

The effect of integrated reporting on integrated thinking between risk, opportunity and strategy and the disclosure of risks and opportunities

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ABSTRACT

Integrated reporting requires a new form of disclosure to provide a holistic view of the organisation and aims to support integrated thinking, decision-making and actions that focus on the creation of value. The International Integrated Reporting *<IR>* Framework (IIRC 2013b) provides guidelines for the content elements required in an integrated report. One of the content elements is 'risks and opportunities'. This study firstly assessed whether integrated reporting has enhanced integrated thinking between strategy and the risks and opportunities faced by the organisation. For this purpose, a web-based research questionnaire was sent to high-level implementers of integrated reporting at companies listed on the Johannesburg Stock Exchange (JSE) in South Africa, where integrated reporting is a listing requirement. The results of the study provide new insights for companies preparing integrated reports, as well as other stakeholders, which show that integrated reporting has driven change towards integrated thinking between strategy, risks and opportunities. Secondly, a content analysis was done on a sample derived from the top 100 companies listed on the JSE to determine whether integrated reporting has brought about a change in the disclosure of risks and opportunities. The results provide new research findings and indicate that most companies conform to the disclosure requirements noted in the International *<IR>* Framework (IIRC 2013b) regarding risks and opportunities except for disclosures relating to the assessment of specific risks. The content analysis further found that integrated reporting has driven limited change in the disclosure of risks and opportunities.

Key words: integrated reporting, integrated thinking, disclosure, risk, opportunity and strategy

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Introduction

Kofi Annan, former Secretary-General of the United Nations, famously said that knowledge is power and information is liberating (University of Pretoria [UP], 2015). In a world of uncertainty, there is an ever-increasing need for information, transparency and accountability. This is also true for stakeholders and providers of capital hoping to form a holistic view of a company and wanting to understand how the company will create value in the short, medium and long term.

Integrated reporting advocates the provision of such information and requires companies to disclose financial, non-financial and sustainability information in one report. According to Bartocci and Picciaia (2013), the basic concept of the integrated reporting model is that all kinds of organisations need to provide stakeholders with access to information on value-generating factors. The International <IR> Framework (International Integrated Reporting Council [IIRC] 2013b) provides clear disclosure guidelines: “Integrated reporting aims to support integrated thinking, decision-making and actions that focus on the creation of value over the short-, medium- and long term” (IIRC 2013b: 3).

At the heart of integrated reporting is *integrated thinking*. According to the IIRC (2013b: 3), integrated thinking takes into account the connectivity and interdependencies between the range of factors that affect an organisation’s ability to create value over time, including (among other things) how the organisation tailors its business model and *strategy* to respond to its external environment and the *risks* and *opportunities* it faces. According to The South African Institute of Chartered Accountants (SAICA) (2015), the value creation process has various inputs of relevant capitals and business is driven by its mission, vision and strategy as well as the way it manages its risks, opportunities and performance. According to Haller and Van Staden (2014: 1192), the application of the International <IR> Framework (IIRC 2013b:2) should coincide with a change in management behaviour and decision-making, which the IIRC calls “integrated thinking”. Cheng et al. (2014: 101) state that the important question to be posed is whether integrated reporting will change the way organisations are doing business.

The first research question of the present study was whether integrated reporting has specifically enhanced integrated thinking regarding *strategy*, *risks* and *opportunities*. This will provide the preparers of integrated reports, investors and other stakeholders with new insights to assess the effect of integrated reporting. From an organisational perspective, integrated reporting is also expected to enhance risk management processes and allow better access to capital because of improved disclosure (Association of Chartered Certified Accountants [ACCA] 2012). One of the content elements included in the International <IR> Framework (IIRC 2013b:

27) is guidelines for the disclosure of risks and opportunities facing the organisation. Hughen et al. (2014: 60) note that integrated reporting goes beyond *disclosures* of historical information and provides investors and other stakeholders with information about a company's current and prospective risks and opportunities. This begs a second research question, namely whether JSE-listed companies comply with the statutory reporting requirement to *disclose* information on the risks and opportunities facing the organisation in line with the International <IR> Framework (IIRC 2013b).

Two empirical studies were used for the purpose of this research study to gain a holistic view of the effect integrated reporting has on integrated thinking about strategy, risks and opportunities as well as disclosures concerning risks and opportunities.

This article commences with a background to the study and a review of the available literature. This is followed by a discussion of the results and the article concludes with a summary of findings and suggestions for further research.

Background

The IIRC (2013b: 27) states that an integrated report should answer the question: "Where does the organisation want to go and how does it intend to get there?" The aim of integrated reporting is to contribute to the clear and concise communication of how an organisation applies its resources to create value in the short, medium and long term (IIRC 2015). According to De Villiers et al. (2014: 1045) the first regulatory initiative on integrated reporting was in South Africa with JSE-listed companies being among the first in the world to publish integrated reports. De Villiers et al. (2014: 1047) explain that the King Code of Governance Principles for South Africa of 2009 ('King III') urges organisations to commit to the principle of integrated thinking by linking strategic, governance and sustainability considerations. King III also suggests that organisations should integrate their reporting approaches and practices on risks and opportunities through financial and sustainability considerations (De Villiers et al. 2014: 1047). According to Stent and Dowler (2015: 96), the incorporation of King III (Institute of Directors Southern Africa [IoDSA] 2009) into the JSE listing requirements resulted in all JSE-listed companies being required to issue an integrated report for financial years commencing on or after 1 March 2010 on a 'comply or explain' basis. Generation Investment Management (GIM) (2012: 17) has hailed this as an internationally pioneering decision. The experience in South Africa has shown that the preparation of an integrated report is not overly complex (Cheng et al. 2014:101). Other countries around the world are assessing the effect of integrated reporting in South Africa to determine whether

such reporting should be adopted elsewhere. According to Eccles and Krzus (2010: 218), the concept of integrated reporting is nascent and voluntary reporting by companies is increasing, but widespread change is only expected once integrated reporting is mandated globally.

Social and environmental disclosures are to a large extent self-laudatory (Hooghiemstra 2000). Too often, companies attempt to change perceptions without changing facts (Hess 2008). Based on available evidence, there is also little reason to believe that social reporting meets its ideal purpose beyond perhaps a handful of industry leaders (Hess 2008). Hinson and Ndlovu (2011: 332) describe “green washing” as attempts by companies to present the image of a socially responsible corporate citizen without any real changes to their business approach.

This begs the question whether sustainability, social and environmental disclosures will drive any change in the way the company is managed. The International Accounting Standards (IAS) includes International Financial Reporting Standard (IFRS) 7, a standard which prescribes disclosure requirements about the nature and extent of risks arising from financial instruments. Although this is limited to disclosures about credit risk, liquidity risk and market risk and how these risks are managed, it is related to the International <IR> Framework (IIRC 2013b) disclosure requirements as these affect an organisation’s quality and affordability of relevant (available) capitals in the short, medium and long term. Van Bommel (2014) argues that integrated reporting is said to go beyond traditional accounting and sustainability disclosures, which were situated in the financial and sustainability community respectively. A feature of integrated reporting is that it traverses precisely these two worlds or communities with their respective traditions, and also combines short-term and long-term thinking, strategy and governance as well as numbers and figures, adding multiple layers of complexity, fragmentation and pluralism (Van Bommel 2014: 1161). According to KPMG (2010: 3) integrated reporting is evolutionary and will globally transform corporate reporting in the future. Van Staden and Wild (2013) claim that integrated reporting is intended to replace the annual report. The concept of integrated reporting is clearly growing: in 2010, only 14% of global reports published in the GRI’s sustainability disclosure database were self-declared as integrated by reporting organisations; this number rose to 20% in 2011 (Hughen et al. 2014: 60).

The International Integrated Reporting <IR> Framework

In December 2013, the International Integrated Reporting Council (IIRC), as a global coalition of regulators, investors, companies, standard setters, the accounting profession and non-governmental organisations (NGOs), published the

International <IR> Framework (IIRC 2013b) to provide principles-based guidance on the disclosure of corporate information (IIRC 2013b: 1). The International <IR> Framework (IIRC 2013b) advocates integrated thinking within organisations and focuses on the ability of an organisation to create value in the short, medium and long term. This framework also identifies specific information that needs to be disclosed in the integrated report.

According to Roth (2014: 63), the International <IR> Framework (IIRC, 2013b: 10) advocates disclosing a company's resources and relationships from six different perspectives, which are described as 'capitals' in the framework. The IIRC (2013b: 10) defines resources or 'capitals' as the financial funds available, the assets available for use in production, intellectual assets, people, stakeholder relations and the availability of natural resources to support past, current and future prosperity. The International <IR> Framework (IIRC 2013b: 2) aims to improve the quality of information available to providers of financial capital, promote a more cohesive and efficient approach to corporate reporting, and enhance accountability and stewardship for the broad base of capitals.

"An integrated report should answer the question: What are the specific risks and opportunities that affect the organization's ability to create value over the short-, medium- and long term and how is the organization dealing with them?" (IIRC 2015: 28). The disclosure of risks and opportunities influencing value creation is elevated as a specific content element within the International <IR> Framework (IIRC 2013b). Based on the IIRC (2015: 28) disclosures of risks and opportunities should among other things include:

- the specific risks and opportunities that affect the organisation's ability to create value
- risks and opportunities that affect the availability, quality and affordability of relevant capitals
- specific external sources of risk
- specific internal sources of risk
- the organisation's assessment of the likelihood that the risk or opportunity will come to fruition and the magnitude of its effect if it does
- steps being taken to mitigate or manage key risks, and
- the organisation's approach to any real risks that are fundamental to the ongoing ability of the organisation to create value and that could have extreme consequences.

The requirements of the content element are regarded as valuable proxy for disclosure guidelines.

When allocating resources and preparing financial information for disclosure outside the organisation it is important for companies to better understand integrated reporting norms and sources of information. To validate its comprehensive application companies need to understand whether integrated reporting holds real benefits for all stakeholders. Analysts, investors and other stakeholders also need to comprehend whether integrated reporting has changed the disclosure of risks and opportunities and whether companies are following the International <IR> Framework (IIRC 2013b) guidelines in this regard. The IoDSA (2011: 10) notes that an institutional investor should develop a policy on how it incorporates sustainability considerations, including environmental, social and governance considerations, into its investment analysis and activities. This should include, among other things, the quality of the company's integrated reporting that deals with the long-term sustainability of the company's strategy and operations. Atkins et al. (2015) found that the institutional investment industry in the United Kingdom (UK) is also moving from a short-term financial logic to a responsible logic with greater emphasis on the long term. According to Jagongo and Mutswenje (2014: 100), investors' decision-making is influenced by among other things the ability of the company to minimise risk.

The international community will be interested to know the level of adherence to the International <IR> Framework (IIRC 2013b) with regard to the disclosure of risks and opportunities by JSE-listed companies. Steyn (2014b: 145) found that integrated reporting is clearly evolving with South Africa playing a leading role. As a rapidly developing regulatory arena, the reviewing of integrated reporting provides an opportunity to study many aspects of the development of accounting regulation over a much shorter period than has typically been the case for financial accounting standards (De Villiers et al. 2014: 1043). By promoting integrated reporting and its business benefits, accountants can play a key role in the development of financially successful sustainability strategies (Hughen et al. 2014: 61).

The first objective of the present study was to assess the perceived effect of integrated reporting on the ability of JSE-listed companies to link *strategy, risks and opportunities* and to promote *integrated thinking*. This was achieved using a web-based questionnaire, which was sent to high-level implementers of the integrated reporting requirements at companies listed on the JSE two years into the integrated reporting regime.

The second objective of the study was to assess whether there had been changes in the *disclosure* of risks and opportunities by using a sample of the top 100 JSE-listed companies over a period of five years by comparing annual reports published in 2010 with integrated reports published in the 2014 or 2015 financial years. The content element 'risks and opportunities' published by the IIRC (2013b: 27) in the

International <IR> Framework (IIRC 2013b) was used as proxy for the assessment. In addition, disclosures by the same sample of companies, relating to their risks and opportunities, were analysed to determine the level of adherence to the content element ‘risks and opportunities’ in the International <IR> Framework (IIRC 2013b).

Literature review

Move towards integrated reporting

According to Steyn (2014a: 479), traditional corporate reporting focused on annual reports and primarily historical financial performance. In 2012, the United Nations General Assembly (2012: 9) emphasised the importance of corporate sustainability reporting and encouraged companies to consider integrating sustainability information into their reporting. Ioannou and Serafeim (2014) note that while fewer than 100 firms globally reported such information twenty years ago more than 6 000 companies were issuing sustainability reports by 2013. Van Bommel (2014) found that sustainability reporting appealed to a broad range of stakeholders and was sufficiently flexible to include industrial, market, civic and green aspects under the umbrella of sustainability. While sustainability reporting aims to provide social, environmental and economic information to a wide range of stakeholders, integrated reporting seeks to present information related to broad risk evaluation and potential future value growth, thus appealing to capital providers and potential investors (De Villiers et al. 2014: 1059). De Villiers et al. (2014: 1044) note that critics of sustainability reporting claim that disclosures in sustainability reports are often a symbolic attempt to connect with the concept of sustainability while continuing with business as usual, when in fact integrated reporting is actually expected to advance real change in the way organisations operate. The IIRC (2015) indicates that integrated reports are intended to help businesses think holistically about their strategy and plans, to make informed decisions, to manage key risks and to improve future performance. According to Stubbs and Higgins (2014), integrated reporting enables companies to make better financial and non-financial decisions; such reporting improves resource allocation decisions, breaks down operational and reporting silos and leads to improved systems and processes. Brown and Dillard (2014: 1136) observe that through improved internal processes, integrated reporting may help organisations to identify eco-efficiency gains, improve productivity and enhance brand loyalty towards the organisation.

Integrated reporting requires integrated thinking between strategy, risks and opportunities

Haller and Van Staden (2014:1206) identified the ultimate aim of integrated reporting as integrated thinking. Churet and Eccles (2014: 64) define integrated thinking in broad terms, but confirm that integrated reporting is linked to integrated thinking, which results in managing the business in a way that meets near-term priorities while also achieving the company's long-term vision and goals. Atkins and Maroun (2015: 215) found that institutional investors' reaction to integrated reporting also agreed with the assertion that integrated reporting would signal the beginning of a comprehensive reporting philosophy and an integrated approach to thinking about business activities. Armbester et al. (2011: 28) note that integrated reports are expected to encourage companies to consider risks, adopt sustainable business practices and create a more sustainable society. A study by SAICA (2015) provided valuable insights into the effect of integrated reporting on integrated thinking and found that there is a strong awareness of the concept of integrated thinking and the way it benefits the organisation. The survey used for the purpose of that study did not attempt to gain an understanding of how organisations perceive integrated thinking and did not specifically assess the effect of integrated reporting on integrated thinking between risk, opportunity and strategy. Coetzee and Lubbe (2013: 1) found that South African companies in the private sector were regarded as mostly risk mature before the introduction of integrated reporting. According to Kotze et al. (2015: 104), organisations are now moving towards a broader view of risk management, which has been linked to strategy.

The first objective of the present study was motivated by the fact that integrated reporting is a very topical concept for those charged with the governance and reporting to stakeholders in companies and organisations. There is also limited current literature to establish whether integrated reporting has improved *integrated thinking* between strategy, risks and opportunities. This part of the study applied socio-political theories such as legitimacy theory and stakeholder theory as defined by De Villiers and Van Staden (2010), which are focused on explaining why companies will comply with integrated reporting requirements.

Integrated reporting aims to advance the disclosures of risks and opportunities

According to the IIRC (2015), integrated reports are intended to serve an information purpose and to build investor and stakeholder confidence. Integrated reporting requires a new approach to disclosing information to stakeholders. It is therefore to be expected that risk-related disclosures will be improved if companies adhere to

the content element ‘risks and opportunities’ included in the International <IR> Framework (IIRC 2013b). This should improve investors’ ability to make informed decisions. Owen (2013) states that integrated reporting developments can only be in the wider public interest of improving the relevance of information for decision-making for all stakeholders, thereby allowing greater efficiency in the allocation of financial and other resources, and in adding public value.

Companies can benefit if they adhere to the content element ‘risks and opportunities’ in the International <IR> Framework (IIRC 2013b). According to Roth (2014: 65), improved communications is one aspect of risk management, and reporting specific risks can help an organisation improve its reputation. Steyn (2014b: 163) notes that the inclusion of future-oriented information in the integrated report is perceived to pose a degree of challenge for organisations in respect of business confidentiality. This creates a conflict as the benefit of adherence to the International <IR> Framework (IIRC 2013b) and improving the company’s reputation has to be weighed against the risk of sharing strategic information and information that provides a competitive advantage in the public domain. Madsen (2009) states that with static mandated reporting, those disclosing the information decide what stakeholders need to know and they may do this without ever consulting those stakeholders. No person and no organisation are ever completely transparent and inasmuch as reason is bounded it follows that acts of transparency will at the same time be both revealing and concealing (Madsen, 2009: 640). Flower (2015: 16) indicates that companies are not required to give information that could cause competitive harm. Flower (2015: 16) explains that although a requirement to give such information was included in the IIRC published Consultation Draft (IIRC 2013a), titled “Towards integrated reporting: Communicating value in the 21st Century”, it was not included in the International <IR> Framework (IIRC 2013b).

Previous research by Stent and Dowler (2015) on an analysis of four New Zealand organisations found that in general terms, when considering all the guiding principles of the International <IR> Framework (IIRC 2013b), a relatively small gap exists between integrated reporting requirements and current best practice reporting processes in New Zealand. While this appears to be a relatively small gap, systems thinking principles indicate that these deficiencies may be critical to sustainability and financial stability, the stated aims of integrated reporting (Stent & Dowler 2015: 92). An Australian research study by Stubbs and Higgins (2014) of 23 interviews across 15 organisations found that, while the organisations that are producing some form of integrated report are changing their processes and structures, or at least talking about it, their adoption of integrated reporting has not necessarily stimulated innovations in disclosure mechanisms. The study by Stubbs and Higgins (2014)

focused on disclosure practices and did not uncover radical, transformative change to reporting processes, but rather incremental changes to processes and structures that previously supported sustainability reporting.

Integrated reporting has been criticised for a strong investor bias, with no attempt to open up substantive discussion on important – and contentious – issues around corporate accountability or sustainability (Brown & Dillard, 2014: 1133). De Klerk and De Villiers (2012) found that shareholders increasingly require companies to disclose more information about the company's corporate responsibility. This is required because shareholders believe that companies should be held accountable for their environmental stewardship and to help shareholders with their analysis of the company and decision-making. This extends to the *disclosure* of risks and opportunities as stakeholders, investors and analysts need to assess whether the company will be able to create value in the future to make informed decisions.

The second part of the present study was to assess whether there had been changes in the *disclosure* of risks and opportunities by a sample of the top 100 JSE-listed companies over a period of five years. This was motivated by the lack of literature to confirm whether integrated reporting has driven change in disclosures of 'risks and 'opportunity' underpinned in the International <IR> Framework (IIRC 2013b). This study extends prior work on risk disclosure quality with the application of a longitudinal approach to assess the extent of risk reporting after the introduction of integrated reporting compared to annual reports without the requirement to publish an integrated report. While previous studies have described disclosure practices, the study on which this article reports adopted a normative approach to assess disclosures on 'risks and opportunities' over five years with the International <IR> Framework (IIRC 2013b) disclosure guidelines related to 'risks and opportunities' as proxy. As far as could be ascertained, no similar study has been previously undertaken in South Africa.

Research methodology

The research methodology included a review of the currently available literature and concurrent mixed method research which encompassed both aspects of an epistemological approach. Positivism was applied to acquire quantitative data through an electronic web-based questionnaire, and an interpretative approach was followed to gather qualitative data based on an assessment of reporting disclosures regarding risks and opportunities. The study was done over an extended period of time to sensibly reach the purpose.

Firstly, a self-administered web-based questionnaire was sent to high-level implementers of the integrated reporting requirements at companies listed on the

JSE. This survey assessed the perceived changes to integrated thinking regarding strategy, risk and opportunity as a result of integrated reporting two years after its mandatory introduction for all JSE-listed companies.

In addition, a data analysis was done by comparing a sample of integrated reports published in 2014 or 2015 to the same companies' 2010 annual reports to assess whether there had been changes in the disclosure of risks and opportunities. This was done five years into the South African integrated reporting regime to gain a clear understanding of reporting norms and the application of the International <IR> Framework (IIRC 2013b). Furthermore, disclosures from the most recently published integrated report as at 30 September 2015 from the same sample of companies were compared to the content element 'risks and opportunities' in the International <IR> Framework (IIRC 2013b:27) to determine the level of adherence to the disclosure guidelines. Disclosures were double-coded as part of the data analysis.

Questionnaire

Description of the population and sampling

In South Africa, the requirement to publish an integrated report is limited to companies listed on the JSE; therefore, the population used for the purpose of this research started with the 347 entities listed on the Main Board of the JSE in 2012, as per the June–September 2012 Profiles Stock Exchange Handbook (Profile Media 2012). The population was adjusted for group structures (20 companies) where companies that formed part of a group structure were consolidated into a single entity for the purposes of the survey. Twelve listings were also removed from the population because of secondary listings, delisting or schemes of arrangement that had been entered into after the publication of the handbook. These companies were removed because, based on IoDSA (2009), companies holding a secondary listing on the JSE only have to comply with the listing requirements of the exchange where they have their primary listing and are not obliged to comply with King III. It was established that 273 of the remaining 315 companies had issued an integrated report in full or partial compliance with the requirements of King III. Forty-two companies did not have an integrated report published in the public domain, or had only issued an annual report and sustainability report by 31 December 2012. These were also removed from the population to ensure that respondents were experienced in the publishing of an integrated report. After the abovementioned changes, the population was established at 273 companies. The population of 273 companies was deemed manageable and all these companies were targeted in the survey with no sampling necessary.

Description of the questionnaire

A self-administered web-based questionnaire aimed at top management (chief executive officers [CEOs], chief financial officers [CFOs] and other high-level implementers of integrated reporting at JSE-listed companies) was compiled. This survey assessed the perceived effect of integrated reporting requirements on certain elements of risk management within the organisation. A 5-point Likert-type scale, ranging from 'strongly agree' (1) to 'strongly disagree' (5) was used to rank respondents' perceptions of the statements in the survey. This article reports on the results of questions included in section B of the questionnaire. Sections A, C and D are addressed in another study (Steyn 2014b). Respondents were also given the opportunity to include specific comments after each construct in the survey.

Since the concept of integrated reporting is relatively new, and because the practical outcome of these requirements is unknown, the questionnaire was designed to address wide-ranging issues rather than the in-depth aspects associated with more established concepts where there has been previous research on the subject matter. The survey was analysed by a statistician to ensure that the research objectives had been met. The survey was also validated by a trial of the electronic survey completed by five colleagues who were experienced researchers to ensure that the constructs were clear, the web-based design was fully functional and the survey was easy to use.

Survey process and administration

The database for the 273 eligible listed companies was compiled and these companies were contacted based on the contact details supplied in the JSE Handbook (Profile Media 2012). The purpose was to identify the CEO or CFO of the company or, alternatively, the person responsible for the overall implementation of integrated reporting in the company. An email with the link to the electronic survey was sent to the appropriate person identified in the company. This was followed up by reminder emails sent at seven-day intervals, as well as telephonic reminders, requesting respondents to complete the questionnaire. The electronic responses were recorded in a secure database during the period November and December 2012. Incomplete responses and all fields submitted for capturing in the database were removed from the data prior to performing the statistical analysis. After removing the data of 28 incomplete surveys, the relevant response rate was found to be 18%, based on 50 fully completed surveys. This response rate was deemed to be acceptable for the purposes of this study. A substantial disparity in response rates exists between studies in behavioural sciences and commercial or business surveys (Baruch 1999: 421). A similar online survey, conducted with the participation of executives of FTSE

100 and FSSE All-Share companies during 2013, reported a response rate of 17% (Varenova et al. 2013). In comparison with similar business mail surveys and the aforementioned comparable online survey directed at a similar target audience, the response rate of 18% compares favourably.

Non-response bias

With a self-administered questionnaire there is the risk that individuals with a particular interest in the subject may choose to complete the survey which could introduce bias into the results (De Villiers & Van Staden 2010: 232). The fact that, where possible, the specific senior executive tasked with implementing integrated reporting in each company was identified and requested to complete the survey, as well as the ease and convenience of a web-based survey, are both factors that reduced the possibility of non-response bias. Responses were treated anonymously potentially increasing the response rate (De Villiers & Van Staden 2010: 232). The researcher also applied the approach used in the literature (Pike 1996: 23) of testing for non-response bias by comparing early and late responses.

Results of the questionnaire

This article reports on the results of questions included in section B of the questionnaire. Sections A, C and D are addressed in another study (Steyn 2014b) and information regarding the questionnaire administration process, company profiles, response rates and limitations may be similar.

Profile of participating companies

Respondents were categorised into 14 main industry classifications, which are set out in Table 1 below. The responses were widely spread across various industry categories of the target population, namely, listed companies on the JSE Main Board. The total number of companies in each category of the target population has been included below to ensure that the responses received are a reasonable representation of the overall spread of industries across the target population. Although the categories Basic Resources (Mining, Forestry, Chemicals, Oil and Gas) and Financial Services Property comprised 23 and 11% of the total target population respectively, these industries were only represented by 16 and 2% of the total number of responses respectively. These categories were, therefore, under-represented in the results. However, there was over-representation of the

industry category, Consumer Goods Other, which represented 3% of the total listed companies on the JSE, as per Profile's Stock Exchange Handbook, June–September 2012, as 16% of the responses were received from this industry category. Although these under- and over-representations in some categories should be mentioned as a potential limitation of the study, the variances reported were not expected to have a significant influence on the overall conclusions of the study.

Table 1: Main industry classifications represented in the results

Industry categories	Responses		JSE main board listings	
	No. of companies	(%)	No. of companies	(%)
Basic Resources (Mining, Forestry, Chemicals, Oil and Gas)	8	16	81	23
Consumer Goods, Foods and Beverage	4	8	18	5
Consumer Goods Other	8	16	9	3
Consumer Travel, Gambling and Leisure	2	4	12	3
Consumer Media	1	2	8	2
Consumer Services	2	4	25	7
Financial Services Banking, Venture and Development Capital	6	12	34	10
Financial Services Property	1	2	39	11
Financial Services Insurance and Other	2	4	21	6
Industrial Construction	1	2	20	6
Industrial Goods	10	20	51	15
Healthcare	2	4	9	3
Telecoms	2	4	5	1
Technology Computer	1	2	15	4
Total (N = 50)	50	100	347	100

Company size and SRI status

As per the market capitalisation ranking done in the June–September 2012 JSE Profile's Stock Exchange Handbook (Profile Media 2012) of the 50 participating

companies, 27 respondents were ranked in the top 80 companies from the 347 companies listed on the JSE Main Board. Therefore, a significant proportion (54%) of the participating companies was significant in size as measured by market capitalisation. The market capitalisation of the participating companies as at 2 December 2011 is set out in Table 2. According to Steyn (2014b) the extent to which listed companies on the FTSE/JSE All-Share Index incorporate sustainability indicators into their measurement and reporting systems and practices is measured by the JSE on the basis of the Socially Responsible Investment (SRI) Index criteria. The SRI Index serves as a tool to enable investors to assess companies on a broader basis, also providing an aspiration sustainability benchmark as the first of its kind in an emerging economy. To be selected for inclusion in the SRI Index, companies must achieve a minimum overall score measured against predetermined criteria (Hinson & Ndlovu 2011: 342). Companies complying with the criteria are listed after the annual review as SRI Constituents (Steyn 2014b: 160). The SRI status of the companies is set out in Table 2. The number of SRI constituents (48% of respondents) was substantial. This increases the significance of the results because SRI constituents are able to evaluate the effect of integrated reporting requirements as a further step in advancing sustainable business practices from the perspective of an organisational environment where a measurable degree of sustainable business practices currently prevails.

Table 2: Market capitalisation of participating companies

Market capitalisation (R million)	Company size		SRI status		
	No. of companies	(%) of companies	SRI constituent companies	Non-SRI constituent companies	Total no. of companies
Below 9	23	46	3	20	23
10–24 (Top 80)	9	18	6	3	9
25–49 (Top 45)	11	22	9	2	11
50–74 (Top 27)	2	4	1	1	2
75–99 (Top 20)	1	2	1	0	1
Above 100 (Top 15)	4	8	4	0	4
Total (N = 50)	50	100	24	26	50

Experience of companies in preparing integrated reports

The experience of companies in preparing integrated reports, as measured by the number of integrated reports they have issued, is set out in Table 3. The majority of companies (76%) had issued at least two integrated reports by January 2012. This is significant from the perspective that a substantial portion of the companies demonstrated a reasonable degree of experience in the preparation of integrated reports, which supports the quality of the results.

Table 3: Number of integrated reports issued by company

No. of reports issued	Frequency	(%)	Valid (%)	Cumulative (%)
One report issued	12	24	24.0	24
Two reports issued	27	54	54	78
More than two reports issued	11	22	22	100
Total (N = 50)	50	100	100	100

Results of the research questions in the questionnaire

Table 4 below summarises the results of the web-based questionnaire, which was sent to high-level implementers of integrated reporting at JSE-listed companies. Respondents ranged from senior staff members responsible for the preparation of integrated reports to company secretaries, investor relations managers and executives. The table indicates respondents' level of agreement with statements relating to the role of integrated reporting in advancing the integration of risks and opportunities into the strategic planning process and strategic objectives of their organisation.

Table 4: Level of agreement from respondents

Statement	Mean	Agree and strongly agree (%)	Neutral (%)	Disagree and strongly disagree (%)	Total (%)
Integrated reporting increases organisational focus on integrating risks into overall strategic objectives	2.16	82	2	16	100
Integrated reporting encourages managers to consider the linkages and interdependencies between strategy, risks and opportunities	2.2	78	6	16	100

Statement	Mean	Agree and strongly agree (%)	Neutral (%)	Disagree and strongly disagree (%)	Total (%)
Integrated reporting advances closer alignment between strategy and key risk indicators (KRIs)	2.38	66	12	22	100
Integrated reporting improves root cause analysis and risk assessment	2.72	48	20	32	100
Transparent disclosure of risks and KRIs in the integrated report advances organisational culture by embedding risk management into the strategic planning process	2.72	64	20	16	100

The results provided primary data as defined by Mouton (2011: 144).

A significant majority (82%) of respondents agreed that integrated reporting improved the integration of risks into overall strategic objectives.

In addition, 78% of respondents agreed that integrated reporting improved integrated thinking and management's ability to link strategy, risks and opportunities and that they now better understood how the organisation's strategy, risks and opportunities are dependent of one another.

Of the respondents, 66% agreed that the organisation's strategies and KRIs are more aligned as a result of the implementation of integrated reporting.

Of the respondents, 48% agreed that integrated reporting improved root cause analysis and risk assessment. It may be concluded that those charged with responsibility for implementing integrated reporting will not necessarily delve deeper into the data with which they are provided to add sustainable value with regard to the root cause analysis of risks facing the organisation or the assessment of such risks. However, some respondents noted that risk management was deemed to be efficient before the implementation of integrated reporting. One respondent also noted that internal risk assessments and what is reported in the integrated report can be far apart. This should be read in conjunction with the results of the second part of this study, which found that risk assessments are seldom disclosed. As previously noted, companies may be reluctant to disclose sensitive information or information that would reduce their competitive advantage, but positive change in risk assessments as a result of integrated reporting can only be driven by improved disclosures.

Of the respondents, 64% believed that the transparent disclosure of risks and KRIs in the integrated report, contributed positively to an organisational culture where risk management is embedded in the strategic planning process. Specific commentary noted that behaviour can only be changed by legislation if the subjects can derive

real value from the application of integrated reporting or if the consequences of non-compliance can be policed effectively.

The next part of the study related to the disclosure of risks and opportunities per the International <IR> Framework (IIRC 2013b). Understanding the extent to which risks and opportunities are disclosed is important to support the above findings that extensive disclosures have advanced the linkage between strategy, risks and opportunities and other elements of risk management.

Data analysis and application of the checklist

A second empirical study was done with an interpretative qualitative data analysis. According to Terre Blanche et al. (2009: 193), a data analysis transforms the data collected into an answer which addresses the original research question. This part of the study provided some primary data, but focused especially on existing data as defined by Mouton (2011: 144). Data was collected manually from the annual reports of 18 of the top 100 JSE-listed companies. The latest available integrated reports as at 30 September 2015 were analysed and compared to the same companies' 2010 annual reports. Disclosures on risks and opportunities were measured against the required disclosures included under the content element 'risks and opportunities' in the International <IR> Framework (IIRC 2013b) published by the IIRC (2013: 28). This contributed to the reliability of the research.

Content analysis was also carried out to search these data sources for evidence that there has been a change in the disclosure of risks, opportunities, mitigating action plans (to reduce risks) and the assessment of risk. The reports were read and key terms including synonyms were searched. An *a priori* coding approach as defined by Nieuwenhuis (2013: 107) was followed, and results were verified and recorded using Excel on an expanded version of the checklist to support the reliability and validity of the analysis.

Profile of participating companies

Ernst and Young (EY) Excellence in Integrated Reporting Awards (EY 2015) ranks the integrated reports of the top 100 companies listed on the JSE annually. These companies were selected on the basis of their market capitalisation as at 31 December 2014, which was the last trading day of that year. For the purposes of this study, companies were randomly selected from each of the categories within the EY Excellence in Integrated Reporting Awards (EY 2015). Whilst the selection was random it did ensure that an equal number of companies were analysed from each of the JSE main industry categories (Table 5).

Table 5: Integrated reports selected for analysis

Main JSE listing industry category	Categories per the EY Excellence in Integrated Reporting Awards 2015					Total
	Top 10	Excellent	Good	Average	Progress to made	
Resources	2	1	3	-	-	6
Financials	1	1	1	1	2	6
Industrials	1	1	-	2	2	6
Total	4	3	4	3	4	18

Results of the data analysis

Table 6 below provides the results of the data analysis and summarises changes in the disclosure of risks and opportunities by a sample of JSE top 100 companies over five years. The International <IR> Framework (IIRC 2013b) disclosure guidelines related to ‘risks and opportunities’ were used as proxy.

Table 6: Results of the data analysis

Included under the content element ‘risks and opportunities’ (IIRC, 2013b:27)	Positive improvement made in disclosure from 2010 annual report to latest available integrated report as at 30 September 2015	Integrated reports that provide complete and comprehensive disclosures per the International <IR> Framework (IIRC, 2013b) (disclosure requirement implemented)
“What are the specific risks and opportunities that affect the organisation’s ability to create value over the short term and how is the organisation dealing with them?”	11%	100%
“What are the specific risks and opportunities that affect the organisation’s ability to create value over the medium-term and how is the organisation dealing with them?”	28%	89%
“What are the specific risks and opportunities that affect the organisation’s ability to create value over the long-term and how is the organisation dealing with them?”	39%	72%
“Key risks and opportunities that are specific to the organisation, including those that relate to the organisation’s effects on and the continued availability, quality and affordability of, relevant capitals in the short, medium and long term.”	33%	78%

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Included under the content element 'risks and opportunities' (IIRC, 2013b:27)	Positive improvement made in disclosure from 2010 annual report to latest available integrated report as at 30 September 2015	Integrated reports that provide complete and comprehensive disclosures per the International <IR> Framework (IIRC, 2013b) (disclosure requirement implemented)
"Specific external sources of risks and opportunities, including aspects of the legal, commercial, social, environmental and political context that affect the organisation's ability to create value in the short, medium or long term."	11%	83%
"Internal sources of risk and opportunity, including how the organisation differentiates itself in the market place."	17%	72%
"Internal sources of risk and opportunity, including the extent to which the business model relies on revenue generation after the initial point of sale."	0%	72%
"Internal sources of risk and opportunity, including how the organisation approaches the need to innovate."	22%	78%
"Internal sources of risk and opportunity, including how the business model has been designed to adapt to change."	33%	83%
"Contribution made to the organisation's long-term success by initiatives such as process improvement, employee training and relationship management."	0%	89%
"The organisation's assessment of the likelihood that the risk or opportunity will come to fruition and the magnitude of its effect if it does."	11%	17%
"The specific steps being taken to mitigate or manage key risks or to create value from key opportunities including strategic objectives, strategies, policies, targets and key performance indicators (KPIs)."	28%	83%
"The organisation's approach to any real risks that is fundamental to the ongoing ability of the organisation to create value and which could have extreme consequences."	39%	89%

Based on the findings, it could be concluded that integrated reporting has had an effect on the disclosure of risks and opportunities by the JSE top 100 companies; however, the results did not provide compelling evidence of significant change. All results should be read in conjunction with the percentage of companies that

complied with the disclosure requirements as set by the International <IR> Framework (IIRC 2013b). Changes in disclosure are mostly related to:

- the disclosure of specific risks and opportunities that affect the organisation's ability to create value over the long term and how the organisation is dealing with them (39% improvement)
- risks and opportunities that affect the continued availability, quality and affordability of relevant capitals (33% improvement)
- internal sources of risk and opportunity, including how the business model has been designed to adapt to change (33% improvement)
- the disclosure of the organisation's approach to any real risks (39% improvement) that is fundamental to the ongoing ability of the organisation to create value and which could have extreme consequences

The results also show that there has been no change in the disclosure of the sources of risk and opportunity, but it should be noted that almost three in every four companies disclose this information. A significant number of companies (89%) were disclosing information about the company's contribution to long-term success through initiatives such as employee training, but there was no evidence to indicate that integrated reporting had influenced any change in these disclosures. It can be concluded that integrated reporting has brought about change in the disclosure of the risks and opportunities facing organisations. This appears to be in some contrast to a previous Australian study where Stubbs and Higgins (2014) found that the adoption of integrated reporting had not necessarily stimulated innovations in disclosure mechanisms. However, that study focused on the disclosure process instead of actual disclosures.

In addition, the data analysis showed that a significant majority of companies were complying with all the disclosure guidelines in the International <IR> Framework (IIRC, 2013b) for the content element 'risks and opportunities', except for the disclosure of the assessment of risks. Participating companies refrained from disclosing risk assessments for specific risks and failed to clearly disclose their assessment of the likelihood that risks would occur and what the effect would be if risks came to fruition. Only 17% of companies disclosed their risk assessments with limited improvement since 2010. These results agreed with a similar study done by PWC (2013) in 2008, which found that 18% of companies disclosed their risk assessments. This supports the results from one of the five questions in the questionnaire analysed in the first part of this study, namely, that only 48% of respondents believed that integrated reporting enhanced root cause analysis and risk assessment.

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The application of the other content element requirements for the disclosure of risks and opportunities was widespread (72–100%). This correlates with the New Zealand study by Stent and Dowler (2015), which found that a relatively small gap existed between traditional annual reports and integrated reporting requirements. Their study was broader than the disclosure of risks and opportunities, but it is noteworthy that the researchers concluded that disclosure deficiencies may be critical to sustainability and financial stability, the stated aims of integrated reporting. The findings in the second part of this study supported the findings in the first part of the study, namely, that the improved disclosure of risks and opportunities resulting from integrated reporting has advanced the linkage between risk, strategy and opportunities and other elements of risk management. The final part of this article concludes with a summary of the results from the present study and suggestions for further research.

Conclusion

Integrated reporting advances integrated thinking between risk, opportunity and strategy

There is some disagreement on whether integrated reporting has achieved its objectives to advance integrated thinking within business practices, support decision-making, enhance accountability and improve corporate reporting. According to the International <IR> Framework (IIRC 2013b), integrated thinking is at the heart of integrated reporting. This extends to an integration of strategy, risk and opportunity. The purpose of the present study was firstly to assess whether integrated reporting has had an effect on the integration of risks and opportunities into the strategic thinking in JSE-listed companies. Responses from the web-based questionnaire aimed at high-level implementers of integrated reporting suggested clear changes in the organisational behaviour regarding integrated thinking on strategy, risks and opportunities. It can be concluded that integrated reporting advances the organisational culture towards risk management as well as the alignment of strategy and key risk indicators.

Limitations of the questionnaire

Descriptive statistical analysis was used to analyse the collected data. Comments received from respondents were also collated and summarised. The statistician did not validate the survey by any statistical methods other than the pre-trial of the survey,

owing to the limited amount of data. This is regarded as a potential limitation of the study. Another limitation was that the industries represented by the respondents to the survey were not entirely representative of the spread of industries across the JSE, with a bias for ‘industrial goods’, ‘basic resources’ and ‘consumer goods other’. It is noteworthy that a significant proportion of the respondents represented companies that were large listed companies with a market capitalisation of between R10 million and R364 million in 2012. Furthermore, a disproportionate number of respondent companies were SRI Index Constituents. Therefore, in a number of respects, the respondents may not have been representative of all companies listed on the JSE.

Disclosure of risks and opportunities

The disclosure of risks and opportunities is one of the content elements included in the International *<IR>* Framework (IIRC 2013b). The present study also aimed to apply a longitudinal approach to determine whether integrated reporting has changed the way in which the top 100 companies listed on the JSE disclose risks and opportunities and whether these companies adhered to the guidelines of the International *<IR>* Framework (IIRC 2013b) on the disclosure of risks and opportunities facing the company. Based on the content analysis it can be concluded that a significant majority of companies were complying with all the integrated reporting guidelines for the content element ‘risks and opportunities’ (IIRC 2013b: 27), except for the disclosure of the assessment of risks. The results of the content analysis also showed that there has been an expansion in the disclosure of risks and opportunities, although the results of the content analysis did not provide compelling evidence that integrated reporting has significantly changed the way in which the top 100 JSE-listed companies disclose risks and opportunities. Indicative changes are limited to the disclosure of specific risks and opportunities, the organisation’s approach to any real risks, internal sources of risks and opportunities, including how the business model has been designed to adapt to change, and disclosure of key risks and opportunities with an effect on, and the continued availability, quality and affordability of, relevant capitals in the short, medium and long term.

Limitations of the data analysis

The JSE top 100 companies were determined on the basis of market capitalisation as at 31 December 2014. The list of the top 100 JSE-listed companies changes annually as a result of corporate activity and market capitalisation, which placed a limitation on this research study. The data was collected manually, which placed

a further possible limitation on the study. The study also focused on companies' annual reports published in 2010 compared to the most recent corresponding integrated report as at 30 September 2015. The study therefore focused on two years of published information and provided a snapshot which could be different from other years. Comparing changes in disclosures between 2010 (before integrated reporting became mandatory) and 2015 may be skewed as some companies may have commenced their journey to integrating reporting before 2010 in the knowledge that integrated reporting may become mandatory.

The originality of this study was that it applied two connected and mutually supportive empirical research studies to show that, although disclosures of risks and opportunities facing the organisation have not changed significantly, there has been a change towards integrated thinking and the linking of strategy, risks and opportunities as a result of integrated reporting. The study contributes to the body of literature and extends prior work to provide a greater understanding of the true value of integrated reporting. This is important for companies to understand the sources of information for improved disclosure, to understand stakeholder needs better and to allocate the required resources to ensure the comprehensive application of integrated reporting. The quality of integrated reports and the level of adherence to the International <IR> Framework (IIRC 2013b) are important for investors and analysts assessing companies and investment opportunities. The implication of this contribution is that another benefit to integrated reporting has been identified to advance its application. As far as could be ascertained, the present study was the first to research whether integrated reporting has advanced integrated thinking between risk, opportunity and strategy. The second part of the study was the first to focus on the disclosure of risks and opportunities as required by the disclosure guidelines in the International <IR> Framework (IIRC 2013b) and made a contribution to the theory.

Further research could be conducted to establish whether there is a need for tools and software to streamline the process of linking strategy, risks and opportunities to enhance integrated thinking. There is also a research opportunity to establish why companies fail to disclose their assessment of specific risks. From an investor's point of view, it could be valuable to know whether institutional investors think that a superior integrated report could improve a company's share price.

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