

Contribution of internal auditing to risk management

Perceptions of public sector senior management

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348

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Abstract

Purpose – There is a widening gap between the expectations of internal audit stakeholders and the value the function brings to the table, for example, in the management of the risks threatening an organisation. The purpose of this paper is to investigate the views of chief audit executives (CAEs), the chairs of audit committees and senior management on the contribution of the internal audit functions to risk management in the South African public sector. This contribution is considered in the context of existing risk management structures and the level of coordination between these structures and internal auditing.

Design/methodology/approach – The views of heads of internal auditing, chairpersons of the audit committee and the Accounting Officer (similar to the CEO of private sector organisations) of national, provincial and local government organisations were obtained and statistically analysed.

Findings – The results indicate that the CAEs have noticeably different views from the other two parties, and that the existence of risk management structures has a minor effect on how the contribution of internal auditing to risk management is perceived.

Research limitations/implications – It was decided to not include the views of heads of risk management functions owing to the immaturity of risk management in this sector within the South African public sector.

Practical implications – The results of the study provide internal auditing with information on narrowing the possible gap between the perceptions of senior management and their own perceptions. Senior management could streamline the efforts of these two parties in mitigating the key risk of the organisation. The audit committee, as the independent overseer of internal auditing, will obtain information on whether internal auditing contributes to risk management, and if not, how to address these issues, taking into account the existence (or a lack thereof) of risk management structures. The legislator and regulator of public sector could be influenced to provide clearer guidance or rules in this regard in order to enhance the efficiency and effectiveness of risk management policies and practices.

Originality/value – Limited studies have been conducted regarding the coordination of internal auditing and risk management in mitigating the key risks; especially within the public sector domain whether the existence of risk management structures would affect this coordination. Also the views of senior management, as the key stakeholder of internal auditing, on this matter have not yet been solicited.

Keywords Public sector, Coordination, Risk management, Internal auditing, Management perceptions

Paper type Research paper

Introduction

Richard Chambers (2014), the CEO of the Institute of Internal Auditors (IIA) Global, the governing body of the internal audit profession, raised a serious concern when he posed the question whether a gap is opening between stakeholders' expectations and the value of internal auditing. He based his concern, *inter alia*, on the findings of the annual studies conducted by PwC on the apparent deterioration of the perceived value of internal auditing. In the 2014 study (PwC, 2014), the three major findings highlighted



the significant differences of opinion between the internal audit stakeholders and the head of the internal audit function (IAF), also referred to as the chief audit executive (CAE), on what is expected of internal auditing. Only 49 per cent of senior management and 64 per cent of board members indicated that internal auditing is delivering on expectations, while 55 per cent of senior management posited that internal auditing does not add significant value. A survey conducted by Grant Thornton (2015) supports this view, providing evidence that the CAE and audit committee's priorities are not aligned. Davies (2009) investigated the workings relationship between audit committees (most probably being the most important stakeholder of internal auditing) and the IAF; indicating that there is need for much improvement. Internal auditing appears to be at a crossroads – hence the need for a new way of thinking of what value adding entails for an organisation and its management. This was echoed by the Institute of Internal Auditors (2014) in a research document, in which it was stated that one of the top five strategies of internal auditing is to focus on the alignment of activities with the expectations of key stakeholders. The question that arises here is – who are these stakeholders and what are their expectations?

One of the areas that are constantly emerging in these surveys and in other research are the role that internal auditing should play in the management of the risks that are threatening organisation. Chang *et al.* (2014), for instance, suggest that effective risk management includes the “transfer” of risks to other partners, such as the auditor. According to the Organisation for Economic Co-operation and Development (2014), increasingly, legislation and other forms of guidance on governance include not only the concept of risk management, but also the role and responsibilities of auditing in mitigating key risks. A further example is the South African King reports on governance: the first report, King I (South African Institute of Directors, 1994), does not discuss risk management and included basic information on internal auditing; the second, King II (South African Institute of Directors, 2002), addresses risk management and internal auditing to a limited extent; the third report, King III (South African Institute of Directors (SAIoD), 2009), advances both risk management and internal auditing as cornerstones of sound governance principles and provides guidance to internal auditing on its responsibilities in risk management. The latter document, in contrast to the first two reports, which are applicable to the private sector only, also applies to all entities, including both the private and public sectors (South African Institute of Directors, 2009).

The roots of modern public sector risk management principles lie in rendering a service to the public (Van der Waldt and Du Toit, 2005; Vincent, 1996); with the concept not being new (Hardy, 2010; Vincent, 1996) and studies (Chang *et al.*, 2014; Accenture and Oxford Economics, 2013) indicating that it is evolving rapidly. Nevertheless, the idea of viewing risks in a holistic manner (also referred to as enterprise risk management or ERM) has been somewhat slower to be implemented across the globe and various sectors (Odoyo *et al.*, 2014; Accenture and Oxford Economics, 2013). In South Africa, the picture is even gloomier for the public sector, with the risk maturity in this sector being significantly lower than organisations in the private sector (Coetzee and Lubbe, 2013a).

Similarly, although in a more advanced stage than risk management, internal auditing, compared to most other disciplines, is still in its infancy in public sector organisations (Arena and Jeppesen, 2015); even more so on the African continent (Onumah and Krah, 2015; Odoyo *et al.*, 2014; Mihret and Yismaw, 2007), and specifically in South Africa (Erasmus *et al.*, 2014). With this in mind, a study conducted by the IIA Research Foundation (Selim *et al.*, 2014) on the practices of internal auditing around the world,

concludes that Africa is the region with the most respondents working in the public sector. Hence the need for appropriate guidance to public sector internal auditors on the African continent, based on the current practices compared to best practices, is essential.

According to various studies, such as those of Odoyo *et al.* (2014), E&Y (2013), Bolger (2011), De Zwaan *et al.* (2011) and a position paper published by the Institute of Internal Auditors (IIA, 2009), the IAF can and should play a prominent role in supporting the organisation's risk management strategy whose main objective is to reduce risks to an acceptable level. Moreover, the IIA is providing its members with additional guidance on how internal auditing can contribute to risk management in an organisation (Institute of Internal Auditors (IIA), 2012a), with other bodies/researchers also providing additional guidance on this topic (Deloitte, 2014; Cowan *et al.*, 2014).

What is lacking in most of these documents is an investigation into whether the existence of risk management structures (such as a risk management departments, personnel, committees, etc.) would affect the role internal auditing plays. Furthermore, most of the studies have been conducted in the private sector only, and scant information is available on internal auditing and its role in risk management in the public sector domain. In addition, it seems the views of senior management, as the key stakeholder of internal auditing, on this matter have not yet been solicited. Lastly, to identify the potential expectation gap between the perceptions of stakeholders (especially senior management) and those of internal auditing, it is also essential to compare these two parties' views on the topic.

In the context of the above, the main objective of the study reported in this paper was therefore to determine, according to the opinion of senior management and in comparison with the views of CAEs, whether there is an association between the existence of risk management structures and the contribution of internal auditing to managing risks in the public sector. To address this objective, it was first necessary, as the secondary objective, to determine whether there is perceived to be coordination between internal auditing and risk management structures, and second, what the contribution of internal auditing to risk management entails. The views of both CAEs and senior management were obtained and compared – specifically the views of the chair of the independent oversight committee (audit committee chairs or CACs) and accounting officers (AOs) in the South African public sector. Although this could be regarded as a limitation of the study, it was decided to not include the views of heads of risk management functions owing to the immaturity of risk management in this sector (Coetzee and Lubbe, 2013b); with even the Auditor General not including this function in its annual audits (Auditor General South Africa (AGSA), 2013/2014). It would seem that even though most organisations do have some form of risk management structure (Coetzee and Lubbe, 2013a), it mainly consists of a newly appointed chief risk officer (Coetzee, 2010), supported by a small budget (Erasmus *et al.*, 2014).

This study should contribute to the body of knowledge of both risk management and internal auditing. First, the results of the study should provide CAEs with valuable information; narrowing the possible gap between the perceptions of senior management and their own perceptions. Second, senior management should take note of the coordination (or possible lack thereof) between internal auditing and risk management structures. This could assist in streamlining the efforts of these two parties in mitigating the key risk of the organisation, resulting in CAEs or AOs implementing a different strategy to enhance risk management, if necessary. The study should also provide the audit committee, as the independent overseer of internal auditing, with information on whether internal auditing contributes to risk management, and if not, how to address

these issues, taking into account the existence (or a lack thereof) of risk management structures. Lastly, the legislator and regulator of public sector could be influenced to provide clearer guidance or rules in this regard in order to enhance the efficiency and effectiveness of risk management policies and practices.

Literature review

Management as the key stakeholder in internal auditing

To understand what is expected of internal auditing, Güner (2008) argues that internal auditing should always be aware of who its stakeholders are and what their expectations are, and to identify the performance gap, prioritise their demands and develop responses to meet their expectations. Although Miles (2012) posits that stakeholder theory implies that apart from the traditional shareholders of organisations, other parties are involved – primary, secondary or other stakeholders (Preble, 2005) – Paape *et al.* (2003) suggest that internal auditing's primary internal stakeholder is management, both executive management and the audit committee.

Senior management (Accenture and Oxford Economics, 2013; South African Institute of Directors, 2009; Institute of Internal Auditors Research Foundation (IIARF), 2009a; Atkinson, 2008; Committee of Sponsoring Organizations of the Treadway Commission, 2004; Australian Standards Board and New Zealand Standards Board, 2004) and its audit and/or risk committee (De Zwaan *et al.*, 2011; IIARF, 2009a; South African Institute of Directors, 2009; PwC, 2008) are ultimately responsible for the development and implementation of the risk management strategy. In the South African public sector, which consists of three tiers, namely, national, provincial and local government (also referred to as municipalities), the AO is the main authority, supported by an independent oversight body, namely, the audit committee (RSA-MFMA, 2003:S62(1)(C)(ii); S165(1)(b); S166(1): Republic of South Africa, 2003; RSA-PFMA, 1999:S38(1)(a)(ii): Republic of South Africa, 1999 as well as a senior management team. Studies (Chang *et al.*, 2014; Institute of Internal Auditors Research Foundation (IIARF), 2009b, p. 50; PwC, 2008; Professional Risk Managers' International Association, 2008) on the status of global best practices of risk management report that respondents also agreed that risk management should be an executive-level priority – both in the private and public sector. But is senior management recognising and accepting its responsibility when it comes to risk management? In a Deloitte study (cited in Beasley *et al.*, 2008), the percentage of financial institutions acknowledging that oversight responsibility lies with the board increased from 57 per cent in 2002 to 70 per cent in 2008. However, the IIARF (2009b) found that only 39 per cent of executive management and 52 per cent of board members were of the opinion that sufficient information on risk reaches the appropriate decision-making parties. More recently, a study conducted by Coetzee and Lubbe (2013a) on the risk maturity of South African organisations revealed that the implementation of a formal risk management framework in the public sector (an average of 66.25 points out of a possible 200) is significantly lagging behind that of the private sector (an average of 130.63 points out of a possible 200), including the reporting and communication of risk-related issues. This raises the question as to whether the AO can really take full ownership of risks if he or she is not properly informed. According to the professional definition (Institute of Internal Auditors (IIA), 2012b), internal auditors, as assurance providers on risk management, are probably in the best position to ensure that the AO and senior management gain a holistic overview of the implementation of the risk management framework to support the risk management strategy.

Risk management and internal auditing

Before investigating the perception of senior management on the role that internal auditing should play in managing risk, it is necessary to understand the most common structure of and interaction between internal auditing and risk management (see Figure 1 for a schematic representation of the most basic level of interaction between the two parties). Furthermore, it should be noted that although research indicates that there are a number of differences between internal auditing and risk management in the private and public sectors (Office of Risk Management and Analysis, 2010; Goodwin, 2004), the type of differences should not have an effect on the interaction between internal auditing and risk management structures. This assumption is strengthened by King III (South African Institute of Directors, 2009), which stipulates that it has been drafted in such a way that the principles of good governance could and should be applicable to all entities. Lastly, although it is not part of the scope of this study to investigate and report on the difference in coordination between in-house (all full-time employees), co-sourced (a combination of in-house and outsourced) and outsourced (appointing a consultant to conduct the services of

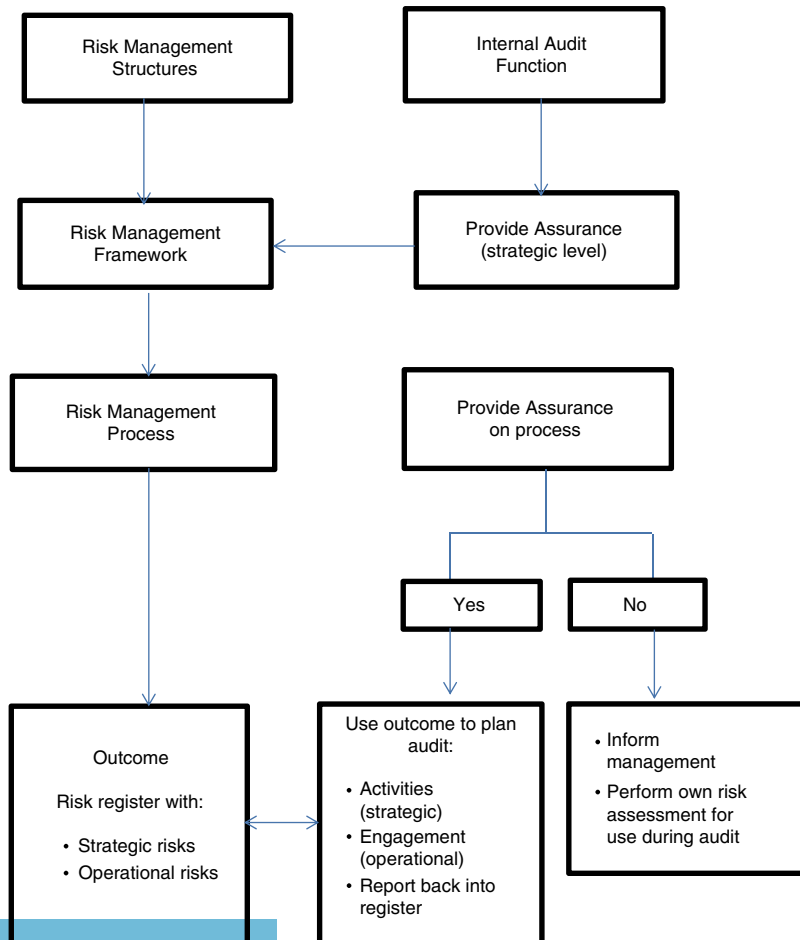


Figure 1. Interaction between risk management and internal auditing

the function) IAFs and the organisation's risk management structures, because of the fact that many South African public sector organisations (AGSA, 2013-2014) having either an outsourced or a co-sourced function, a distinction was made between in-house and outsourced (including co-sourced) activities. The type of IAF structure should be determined by the needs of the organisation and should not, in theory, affect the value the function adds to the organisation (Barac and Motubatse, 2009). However, although there are benefits and pitfalls in all three options, in practice, studies in the South African public sector (Erasmus *et al.*, 2014) indicate that stakeholders mostly rely more on the activities conducted by the outsourced function.

To further clarify the potential interaction between internal auditing and risk management, the main interaction areas are briefly mentioned. The IIA (2009) stipulates that the role of internal auditing in risk management is mainly to provide assurance on whether a strategy has been correctly defined and implemented to help the organisation mitigate its risks. Guidance (IIA, 2012b, p. 1100) and research (Stewart and Subramaniam, 2010) indicate that, for internal auditing to truly provide assurance, it has to be independent from the activity under review. The IIA (2009) also indicates that the IAF can perform various consulting activities, but that this should be done with safeguards – again, the IIA is guiding its members towards operating independently from the risk management structures.

As mentioned previously, to answer the research question on what internal auditing contributes to risk management, it is first necessary to consider whether or not risk management structures are in place and whether or not there is coordination between these structures and internal auditing. It is argued that the maturity level of risk management structures is likely to influence the role of internal auditing; conversely, less risk maturity would probably result in a need for consultation, while a higher level of risk maturity would result in assurance activities (IIA, 2009). It should be noted that this study did not investigate the level of maturity of risk management structures, but merely their existence. This could be an area for future research.

Risk management structures and the level of coordination with internal auditing

As with any aspect of an organisation, risk management activities can only be successfully implemented and maintained if there is a well-defined strategy that informs the risk management framework. Typically, a risk management framework consists of the totality of the structures, processes, systems, methodology and individuals involved that an organisation uses to implement its strategy (Psica, 2008, p. 53; Yatim, 2010). To address the needs of a specific organisation, one would assume that each organisation requires a unique risk management structure to suit its specific needs based on its strategy. However, without at least a full-time risk management structure embedded in the organisation, it would probably be impossible to implement the risk management strategy.

In order for internal auditing to be able to provide assurance on risk management and incorporate the outcomes of risk management processes into its activities (such as focusing on high-risk areas and performing risk-based audit engagements), on the one hand, internal auditing has to be independent from risk management structures; on the other hand, it has to work together with such structures in areas such as communicating appropriately on risk-related issues (Liu, 2012; Bolger, 2011; South African Institute of Directors, 2009; Koutoupis and Tsamis, 2009; PwC, 2008). Risk management structures and the IAF should thus constantly update each other on issues such as potential new risks, loss events or a lack of internal controls. A new tendency is to implement an internal risk steering committee (Coetzee and Lubbe,

2013b), where various role players can meet on a regular basis and discuss risk-related issues. However, thus far, not much literature is available on the level of coordination practices between risk management structures and the IAF – even more so for the public sector. Hence, the study reported in this paper obtained the views of CAEs, and management (specifically CACs and AOs) in this regard for South African public sector national departments. This aim led to the first hypothesis:

- H1. There are differences between the perceptions of CAEs and management on the existing level of coordination between the IAF (in-house and outsourced) and risk management structures.

Internal auditing's contributions to risk management

Studies provide supporting evidence on the contributory roles that the IAF needs to fulfil in order to enhance risk management in organisations (Odoyo *et al.*, 2014; Liu, 2012; De Zwaan *et al.*, 2011). The IIA provides guidance to its members on the activities that they should, could and should not perform with regard to risk management (IIA, 2009). Core activities include, first, providing overall assurance at a strategic level whether the risk management framework supports management's strategy, and second, evaluating and reviewing the management of risks, such as the risk management processes followed. A capability model that identifies the fundamentals for an effective IAF in the public sector (IIARF, 2009b; Ziegenfuss, 2010) stipulates that the IAF should provide overall assurance on, *inter alia*, risk management (IIARF, 2009b). A case study (Janse van Rensburg and Coetzee, 2015) conducted on the implementation of this model in a South African context revealed that this is not in place.

Legitimate activities that could be performed, but should be performed with caution, include consulting activities at both the strategic and operational level. The IIA also stipulates that the IAF's annual plan should incorporate addressing key risks threatening the organisation (IIA, 2012b:Standard 2010), as well as performing risk-based internal audit engagements (IIA, 2012b:Standard 2210.A1), where each engagement should focus on the risks that affect the activity under review. The audit findings on what influences the current risks documented in the risk register should be communicated to the risk management structures to ensure that the risk register is updated (Campbell, 2008), closing the loop which involves risk management structures identifying risks, and internal auditing providing assurance and reporting back to the risk management structures. Lastly, the IIA (2012b:Standard 2050-2) also provides guidance to its members on the idea of combined assurance services, which, according to a study conducted by Decaux and Sarens (2015, p. 57), means fewer surprises for the board and management, enhancing the adequate management of risk across the organisation, incorporating various assurance parties (with internal auditing playing a prominent role), but also minimising duplication – enhancing the contribution of internal auditing to the management of risk. The second hypothesis, as part of the secondary objectives tested in this study, solicits the views of CAEs and management in this regard for the South African public sector:

- H2. There are differences between the perceptions of CAEs and management on the contribution of the IAF to risk management.

As mentioned previously, the level of the IAF's contribution to risk management is influenced by the risk maturity of an organisation – in other words, the extent to which risk management has been embedded across the organisation (IIA, 2009). However, few

studies integrate an examination of the contribution of the IAF to risk management with an exploration of the existence of risk management structures, even more so the maturity of organisations' risk management structures. Sarens and Christopher (2010) obtained evidence on the association between governance guidance documents and the practices of risk management in Belgium and Australia. They concluded that weak guidance results in less developed risk management practices, while strong guidance is associated with better developed risk management practices. E&Y's (2013) study concluded that mature risk management in organisations drives financial results. The question arises whether this tendency would also be reflected in how the existence of a risk management structure influences the contribution of the IAF to various aspects of the management of risk – hence an existing risk management structure results in a high-level contribution of the IAF to risk management, whereas a weak (or non-existent) risk management structure results in a lower-level contribution. This led to the third hypothesis addressing the main research objective:

H3. There is an association between the existence of risk management structure, and the contribution of internal auditing to the management of risks.

The research method and research design applied in the study to test the hypotheses are outlined in the next section.

Research method

To achieve the research objectives, a literature study was conducted to contextualise the existence of a risk management structure, its independence from the IAF, possible coordination between a risk management structure and the IAF, and the effect of these three elements on the possible contribution of internal auditing to risk management. Data on the status of and demand for internal auditing in the South African public sector were gathered by means of a survey conducted at national, provincial and local government organisations. The questionnaires were mainly completed by means of personal or telephonic interviews with the departments' CAEs, CACs and AOs, or their representatives, namely, chief financial officers or chief operation officers. The views included in the final survey are presented in Table I. The sample consisted of 40 national departments; five departments for each of the nine South African provinces ($5 \times 9 = 45$) and all nine metros in the country, 50 district and 53 local municipalities ($9 + 50 + 53 = 112$); totalling 197. The final response rate was deemed acceptable.

The questions addressed to the respondents are attached (refer to the Appendix). Not all questions were answered by all the participants (see *n* in the tables).

Non-parametric Kruskal-Wallis tests were conducted to obtain evidence on the first two hypotheses. The Kruskal-Wallis test was used because the data were ordinal scale data and the sample sizes were small. For the first hypothesis, "high" was coded as 1, "medium" as 2 and "low" as 3. This means that a lower mean indicates a higher level of coordination between the IAF and the risk management structures. The χ^2 test for

Stakeholders	National government		Provincial government		Local government		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
CAEs	32	80	34	76	58	52	124	63
CACs	30	75	19	42	44	39	93	47
AOs (or CFOs/COOs)	31	78	45	100	53	47	129	66

Table I.
Data collection

independence was conducted to determine whether there was an association between the risk management structures and the contribution of the IAF to risk management activities. The resultant cross-tabulations did not meet the requirement that less than 20 per cent of all cells should have expected counts of less than 5, and although 34.5 per cent of the cross-tabulations met the requirements, 65.5 per cent did not. Hence the linear-by-linear test results were used to determine the statistical significance of the association. According to Agresi (1996, cited in Howell, 2007), the standard Pearson χ^2 is more sensitive to small sample sizes than the ordinal or linear χ^2 ; this underpinned the use of the linear-by-linear results in this instance. For this test, the Likert-type scale responses for each question are regrouped into two groups: responses of 1 to 3 are placed in a group and recoded as "1", and the responses of 4 and 5 are placed in a separate group and recoded as "2". It is assumed that responses of 1 to 3 indicated a limited contribution by the IAF to risk management activities, whereas the responses of 4 and 5 indicated a significant contribution.

Results

The findings of the statistical analysis are presented in this section. For the first hypothesis, the differences between the perceptions of CAEs, CACs and AOs on the level of coordination between the IAF and risk management structures were tested using the Kruskal-Wallis test. The results are presented in Table II.

For the first hypothesis, there was sufficient sample evidence, at a 5 per cent level of significance, to accept *H1* for in-house IAFs. There was thus a statistically significant difference between the three groups with regard to the level of coordination between the in-house IAF and the risk management structures ($p < 0.05$). Furthermore, the mean ranks indicated that the CAE group (a mean rank of 92.65) tend to rate the level of coordination as more prominent than the AO and CAC groups (mean ranks of 129.26 and 105.56, respectively). However, for the views on the outsourced IAF, at a 5 per cent level of significance, the sample evidence was not sufficient ($p > 0.05$) to accept *H1*. This implies that the three sets of stakeholders did not differ statistically significantly on the level of coordination between the outsourced IAF and the risk management structures (a mean rank for CAEs of 46.73, a mean rank for CACs of 45.94 and a mean rank of 47.96 for AOs).

As indicated in the literature, there are seven areas in which the IAF can contribute the most to risk management. Kruskal-Wallis tests were performed to ascertain whether the three groups perceived the contribution of the IAF towards these risk management activities differently. The results are shown in Table III.

For four activities (numbered 1, 2, 6 and 7), the second hypothesis was not rejected at a 5 per cent level of significance ($p > 0.05$), which implies that the three stakeholder groups did not perceive the level of contribution of the IAF to these activities differently. However, for the other activities (numbered 3, 4 and 5), statistically significant differences at a 5 per cent level of significance were recorded between the

Table II.
Level of coordination
between IAF and
risk management
structures

Stakeholder	n	In-house IAF		Outsourced IAF	
		χ^2	p	n	p
CAE	110	13.387	0.001	30	0.102
CAC	42			26	0.950
AO	54			37	

three groups with regard to the perceived level of contribution by the IAF. These three activities were strategic consulting, operational consulting and internal auditing incorporating risks into the internal audit engagement(s). Furthermore, the mean ranks indicated that the CAE group tended to rate most of the contribution of the IAF to risk management as more significant than the AO and CAC groups (strategic and operational consulting, risks incorporated into the audit engagements and updating of the risk register with internal audit findings). According to the AO group, the IAF contributes to assurance on risk management processes (mean rank of 158.59 compared to 156.96 for CACs and 146.96 for CAEs) and combined assurance (mean rank of 151.87 compared to 150.17 for CACs and 149.01 for CAEs). The CAC group (163.52) tended to rate the contribution of the IAF to assurance on risk management as more significant than the AO and CAE groups (150.3 and 148.24, respectively).

Regarding the third hypothesis on the association between the risk management structures and the contribution of the IAF to risk management activities, linear-by-linear association tests were used. The risk management structures include the “existence of a full-time risk management structure”, “the operation of the risk management structure independent from the IAF”, “the level of coordination between the risk management structure and in-house IAF” and “the level of coordination between the risk management structure and outsourced IAF”. The contribution of the IAF to risk management activities included the seven categories mentioned above. The results are set out in Table IV.

For this hypothesis, *H3* was rejected at a 5 per cent level of significance for most associations. The AO respondents perceived the highest level of association between the risk management structure and the contribution of the IAFs to mitigating risks (ten of the 28 possible associations), followed by the CAE respondents (four of the 28 possible respondents). Of concern is the fact that, according to the CAC respondents, who are the overseers of internal auditing, there is no association between the existing risk management structures in the organisation and the contribution of the IAF to mitigating risks. According to the CAE group, the IAF has to be independent from the risk management structure to be able to provide assurance on risk management; coordination between risk management structures and the IAF is essential in providing strategic risk management consulting as well as updating the risk register with internal audit findings; and the existence of a risk management structure is needed for the IAF to incorporate key risks into the internal audit engagements performed. According to the AO group, the existence of a full-time risk management structure would influence the contribution of the IAF in providing assurance on risk management and incorporating key risks when performing audit engagements; and the coordination between risk management structures and the in-house IAF would influence almost all

Contribution	<i>n</i>			χ^2	<i>p</i>
	CAE	CAC	AO		
(1) Assurance on risk management	107	79	119	2.098	0.350
(2) Assurance on risk management process(es)	110	80	119	1.193	0.551
(3) Strategic consulting	104	78	111	12.824	0.002
(4) Operational consulting	103	78	117	8.678	0.013
(5) Risks included in audit engagements	114	84	125	7.099	0.029
(6) Update risk register with audit findings	105	79	118	1.620	0.445
(7) Combined assurance	104	82	114	0.072	0.965

Table III.
Contribution of the
IAF towards risk
management
activities

Table IV.
Association between
risk management
structures and
contribution of IAF
to risk management
activities

Stakeholder	Risk management structures	Assurance on risk management						Contribution of IAF to risk management activities						Update risk register with internal audit findings								
		n	χ^2	p	n	χ^2	p	Assurance on risk management process(es)	Strategic consulting	Operational consulting	Combined assurance	Risks included in internal audit engagements	n	χ^2	p	n	χ^2	p				
CAE	Full time	105	3.398	0.065	108	0.784	0.376	102	0.954	0.329	101	0.415	0.520	102	0.133	0.716	112	5.443	0.020	103	0.210	0.647
	Independent	76	6.189	0.013	79	4.049	0.44	73	0.331	0.565	72	0.099	0.753	72	0.537	0.464	80	1.689	0.194	74	1.916	0.166
	Coordinate (in-house)	97	1.836	0.175	98	0.488	0.485	95	8.556	0.003	93	3.052	0.081	93	0.792	0.373	102	2.210	0.137	96	7.391	0.007
CAC	Coordinate (outsourced)	27	0.981	0.322	30	0.063	0.802	29	0.000	0.983	30	0.683	0.409	28	3.305	0.069	30	0.262	0.609	29	0.019	0.891
	Full time	76	1.013	0.314	77	0.117	0.732	75	0.073	0.787	75	0.208	0.648	79	0.802	0.371	81	0.001	0.975	76	0.024	0.877
	Independent	66	0.081	0.776	66	0.231	0.631	65	0.001	0.973	65	1.393	0.238	68	0.507	0.476	71	0.408	0.523	67	0.083	0.773
AO	Coordinate (in-house)	36	0.780	0.377	37	1.735	0.188	35	0.050	0.823	33	0.157	0.692	38	0.150	0.698	38	1.690	0.194	35	0.598	0.439
	Coordinate (outsourced)	22	0.658	0.417	22	1.381	0.240	21	1.364	0.243	20	0.954	0.329	23	1.255	0.263	22	1.493	0.222	21	0.848	0.357
	Full time	118	4.859	0.028	118	0.440	0.507	110	0.182	0.670	116	0.333	0.564	113	1.500	0.221	124	3.896	0.048	117	0.459	0.498
Coordinate (in-house)	Independent	94	0.249	0.618	92	0.030	0.862	85	0.417	0.518	91	0.035	0.851	88	0.062	0.803	98	0.574	0.449	92	0.819	0.365
	Coordinate (in-house)	53	2.248	0.134	53	5.083	0.024	51	13.31	0.000	51	9.306	0.004	51	6.379	0.012	52	13.153	0.000	50	11.29	0.001
	Coordinate (outsourced)	36	2.505	0.114	37	1.177	0.278	36	5.274	0.022	34	4.508	0.034	36	3.602	0.058	37	3.639	0.056	35	1.106	0.293

areas of IAF contribution, whereas for the outsourced IAF, only strategic and operational consulting would be affected.

It can thus be concluded that there was a statistically significant association between the risk management structures and the contribution of the IAF towards risk management activities in only 14 of the 84 cross-tabulations, mostly perceived by the AOs. This could be due to perceptions among senior management that in-house IAFs should contribute to providing assurance on risk management (three significant associations) and incorporate the key risks of the organisation into their daily activities (three significant associations), and that outsourced IAFs should contribute more on consulting advice (two significant associations).

Conclusion and recommendations

In this study, the contribution of internal auditing to the risk management activities of organisations, as perceived by the main stakeholders of an IAF (CAEs as heads of the IAF, CACs and AOs representing senior management) was investigated. The literature confirms that the perceptions of internal auditing's stakeholders differ from their expectations and this is a concern for the profession. Furthermore, according to legislation as well as applicable guidance from the IIA and King III regarding the South African public sector, internal auditing should play a prominent role in risk-related activities to ensure that the risks threatening an organisation are reduced to an acceptable level.

Although the literature supports that internal auditing has a role to play in risk management, studies on whether there is coordination between the two functions and/or structures, what the specific contribution should be, and the influence of the coordination on the coordination, is lacking. On the level of coordination as well as the contribution of the IAF towards risk-related activities, the CAE group indicated a significantly stronger positive view than the two management groups. This supports the concern raised in the literature that the perception of internal auditing's stakeholders differ from the view of the function. In particular it is a matter of concern that the CAC group, as the overseers of the IAF, do not have the same views as the CAE group; rating the contribution of the IAF in most activities listed as extremely poor. The poor results of one of the core IAF activities as stipulated by the IIA and supported by literature, namely, the IAFs incorporating the risks of the organisation into internal audit engagement plans, which is a result of a risk-based audit strategy, again reflects the negative perceptions of the management groups. On the positive side, as is supported by the literature, for the three assurance-related contributions (numbered 1, 2 and 7), no significant differences were found between the three groups, suggesting an agreement that internal auditing is providing the relevant assurance on risk-related activities.

The analysis of the various risk management structures and level of coordination in association with the contribution of the IAF to risk management activities showed that only 16.6 per cent of the cross-tabulation revealed a statistically significant association, mostly identified by the AO group (11.9 per cent). However, even where the groups indicated that no formal risk management structures existed or that the level of coordination between the IAF and the risk management structures was extremely poor or not applicable, the contribution of the IAF to the risk management activities was not influenced. This could be an indication that in organisations in which risk management structures do not exist or are weak, the IAF fulfils these duties to ensure that the organisation still adheres to the guidance and legislation applicable.

Given the finding that both management groups perceived the contribution of the IAF to risk management activities as rather weak, CAEs should take cognisance of this

fact and try to improve this perception. AOs and audit committees should investigate the organisation's risk management structures and the role that internal auditing plays, which could be enhanced if the proper level of coordination were to be established. CACs should encourage the IAF to improve its role in risk management activities as a sound risk management framework is vital for a risk-based internal audit approach. Regulators and other guiding bodies should consider whether more specific guidance should be provided on the coordination between the two parties. If this could be done, this coordination could also be stipulated more clearly in the legislation and other relevant documents. Lastly, the IIA should heed the perceptions of senior management on the contribution of internal auditing to the mitigation of risks threatening the organisation. The IIA is already concerned about the perceptions of stakeholders that their expectations are not being met and should thus position its members to, first, be aware of this concern, and second, determine how they could change this perception.

The limitations of the study included the fact that it was only conducted in the South African government. It might be useful to conduct further studies to include the public service in other countries as well as in the private sector. Furthermore, although most questionnaires were completed by means of a personal interview, some of the questionnaires were completed by the respondent on his or her own and then returned to the research team. However, it was confirmed with the participant that the questionnaires were in fact completed by him or her personally, and if not, these questionnaires were eliminated from the study. The study only focused on the existence of risk management structures and not on the maturity levels of these structures. The risk maturity of risk management structures should be investigated further. Lastly, it was decided not to include the chief risk officer or related person, because of the fact that most risk management structures in the South African public sector are relatively young. It is recommended that the study should be repeated within a few years to include the views of the chief risk officer or related person on the coordination between the two parties.

Glossary

AGSA	Auditor General South Africa
AS/NZ	Australian Standards Board & New Zealand Standards Board
COSO	Committee of Sponsoring Organisations of the Treadway Commission
IIA	Institute of Internal Auditors
IIARF	Institute of Internal Auditors Research Foundation
OECD	Organisation for Economic Co-operation and Development
PRIMIA	Professional Risk Managers' International Association
SAIoD	South African Institute of Directors

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Questionnaire: Chief Audit Executive (CAE)* perceptions of internal auditing **

Rate your perception of the coordination between the IAF and the following parties:

H = coordinate extensively M = moderate coordination L = limited coordination N = do not coordinate

Coordination between the IAF and:	IN-HOUSE IAF				OUTSOURCED IAF			
	H	M	L	N	H	M	L	N
AGSA/external auditors								
Risk management function								
Fraud investigators								
Compliance officers								
Health and Safety officers								
Environmental auditors								

Does your Department have a full-time risk management structure (i.e. risk management division and/or chief risk officer) that manages the coordination of all risk management activities?

YES	1	NO	2	NOT SURE	3
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Does this party (as identified in the question above) function independently from your in-house / outsourced IAF?

YES	1	NO	2	NOT SURE	3
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Have the activities of this party decreased the importance of your in-house/outsourced IAF in the management of risk?

YES	1	NO	2	NOT SURE	3
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Rate the extent of the contribution of the following parties to the risk management framework (the overall risk management strategy that includes all structures, processes, systems, methodology, individuals involved, etc. that is used to manage risks): *N/A is if the parties are not involved*

Contributions made to the risk management framework:	No contribution		Significant contribution			N/A
	1	2	3	4	5	
Audit committee						
Risk committee						
Audit and risk committee						
External auditors						
In-house IAF						
Outsourced IAF						
Minister/MEC/EXCO						
Line-Management						
Internal risk steering committee						
Designated risk management function / Chief risk officer						
Specialist risk consultant						
Operational staff						

Rate the extent of the contribution made by the IAF with regard to the following risk management activities:

N/A is if the IAF is not involved

Contribution made by the IAF to:	No contribution		Significant contribution			N/A
	1	2	3	4	5	
Assurance on risk management (RM)						
Assurance on RM process (identify, assess and manage risks)						
Strategic consulting activities (e.g. assisting or co-ordinating the development of the overall RM strategy)						
Operational consulting activities (e.g. providing training on risk related issues or assisting with the RM process)						
Actively involved in the combined assurance (assurance map)						
Incorporating significant risks in the IAF's engagement plans						
Updating the risk register with the relevant outcome of internal audit engagements						

* Similar questions to AO and CAC

** Questions on aspects such as background, fraud detection, governance, types of audit engagements were also asked.

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