

# Managing risk: What should internal audit do?

PC Viljoen

Department of Auditing  
University of Pretoria

K Barac

Department of Auditing  
University of Pretoria

## ABSTRACT

Internal auditors, having the required knowledge of risk management, organisational processes and internal controls systems, could perform a number of activities for the organisation in order to assist in managing risks. The Institute of Internal Auditors provides guidance to internal auditors indicating their related roles. Previous studies (which do not include a South African perspective) suggest that internal auditors' involvement in these roles tend to differ between countries and could change over time. Additionally, while a key role for internal auditors is to identify and evaluate risks within an organisation, little guidance is provided as to how internal auditors should achieve this. This article explores internal auditors' involvement in consulting and assurance activities within South African private sector organisations, and secondly, how internal auditors identify and evaluate risks within organisations. Data was collected by means of an online survey instrument, directed at chief audit executives. Survey results indicated that internal auditors have a large degree of involvement in providing assurance on risk functions, a moderate degree of involvement in providing consulting activities and a limited degree of involvement in risk management roles. Internal auditors utilise previous experience and various external sources of information, when identifying risks, and consider risk impact in both a qualitative and quantitative manner. Statistical analysis reveals that the internal auditors' degree of involvement in the various roles differs in the manufacturing and financial services sectors.

## Key words

Internal audit profession; internal audit roles; internal audit function; risk assurance; risk consulting; managing risk; enterprise risk management; risk identification; risk evaluation

## 1 INTRODUCTION

The business world is constantly changing, which continually exposes organisations to new risks (COSO 2009:2; Jie 2012:287; PwC 2008:3). Risk events could result from internal control failures, unexpected external events, ethical lapses, poor decision-making, and natural world catastrophes and crises (Culp, Faris & Pulp 2011:2; Edmead 2007; Gramling & Hermanson 2009:39; Mitroff & Alpaslan 2003:10). In the recent past the impact of unanticipated risk has been illustrated by the occurrence of major accounting frauds (Enron, Tyco, Parmalat and Worldcom being amongst the most dramatic singular events) (Carey, Subramaniam & Ching 2006:12; Gramling & Hermanson 2009:39; Mardjono 2005: 272), and the global financial crisis of 2007 – 2009 that resulted in bank bailouts and recession (Kumar & Singh 2013:21; Shortreed, Fraser, Purdy & Schanfield n.d.:1). Recent events in South Africa have also focused attention on risk issues: for example, the recent strikes in the mining and metal sectors (Allix 2014), and the collapse of African Bank (Smith 2014).

Risk assessment is an educated view of the possibility that an event will occur that will negatively impact the achievement of an organisation's objectives (IIA 2013a:22). To manage risk effectively and efficiently, and to achieve their objectives, organisations need to be well prepared (Boyle & Boyle 2013:5; Mitroff & Alpaslan 2003:6; Payne 2002:21). The concept of risk in general, and the specific risks threatening an organisation (e.g., information technology risks, financial risks, compliance risks, strategic risks and external risks), should be understood by management (Edmead 2007; IoD 2009:73). Addressing these issues should form part of a risk management framework designed specifically to mitigate the business' key risks (IoD 2009:73). The board and senior management, who are ultimately responsible for risk management (COSO 2004:4; COSO 2009:4-5; Fraser & Henry 2007:406; Goodwin-Stewart & Kent 2006:83; IIA 2013a:62; IoD 2009:73; Payne 2002:21; Sarens & De Beelde 2006a:238), need to develop the organisation's risk response processes and strategies

(ranging from risk avoidance, through risk mitigation, to risk transfer and ultimately risk acceptance) (COSO 2004:4; COSO 2009:2-3; Department of National Treasury 2014; Jaques 2007:151; Project Management Institute 2000:3; Shortreed *et al* n.d.:5; Spira & Page 2003:644). Collectively, these processes are often described as the organisation's enterprise risk management (ERM) process, which is defined as a process utilised throughout the organisation, applied during strategy setting, and influenced by various stakeholders (i.e., the board of directors, management, and other personnel) (COSO 2004:4; COSO 2009:4). ERM is designed to provide reasonable assurance regarding the achievement of an entity's objectives by identifying potential events that may impact the organisation, and from this to manage risk so that it falls within the risk appetite of the organisation (COSO 2004:4; COSO 2009:4).

The literature supports the notion that internal auditors' knowledge about risk management techniques, organisational processes, and internal control systems enables them to play an important role within these spheres of an organisation (Carey *et al* 2006:22; Coetzee & Lubbe 2011:31; Sarens & De Beelde 2006:66; Fraser & Henry 2007:393; Wagner 2002:3). This is in line with the Institute of Internal Auditors' (IIA) definition of the internal auditing function as "...a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes" (Gramling & Hermanson 2009:39; IIA 2012). Against this background, the question remains - what is the internal auditor's role in managing risk within an organisation?

Over the past decade, many attempts have been made to answer this question. A position paper issued by the IIA identified the various ERM roles that internal audit *should* perform, and equally, those it should not perform. In addition, the IIA identified those ERM roles internal audit *could* perform, subject to certain safeguards having been put in place (IIA 2004; IIA 2009a). In a study performed by the IIA in 2010, and a similar one conducted by PricewaterhouseCoopers (PwC) in 2011, the vast majority of chief audit executives (CAEs) interviewed (80% of respondents in the case of the former and 79% in the case of the latter), agreed that internal audit activities relating to ERM were going to increase, and it was anticipated that risk management would soon become one of the cornerstones of the internal audit function (IAF) (Boyle & Boyle 2013:3; PwC 2011). Previous studies supported this forecast; however, they also identified some differences in the roles internal auditors were likely to be performing regarding ERM (De Zwaan, Steward & Subramaniam 2011; Gramling & Myers 2006; Sobel 2011). These studies established that between countries there were differences in the ERM roles internal auditors were performing, and that roles were changing rapidly (De Zwaan *et al.* 2011; Gramling & Myers 2006; Sobel 2011:11). In addition, the role of internal auditors in relation to risk assurance and consulting within South African organisations was, and remains, unexplored. This leads to the first objective of this study, which is to determine the nature and extent of the risk

assurance and consulting roles internal auditors perform within South African organisations.

The second objective of this study is to determine how internal auditors identify and evaluate risks, the tasks which have been identified as key internal audit responsibilities (IIA 2012:11). Recent studies, including the 2010 IIA GAIN Flash survey (66% positive response) and a 2013 PwC Survey (positive responses from 85% of senior management, 90% of board members, and 96% of CAEs), indicated that internal auditors should identify and evaluate key risks (PwC 2014:8; Sobel 2011:11). Although earlier studies indicated that the identification and evaluation of risks are key responsibilities for internal auditors, they nevertheless provide little guidance on how internal auditors should go about fulfilling these responsibilities. Attempting to identify the "how" addresses the second objective of this study.

The remainder of this study is organised as follows. In the next section a literature review positions the study within in the existing body of knowledge. Subsequent sections describe the research method and the results of the study, and in the final section conclusions are reached and suggestions are made for future research.

## 2 LITERATURE REVIEW

Internal auditors are academically and professionally equipped to perform various functions relating to risk (Gramling & Myers 2006:52; IIA 2009a:6; Sobel 2011:11-13). However, before fulfilling these functions, issues of good corporate governance require that safeguards are put in place to maintain the objectivity and independence of the IAF (Gramling & Myers 2006:52; IIA 2009a:6; Sobel 2011:11-13). Internal auditors are ideally positioned to assist management in managing risk efficiently and effectively (Carey *et al* 2006:22; Coetzee & Lubbe 2011:30; Sarens & De Beelde 2006a:220). However, their role is practically defined by the audit committee and senior/executive management (Payne 2002:21; Sobel 2011:8; Tusek & Pokrovac 2010:2-3), so until the support and co-operation of the board and senior/executive management is obtained, they cannot optimally fulfil their obligations (Payne 2002:21; Schneider, Sheikh & Simione 2011:29).

The IAF's role is influenced by factors that include the competencies of its individual internal auditors (especially their communication skills) (Boyle & Boyle 2013:7; Fraser & Henry 2007:396), a supportive (or otherwise) organisational culture, and management's awareness of how internal audit could provide consulting and/or assurance services (Sobel 2011:8; Tusek & Pokrovac 2010:2-3). In addition, internal auditors are expected to demonstrate a deep understanding of the business and to employ risk analysis and control assessment techniques, together with soft (interpersonal) skills (Boyle & Boyle 2013:7; Fraser & Henry 2007:396). The IIA states that internal auditors should perform their responsibilities with proficiency and due professional care (IIA 2012:6), which is achievable with appropriate training and experience in risk management (Edmead 2007), an

understanding of the risks threatening the success of the organisation, and an overall understanding of how the organisation operates (Coetzee & Lubbe 2011: 30).

Against this background, the literature supports the contention that internal auditors could perform a variety of functions relating to risk, and identifies two main areas: providing assurance and consulting on risk management (the latter including the identification and evaluation of risks). An overview of the literature is presented next.

## 2.1 Internal audit's assurance and consulting roles in risk management

Internal auditors could play a valuable role in providing ongoing assurance and consulting activities on ERM (Hall 2007:11; KPMG 2008). This is due to their knowledge of an organisation's risk universe, their knowledge of risk-based assessments, and their relationship with executive management; in addition they have an ability to analyse large amounts of information and to deliver clear and concise findings (Hall 2007:11; KPMG 2008). However, internal auditors, management, and boards struggle to find an appropriate balance between internal audit's two roles: consulting and assurance (De Zwaan *et al* 2011:600). The IIA has therefore provided guidance by dividing internal audit's roles in ERM into three sections: internal audit's **core** roles, **legitimate** internal audit roles, and roles internal audit should **not** undertake (2009a:4; 2004:1-2).

These roles have been evaluated through various surveys (De Zwaan *et al* 2011; Gramling & Myers 2006; Sobel 2011:10), with the general consensus being that internal auditors' risk assurance and consulting roles continue to vary across socio-economic regimes and over time, which is appropriate, given the evolutionary nature of regulatory and statutory frameworks.

### 2.1.1 Internal audit's core roles

Internal audit's core roles relate to its assurance activities, and include providing assurance on risk management processes, determining whether risks are correctly evaluated, evaluating risk management processes, evaluating the reporting of key risks, and reviewing the management of key risks (IIA 2009a:4; IIA 2004:1-2; Sobel & Reding 2004:33).

Surveys performed in 2005 (Gramling & Myers 2006) and 2007 (De Zwaan *et al* 2011) indicate that internal auditors accepted "moderate" assurance responsibilities for risk management processes and for whether risks were correctly evaluated. In addition, these surveys indicate that these responsibilities increased in the period 2005 to 2007 (Gramling & Myers 2006; De Zwaan *et al* 2011). This increase could show a growing awareness at the level of management and boards of directors of the internal auditor's role in risk management (De Zwaan *et al* 2011:599). These surveys (De Zwaan *et al* 2011; Gramling & Myers 2006) further indicate that internal auditors have accepted as theirs, the responsibility for evaluating

the reporting of key risks and reviewing the management of key risks (De Zwaan *et al* 2011; Gramling & Myers 2006).

The 2009 survey conducted by Sobel (2011:10) provides some contrasting views. Sobel's results indicate that most responding internal auditors were not providing assurance on risk management processes and, although internal auditors were aware of their assurance responsibilities in relation to risk management, they had not fully embraced them (Sobel 2011:10). Chambers (2014:213) supports the notion that internal auditors could perform more assurance work on behalf of the board. In addition, Sobel (2011:10) believes that CAEs should be more proactive in obtaining and developing the right skills within the IAF in order to fulfil these responsibilities more effectively and efficiently.

### 2.1.2 Internal audit's legitimate roles

Internal audit's legitimate roles are additional roles that relate to consulting activities which could be performed by internal auditors, provided that the necessary safeguards to their independence are in place (IIA 2009a:4; IIA 2004:1-2). Such activities frequently include facilitating the identification and evaluation of risks, participating in the identification of emerging risks, coaching management on risk response, providing consulting reports to facilitate or improve the implementation of the risk management processes, and compiling consolidated reports on risks (IIA 2009a:4; IIA 2004:1-2).

Results of the 2005 survey (Gramling & Myers 2006) and the 2007 survey (De Zwaan *et al* 2011) indicate that internal auditors' participation in these legitimate roles was declining, and that internal auditors only accepted "limited" to just more than "moderate" responsibility (on the survey instruments' response scales) for their output in this regard. These findings were supported by a 2009 survey (Sobel 2011) that indicated the potential for internal auditors to extend their consulting roles in relation to risk management in both number and depth of analyses provided (Sobel 2011:11). This could contribute towards the improvement of an organisation's governance, risk management and control processes (IIA 2009a:4-5). An IAF's involvement in such consulting roles may vary over time, and depends on its resources and the risk maturity of the organisation (IIA 2009a:5). Ultimately, the appropriate balance between the independence of the IAF and the extent to which it provides consulting services to the organisation must be decided by the entity's board and audit committee (Payne 2002:21).

### 2.1.3 Roles internal auditors should not perform

The roles identified under this heading relate to management functions, the performance of which would impair the internal auditor's objectivity (IIA 2009a:4; IIA 2004:2). They include setting the risk appetite for the organisation, taking decisions on risk responses, implementing risk responses on management's behalf, accepting accountability for risk management processes, and participating in the setting of organisational policies for risk management

processes (De Zwaan *et al* 2011; Gramling & Myers 2006; IIA 2009a:4; IIA 2004:2; Sobel 2011:11; Sobel & Reding 2004:33). The results of the 2005, 2007 and 2009 surveys discussed above support the notion that internal auditors should not take part in these activities, as was evidenced in the small number of respondents who indicated acceptance of these responsibilities (De Zwaan *et al* 2011; Gramling & Myers 2006; Sobel 2011:11). Despite the small number of IAFs that acknowledged taking part in these activities or providing these services, it is still concerning that some IAFs are prepared to compromise their objectivity by performing these management functions (De Zwaan *et al* 2011:599).

## 2.2 Internal audit's role in risk identification and evaluation

The literature supports the view that, based on their training and experience, internal auditors could assist the organisation in identifying various risks (current and emerging), as well as in defining their potential effects (Chambers 2011; Gramling & Hermanson 2009:41; O'Reilly-Allen & Mawn 2011:31; PwC 2008:9; Sobel 2011:10). Internal auditors could assist the board and senior management in identifying the various risks faced by the organisation through a review of its own prior incidents, and by preparing an analysis of the threats facing the business environment which could impact the organisation itself or its operating environment (Carey *et al* 2006:12; O'Reilly-Allen & Mawn 2011:32; PwC 2008:9).

Chambers (2011) believes that having an attentive IAF, which follows a proactive approach to identifying and proposing responses to risks, could assist organisations to work through tough periods, thus ensuring the achievement of organisations' objectives. To achieve this level of functional excellence, internal auditors should identify the risks within each activity or process under review, by considering the risk assessments performed as part of the risk management process, or by performing their own risk assessments which should include the identification and evaluation of risks (IIA 2013a:74). Additionally, internal auditors could identify risks by reviewing internal and external processes, the reports of the entity's internal and external assurance providers, and other pertinent information (Fraser & Henry 2007:393; IIA 2013a:37; Payne 2002:21). In doing so the IAF acts in conformance with Standards 2200, 2201 and 2210.A1, which require that, when planning an internal audit engagement, the internal auditor should consider the risks that could impact not only the process being audited, but the organisation as a whole (IIA 2012:13). The IAF should focus on the significant risks, those risks with the highest likelihood of occurring, and on those likely to have the highest impact on the activity under review; however, this should not be done at the expense of providing coverage of other, more mundane, risks as well (Deloitte 2012:2; Edmead 2007; IIA 2012:13).

In addition to identifying the risks faced by the organisation, internal auditors should re-evaluate already identified risks (operational, strategic, compliance, financial, and sustainability risks) (IoD 2009:94-94). This should be done by assessing the

impact and likelihood of these identified risks, and by considering the mitigating steps (risk response strategies) taken by the organisation to manage such risks (Chambers 2011; Edmead 2007; Gramling & Hermanson 2009:41; O'Reilly-Allen & Mawn 2011:31). In addition, internal auditors are expected to evaluate existing risk response strategies to determine the effectiveness thereof, and to report on such weaknesses they might find within these processes (IIA 2009a:10-12; Martin 2013:26; Sarens & De Beelde. 2006:66; Shortreed *et al* n.d.:5; Tusek & Pokrovac 2010:2-3).

Internal auditors achieve the objectives detailed above by focussing their internal audit plans on risks (specifically the most significant risks) (IIA 2013a:69), while also providing coverage of lower level risks by prioritising those risks which have not yet been subject to an internal audit (IIA 2013a:41). Internal auditors, through testing, provide assurance that internal controls are adequate and effective, and that plans are detailed yet flexible enough to accommodate various risks which may impact on the organisation (Chambers 2011; Edmead 2007; Gramling & Hermanson 2009:41; O'Reilly-Allen & Mawn 2011:31). Internal auditors should consider both the risk's quantitative impact (e.g. financial impact) and its qualitative impact (e.g. reputational damage), and the likelihood of the risk event occurring throughout the organisation (Edmead 2007; PwC 2008:7). This conforms with the requirements of Practice Advisory 2200-2, which emphasises that internal audit should identify the key controls mitigating significant risks that could impact the organisation as a whole, and not only focus on the impact of the risks specific to the activity under review (IIA 2013a:71).

Practice advisory 2010-2 (IIA 2013a:39) does however acknowledge that internal auditors may not be qualified to assess every risk within an organization. In these instances the CAE should ensure that those internal auditors with the required expertise are utilised or, if such are not available within the organisation, then external service providers should be used (IIA 2013a:39; IIA 2013b:5; IIA 2009b:3).

In order to evaluate this, and the different roles internal audit performs in managing risk, an online survey was conducted and will be discussed in detail within the next section.

## 3 RESEARCH METHOD

In an attempt to determine the nature and extent of South African internal auditors' risk assurance and consulting roles in managing risk, and in order to determine how internal auditors go about identifying and evaluating these risks, a quantitative research approach was adopted. An online survey was used to provide a quantitative description of opinions of the population (CAEs in the South African private sector) by studying a sample of that population (Creswell 2014:13). Empirical data was obtained through a self-administered questionnaire (Sekeran & Bougie 2013: 102).

Based on previous research instruments described in the literature, a questionnaire was designed for online use. The online survey tool Survey Monkey [www.surveymonkey.com] was used in this endeavour. The survey was pilot tested by the CAE of a listed private sector organisation. CAEs were specifically targeted because they are ideally positioned within organisations to comment on both the risk assurance and consulting roles fulfilled by their IAFs, and the risk identification and evaluation processes followed within their IAFs (Burnaby 2012:27; Van Staden & Steyn 2009:919). Judgemental or purposive sampling was used; thus the sample is not statistically representative of the research universe, and the results therefore cannot be deemed generally applicable (Briggs & Coleman 2007:135; Teddlie & Yu, 2007:77). The survey was sent out in two phases. Firstly, 27 CAEs were individually invited to participate in the study via emails sent out between the 16<sup>th</sup> of February 2015 and the 12<sup>th</sup> of March 2015. The CAEs' personalised emails included an explanation of the purpose of the study. The letter confirming the study's ethical clearance was sent as an attachment to the email. In order to augment the response, a second series of emails was sent to the Institute of Internal Auditors South Africa's (IIASA's) database of members. The IIASA sent this bulk email invitation on the 12<sup>th</sup> of March 2015 to all members, requesting CAEs within the private sector to respond by 30<sup>th</sup> of March 2015. The bulk email also included an explanation of the purpose of the study, a link to the online survey and the ethical clearance letter.

The survey was designed to obtain the views of CAEs, Acting CAEs, and heads of internal audit departments within private sector organisations within South Africa. The study was limited to the private sector because prior research, conducted by Coetzee and Lubbe (2011:54), indicated that private sector organisations in South Africa have reached higher levels of risk maturity than those in the public sector. The online survey approach was designed to provide respondents with anonymity, as this generally results in more accurate and honest responses to the questions (Meretsky 2013:66). Finally, the covering email addressed several ethical issues (Sekeran & Bougie 2013:162). Respondents were assured that their information would remain confidential, that ethical clearance for the research had been obtained from the University of Pretoria, and that respondents were under no obligation to participate in the study.

The survey consisted of 21 questions. Questions 1 to 3 requested the respondent to provide personal profile information, while the remaining questions related to the objectives of the study. A five point Likert scale was used and respondents selected an appropriate point on that scale to reflect their response to the questions.

A total of 40 responses were received from CAEs within the South African private sector. The IIASA's database only has 640 private sector CAEs registered as members in South Africa (Brazao 2015). The resulting response rate is therefore 6.25%, which is in line with the low response rate generally associated with web surveys (Fan & Yan 2010:132). The relatively low response rate and the judgemental and

purposive sampling are limitations which need to be considered when evaluating the results of the study. The survey responses were obtained from CAEs across various industries. A breakdown of responses by industry shows that the majority of respondents were from financial services organisations (27.5%), manufacturing (15%), consulting (10%), retail (7.5%) and mining (7.5%). In addition, the majority of responses were received from CAEs employed by companies listed either on the Johannesburg Stock Exchange (62.5%), and/or other securities exchanges (7.5%). Only 32.5% of respondents indicated that their organisations were not listed. Additionally, the majority of responses were obtained from experienced CAEs, with 32.5% indicating that they had more than 10 years' experience, 22.5% between seven and nine years' experience, 17.5% between three and six years' experience, and only 27.5% reporting that they had less than three years' experience as CAE.

## 4 RESULTS

The results are presented and discussed according to the themes identified in the literature that informed the objectives of the study. These discussions are based on a statistical analysis of the data. Descriptive statistics are provided for all themes where significant inferential statistics are provided.

### 4.1 Internal audit assurance and consulting roles in risk management

#### 4.1.1 Influencing factors

Respondents were requested to indicate their level of agreement with three statements about the knowledge needed by internal auditors in order to play a significant role in risk management within an organisation. Responding CAEs strongly agreed (where the mean <1.5 = no agreement, 1.5 to 2.49 = little agreement, 2.5 to 3.49 = moderate agreement, 3.5 to 4.5 = agreement, and >4.5 = strong agreement), that internal auditors' knowledge about organisational processes (mean = 4.85) and internal control systems (mean = 4.88) enabled them to play a significant role in managing risk within an organisation. They did however indicate a lower level of agreement with the statement that internal auditors' knowledge about risk management techniques (mean = 4.45) enables them to play a significant role in managing risk within an organisation. Responding CAEs also agreed that internal audit's role in managing risk is largely defined by the audit committee (mean = 4.20), while a lower level of agreement was evident for senior and executive management (mean = 3.73). This could be because CAEs believe that too much involvement (interference) from management on the internal auditors' role in managing risk within an organisation could affect the IAF's objectivity.

In order to determine internal audit's perceived competence to provide assurance and fulfil consulting roles in risk management, CAEs were requested to indicate their level of agreement on four statements regarding the competence and experience of their internal auditors. Responding CAEs indicated that for risk related consulting, their IAFs were both

competent (mean = 3.9) and sufficiently experienced (mean = 3.8). For assurance the mean for competence was 4.08 and the mean for experience was 4.0. Additionally, inferential statistics were used to determine the statistical significance and strength of the relationship within the group of CAEs that believed their IAFs were competent to provide both risk assurance and consulting services. Spearman's Rho rank-order correlation coefficients were used as the variables, as these are ordinal scaled, to evaluate the strength and statistical significance of the relationship (Myers & Well 2003:508). The relationship between CAEs indicating that their IAFs are competent to provide risk related assurance activities and to provide risk related consulting services was positive, of moderate strength, and statistically significant at the 1% level of significance ( $p=0.000$ ,  $p>0.01$ ).

Respondents were requested to indicate on a five point Likert scale the extent of the influence which

each of eight factors that could influence the IAF's involvement in risk related consulting and in assurance activities had on these activities. Responding CAEs agreed that an internal auditor's knowledge about the business had the most influence on both their ability to provide assurance and to perform consulting activities. This was followed by internal auditors' communication skills. It was also evident that internal auditors' knowledge about the business, their workplace/on-the-job training, and management's awareness of how they could add value, have a greater influence on the internal auditors' role in providing assurance services than it does on their role in providing risk related consulting services. By contrast, internal auditors' communication skills and their years of experience in risk related activities have greater influence on their involvement in risk related consulting activities than on their provision of assurance activities.

**Figure 1: Factors influencing the IAF's involvement in risk related consulting and assurance activities**



( $<1.5$  = no influence,  $1.5$  to  $2.49$  = little influence,  $2.5$  to  $3.49$  = moderate influence,  $3.5$  to  $4.5$  = large influence,  $>4.5$  = very large influence)

Considering Figure 1 in the context of the responding CAEs agreement that their IAFs understand how the organisation operates (mean = 4.20) and their IAFs understand the risks threatening the organisation (mean = 4.30), it could be argued that IAFs in general are well positioned to provide consulting and assurance activities to assist the organisation in managing risk.

Due to the small sample size and ordinal scaled data, the Mann-Whitney nonparametric test was used to test whether financial services organisations differ from manufacturing organisations with regard to how the various factors in Figure 1 influence internal auditors' involvement in performing risk related consulting and assurance activities (Aaker, Kumar & Day 2007:445). The results of this test indicated that statistically significant differences exist at both the 5% and 10% levels of significance between the two types of organisations. At a 5% level of significance the results indicated that internal auditors' academic qualifications ( $p=0.023$ ,  $p<0.05$ ) had a greater influence on their involvement in risk assurance activities within financial services organisations (mean rank is 10.91) than within manufacturing organisations

(mean rank is 5.50). Additionally, at a 10% level of significance, responding CAEs indicated that management's awareness of how internal audit could add value ( $p=0.06$ ,  $p<0.1$ ) and internal auditors' workplace/on-the-job training ( $p=0.79$ ,  $p<0.1$ ) had a greater influence on internal audit's degree of involvement in risk assurance activities within financial service organisations (mean ranks amounted to 10.55 and 10.45 respectively) than within manufacturing organisations (mean ranks amounted to 6.17 and 6.33 respectively).

Using the Mann Whitney nonparametric test at a 10% level of significance, results indicated that internal auditors' communications skills ( $p=0.62$ ,  $p<0.1$ ) influenced their role in providing risk-related consulting activities to a greater extent within manufacturing organisations (mean rank is 11.92) than within financial services organisations (mean rank is 7.41).

It could therefore be concluded that the IAF's involvement in providing risk assurance and consulting activities is dependent on the industry within which an organisation operates, and is affected

by internal auditors' academic qualifications, management's awareness of how internal audit could add value, the extent of their on-the-job training, and their communication skills.

#### 4.1.2 Internal audit risk management core roles

The literature supports the notion that the IAF's core risk management roles relate mostly to risk assurance activities (De Zwaan *et al* 2011; Gramling & Myers 2006; IIA 2009a:4; IIA 2004:1-2; Sobel 2011:10). Respondents were requested to indicate their IAFs' level of involvement in fulfilling core risk management roles. Respondents indicated that on average their internal auditors currently have a large degree of involvement in providing assurance on risk management processes (mean = 3.63); providing assurance that risks are adequately evaluated (mean = 3.50); evaluating risk management processes (mean = 3.53); evaluating the reporting on key risks (mean = 3.50), and on reviewing the management of key risks (mean = 3.78) (where the mean <1.5 = no involvement, 1.5 to 2.49 = little involvement, 2.5 to 3.49 = moderate involvement, 3.5 to 4.5 = large involvement, and >4.5 = very large involvement). These levels are higher than those indicated in previous research, in which only a moderate involvement by IAFs in performing these activities was recorded (De Zwaan *et al* 2011; Gramling & Myers 2006). The difference in findings could be explained by considering that these are core roles for IAFs, and the fact that CAE respondents agreed that internal auditors do have the required skills (experience, competence and knowledge of the business) to provide assurance on risk related activities (refer to section 4.1.1). Future research could however investigate the possibility of increasing internal audit involvement, to enable them to maximise the level of assurance they provide to their employer organisations.

The Mann-Whitney nonparametric test indicated that statistically significant differences exist at a 5% level of significance between internal auditors within financial services organisations (mean rank is 10.73) (who are more involved in providing assurance that risks are adequately evaluated ( $p=0.044$ ,  $p<0.05$ )), than within manufacturing organisations (mean rank is 5.83).

#### 4.1.3 Legitimacy of Internal audit's risk management roles

The literature supports the notion that the IAF's legitimate roles relate to risk consulting activities, noting that these should only be performed when adequate safeguards have been put in place to maintain internal auditors' objectivity (De Zwaan *et al* 2011; Gramling & Myers 2006; IIA 2009a:4; IIA 2004:1-2; Sobel 2011:10). Respondents were requested to indicate, on a five point Likert scale (as explained in 4.1.2), their IAF's level of involvement in the IAF's legitimate roles. Survey results, as expected, indicated that internal auditors currently have a moderate degree of involvement in providing consulting related activities. These are broken down as follows: facilitating the identification (mean = 3.33) and evaluation (mean = 3.48) of risks; coaching

management in responding to risks (mean = 3.15); coordinating ERM activities (mean = 2.88); consolidating the reporting on risks (mean = 3.18); championing the establishment of ERM (mean = 3.03), and developing a risk management strategy for board approval (mean = 2.93).

The Mann-Whitney nonparametric test indicated that statistically significant differences exist at a 10% level of significance ( $p=0.096$ ,  $p<0.1$ ) between the involvement of internal auditors within financial services organisations (mean rank is 10.45) in facilitating the identification of risks than that of their counterparts within manufacturing organisations (mean rank is 6.33). This could indicate that IAFs in organisations within specific sectors could be ill-equipped to facilitate the identification of risks as a consulting activity. For the financial services sector, an industry which uses internal audit as part of their commitment to risk management (Goodwin-Stewart & Kent 2006:83, 91), a high degree of involvement was indicated by responding CAEs, as expected.

#### 4.1.4 Risk management roles internal auditors should not perform

This study's survey results support previous research in that its respondents indicate that internal auditors should not take part in the activities discussed below (De Zwaan *et al* 2011; Gramling & Myers 2006; IIA 2009a:4; IIA 2004:1-2; Sobel 2011:10). Responding CAEs indicate that their IAFs have little involvement in setting the risk appetite for the organisation (mean = 1.98); implementing risk management processes (mean = 2.33); taking decisions on appropriate responses to risks (mean = 1.90); implementing risk responses on management's behalf (mean = 1.70), and assuming accountability for risk management (mean = 1.53). As these represent management functions, and the IAF's participation could affect the function's objectivity, such low levels of involvement are understandable. It remains a concern however, that some CAE respondents indicated a "moderate" to "very large" involvement by their IAFs in these activities. The management activity performed most often by these IAFs was implementing risk management processes (22.5% indicated moderate involvement, 17% large involvement, and 5% very large involvement). This could be due to organisations not yet having separate risk management functions, or organisations not having sufficient experience and/or resources to separate the management of the risk function from the IAF. While this is in itself a risk, it is probably preferable to have internal auditors perform these activities than to see these activities not being performed at all.

## 4.2 Internal audit's role in risk identification and evaluation

In order to address the second objective of the study, respondents were questioned on how internal auditors identify and evaluate risks.

### 4.2.1 Identification of risks

Responding CAEs agreed that internal auditors require relevant experience in order to assist the

organisation with risk identification (both current (mean = 4.4) and emerging risks (mean = 4.25)). They also agreed that internal auditors are both competent and appropriately experienced to identify risks (means = 4.08 and 4.13 respectively), and to evaluate risks (means = 4.03 and 4.03 respectively). CAE respondents did however agree that internal auditors are more competent to identify current risks (mean = 4.23) than emerging risks (mean = 3.78). The Spearman's Rho rank-order correlation coefficient was used to determine the statistical significance of and the strength of the relationship between (1) CAEs indicating that internal auditors are competent to identify current risk, and (2) internal auditors requiring relevant experience in order to identify current risks. Results indicated that the relationship between responding CAEs indicating that internal auditors are competent to identify current risks, and internal auditors requiring relevant experience in order to identify current risks, was positive and of moderate strength. This relationship was statistically significant at the 1% level of significance ( $p=0.009$ ,  $p<0.01$ ). It could therefore be concluded that internal auditors' experience in risk identification has a direct influence on them being regarded as competent to identify current risks.

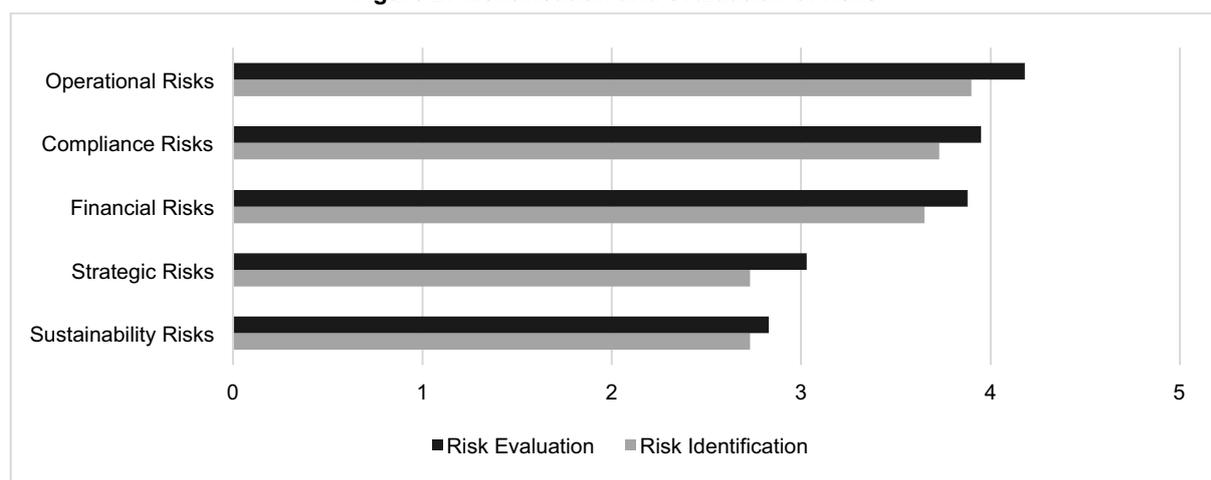
The Spearman's Rho rank-order correlation coefficient was used to indicate the relationship between the level of agreement with the assertions (1) that internal auditors' role in risk related activities is largely defined by the audit committee, and (2) that internal auditors require relevant experience in order to identify current ( $p=0.120$ ,  $p<0.05$ ) and emerging ( $p=0.649$ ,  $p<0.05$ ) risks. The correlation was found to be positive but weak, and not statistically significant at a 5% level of significance. However, the relationship between the level of agreement with the assertions

(1) that internal auditors' role is largely defined by the senior/executive management, and (2) that internal auditors require relevant experience in order to identify current ( $p=0.007$ ,  $p<0.01$ ) and emerging ( $p=0.004$ ,  $p<0.01$ ) risks, was positive and of moderate strength, and statistically significant at the 1% level of significance. It can therefore be concluded that the more management is involved in defining internal auditors' role in risk management, the more experience internal auditors are required to have. It could alternatively indicate that the more management is involved in defining internal auditors' role in managing risks, the more internal auditors are involved in risk identification, and therefore are seen to have the relevant expertise to identify current and emerging risks.

The Spearman's Rho rank-order correlation coefficient indicated that the relationship between CAEs indicating that their IAFs are competent to identify risks and to evaluate risks was positive, of moderate strength, and statistically significant at the 1% level of significance ( $p=0.000$ ,  $p<0.01$ ). CAEs' responses therefore indicate that there is a direct relationship between internal auditors being seen as competent to identify risks, and being seen as competent to evaluate risks. However, from the results reflected in Figure 2, it is clear that internal auditors contribute more to the evaluation of risks than to the identification of the different types of risks.

Responding CAEs indicated that internal auditors, when identifying and evaluating risks, focus more on operations, compliance, and financial risk than on strategic or sustainability risks (refer to Figure 2). This suggests that internal auditors may still not be focussing on the core (strategic and sustainability) risks faced by organisations.

Figure 2: Identification and evaluation of risks



(<1.5 = no contribution, 1.5 to 2.49 = little contribution, 2.5 to 3.49 = moderate contribution, 3.5 to 4.5 = large contribution, >4.5 = highly significant contribution)

4.2.2 Sources of information for risk identification

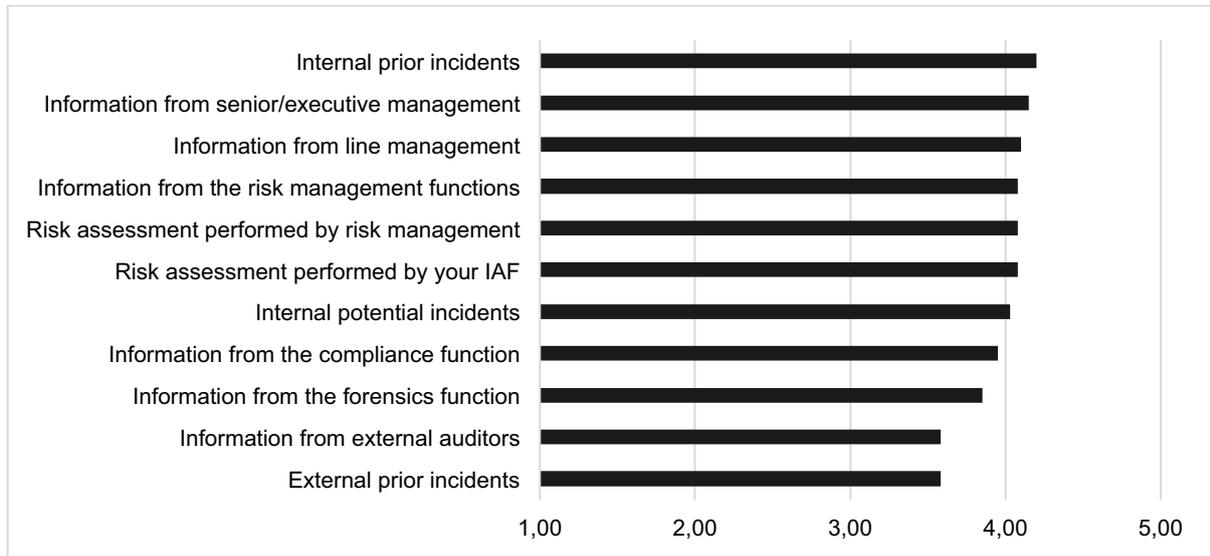
The survey results collected for this study support previous literature indicating that a diversity of sources of information should be considered by internal auditors when identifying risks (O'Reilly-Allen & Mawn 2011:32; PwC 2008:9). CAE respondents

were requested to rate the importance of various sources of information used by their IAFs to identify risks (refer to Figure 3 below). From these results it was clear that it is very important for internal auditors to consider all sources of information in order to identify potential risks. The most important sources of

information are prior incidents that have occurred within the organisation and information from senior and executive management. These are followed closely by information from line management and risk

management functions, as well as information obtained through risk assessments performed by the risk management function and the IAF.

**Figure 3: Sources of information to assist the IAFs to identify risks**



(<1.5 = No importance, 1.5 to 2.49 = little importance, 2.5 to 3.49 = moderate importance, 3.5 to 4.5 = very important, >4.5 = extremely important)

The Mann-Whitney nonparametric test indicated that statistically significant differences exist, at a 5% level of significance, between financial services and manufacturing organisations. It indicated that internal auditors within manufacturing organisations tend to consider prior incidents which have occurred within the organisation ( $p=0.016$ ,  $p<0.05$ ) and information from line management ( $p=0.05$ ,  $p<0.1$ ) more important in identifying possible risks (mean rank amounted to 12.5 and 11.75 respectively) than do internal auditors within financial services organisations (mean rank amounted to 7.09 and 7.50 respectively). This could indicate that for some sectors risk is predominantly operational, which means that internal auditors would tend to rely more on information that is readily available within the organisation.

When respondents were requested to indicate which risks/processes they would include in the IAF's audit plans, it was clear that the plan should be intensely focused on potentially significant risk processes which could impact the achievement of organisational objectives (mean = 4.18), followed by past significant risk events (mean = 3.65), and risk processes/areas not audited before (mean = 3.55). There was little support for or focus on the lower risk processes/areas (mean = 2.35).

#### 4.2.3 Evaluation of risks

When evaluating risks, responding CAEs agreed that risk impact should be considered in both a qualitative (mean = 4.20) and quantitative (mean = 4.23) manner. The Mann-Whitney nonparametric test indicated that a statistically significant difference exists, at the 5% level of significance, between responses from financial services organisations and manufacturing organisations, with regard to their

levels of agreement with statements viewing risk impact in a qualitative manner. There was a statistically significant difference, at the 10% level of significance, between financial services and manufacturing organisations, with regard to their levels of agreement with statements viewing risk impact in a quantitative manner. Financial services internal auditors are more likely to consider risk impact in a qualitative manner (mean rank is 10.64), than are internal auditors in manufacturing organisations (mean rank is 6) ( $p=0.47$ ,  $p<0.05$ ), whereas internal auditors in manufacturing organisations are more likely to consider risk impact in a quantitative manner (mean rank is 11.67) than are internal auditors in a financial services organisations (mean rank is 7.55) ( $p=0.69$ ,  $p<0.1$ ).

Where IAFs do not have the required level of knowledge or experience to evaluate specific risk areas, CAEs agreed that they would mostly outsource those areas to external service providers (mean = 4.00). Surprisingly, a few respondents indicated that, in some instances, they would simply not evaluate those areas at all (mean = 2.88), or they would attempt to perform those services with the expertise available within the function (mean = 2.73). Internal auditors may attempt to perform these services in order to provide some form of assurance to the organisation, which is better than no assurance being provided at all. However, it could result in internal auditors providing false assurance to the organisation due to them not having the expertise to evaluate those activities effectively.

## 5 CONCLUSION

The literature review indicates that organisations are continually exposed to new risks and that in order to

manage these risks effectively and efficiently, and to achieve their objectives, the board and management need to be well prepared (Boyle & Boyle 2013:5; Mitroff & Alpaslan 2003:6; Payne 2002:21) and develop risk response strategies and processes (risk avoidance, risk mitigation, risk transfer or risk acceptance) (COSO 2009:2-3; Department of National Treasury 2014; Jaques 2007:151). Internal auditors' knowledge of risk management techniques, organisational processes, and internal control systems enables them to play an important role within this sphere of an organisation. The literature provides formal guidance outlining internal auditors' core role (which relates to assurance activities), and other legitimate roles (which relate to consulting activities) that internal auditors could perform, provided the necessary safeguards are in place. In addition these authors indicate specific roles that internal auditors should not undertake. Although previous research has identified internal auditors' risk management roles (De Zwaan *et al* 2011; Gramling & Myers 2006; IIA 2009a:4; IIA 2004:1-2; Sobel 2011:10), these studies have not considered a South African perspective, a gap which the current study attempts to fill. This study therefore has attempted to determine the nature and extent of internal auditors' risk assurance and consulting roles within South African organisations, as well as how internal auditors identify and evaluate risks within organisations.

Based on the literature describing previous research, a questionnaire was designed for online completion. A total of 40 responses were received. A statistical analysis was performed to establish the strength and statistical significance of the different survey questions, and their relationships. Survey results indicate that internal auditors are both competent and appropriately experienced to provide assurance and fulfil consulting roles in risk management. Their knowledge of organisational processes, internal control systems and risk management techniques enables them to play a significant role in managing risk within an organisation. However, this role is largely defined by the audit committee and management.

Although various factors were identified that influence internal auditors' ability to provide both assurance and consulting activities (some of which have more prominence in the financial services sector than in the manufacturing sector), CAE respondents agreed that it is internal auditors' knowledge of the business that is the most influential. CAE respondents also agreed that their IAFs are both competent and experienced, understand how the organisation operates, and appreciate the risks threatening the organisation, and that they are therefore ideally positioned to provide consulting and assurance services to the organisation.

The results of the survey largely confirm previous research relating to internal auditors' performance of their legitimate roles, and attitudes to the roles they should not perform (De Zwaan *et al* 2011; Gramling & Myers 2006). Respondents recorded a low level of agreement with statements regarding performance of so-called management roles relating to risk management, with the management activity performed

most frequently by IAFs being the implementation of risk management processes.

Responding CAEs agreed with assertions that internal auditors require relevant experience in order to assist the management of the organisation with risk identification (of both current and emerging risks), and that internal auditors have both the competence and the experience to identify and evaluate risks. However, respondents saw their IAFs as more competent to identify current risks than emerging risks. When identifying and evaluating risks, responding CAEs indicated that internal auditors tend to focus more on operational, compliance and financial risks than on strategic and sustainability risks, and that internal auditors contribute more to the evaluation of risks than they do to the identification of the different types of risks. In response to the various methods used in identifying potential risks, CAE respondents agreed that the most important method for identifying potential risks was to consider prior incidents of realised risk within the organisation. This requires that internal audit plans should be strongly focused on processes with significant risk potential that could impact the achievement of objectives. The second-most important indicator was seen as previous significant risk events that materialised. The respondents placed significantly less importance on the lower risk processes/areas. While respondents agreed that both the qualitative and quantitative aspects of risk should be considered, it appears that in the financial services sector, more emphasis is placed on qualitative aspects than is done in the manufacturing sector. The research results confirmed that where their IAFs do not have the required level of knowledge or experience to evaluate specific risk areas, CAEs would mostly outsource those areas to external service providers.

The study found that South African internal auditors have relatively high level involvement in fulfilling core risk management roles and, with previous research having found only moderate involvement in assurance and consulting roles by IAFs, this represents an area for future research. This might indicate that there is a difference of understanding as to what it means to provide risk consulting and assurance activities, as well as what the different activities entail. The study also found that some IAFs are still performing management functions, although this involvement was limited. Further research should be undertaken to explore the reasons for and drivers of this sub-optimal practice, in an effort to determine how IAFs can maintain their independence and objectivity in these circumstances.

Finally, the results indicated that in general when identifying and evaluating risks, internal auditors focus more on operational, compliance and financial risk than they do on strategic and sustainability risks. This could indicate that internal auditors may still not be focussing on the core risks faced by organisations. This too represents an area for future research, as does obtaining an understanding of the reasons as to why internal auditors are less involved in the identification and evaluation of strategic and sustainability risks.

## REFERENCES

- Allix, M. 2014. *Metals strike 'put major dents' in SA steel market*. [Online]. <http://www.bdlive.co.za/business/industrials/2014/08/11/metals-strike-put-major-dents-in-sa-steel-market> [Accessed: 15 September 2014].
- Aaker, D.A., Kumar, V. & Day, G.S. 2007. *Marketing research*. 9<sup>th</sup> edition. Hoboken, NJ: Wiley.
- Boyle, J.F. & Boyle, M. 2013. The role of internal audit in enterprise risk management. *Internal Auditing*, 28(4): 3-10.
- Brazao, V. (val@iiasa.org.za) 2015. Confirmation of the number of CAE members within the South African private sector. [E-mail to:] Viljoen, P.C. (chrisv@discovery.co.za) 22 April 2015.
- Briggs, R.J. & Coleman, M. 2007. *Research methods in educational leadership and management*. London: Sage.
- Burnaby, P.A. 2012. Emerging trends and leading practices in internal audit: the 2011 chief audit executive panel discussion. *Internal Auditing*, 27(2):27.
- Carey, P., Subramaniam, N. & Ching, K.W.C. 2006. Internal audit outsourcing in Australia. *Accounting and Finance*, 46:11-30.
- Chambers, A.D. 2014. New guidance on internal audit – an analysis and appraisal of recent developments. *Managerial Auditing Journal*, 29(2):196-218.
- Chambers, R. 2011. *Crisis management: the inevitability of the unlikely*. [Online]. <http://www.theiia.org/blogs/chambers/index.cfm/post/Crisis%20Management:%20The%20Inevitability%20of%20the%20Unlikely> [Accessed: 12 April 2013].
- Coetzee, P. & Lubbe, D. 2011. Internal audit and risk management in South Africa: Adherence to guidance. *Acta Academia*, 43(4):30-60.
- Committee of Sponsoring Organizations of the Treadway Commission (COSO). 2004. *Enterprise risk management – integrated framework: executive summary*. [Online]. [http://www.coso.org/documents/coso\\_erm\\_executivesummary.pdf](http://www.coso.org/documents/coso_erm_executivesummary.pdf) [Accessed: 01 August 2014].
- Committee of Sponsoring Organizations of the Treadway Commission (COSO). 2009. *Strengthening enterprise risk management for strategic advances*. [Online]. [http://www.coso.org/documents/coso\\_erm\\_executive\\_summary.pdf](http://www.coso.org/documents/coso_erm_executive_summary.pdf) [Accessed: 01 August 2014].
- Creswell, J.W. 2014. *Research design: qualitative, quantitative mixed methods approaches*. 4<sup>th</sup> edition. Thousand Oaks: Sage.
- Culp, S., Faris, C. & Pulp, N. 2011. *Corporate crisis management: preparing for a rapid response to unexpected events*. [Online]. [http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture\\_Corporate\\_Crisis\\_Management.pdf](http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture_Corporate_Crisis_Management.pdf) [Accessed: 09 August 2014].
- Deloitte. 2012. *Internal audit insights: high impact areas of focus*. [Online]. <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Risk/dttl-risk-Internalauditinsights-08122013.pdf> [Accessed: 18 January 2015].
- Department of National Treasury. 2014. *Risk response strategy*. [Online]. <http://oag.treasury.gov.za/RMF/Pages/s213RiskResponseStrategy.aspx> [Accessed: 18 August 2014].
- De Zwaan, L., Stewart, J. & Subramaniam, N. 2011. Internal audits involvement in enterprise risk management. *Managerial Auditing Journal*, 26(7):586-604.
- Edmead, M. 2007. *Understanding the risk management process*. [Online]. <https://iaonline.theiia.org/understanding-the-risk-management-process> [Accessed: 20 September 2014].
- Fan, W. & Yan, Z. 2010. Factors affecting response rates of the web survey: A systematic review. *Computers in Human Behaviour*, 26:132-139.
- Fraser, I. & Henry, W. 2007. Embedding risk management: Structures and approaches. *Managerial Auditing Journal*, 22(4):392-409.
- Goodwin-Stewart, J. & Kent, P. 2006. The use of internal audit by Australian companies. *Managerial Auditing Journal*, 21(1):81-101.
- Gramling, A.A. & Hermanson, D.R. 2009. Avoiding “where was internal audit?”. *Internal Auditing*, 25(5):39-41.

- Gramling, A.A. & Myers, P.M. 2006. Internal auditing's role in ERM. *Internal Auditor*, 63(2):52-58.
- Hall, J. 2007. *Internal auditing and ERM: fitting in and adding value*. [Online]. [https://na.theiia.org/about-us/Public%20Documents/Sawyer\\_Award\\_2007.pdf](https://na.theiia.org/about-us/Public%20Documents/Sawyer_Award_2007.pdf) [Accessed: 05 October 2014].
- Institute of Internal Auditors (IIA). 2004. *The role of internal auditing in enterprise-wide risk management*. Altamote Springs, FL: IIA.
- Institute of Internal Auditors (IIA). 2009a. *IIA position paper: the role of internal auditing in enterprise-wide risk management*. [Online]. <https://na.theiia.org/standards-guidance/Public%20Documents/PP%20The%20Role%20of%20Internal%20Auditing%20in%20Enterprise%20Risk%20Management.pdf> [Accessed: 02 August 2014].
- Institute of Internal Auditors (IIA). 2009b. *IIA position paper: the role of internal auditing in resourcing*. [Online]. <https://na.theiia.org/standards-guidance/Public%20Documents/PP%20The%20Role%20of%20Internal%20Auditing%20in%20Resourcing%20the%20Internal%20Audit%20Activity.pdf> [Accessed: 18 January 2015].
- Institute of Internal Auditors (IIA). 2012. *International standards for the professional practice of internal auditing (standards)*. Altamonte Springs, FL: IIA.
- Institute of Internal Auditors (IIA). 2013a. *Practice Advisories: under international professional practice framework (IPPF)*. Altamonte Springs, USA: IIA.
- Institute of Internal Auditors (IIA). 2013b. *Managing the outsourced internal audit function*. [Online]. [http://c.ymcdn.com/sites/www.iiasa.org.za/resource/collection/F8346FB8-6CA6-4891-AC57-2685C7889725/White\\_Paper\\_2013.pdf](http://c.ymcdn.com/sites/www.iiasa.org.za/resource/collection/F8346FB8-6CA6-4891-AC57-2685C7889725/White_Paper_2013.pdf) [Accessed: 18 January 2015].
- Institute of Directors (IoD). 2009. *King report on governance for South Africa*. Johannesburg: IoD.
- Jaques, T. 2007. Issue management and crisis management: an integrated non-linear, relational construct. *Public Relations Review*, 33:147-157.
- Jie, L. 2012. The enterprise risk management and the risk oriented internal audit. *iBusiness*, 4:287-292.
- KPMG. 2008. *The evolving role of internal audit*. [Online]. <https://www.kpmg.com/ZA/en/IssuesAndInsights/ArticlesPublications/RiskCompliance/Documents/The%20Evolving%20role%20of%20the%20Internal%20Auditor.pdf> [Accessed: 06 October 2014].
- Kumar, N. & Singh, J.P. 2013. Global financial crises: Corporate failures and lessons. *Journal of Finance, Accounting and Management*, 4(1):21-34.
- Mardjono, A. 2005. A tale of corporate governance: Lessons why firms fail. *Managerial Auditing Journal*, 20(3):272-283.
- Martin, A.G. 2013. A refocused internal audit function adds value throughout the organization. *Internal Auditing*, 28(1):25-34.
- Meretsky, V.J. 2013. Anonymous online student surveys anywhere. *Journal of Teaching and Learning with Technology*, 2(1):66-68.
- Myers, J.L. & Well, A.D. 2003. *Research design and statistical analysis*. 2<sup>nd</sup> edition. New Jersey: London.
- Mitroff, I. & Alpaslan, M.C. 2003. Preparing for evil. *Harvard Business Review*, April:5-11.
- O'Reilly-Allen, M. & Mawn, L. 2011. Internal audit: be a key player in the risk management process. *Pennsylvania CPA Journal*, 82(3):30-34.
- Payne, N. 2002. The role of internal audit in relation to risk management. *Accountancy SA*, July:21.
- Project Management Institute. 2000. *A guide to the project management body of knowledge (PMBOK Guide) – 2000 Edition*. [Online]. <http://www.cs.bilkent.edu.tr/~cagatay/cs413/PMBOK.pdf> [Accessed: 07 August 2014].
- PricewaterhouseCoopers (PwC). 2014. *State of the internal audit profession study*. [Online]. [http://www.pwc.com/en\\_M1/m1/publications/documents/pwc-state-of-the-internal-audit-profession-2014.pdf](http://www.pwc.com/en_M1/m1/publications/documents/pwc-state-of-the-internal-audit-profession-2014.pdf) [Accessed: 04 October 2014].
- PricewaterhouseCoopers (PwC). 2011. *State of the internal audit profession survey*. [Online]. [http://www.pwc.com/en\\_enUS/internal-audit/publications/assets/state-of-internal-audit-profession-study-2011.p](http://www.pwc.com/en_enUS/internal-audit/publications/assets/state-of-internal-audit-profession-study-2011.p) [Accessed: 04 October 2014].

PricewaterhouseCoopers (PwC). 2008. *A practical guide to risk assessment*. [Online]. [http://www.pwc.com/en\\_us/us/issues/enterprise-risk-management/assets/risk\\_assessment\\_guide.pdf](http://www.pwc.com/en_us/us/issues/enterprise-risk-management/assets/risk_assessment_guide.pdf) [Accessed: 21 September 2014].

Sarens, G. & De Beelde, I. 2006. Internal auditors' perception about their role in risk management: a comparison between US and Belgian companies. *Managerial Auditing Journal*, 21(1):63-80.

Sarens, G. & De Beelde, I. 2006a. The relationship between internal audit and senior management: a qualitative analysis of expectations and perceptions. *International Journal of Auditing*, 10:219-241.

Sekeran, U. & Bougie, R. 2013. *Research methods for business: a skill building approach*. 6<sup>th</sup> edition. West Sussex: John Wiley.

Shortreed, J., Fraser, J., Purdy, G. & Schanfield, A. Not Dated. *The future role of internal audit in (enterprise) risk management*. [Online]. [http://www.mville.edu/images/stories/Graduate\\_Academics/GPSCenterForRiskManagement/ResourceLibrary\\_Articles/TheFutureRoleofInternalAuditinEnterprise\\_RiskManagement.pdf](http://www.mville.edu/images/stories/Graduate_Academics/GPSCenterForRiskManagement/ResourceLibrary_Articles/TheFutureRoleofInternalAuditinEnterprise_RiskManagement.pdf) [Accessed: 09 August 2014].

Schneider, G.P., Sheikh, A. & Simone, K.A. 2011. Managing risk in uncertain times: how internal audit can help. *Proceedings of the Academy of Accounting and Financial Studies*, 16(1):29-32.

Smith, C. 2014. *Why African Bank was a 'perfect storm'*. [Online]. <http://www.fin24.com/Money/Money-Clinic/Investments/Why-African-Bank-was-a-perfect-storm-20140821> [Accessed: 15 September 2014].

Sobel, P.J. 2011. *Internal auditing's role in risk management*. The IIAF White Paper, March 2011:1-18. [Online]. <http://www.oracle.com/us/solutions/corporate-governance/ia-role-in-rm-345774.pdf> [Accessed: 07 April 2013].

Sobel, P.J. & Reding, K.F. 2004. Aligning corporate governance with enterprise risk management. *Management Accounting Quarterly*, 5(2):29-37.

Spira, L.F. & Page, M. 2003. Risk management: the reinvention of internal control and the changing role of internal audit. *Accounting, Auditing & Accountability Journal*, 16(4):640-661.

Teddle, C. & Yu, F. 2007. Mixed methods sampling: a typology with examples. *Journal of Mixed Methods Research*, 1(1):77-100.

Tusek, B. & Pokrovac, I. 2010. *The role of internal audit function in risk management process: Croatia and Europe comparison*. [Online]. <http://bib.irb.hr/prikazi-rad?lang=en&rad=688871> [Accessed: 29 February 2014].

Van Staden, M. & Steyn, B. 2009. The profile of the chief audit executive as a driver of internal audit quality. *African Journal of Business Management*, 3(13)918-925.

Wagner, P.F. 2002. *Internal auditor's role in disaster recovery*. [Online]. [http://www.aascif.org/public/archive/Spring02/spring02\\_3.2.14.1.htm](http://www.aascif.org/public/archive/Spring02/spring02_3.2.14.1.htm) [Accessed: 03 August 2014].

