Perceptions on internal audit function contributions in South African national government departments

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ABSTRACT

In terms of the** Public Finance Management Act**, Act 1 of 1999 and Treasury Regulations, it is compulsory for national government departments in South Africa to establish an effective and efficient internal audit function (IAF). An effective IAF can help achieve the policy objectives of the government, which promised that big strides would be made in the social and economic development arena. The question then arises whether, two decades later, key stakeholders believe that the mandatory IAFs are living up to expectation. Hence, the objective of the study reported in this article was to determine whether selected stakeholders were satisfied with the IAFs' contribution on selected activities. The findings and conclusions are based on a quantitative analysis of the data. Responses to structured questionnaires were collected from chief audit executives (CAEs), accounting officers (AOs) and chairpersons of audit committees (CACs) in South African national government departments. The findings show that all three categories of stakeholders expect more from IAFs, but only the CAEs believed IAFs were currently contributing well. The AOs and the CACs did not regard the IAFs' current level of contribution as very high. These findings should assist stakeholders responsible for the functioning of internal auditing in the South African public service.

INTRODUCTION

Since the 1994 elections, it has become a matter of paramount importance to ensure that South African government departments function optimally to eradicate the vast backlog in social services, and through this approach, to capacitate previously disadvantaged citizens to become part of a vibrant South African economy. By 1994, due to international isolation of the Apartheid regime, South African government administration processes had become outdated. Hence, it was hoped that considerable improvements could be made by adopting contemporary international best practices. In 1996, the *Constitution of the Republic of South Africa,* 1996 (RSA 1996) was promulgated. This new constitutions is widely regarded as one of the most progressive constitutions in the world (South African Politics 2014). Based on provisions in the *Constitution*, the *Public Finance Management Act (PFMA)*, 1 of 1999, was promulgated to regulate financial management in the national government departments (RSA 1999), amongst other areas. In terms of the *PFMA*, the National Treasury (2005) issued Treasury Regulations to provide more detailed guidance on the implementation and management of the finances of national government departments.

In the same period that South Africa underwent this transition, the internal audit profession underwent a transition of its own – away from its traditional role of focusing only on financial control assessment to new roles where the profession would be seen to be involved in almost every facet of an organisation's operations (Allott 1996). Consequently, the definition of internal auditing was amended in 1999 to mention explicitly, amongst other things, that internal audit services should *add value* to an organisation's operations (IIA-Global 2013). This value-adding approach to internal auditing has since become an integral part of fulfilling the functions and objectives of an organisation (Bou-Raad 2000:182), and therefore it fitted well into the approaches of sound financial governance and performance budgeting to meet government policy objectives which form the cornerstones of the *PFMA* and Treasury Regulations.

As a result, establishing an effective and efficient internal audit function (IAF) was made compulsory for national government departments in South Africa in line with the requirements of section 38(a)(ii) of the *PFMA* (RSA 1999). In addition, paragraph 3.2.5 of the Treasury Regulations (National Treasury 2005) require that an IAF must perform in accordance with the definition for internal auditing of the Institute of Internal Auditors (IIA), which embraces the concept of adding value. For the purposes of this article, the concept of adding value is replaced with the level of contribution that is made by the IAF in terms of selected services or activities, in order to distinguish IAF *contributions* from value-adding activities in the context of the objectives of this article.

Considering the contribution that an effective IAF can make in achieving the policy objectives of the government, which has promised vast and rapid social and economic development to the people of South Africa, the question arises whether, two decades after 1994, key stakeholders believe that the mandatory IAFs are living up to expectation. In view of this question, the study reported in this article had the following objectives:

- firstly, to determine whether there is a difference between the current level of contribution made by in-house and outsourced IAFs to specific activities, as perceived by chief audit executives (CAEs), accounting officers (AOs), who function as heads

of department (HoDs), and chairpersons of audit committees (CACs) in national government departments in South Africa;

- secondly, to determine whether there is a difference between the expected level of contribution of in-house and outsourced IAFs to specific activities, as perceived by CAEs, AOs and CACs in national government departments in South Africa;
- thirdly, to determine whether there is a gap between the current and the expected levels of contribution to specific activities by in-house IAFs, as perceived by CAEs, AOs and CACs in national government departments in South Africa; and
- fourthly, to determine whether there is a gap between the current and the expected levels of contribution by outsourced IAFs to specific activities, as perceived by CAEs, AOs and CACs in national government departments in South Africa.

The next section briefly places the contribution to be made by the IAF to the operations of an institution in the context of the objectives of the study.

THE CONTRIBUTION OF INTERNAL AUDITING

In an empirical study, the prior literature is studied to identify an applicable theory (a set of explanatory concepts) on which a hypothesis can be based (Collis and Hussey 2003:56). In terms of such an approach, the general systems theory is applicable where it investigates a set of interrelated elements with the aim of achieving synergy (Gregory 2014). For the purposes of this study, these elements are the assurance stakeholders of national government departments.

It is paramount that the management of a department, its audit committee and the IAF hold similar expectations regarding the assurance activities that an IAF should perform. One of the Big 4 auditing firms, PricewaterhouseCoopers (2012), remarked that to add to stakeholder confidence and to be seen as a vital contributing partner, the IAF must reach a point where it fulfils its traditional internal auditing task (auditing financial control and compliance), and also provides advice on risks and controls equally well – providing traditional assurance with deep insights and operational perspectives. This view corresponds with the definition of an IAF by the International Standards for Professional Practice of Internal Auditing (ISPPIA), which requires an IAF to add value and improve an organisation's operations to assist the organisation in accomplishing its objectives, by evaluating and improving the effectiveness of the entity's risk management, control and governance processes (IIA-Global 2013).

South Africa's National Treasury has incorporated the values of the official internal audit definition in its express expectations of government IAFs through its *Internal Audit Framework* (National Treasury 2009:5). With regard to the audit committee, the National Treasury's (2009:12) *Internal Audit Framework* states that the *Framework* was established to assist AOs in the effective execution of their responsibilities with the ultimate goal of achieving organisational objectives, and that the IAF should be the audit committee's first choice as a source of information on the performance of an organisation. Given its oversight role, mandated by section 76(4)(d) of the *PFMA* (RSA 1999), it is thus imperative for the audit committee to be satisfied with the contribution that the IAF makes with regard to specific activities in national government departments.

In addition, section 38 of the *PFMA* (RSA 1999) sets out the roles and responsibilities of AOs in terms of the effective and efficient management of a national government department, and chapter 10 of the *PFMA* includes strict penalties (RSA 1999) for AOs if these responsibilities are not adhered to. All this is meant to support a public service that is accountable to its political authorities and to the public for achieving its set objectives. In the light of this, management may want to rely on the IAF to assist management in providing the necessary assurances. This opinion is in line with a study conducted by Sarens and De Beelde (2006:220) on the relationship between the IAF and senior management. These authors argue that, amongst other things, senior management expects the IAF to compensate for management's loss of control resulting from increased organisational complexity, and to act as a supportive function in monitoring and improving risk management and internal control. In other words, the IAF is uniquely positioned to assist management in its governance mechanisms and, ultimately, the achievement of set objectives.

It is, therefore, imperative for management (the AO) to have an effective IAF, since management is the custodian of operational processes (Grant Thornton 2014) and is under pressure from various interest groups to achieve set objectives. Similarly, the risks associated with an audit committee's oversight role will be greatly mitigated by an effective IAF. In this context, a perspective on the perception regarding IAFs contribution in South Africa's national government departments through the eyes of the CAEs, AOs and CACs may be valuable in the quest for continuous improvement in the operations of the country's public service.

To give effect to the research objectives and in the context of the literature reviewed above, the following hypotheses were formulated:

- Objective 1: To determine the current level of contribution of in-house IAFs versus outsourced IAFs (see Table 1):

  $H_{0(a-j)}$: $\mu_{1a} = \mu_{2a}$: $\mu_{1b} = \mu_{2b}$: $\mu_{1c} = \mu_{2c}$: There are no meaningful differences between the *current* level of contribution by *in-house* IAFs and the *current* level of contribution by *outsourced* IAFs for the listed activities (*CAE on current in-house IAF = μ_{1a}; CAE on current outsourced IAF = μ_{2a}; AO on current in-house IAF = μ_{1b}; AO on current outsourced IAF = μ_{2b}; CACs on current in-house IAF = μ_{1c}; CACs on current outsourced IAF = μ_{2c}*).

  $H_{1(a-j)}$: At least one μ_i differs: There are meaningful differences between the *current* level of contribution by *in-house* IAFs and the *current* level of contribution by *outsourced* IAFs for the listed activities (*i = 1a,2a; 1b,2b; 1c,2c*).

  (The listed activities were *Governance $H_{0(a),}$ $H_{1(a);}$ Enterprise risk management (ERM) $H_{0(b)}$, $H_{1(b)}$; Control environment $H_{0(c),}$ $H_{1(c);}$ Operational effectiveness $H_{0(d),}$ $H_{1(d);}$ Service delivery by the Department $H_{0(e),}$ $H_{1(e);}$ Forensic investigations $H_{0(f),}$ $H_{1(f);}$ Fruitless and wasteful expenditure $H_{0(g),}$ $H_{1(g);}$ Irregular expenditure $H_{0(h),}$ $H_{1(h);}$ Unauthorised expenditure $H_{0(i),}$ $H_{1(i);}$ Combined assurance $H_{0(j),}$ $H_{1(j)}$*).

- Objective 2: To determine the expected level of contribution of an in-house IAF versus that of an outsourced IAF (see Table 2):

  $H_{0(a-j)}$: $\mu_{3a} = \mu_{4a}$: $\mu_{3b} = \mu_{4b}$: $\mu_{3c} = \mu_{4c}$: There are no meaningful differences between the *expected* level of contribution by *in-house* IAFs and the *expected* level of contribution by *outsourced* IAFs for the listed activities. (*CAE on expected in-house*

IAF = μ_{3a}; CAE on expected outsourced IAF = μ_{4a}; AO on expected in-house IAF = μ_{3b}; AO on expected outsourced IAF = μ_{4b}; CACs on expected in-house IAF = μ_{3c}; CACs on expected outsourced IAF = μ_{4c}).

$H_{1(a-j)}$: At least one μ_i differs: There are meaningful differences between the expected level of contribution by in-house IAFs and the expected level of contribution by outsourced IAFs for the listed activities (*i = 3a,4a; 3b,4b; 3c,4c*).

(The listed activities were H0(a – j) and H1(a – j) – *see Objective 1*).

- Objective 3: To determine the current versus expected level of contribution of the in-house IAF (see Table 3):

$H_{0(a-j)}$:$\mu_{1a} = \mu_{3a}$: $\mu_{1b} = \mu_{3b}$: $\mu_{1c} = \mu_{3c}$: There are no meaningful differences between the *current* and *expected* level of contribution by *in-house* IAFs for the listed activities (*CAE on current in-house IAF = $\mu_{1a;}$ CAE on expected in-house IAF = μ_{3a}; AO on current in-house IAF = $\mu_{1b;}$ AO on expected in-house IAF = μ_{3b}; CACs on current in-house IAF = $\mu_{3c;}$ CACs on expected in-house IAF = μ_{3c}*).

$H_{1(a-j)}$: At least one μ_i differs: There are meaningful differences between the *current* and *expected* level of contribution by *in-house* IAFs for the listed activities (*i = 1a,3a; 1b,3b; 1c,3c*).

(The listed activities were H0(a–j) and H1(a–j) – *see Objective 1*).

- Objective 4: To determine the current versus expected level of contribution of the outsourced IAF (see Table 4):

$H_{0(a-j)}$:$\mu_{2a} = \mu_{4a}$: $\mu_{2b} = \mu_{4b}$: $\mu_{2c} = \mu_{4c}$: There are no meaningful differences between the *current* and *expected* level of contribution by *outsourced* IAFs for the listed activities (*CAE on current outsourced IAF = $\mu_{2a;}$ CAE on expected outsourced IAF = μ_{4a}; AO on current outsourced IAF = $\mu_{1b;}$ AO on expected outsourced IAF = $\mu_{3b;}$ CACs on current outsourced IAF = $\mu_{2c;}$ CACs on expected outsourced IAF = μ_{4c}*).

$H_{1(a-j)}$: At least one μ_i differs: There are meaningful differences between the *current* and *expected* level of contribution by *outsourced* IAFs for the listed activities (i = 2a,4a; 2b,4b; 2c,4c).

(The listed activities were H0(a – j) and H1(a – j) – *see Objective 1*).

RESEARCH METHODS, LIMITATIONS AND VALUE OF THE STUDY

Research methods

The findings and conclusions of this article are based on a quantitative data analysis. Structured questionnaires were distributed to the CAEs, AOs and CACs of 33 South African

national government departments out of a total of 38 (new departments where the targeted respondents did not have an adequate institutional memory at the time of the survey were excluded). The research questionnaires were designed in consultation with the National Treasury as part of a larger research study on the *standing of and demand for internal auditing in the South African public sector*. In total, 32 CAEs, 30 CACs and 31 AOs (or their representatives from executive management) responded.

This article reports on the findings based on responses to two questions in the questionnaires. The first question requested respondents to indicate the *current* level of contribution (the value added) by *in-house* and *outsourced* IAFs, respectively, to a list of specific services, activities or concepts (hereafter referred to as activities). The second question requested respondents to indicate the *expected* level of contribution (the value added) by *in-house* and *outsourced* IAFs, respectively, to a list of activities. The respondents were requested to indicate their perceptions on a four-point Likert-type scale ranging from 1 (Significant value added) to 4 (No value added). Hence, the term "significant/significance" used in the findings refers to the level of contribution indicated in the questionnaire, and should not be confused with the statistical level of significance of differences between paired variables. The testing of the differences between paired variables in this article is explained next.

The data obtained were captured on Microsoft Excel®, after which statistical analyses of the data were performed using the Statistical Package for the Social Sciences, IBM SPSS Statistics version 21 (IBM SPSS 2013). The Cohen's *d*-score was then used to show the effect-size (meaningfulness) of the mean differences between the paired variables (current and expected contribution) (Cohen 1988; Walker 2008). In terms of the Cohen's *d*, the mean difference between the paired variables was divided by the average (pooled) standard deviation of the paired variables means: $d = (\bar{x}_1 - \bar{x}_2)/s$. The Cohen's *d* interpretation intervals are the following (Cohen 1988):

- Not meaningful: $d < 0.2$
- Small: $0.2 < d < 0.5$
- Medium: $0.5 < d < 0.8$
- Large: $0.8 < d$

Because a relatively low number of respondents results in low degrees of freedom ($df = n - 1$) per activity listed, the study did not determine the statistical significance of the mean differences, thus avoiding the possibility of a Type II error in the analysis of the data. A Type II error is also known as a "false negative", which is the error of not rejecting a null hypothesis when the alternative hypothesis is in fact true (University of Cape Town 2002).

Limitations of the research

The focus of this article was limited to the perceptions of respondents (only three assurance stakeholders) to the research questionnaires with regard to the *contribution* by the in-house and outsourced IAFs of national government departments in South Africa to selected activities. The statistical analyses reported in this article were limited to questions from the questionnaires that related to the focus and objectives of the article. The research was also limited to the selected activities that were listed in the relevant questions of the questionnaires.

Value of the research

The National Treasury and national government departments may benefit from the results reported in this article, because it makes available reliable scientific information on the perceptions of key stakeholders' expectations from in-house and outsourced IAF services. The scientifically founded results of the research can be used to determine in-house IAF staff complements and the profiles of these internal auditors in terms of the expected contribution regarding IAF assurance and consulting services. The results may also assist in finding the optimal solution to problems with regard to in-house capabilities and the associated costs, versus the option of outsourced expertise. The research findings are outlined below.

RESEARCH FINDINGS

The selected activities listed in the questions analysed refer to general internal audit services expected from the modern internal auditor, as well as concepts that are specific to the public sector in South Africa, and relevant to modern public financial management in general. This section reports on the data analysed in respect of the four research objectives.

Current level of contribution by IAFs

Table 1 depicts the current level of the contribution by in-house and outsourced IAFs as perceived by the heads of internal audit (CAEs), management (AOs) and independent governance assurance providers (CACs).

Table 1 shows that, on average, the CAEs perceived in-house IAFs as currently making moderate to significant contributions to most of the activities listed, except for *Forensic investigations* (mean: 2.12) and *Combined assurance* (mean: 2.06), where they perceived the contribution as slightly less than moderate. On average, the CAEs also perceived outsourced IAFs as currently making moderate to significant contributions to most of the activities listed, except for *Enterprise Risk Management (ERM)* (mean: 2.11), *Service delivery by the Department* (mean: 2.00) and *Combined assurance* (mean: 2.28), where they perceived the contribution as moderate or less than moderate. It may be acceptable that outsourced IAFs are preferred to in-house IAFs for *Forensic investigations*, since the activity is not regarded as an important function of an in-house IAF, because it may warrant a more specialised and independent investigation. In-house IAFs contribute more to *ERM* and *Service delivery by the Department*, since these activities require more in-depth knowledge of the given department. However, it is concerning that, on average, the CAEs perceived neither in-house nor outsourced IAFs to make a significant contribution to *Combined assurance* (mean level of contribution: 2.06, compared to the average contribution for all activities of 1.67 – in-house; mean level of contribution: 2.28, compared to the average level of contribution for all activities of 1.83 – outsourced), when the IAF is regarded as an essential part of the combined assurance model (IoD 2009).

The effect size (Cohen's *d*) of the mean differences in the CAEs' perceptions, in respect of the level of contribution per activity between in-house and outsourced IAFs, ranged from medium ($0.5 < d < 0.8$) to not meaningful ($d < 0.2$). The only two medium meaningful differences were in respect of *Governance* ($d = 0.50$), where the outsourced IAF was

Table 1: The current level of contribution by in-house and outsourced IAFs respectively as perceived by the categories of respondents

Mean level of contri-bution		Governance	ERM	Control environment	Operational effectiveness	Service delivery by the Department	Forensic investigations	Fruitless and wasteful expenditure	Irregular expenditure	Unauthorised expenditure	Combined assurance	Mean
CAEs	In-house	1.44	1.58	1.33	1.72	1.83	2.12	1.56	1.50	1.56	2.06	**1.670**
	Out-sourced	1.83	2.11	1.50	1.94	2.00	1.65	1.72	1.67	1.61	2.28	**1.831**
	Mean diff.	0.39	0.53	0.17	0.22	0.17	0.47	0.17	0.17	0.06	0.22	**0.255**
	Std. dev.	0.778	0.905	0.514	0.548	0.383	1.231	0.514	0.514	0.725	0.548	
	Cohen's *d*	0.50	0.58	0.32	0.41	0.43	0.38	0.32	0.32	0.08	0.41	
	Effect Size	Med.	Med.	Small	Small	Small	Small	Small	Small	Not mngf.	Small	
AOs	In-house	1.58	1.75	1.92	2.00	2.00	2.83	2.17	2.17	2.25	2.25	**2.092**
	Out-sourced	1.67	1.92	1.92	1.92	2.08	2.25	2.42	2.42	2.50	2.17	**2.125**
	Mean diff.	-0.083	-0.167	–	0.083	-0.083	0.583	-0.250	-0.250	-0.250	0.083	**-0.033**
	Std. dev.	0.515	0.577	0.853	0.793	0.515	1.165	1.138	0.965	0.965	0.669	
	Cohen's *d*	0.16	0.29	–	0.11	0.16	0.50	0.22	0.26	0.26	0.13	
	Effect Size	Not mngf.	Small	Not mngf.	Not mngf.	Not mngf.	Med	Small	Small	Small	Not mngf.	
CACs	In-house	1.83	2.00	1.69	1.92	2.00	2.11	1.90	2.00	2.00	2.36	**1.982**
	Out-sourced	2.08	2.70	2.00	1.58	2.00	1.44	1.80	2.30	2.11	2.73	**2.075**
	Mean diff.	-0.250	-0.700	-0.308	0.333	–	0.667	0.100	-0.300	-0.111	-0.364	**-0.093**
	Std. dev.	1.138	1.567	1.251	1.303	1.095	1.323	0.876	1.252	1.167	0.674	
	Cohen's *d*	0.22	0.45	0.25	0.26	–	0.50	0.11	0.24	0.10	0.54	
	Effect Size	Small	Small	Small	Small	Not mngf.	Med.	Not mngf.	Small	Not mngf.	Med	

perceived to make a larger contribution, and *ERM* ($d = 0.58$), to which the in-house IAF was seen as making a larger contribution. The results of the analyses of the findings thus provided sufficient evidence to reject $H_{0(a-h;\,j)}$:$\mu_{1a} = \mu_{2a}$, in that for all but one of the activities ($H_{0(i)}$) some differences were registered, even if the meaningfulness (effect size) was limited.

On average, the AOs perceived in-house IAFs as currently making a moderate to less than moderate contribution (mean: 2.09) to most of the activities listed. The only three activities that were awarded a more than moderate level of contribution were *Governance* (mean: 1.58), *ERM* (mean: 1.75) and the *Control environment* (mean: 1.92). The AOs had similar perceptions of outsourced IAFs.

The effect size of the mean differences in the AOs' perceptions in respect of the level of contribution per activity between in-house and outsourced IAFs were small ($0.2 < d < 0.5$) to not meaningful ($d < 0.2$), and they only indicated a medium meaningful difference for *Forensic investigations* ($d = 0.50$). It is clear that the AOs were, on average, less positive about the current level of contribution made by the in-house and outsourced IAFs. The results of the analyses of the findings thus provided sufficient evidence to accept $H_{0(a;\,c-e;\,g;\,j)}$:$\mu_{1b} = \mu_{2b}$ and reject $H_{0(b;\,f;\,h;\,i)}$:$\mu_{1b} = \mu_{2b}$, even though the differences had limited meaningfulness.

On average, the CACs perceived in-house IAFs as currently making moderate to less than moderate contributions to most of the activities listed. *Governance* (mean: 1.83), *Control environment* (mean: 1.69), *Operational effectiveness* (mean: 1.92) and *Fruitless and wasteful expenditure* (mean: 1.90) were perceived to make a slightly higher than moderate contribution. The CACs had similar perceptions of outsourced IAFs.

The effect sizes of the mean differences in the CACs' perceptions, in respect of the level of contribution per activity between in-house and outsourced IAFs, were small ($0.2 < d < 0.5$) to not meaningful ($d < 0.2$), while *Forensic investigations* ($d = 0.50$) and *Combined assurance* ($d = 0.54$) displayed a medium meaningful difference. Thus, the AOs and CACs indicated similar perceptions, which were less favourable than the perceptions of the CAEs for Objective 1. As a result, even though the differences had limited meaningfulness, the results of the analyses of the findings provided sufficient evidence to accept $H_{0(e;\,g;\,i)}$:$\mu_{1c} = \mu_{2c}$ and reject $H_{0(a-d;\,f;\,h;\,j)}$:$\mu_{1c} = \mu_{2c}$.

Expected level of contribution by IAFs

Table 2 depicts the expected levels of contribution by in-house and outsourced IAFs as perceived by the heads of the IAFs (CAEs), management (AOs) and independent governance assurance providers (CACs).

Table 2 reveals that, on average, the CAEs expected higher levels of contribution (slightly less than significant to significant) from in-house IAFs for all the activities listed, compared to outsourced IAFs (more than moderate to significant). The only similar expected contribution was that regarding *Forensic investigations* (mean: 1.50). The lowest expected contribution from outsourced IAFs was that for *Combined assurance* (mean: 1.65).

The effect size of the mean differences in the CAEs' perceptions, with regard to the level of contribution per activity between in-house IAFs and outsourced IAFs ranged from medium ($0.5 < d < 0.8$) to not meaningful ($d < 0.2$). The effect size of most of the activities was small ($0.2 < d < 0.5$). The results of the analyses of the findings thus provided sufficient evidence to reject $H_{0(a-e;\,g-j)}$:$\mu_{3a} = \mu_{4a}$, in that for all but one of the activities ($H_{0(f)}$) there were differences, albeit with limited meaningfulness (effect size).

Table 2: The expected level of contribution by in-house and outsourced IAFs respectively as perceived by the categories of respondents

Mean level of contri-bution		Governance	ERM	Control environment	Operational effectiveness	Service delivery by the Department	Forensic investigations	Fruitless and wasteful expenditure	Irregular expenditure	Unauthorised expenditure	Combined assurance	Mean
CAEs	In-house	1.17	1.17	1.16	1.17	1.28	1.50	1.17	1.22	1.22	1.35	**1.240**
	Out-sourced	1.56	1.50	1.53	1.61	1.56	1.50	1.50	1.56	1.56	1.65	**1.551**
	Mean diff.	0.389	0.333	0.368	0.444	0.278	0	0.333	0.333	0.333	0.294	**0.311**
	Std. dev.	0.778	0.686	0.684	0.705	0.752	1.265	0.686	0.686	0.686	0.985	
	Cohen's *d*	0.50	0.49	0.54	0.63	0.37	–	0.49	0.49	0.49	0.30	
	Effect Size	Med.	Small	Med.	Med.	Small	Not mngf.	Small	Small	Small	Small	
AOs	In-house	1.13	1.29	1.27	1.47	1.53	1.60	1.53	1.47	1.53	1.27	**1.409**
	Out-sourced	1.20	1.29	1.27	1.60	1.60	1.53	1.60	1.53	1.53	1.33	**1.449**
	Mean diff.	-0.067	0	0	-0.133	-0.067	0.133	-0.067	-0.067	0.000	-0.067	**-0.033**
	Std. dev.	0.458	0.392	0.535	0.352	0.458	0.516	0.458	0.458	0.378	0.458	
	Cohen's *d*	0.15	–	–	0.38	0.15	0.26	0.15	0.15	–	0.15	
	Effect Size	Not mngf.	Not mngf.	Not mngf.	Small	Not mngf.	Small	Not mngf.	Not mngf.	Not mngf.	Not mngf.	
CACs	In-house	1.00	1.00	1.00	1.00	1.00	1.92	1.10	1.10	1.00	1.20	**1.132**
	Out-sourced	1.40	1.60	1.30	1.11	1.44	2.08	1.30	1.60	1.50	1.30	**1.464**
	Mean diff.	-0.400	-0.600	-0.300	-0.111	-0.444	-0.167	-0.200	-0.500	-0.500	-0.100	**-0.332**
	Std. dev.	0.966	1.265	0.949	0.333	0.882	1.093	0.632	1.080	1.080	0.738	
	Cohen's *d*	0.41	0.47	0.32	0.33	0.50	0.11	0.32	0.46	0.46	0.14	
	Effect Size	Small	Small	Small	Small	Med	Not mngf.	Small	Small	Small	Small	

On average, the AOs reported the perception that in-house IAFs are expected to make a more than moderate to significant contribution to all the activities listed. The lowest expected contribution was that to *Forensic investigations* (mean: 1.60). The AOs had very similar perceptions of outsourced IAFs, with the lowest expected contributions indicated for *Operational effectiveness* (mean: 1.60), *Service delivery by the Department* (mean: 1.60) and *Fruitless and wasteful expenditure* (mean: 1.60), which may be accepted to be more suited to a higher level of contribution from in-house IAFs.

The effect size of the mean differences in the AOs' perceptions, with regard to the level of contribution per activity between in-house and outsourced IAFs, was consistently not meaningful ($d < 0.2$), while for *Operational effectiveness* and *Forensic investigations* there was a small ($0.2 < d < 0.5$) meaningful difference. The results of the analyses of the findings thus provided sufficient evidence to accept $H_{0(a,b,c,e;\ g-j)}$:$\mu_{3b} = \mu_{4b}$ for all but two of the activities ($H_{1(d;f)}$ – small).

On average, the CACs perceived in-house IAFs as expected to make more than moderate to significant contributions to all the activities listed. The lowest expected contribution was to *Forensic investigations* (mean: 1.92). The CACs had very similar perceptions of outsourced IAFs, with the lowest (moderate) expected contribution also attributed to *Forensic investigations* (mean: 2.08).

The effect size of the mean differences in the CACs' perceptions, with regard to the level of contribution per activity between in-house and outsourced IAFs, was consistently small ($0.2 < d < 0.5$), while *Service delivery by the Department* was accorded a medium ($0.5 < d < 0.8$) meaningful difference, and *Forensic investigations* a not meaningful ($d < 0.2$) difference. The results of the analyses of the findings thus provided sufficient evidence to reject $H_{0(a-e;\ g-j)}$:$\mu_{3c} = \mu_{4c}$, as differences exist for these activities, although with limited meaningfulness. Table 2 indicates that all categories of respondents had similar perceptions of the level of expected contribution by in-house and outsourced IAFs, with in-house IAFs consistently receiving the highest average level of expected contribution for Objective 2.

Current versus expected level of contribution by in-house IAFs

Table 3 depicts the current versus the expected levels of contribution by in-house IAFs as perceived by the CAEs, management (AOs) and independent governance assurance providers (CACs).

Table 3 shows that, on average, the CAEs expected more from their in-house IAFs (mean: 1.24) than IAFs currently contribute (mean: 1.67). The effect size of the significant differences between the average level of current and expected contribution per activity ranged from large ($d > 0.8$) to small ($0.2 < d < 0.5$), with *Control environment* ($d = 0.47$) and *Forensic investigations* ($d = 0.46$) displaying small effect sizes, and *Operational effectiveness* ($d = 0.85$), *Service delivery by the Department* ($d = 0.94$) and *Fruitless and wasteful expenditure* ($d = 0.80$) displaying large effect sizes. These largely meaningful differences ($d > 0.8$) reveal that there was a meaningful gap between the current and expected levels of IAF contribution. The results of the analyses of the findings thus provided sufficient evidence to reject $H_{0(a-j)}$:$\mu_{1a} = \mu_{3a}$. Meaningful differences were reported for all the activities.

Although, on average, the AOs indicated lower levels for current and expected contributions, there was a bigger gap in perceptions, compared to those of the CAEs,

Table 3: The current versus the expected level of contribution by in-house IAFs as perceived by the categories of respondents

In-house		Governance	ERM	Control environment	Operational effectiveness	Service delivery by the Department	Forensic investigations	Fruitless And wasteful expenditure	Irregular expenditure	Unauthorised expenditure	Combined assurance	Mean
CAEs	Current	1.44	1.58	1.33	1.72	1.83	2.12	1.56	1.50	1.56	2.06	1.670
	Expected	1.17	1.17	1.16	1.17	1.28	1.50	1.17	1.22	1.22	1.35	1.240
	Mean diff.	0.387	0.400	0.310	0.484	0.581	0.440	0.452	0.387	0.419	0.710	0.457
	Std. dev.	0.615	0.621	0.660	0.570	0.620	0.961	0.568	0.667	0.672	0.902	
	Cohen's *d*	0.63	0.64	0.47	0.85	0.94	0.46	0.80	0.58	0.62	0.79	
	Effect Size	Med.	Med.	Small	Large	Large	Small	Large	Med.	Med.	Med.	
AOs	Current	1.58	1.75	1.92	2.00	2.00	2.83	2.17	2.17	2.25	2.25	2.092
	Expected	1.13	1.29	1.27	1.47	1.53	1.60	1.53	1.47	1.53	1.27	1.409
	Mean diff.	0.667	0.643	0.700	0.733	0.867	1.241	0.900	0.900	0.933	1.000	0.858
	Std. dev.	0.844	0.826	0.794	0.944	0.860	0.988	1.188	1.167	1.072	0.947	
	Cohen's *d*	0.79	0.78	0.88	0.78	1.01	1.26	0.82	0.82	0.89	1.06	
	Effect Size	Med.	Med.	Large	Med.	Large	Large	Large	Large	Large	Large	
CACs	Current	1.83	2.00	1.69	1.92	2.00	2.11	1.90	2.00	2.00	2.36	1.982
	Expected	1.00	1.00	1.00	1.00	1.00	1.92	1.10	1.10	1.00	1.20	1.132
	Mean diff.	0.571	0.786	0.379	0.621	0.862	0.667	0.793	0.897	0.862	0.786	0.722
	Std. dev.	0.959	0.995	0.728	0.862	0.639	1.323	0.774	0.772	0.833	0.833	
	Cohen's *d*	0.60	0.79	0.52	0.72	1.35	0.50	1.03	1.16	1.03	0.94	
	Effect Size	Med.	Med.	Med.	Med.	Large	Med.	Large	Large	Large	Large	

Table 4: The current versus the expected level of contribution by outsourced IAFs as perceived by the categories of respondents

Out-sourced		Governance	ERM	Control environment	Operational effectiveness	Service delivery by the Department	Forensic investigations	Fruitless and wasteful expenditure	Irregular expenditure	Unauthorised expenditure	Combined assurance	Mean
CAEs	Current	1.83	2.11	1.50	1.94	2.00	1.65	1.72	1.67	1.61	2.28	**1.831**
	Expected	1.56	1.50	1.53	1.61	1.56	1.50	1.50	1.56	1.56	1.65	**1.551**
	Mean diff.	0.278	0.632	0.050	0.368	0.474	0.105	0.263	0.158	0.105	0.647	**0.308**
	Std. dev.	1.018	0.831	0.826	0.684	0.772	0.737	0.733	0.765	0.875	0.996	
	Cohen's *d*	0.27	0.76	0.06	0.54	0.61	0.14	0.36	0.21	0.12	0.65	
	Effect Size	Small	Med.	Not mngf.	Med.	Med.	Not mngf.	Small	Small	Not mngf.	Med.	
AOs	Current	1.67	1.92	1.92	1.92	2.08	2.15	2.42	2.42	2.50	2.17	**2.125**
	Expected	1.17	1.33	1.25	1.50	1.58	1.54	1.42	1.33	1.33	1.25	**1.449**
	Mean diff.	0.500	0.583	0.667	0.417	0.500	0.615	1.000	1.083	1.167	0.917	**0.745**
	Std. dev.	0.522	0.793	0.651	0.669	0.522	0.961	1.044	0.996	0.937	0.669	
	Cohen's *d*	0.957	0.736	1.024	0.623	0.957	0.641	0.957	1.087	1.245	1.371	
	Effect Size	Large	Med.	Large	Med.	Large	Med.	Large	Large	Large	Large	
CACs	Current	1.91	2.70	2.00	1.50	1.90	1.80	2.00	2.44	2.25	2.60	**2.075**
	Expected	1.36	1.60	1.27	1.10	1.40	1.00	1.33	1.67	1.38	1.30	**1.464**
	Mean diff.	0.545	1.100	0.727	0.400	0.500	0.800	0.667	0.778	0.875	1.300	**0.769**
	Std. dev.	1.128	1.287	1.009	0.699	0.972	1.033	0.707	0.667	0.641	1.252	
	Cohen's *d*	0.48	0.86	0.72	0.57	0.51	0.78	0.94	1.17	1.37	1.04	
	Effect Size	Small	Large	Med.	Med.	Med.	Med.	Large	Large	Large	Large	

between the current and expected contribution by in-house IAFs. All the activities displayed large ($d > 0.8$) effect sizes, except for *Governance* ($d = 0.79$), *ERM* ($d = 0.78$) and *Operational effectiveness* ($d = 0.78$), indicating medium ($0.5 < d < 0.8$) effect sizes in respect of the differences. The results of the analyses of the findings thus provided sufficient evidence to reject $H_{0(a-j)}$:$\mu_{1b} = \mu_{3b}$. Meaningful differences existed for all of the activities.

The CACs also expected in-house IAFs to make larger contributions than is currently experienced. Half of the activities had a large effect size ($d > 0.8$), while the other half had medium effect sizes ($0.5 < d < 0.8$) with regard to the differences between the paired variables. The results of the analyses of the findings thus provided sufficient evidence to reject $H_{0(a-j)}$:$\mu_{1c} = \mu_{3c}$. Meaningful differences were reported for all the activities. The activities for which there were perceived differences with large effect sizes corresponded mostly with those reported by the AOs.

Current versus expected level of contribution by outsourced IAFs

Table 4 depicts the current versus the expected levels of contribution by outsourced IAFs as perceived by the heads of the IAFs (CAEs), management (AOs) and independent governance assurance providers (CACs).

Table 4 reveals that, on average, CAEs expected more from outsourced IAFs (mean: 1.55 – expected versus mean: 1.83 – current), but to a lesser degree than from the in-house IAFs (see Table 3). The effect size of the meaningful differences between the average level of current and expected contribution per activity ranged from medium ($0.5 < d < 0.8$) to not meaningful ($d < 0.2$). The results of the analyses of the findings thus provided sufficient evidence to reject $H_{0(a; b; d; e; g; h; j)}$:$\mu_{2a} = \mu_{4a}$. Consequently, $H_{0(c; f; i)}$:$\mu_{2a} = \mu_{4a}$ was accepted, because meaningful differences were reported for these activities.

The same was true for the AOs and the CACs, who expected larger contributions from outsourced IAFs, with a bigger gap between current (AOs' mean: 2.125; CACs' mean: 2.075) and expected (AOs' mean: 1.449; CACs' mean: 1.464) levels of IAF contribution than for the CAEs. The effect size of the differences between the average level of current and expected IAF contribution per activity as perceived by the AOs and CACs was either large ($d > 0.8$) or medium ($0.5 < d < 0.8$), with the only small ($0.2 < d < 0.5$) effect size perceived by the CACs in respect of *Governance* ($d = 0.48$). The results of the analyses of the findings thus provided sufficient evidence to reject $H_{0(a-j)}$:$\mu_{2b} = \mu_{4b}$:$\mu_{2b} = \mu_{4b}$, because meaningful differences were noted for these activities.

Based on the results of the statistical analyses of the findings revealed above, the article is concluded in the next section. In addition, recommendations are made based on the conclusions reached.

CONCLUSION AND RECOMMENDATIONS

The objectives of this article were to determine whether key stakeholders in the governance processes of national government departments in South Africa perceived their IAFs to make a meaningful contribution to key areas in the organisation, and whether there is a gap between the current contribution and the contribution that these stakeholders expect IAFs to make. In

the context of the objectives of the article, the conclusions can now be presented:

The statistical analyses revealed that the CAEs perceived current in-house and outsourced IAFs, on average, to make moderate to significant contributions to the activities listed. The level of contribution that they expected from in-house and outsourced IAFs was, however, on average, slightly higher than is currently experienced, although they did feel that current IAFs already contribute quite significantly to the listed activities.

The AOs' and CACs' perceptions in respect of all of the variables tested were slightly different from those of the CAEs. They indicated, on average, less positive perceptions of the levels of contribution made by current in-house and outsourced IAFs. They perceived in-house IAFs to make a bigger contribution, by indicating the respective levels of contribution to be moderate, or less than moderate. They expected both in-house and outsourced IAFs to make significantly larger contributions to the activities listed than is currently experienced.

It is thus evident that although all three categories of stakeholders expect more from the IAFs, only the CAEs perceived the IAFs to be performing well at present. This finding may indicate that the IAFs need to improve the methods they use to communicate the contribution of the IAFs. This result could also be attributable to possible bias from the CAEs in indicating their perceptions, because it could be argued that a poor rating may reflect poorly on themselves as managers, since they are directly responsible for these functions. The more objective perceptions may, therefore, be those of the AOs and the CACs, who did not regard the current level of contribution by IAFs as adequate.

In view of the findings and conclusions reported in this article, it is recommended that individual national government departments and the National Treasury Internal Audit Services Division, in considering their annual audit plans, auditor profiles, training interventions, internal audit guidance documents, take cognisance of the perceived gap between the current and expected level of contributions by IAFs, per individual activity listed.

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