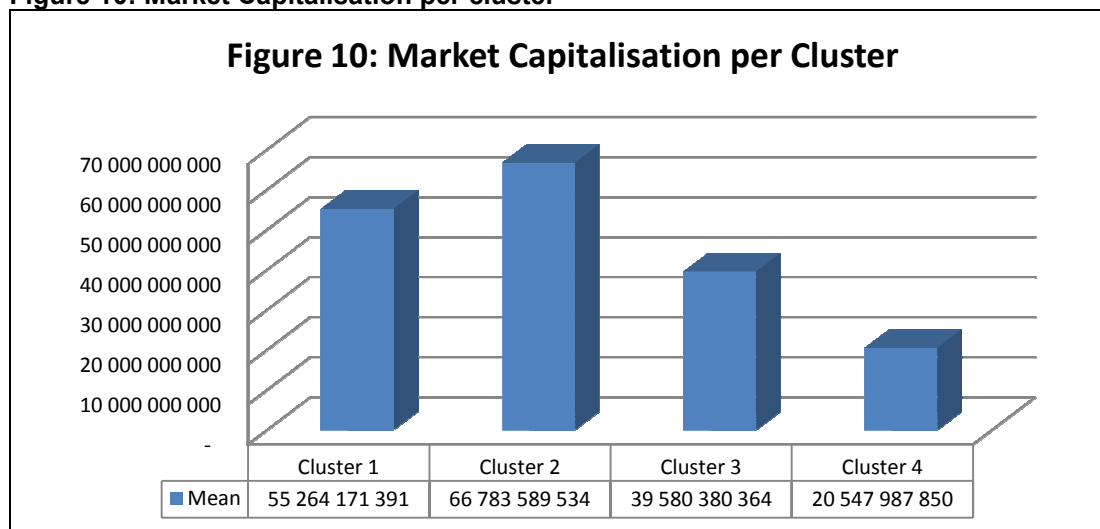
Telecommunications companies have 75% of their reports in Cluster 1, most with lengthy reports and average risk-disclosures. The Telecommunications sector in South Africa is an oligopoly with the market being protected from foreign competition due to recoupment of initial start-up costs being significant as well as regulatory protection (Theron and Boshoff, 2006). The sector is also highly regulated, and like mining, tends to adopt a legalistic attitude to reporting. The non-competitive nature of the telecommunications sector may also result in less incentive to prepare innovative annual reports in order to attract investors.

Cluster 2 represents 60% of the reports in the Consumer Services sector. Retail trade sales grew significantly in the period under analysis, driven mainly by the economic environment and retail centre development (Gauteng Province, 2012). Cluster 2 companies have the highest market capitalisation (Figure 15), with shorter reports and above average risk-disclosure scores. This could be an indicator of the high level of competition in the services sector which forces better quality reports, and reports which are more integrated. This is in line with King-III and the IRC which state that good integrated reports can provide a competitive edge. The results are also consistent with the findings in the Mining Sector where high value industry leaders are preparing better quality integrated reports. As explained by the IRC (2011), King-III (IODSA, 2009) and Carels et al (2014), preparing such reports is an important means of signalling an organisation's credibility and securing its position as a respected industry leader. Consequently, companies in the Consumer Services sector seem to be integrating risk-disclosure into their strategies and presenting a clear and concise report that encapsulates the vision of King-III and the IRC in terms of producing truly integrated reports.

Cluster 3 companies have a relatively low market capitalisation (Figure 10) when compared to Cluster 1 and 2 but have lengthy reports with above average levels of risk-disclosure. These companies tend to fall into the Consumer Goods and Health Care industries, with relatively high risk ratios and risk-disclosure scores. This could signal their commitment to disclosing more with regard to their strategies and integration in an effort to attract shareholders and encourage growth. The majority of both Health Care and Consumer Goods companies tend to have foreign branches and subsidiaries, and this could be a contributing factor to the excellent level of risk-disclosure with risks differing from country to country, as well as the companies seeking foreign investment to grow their market capitalisation.

Both Industrials and Technology have half of their companies falling into Cluster 4, with shorter reports with less than average risk-disclosure, although they tend to have King-III disclosure checklists. Although these companies fall into the same cluster, it is interesting to note that the Technology Sector has seen an increase in the 'risk' mention ratios annually, whilst the Industrial sector has a decrease in the same ratio. This speaks directly to the quality of the disclosure in the reports – the number of times that 'risk' is mentioned is, therefore, not necessarily correlated with an increase in the substance of the risk-disclosure. Cluster 4 companies which performed worst with respect to risk-disclosure also have the lowest market capital (Figure 10), in line with expectation.

Figure 10: Market Capitalisation per cluster



To summarise, there has been an overall increase in risk-disclosure scores year-on-year for the majority of companies, and this increase is true for most disclosure themes identified. The risk ratio scores have, however, seen far smaller increases annually, questioning the quality of the risk-disclosures. The sector analysis revealed inconsistent trends across the sectors and market capitalisations. This is corroborated by the theme of repetition throughout the reports of companies. The next section will conclude by providing a summary of the results discussed above, as well as recommendations for future research.

CHAPTER FIVE – CONCLUSION AND RECOMMENDATIONS

5.1 Summary of findings

The purpose of this study was to explore patterns and trends in risk-disclosure of South African firms with a primary listing on the JSE after the introduction of King-III in March 2010. The inability of organisations to anticipate and react to risk has been identified as one of the main reasons for corporate failures, increasing the importance of risk-management within corporate governance. Stakeholders are questioning the ability of the current reporting system to provide a comprehensive picture of an organisation's performance and ability to create and sustain value, as financial information alone is not sufficient to understand how a company manages its risk (IRC, 2011; Rossouw, 2005; Ramsden, 2010; Abdo and Fisher, 2007). The emergence of integrated reporting is, in part, a reaction to this. The integrated report is, in theory, an important tool in enhancing transparent communication to shareholders, which allows an understanding of the overall strategy of the organisation, together with how it is governed and how it will continue to add value into the future (Rensburg and Botha, 2013).

Using the 'Governance of Risk' chapter in King-III, as well as a comprehensive literature review, a risk-disclosure matrix was compiled. Data was collected from a sample of 39¹⁷ companies using a risk-disclosure matrix and were analysed using a detailed content analysis supported by limited statistical and interpretative text analysis. The risk-disclosure scores were analysed to identify key themes and patterns across years, companies and sectors.

A number of key themes emerged during the analysis of the integrated reports year-on-year. Firstly, there was a general increase in the risk-disclosure scores in the majority of the integrated reports, with the average of the risk-disclosure scores increasing by 22% from 2010 to 2012. An increase in the integration of risks in specific integrated reports in the sample was also noted, with certain companies having a significant amount of well structured information regarding risk, across all of the disclosure themes identified. This suggests that the introduction of King-III, in 2009, and the focus on risk by the IRC (2009/2010), has led to an increase in risk-disclosures from 2010 to 2011.

¹⁷ During testing it was noted that one of the companies in the sample selected based on market capitalisation on 31 March 2013 did not have three consecutive annual reports due to a merger in 2011 and was excluded from the analysis, leaving 38 companies in the sample tested.

It is important to note, however, that the risk-disclosure scores measure the quantum, rather than the quality, of the disclosure in the reports reviewed. Repetition of risks in a number of different sections contributed to the increase in the number of times 'risk' was mentioned (from 179.55 in 2010 to 193.84 in 2012). This generic risk-management disclosure results in annual reports with a high disclosure score but which are not fully aligned with the principle of providing integrated decision-useful information to users of the reports. Of all companies under review, including those with above average scores, there was at least some degree of repetition. In several instances, generic risk-management disclosures were repeated verbatim year-on-year. These generic risk-management disclosures do little to enhance the usefulness of the integrated report for decision making for stakeholders (Solomon and Maroun, 2012; Carels et al, 2014). Likewise, the provision of only generic and unsubstantiated information is not consistent with the need for high quality integrated reporting (IRC, 2011).

The increase in the average risk ratio without a corresponding increase in the average risk-disclosure ratio indicates that companies are not providing more valuable and quality disclosures but are merely increasing the volume of repetitive information. Although there has been an increase in the extent of risk-related disclosure, this has gone hand-in-hand with an increase in the length of the reports. The result is that the average quantity of risk information per section of the report has remained relatively unchanged from 2010 to 2012, which is contrary to the vision of King-III and the IRC, including the integration of sustainability into day-to-day business strategy and operations (E&Y, 2011b; E&Y, 2009; IRC, 2011). Further, the total number of pages in the report was found not to correlate to any of the disclosure themes or to the overall risk-disclosure score, whilst a high correlation was noted between the total number of pages in the report and the number of times 'risk' is mentioned, supporting the argument that the length of the report does not seem to have an effect on the quality of the risk-disclosures. In addition, companies with King-III disclosure checklists tend to have higher disclosure scores, also not necessarily resulting in more valid reporting.

An analysis of the trends within the disclosure themes revealed that, while there was a general increase within each disclosure theme, there was at least one company that chose not to include any of the disclosures in each disclosure theme. This indicates (but does not prove) that the IRC and introduction of King-III did not have the consistent effect of increasing quality disclosures, and raises concerns as to whether companies are complying with disclosures required without giving due consideration to the value that the disclosures

can add. Although both the classification between 'recommended' and 'to be disclosed' both increased year-on-year, companies do not appear to view this classification as significant when deciding what risk-disclosure should be included. This affirms the view that companies are applying King-III as a disclosure checklist, providing only the information that they feel obligated to disclose.

The sector and K-cluster analysis provided complementary insights, with the Basic Materials, Technology and Communications sectors having below average disclosure scores. The highest level of disclosure was in the Industrial sector, consisting mainly of companies with diversified lines of business. These findings suggest that factors influencing both length of reports, and their risk-disclosure score, could be sector specific such as the level of regulation; level of competition; economic growth and market capitalisation (as a proxy for company size).

Overall, these results suggest that the first set of integrated reports has not achieved the objective of providing high quality, succinct information to stakeholders. . Evidence gathered in this study indicates that there has been an increase in the quantum of risk-disclosure but there has not necessarily been an increase in the quality of the disclosures given the excessive repetition of disclosures and the increase in the number of 'risk mentions' without a corresponding increase in risk disclosure scores. There is an increased awareness of the importance of complementing traditional financial reporting with a more comprehensive review of organisations' key risks and their sustainability in the short-, medium- and long-term. In some cases, however, the added risk-disclosure comes with repetition, the inclusion of generic risk information, and a lack of integration between risk-based disclosures and other key financial and non-financial metrics. For companies relying on the use of disclosure checklists to prepare their reports, there appears to be an elevated risk of integrated reporting being applied in a procedural fashion, contrary to the recommendations of the IIRC and King-III.

5.2 Limitations and areas for future research

There are a number of recommendations for future research on risk-related disclosures. As this study has a South Africa-specific focus, risk-disclosure trends in other jurisdictions were not considered and can be considered for future research. A further recommendation for future research may be the extension of the sample, both in quantity and over a longer period of time to enable a complete and accurate assessment of not only the quantity but

also the quality of risk-disclosures. A further contribution to the current research would be a review of the effect of specific events on risk-disclosures, for example, Marikana.

In addition, the extension of the sample within specific industries could future explore risk-related disclosures. For example, the sample excluded financial service companies as they are subject to very specific risk-disclosure. mandated by various regulations such as Basel III and IFRS 7 – when analysed, these reports may offer some insights into risk-disclosure in financial services companies.

APPENDIX A

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APPENDIX A

Possible Disclosure	Type of Disclosure (to be disclosed / Recommended)	Literature Review Themes	Reference	Keyword
OVERALL RISK DISCLOSURES				
1 Board develop and implement policy and plan for systematic, disciplined approach to evaluate and improve effectiveness of risk-management	Recommended	Responsibility of Board to approve a risk policy and management plan that is appropriate (annually/continually)	EBV1, 2009; KPMG2, 2009; KPMG3, 2012	Systematic, Disciplined
2 The Board should be responsible for the governance of risk	Recommended	Board disclose their responsibility for risk (govern risk within the organisation)	EBV4, 2009; EBV1, 2010; KPMG2, 2009; KPMG3, 2012	Risk Governance
3 The Board should also disclose its views on the effectiveness of the company's risk-management processes in the integrated report.	To be disclosed	Required disclosure: Board should disclose their views on the risk-management process effectiveness	EBV4, 2009; EBV1, 2010; KPMG2, 2009; KPMG3, 2012	Effectiveness Risk-Management
4 Board disclose how it has satisfied itself that risk assessments, responses and interventions are effective	Recommended	The Board should be able to demonstrate that it has dealt with governance of risk comprehensively	KPMG3, 2012	Interventions
5 Board should disclose organisational structures and resources provided for appropriate execution of risk-management processes	Recommended			Organisational Structures
6 Board should provide management with other necessary support to enable execution of duties and responsibilities outlined in the risk policy and plan	Recommended			Execution of risk
7 Management reports should disclose processes in place to improve risk-management maturity of the company	Recommended			Risk Maturity
8 Management reports should include the degree to which risk-management has been embedded throughout the company	Recommended			Embedding of risk
DELEGATION OF RISK RESPONSIBILITIES				
9 Board scope of responsibility expressed in Charter, as well as induction and training processes.	Recommended	The responsibility for governing risk should be specified within the Board charter	KPMG2, 2009	Charter
10 Risk Committee or audit committee may be appointed to assist Board with duties and responsibilities with regard to risk governance	Recommended	A Risk Committee can be formed with defined responsibilities, or the Audit Committee	EBV1, 2010; EBV3, 2009; KPMG3, 2012	Risk Committee
11 If the Board delegates this responsibility to another committee, the terms of reference for this committee should reflect this responsibility.	Recommended	The execution of the risk-management function can be delegated to management	EBV3, 2009; EBV5, 2009	Terms of reference
12 If the Board delegates this responsibility to another committee, the Board should approve the terms of reference containing the responsibility	Recommended			Approval of Terms of reference
13 Sub Committee membership should include both executives and non-executives.	Recommended			Committee composition
14 Members of senior management responsible for the various areas of risk-management should attend risk meetings	Recommended			Senior management
15 Sub Committee should have adequate risk-management skills and experience to perform functions	Recommended	Risk Committee should have a minimum of three members and can consist of executive and non-executive directors, as well as senior management and independent risk experts	KPMG3, 2012	Risk-management skill
16 Independent risk-management experts can be invited to attend sub-committee meetings	Recommended			Independent risk expert
17 Risk Committee should have a minimum of three members.	Recommended	Risk Committee should have a minimum of three members and can consist of executive and non-executive directors, as well as senior management and independent risk experts	KPMG3, 2012	Risk Committee
18 Risk Committee should meet at least twice per year and individuals reporting to the committee should provide with sufficient information to discharge responsibility	Recommended	Risk Committee should have a minimum of three members and can consist of executive and non-executive directors, as well as senior management and independent risk experts	KPMG3, 2012	Risk Committee
19 Board evaluate risk committee performance in terms of composition, mandate and effectiveness	Recommended	The Board is responsible for evaluating the performance of this committee	KPMG3, 2012	Risk Committee
20 CEO may appoint a Chief Risk Officer to assist with execution of risk-management	Recommended	A Chief Risk Officer (CRO) can be appointed to embed risk-management in the day to day tasks	EBV1, 2010	Chief Risk Officer
21 CRO should be suitably experienced person who should have access to, and interact regularly on, strategic risk matters with Board and appropriate Board committees and executive management	Recommended			Chief Risk Officer
22 Internal audit function should provide independent assurance in relation to risk-management regarding the integrity and robustness of the risk-management process.	Recommended	Ring II suggests that internal audit should follow a risk based approach, and the internal audit planning should include an assessment of risks and opportunities facing the organisation, aligning with the risk assessment process whilst considering the risk maturity of the organisation itself	PWC, 2009	Internal Audit
23 Internal audit should provide a written assessment of the effectiveness of the system of internal controls and risk-management to the Board	Recommended	The Internal Audit function evaluates the efficiency of the Audit Committee as well as the risk-management policies and processes.	EBV3, 2011	Internal Audit
24 CEO is accountable to the Board for the execution of risk-management	Recommended			Execution of risk
RISK TOLERANCE LEVELS				
25 At least once a year, Board should set specific limits for levels of risk company able to tolerate in pursuit of objectives	Recommended			Risk Tolerance
26 Board should review these limits during periods of increased uncertainty or adverse changes in business environment	Recommended			Changes in business environment
27 When setting risk tolerance levels, Board should consider risk factors in both external and internal business environments	Recommended			Changes in business environment
28 Risk tolerance levels can be measured quantitatively, qualitatively or both.	Recommended			Risk Tolerance
29 Risk tolerance levels should be specific to each of the relevant business activities.	Recommended			Risk Tolerance
30 Risk tolerance levels should be used to set parameters for development of business strategy	Recommended	Board should identify the organisation's strategic objectives and map these strategies as they are intended to be used as each strategy will expose the organisation to a different type of risk	KPMG3, 2012	Risk Tolerance
31 Limits regarding company's risk appetite, and disclosure where risk appetite exceeds or deviates materially from limits of risk tolerance.	To be disclosed	Required disclosure: Board disclose that they have set limits for risk appetite and tolerance	EBV4, 2009; EBV1, 2010; EBV3, 2011; EBV5, 2009	Risk appetite
32 Specific limits/levels should be set and implemented at departmental / functional, activity and operational levels risk levels.	Recommended			Departmental level
33 Board should satisfy itself that management decisions balance performance within defined tolerance limits	Recommended			Tolerance limit
RISK-MANAGEMENT POLICY AND PLAN				
34 The Board's responsibility for risk governance should be a documented risk-management policy and plan	Recommended			Formal risk-management
35 The Board's risk strategy should be executed by management in accordance with the Board approved risk-management policy and plan.	Recommended	Disclose per key material issues (economic, environmental and social) the strategy, implementation and initiatives as well as management approach	EBV6, 2011	Strategy
36 Management should develop a formal risk-management policy and plan for approval by Board.	Recommended			Formal risk-management
37 Management is accountable to the Board for the design, implementation and monitoring the system and process of risk-management.	Recommended	The responsibility delegated includes the design, implementation and monitoring of the risk-management plans in order to give the Board assurance of the effectiveness of this risk-management process	EBV5, 2009; KPMG2, 2009; KPMG3, 2012	Accountable for risk
38 The risk-management policy should include definitions of risk and risk-management, the risk approach and philosophy as well as various responsibilities and ownership for risk-management within the company	Recommended			risk-management policy
39 Formal risk-management policy distributed throughout company	Recommended	The Board is responsible for ensuring that the policy is widely distributed.	KPMG2, 2009	risk-management policy
40 Management should give effect to risk management in operations in substance and form	Recommended			Identification opportunities
41 Risk-management should be embedded within strategy setting, planning and business processes to safeguard performance and sustainability.	Recommended			Substance and form
42 Risk-management should provide responses and interventions that drive to create an appropriate balance between risk and reward within the company.	Recommended			Embedding of risk
43 Risk-management plan should consider maturity of risk-management	Recommended	The risk-management plan should aim to bring the organisation to its desired level of risk maturity	KPMG3, 2012; Cortese et al., 2011	Balance between risk and reward
44 Risk-management plan should include company's risk-management structure	Recommended			Risk Maturity
45 Risk-management plan include risk-management framework i.e. the approach followed, for instance, COSO, ISO, IRMSA ERM Code of Practice, IRM (UK), etc	Recommended	A risk and control framework should be developed against which risk assessments can be conducted	EBV3, 2011	risk-management plan
46 Risk-management plan should include standards and methodology adopted - this refers to the measurable milestones such as tolerances, intervals, frequencies, frequency rates.	Recommended	Disclose accounting policies and reporting standards used for measurement of sustainability issues	EBV6, 2011	risk-management plan
47 Risk-management plan should include risk-management guidelines	Recommended			risk-management plan
48 Risk-management plan should include reference to integration through, for instance, training and awareness programmes, and	Recommended			risk-management plan
49 Risk-management plan should include details of the assurance and review of the risk-management process.	Recommended			risk-management plan
50 To enable the exploitation of the upside of risks (opportunities), the risk-management plan should not concentrate only on de-risking responses and interventions	Recommended			Exploit opportunities
MONITORING OF RISK MANAGEMENT				
51 Board should review risk-management plan regularly but at least once a year	Recommended			Exploit upside risk
52 Board should ensure management monitors risk-management plan effectively and continually.	Recommended			Risk Register
53 Board should satisfy itself that management has applied the risk-management processes appropriately and that they are compliant to the policy and procedures	Recommended	Monitoring should occur as frequently as required by the risk itself and reported to Board along with the metrics that have exceeded the baseline	IODSA, 2010	Monitor risk
54 The risk-management plan should clearly identify responsibilities for monitoring risks.	Recommended			Compliance with risk policy
55 Risk-management performance should be measured against risk indicators by management	Recommended			Responsibilities
56 Risk indicators should be periodically reviewed for appropriateness by management	Recommended	Risk indicators should be identified and monitored for significant changes/events that occur that effect the risk profile and the environment in which the organisation operates	EBV3, 2011	Risk Indicators
57 Deviation from the risk-management plan should be periodically measured	Recommended			Deviation risk-management

59	Changes in the external and internal environment should be monitored by management	Recommended			Changes in business environment
60	The impact of environmental changes on the strategic risk profile of the company should be determined by management	Recommended	Management consider and implement appropriate risk responses and continually monitor risk	E&Y, 2009	Environmental changes
61	Management should ensure that risk responses are effective and efficient in both design and operation	Recommended	Management consider and implement appropriate risk responses and continually monitor risk	E&Y, 2009	Effectiveness risk management
62	Implementation of risk responses should be tracked by management	Recommended			Implementation
63	Lessons from changes, trends, successes, failures and events should be analysed by management to ensure they are carried forward	Recommended			Lessons carried forward
64	Emerging risks should be identified by management	Recommended			Emerging risks
65	Management is accountable to the Board to ensure that the risk-management plan is integrated in the day-to-day activities of the company	Recommended			Day-to-day activities
66	Significant risk response failings or weaknesses should be disclosed in management's reports to the Board, including the impact that they may have had and the resultant corrective responses and interventions	Recommended			Significant risk response failing
67	Board should satisfy itself that insurance, indemnification and remuneration practices do not prejudice risk-management decision-making	Recommended			Insurance, indemnification
68	Board continually monitor significant risk taken by management	Recommended			Significant risk
69	Board should regularly receive and review register of company's key risks	Recommended	The Board is responsible to review of the company's risk register with risks quantified where possible	KPMG2, 2009	Risk Register
70	Risk information presented to the Board should include a profile of aggregated risks, correlated risks and risk concentrations.	Recommended			Risk profile
71	Board should ensure particular attention focused on those risks that may negatively impact the long-term sustainability of the company.	Recommended	Disclose current, imminent and envisaged risks that threaten company's long term sustainability, internal control system and risk-management processes	E&Y, 2011	Sustainability risk
72	Board should regularly receive and review a risk register on the company's sustainability risks	To be disclosed	A description of the principal risks and uncertainties facing the company should be disclosed	Deloitte and Touche, 2008; E&Y,	Sustainability risk
73	Integrated report should include key sustainability risks, responses to these risks and residual responsibility risks.	Recommended	Required disclosure: Board should disclose key sustainability risks, responses and the residual sustainability risks in terms of their risk assessment	E&Y, 2009; KPMG2, 2012	Sustainability risk
74	Board should ensure that the key risks are quantified where practicable	Recommended	The Board is responsible to review of the company's risk register with risks quantified where possible	KPMG2, 2009	Quantification of risk
75	Frameworks and processes should be in place that help to anticipate unpredictable risks	Recommended			Unpredictable risk
76	Responses to identified risks should be noted in the risk register	Recommended			Risk Register
77	In statement integrated report for the period under review, disclose undue, unexpected or unusual risks in pursuit of reward	To be disclosed	Required Disclosure: disclose details on any undue, unexpected, and unusual risks have been taken in pursuit of reward, as well as any materials losses and the causes of these losses	E&Y, 2008; E&Y, 2011; PWC, 2009; KPMG2, 2009; KPMG3, 2012	Undue, unexpected, unusual risk
78	In statement integrated report for the period under review, disclose material losses and causes of losses	To be disclosed	Required Disclosure: disclose details on any undue, unexpected, and unusual risks have been taken in pursuit of reward, as well as any materials losses and the causes of these losses	E&Y, 2008; E&Y, 2011; PWC, 2009; KPMG2, 2009; KPMG3, 2012	Material losses
79	prevention of recurrence by management	To be disclosed	Required disclosure: Board should disclose material losses and causes need to be disclosed, including quantification and impact of the risks as well as responses and interventions that were implemented in order to prevent the recurrence.	E&Y, 2008; E&Y, 2011; KPMG3, 2012	Material losses quantification
80	The Board should disclose any current, imminent or envisaged risk that may threaten the long-term sustainability of the company.	To be disclosed			Imminent risk
81	Board should ensure it understands the implications of risks taken by management in pursuit of returns	Recommended			Balance between risk and reward
82	Board should ensure it understands the potential impact of risk-taking on shareholders and stakeholders	Recommended			Potential impact of risk taking
83	Reports from management to Board should provide a balanced assessment of key risks facing the company and the effectiveness of the risk responses and interventions	Recommended			Balanced assessment
84	Board should ensure there is an effective ongoing risk assessment process	Recommended			Risk Assessment
85	A systematic, documented, formal risk assessment should be conducted once a year.	Recommended	Formal risk assessment including continuous monitoring of the entity's risk profile rather than a once off annual assessment.	E&Y, 2011; KPMG1, 2011; KPMG2, 2009	Risk Assessment
86	The risk assessment should be continually reviewed, updated and applied	Recommended	The Board is responsible for ensuring that risk assessments are carried out on a continual basis	E&Y, 2009; KPMG2, 2009	Risk Assessment
87	Ongoing risk assessment process should include risk identification	Recommended			Risk Assessment
88	Ongoing risk assessment process should include risk quantification	Recommended			Risk Assessment
89	Ongoing risk assessment process should include risk evaluation	Recommended			Risk Assessment
90	Following the risk evaluation process, risks should be prioritised and ranked to focus responses and interventions on risks outside of Board's tolerance limits.	Recommended			Prioritisation of risk
91	The risk assessment process should identify risks and opportunities and measure their potential impact and likelihood.	Recommended	Each risk should be aligned with its impact and likelihood ratings to determine how significant the risk is and whether the organisation is able to accept the risk	E&Y, 2011	Impact and likelihood
92	The outputs of the risk assessments should provide the Board and management with a realistic perspective of key risks and other material risks that the company faces.	Recommended			Realistic
93	Risk assessment should be comprehensive, accurate, thorough and complete	Recommended			Comprehensive and accurate
94	Risk assessment should include the use of data analysis, business indicators, market information, loss data, scenario planning and portfolio analysis	Recommended			Data analysis
95	Risk assessment should not be limited to a fixed list of risk categories	Recommended			No fixed list
96	Risk assessment process should impact all operational levels	Recommended			Operational levels
ADDITIONAL FROM LITERATURE REVIEW					
97	Processes are in place that allow the complete, timely, accurate and accessible risk-disclosures to stakeholders	Recommended	Processes are in place that allow the complete, timely, accurate and accessible risk-disclosures to stakeholders	E&Y, 2009	Risk-disclosures
98	Disclose actual performance with regard to each issue and risk identified	Recommended	Disclose actual performance with regard to each issue and risk identified	IOSA, 2010	Actual performance of each risk
99	Disclose with regard to each issue and risk identified the target set, baseline, prior year performance and benchmarking against peers, industry norms or national averages	Recommended	Disclose with regard to each issue and risk identified the target set, baseline, prior year performance and benchmarking against peers, industry norms or national averages	IOSA, 2010	Baseline of risk
100	Disclose per key material issues the risks and opportunities, material financial and non-financial indicators, a high level narrative description of the performance and objectives	Recommended	Disclose per key material issues the risks and opportunities, material financial and non-financial indicators, a high level narrative description of the performance and objectives	E&Y, 2011	Narration of risk
101	Disclose per key material issue the targets for current and future years	Recommended	Disclose per key material issue the targets for current and future years	E&Y, 2011	Targets for risk (future)
102	Disclose how sustainability issues are identified by the company	Recommended	Disclose how sustainability issues are identified by the company	E&Y, 2011	Sustainability risk
103	Disclose the programmes put in place and energy management plans in terms of sustainability issues	Recommended	Disclose the programmes put in place and energy management plans in terms of sustainability issues	E&Y, 2011	Sustainability risk
104	Disclose a prior year comparison to current year sustainability targets	Recommended	Disclose a prior year comparison to current year sustainability targets	E&Y, 2011	Sustainability risk
105	Disclose any forward looking information and plans to reach sustainability targets	Recommended	Disclose any forward looking information and plans to reach sustainability targets	E&Y, 2011	Sustainability risk
106	Disclosure of the broad positive and negative aspects of the company's performance in terms of ethics, economic, social and environmental aspects	Recommended	Disclosure of the broad positive and negative aspects of the company's performance in terms of ethics, economic, social and environmental aspects	E&Y, 2011	Positive and Negative aspects
107	Contextualise the financial results by reporting on the positive or negative impact that the company has had on stakeholders and the effectiveness of internal controls and risk-management process	Recommended	Contextualise the financial results by reporting on the positive or negative impact that the company has had on stakeholders and the effectiveness of internal controls and risk-management process	E&Y, 2011	Positive and Negative aspects
108	Audit committee responsible to monitor the combined assurance framework in order to ensure that all key risks are addressed adequately, and requires reporting annually to this effect	Recommended	Audit committee responsible to monitor the combined assurance framework in order to ensure that all key risks are addressed adequately, and requires reporting annually to this effect	PWC, 2009; KPMG3, 2012	Combined Assurance Framework
109	Separate risk-disclosure section	Recommended	Separate risk-disclosure section	E&Y, 2011	Separate risk-disclosure section