Disclosure of Information Technology Governance by South African State-owned Entities

Information Technology (IT) has become an invaluable business asset, making IT governance an important part of corporate governance. State-owned entities (SOEs) are fundamental to governments' structure, as they assist in the pursuit of political, social and economic agendas. Particularly in South Africa, these entities play a significant role in socio-economic development. Furthermore, given the corruption challenges experienced by SOEs in South Africa and other developing countries, it is essential that entities – funded through taxpayers' money – have structures that govern and oversee IT. Using content analysis to extract data from annual integrated reports, this paper explored the King III governance disclosures of SOEs. The findings suggest that in general, there is poor disclosure of IT governance by SOEs, as only one entity met all the recommended King III disclosure principles. Furthermore, the study found that although most SOEs do disclose some form of IT governance information, these disclosures often lacked detail. It is recommended that SOEs include a specific section dedicated to IT in their integrated reports, which would increase compliance with the King Code principles. This research makes a useful contribution to prioritising IT governance policies, especially due to the significant spend by most organisations on IT.

Key words:
Information Technology; Integrated Reporting; Governance; King; Public Sector; State-owned Entity

INTRODUCTION

Corporate governance arose in the 19th century, as a result of the agency 'problem' where one party acts on behalf of another party (Moloi & Barac 2009). Jensen and Meckling (1976) convey that the agency problem occurs when cooperating parties have different goals and division of labour. With this in mind, managers can abuse their control to the detriment of the shareholders of the organisation (Rossouw, Van der Watt & Malan 2002), given that "in organisations where there is separation between ownership and control an agency relationship results: that is: shareholders own the firm but managers control the firm on behalf of shareholders" (Moloi & Barac 2009: 49). In addition to the agency theory, there is also stakeholder theory, which focuses on stakeholder interests (Heath & Norman 2004). To ensure good corporate governance, managers need to balance the shareholders' returns while taking the needs of other stakeholders into account (Harrison & Freeman 1999). Organisations are under pressure from stakeholders, to promote greater accountability and transparency through sound corporate governance practices (Ntuli 2013). This pressure has been intensified over recent years due to high-profile corporate scandals such as Enron and WorldCom in the early 2000s (National Computing Centre 2005), and more recently in South Africa, the Steinhoff, KPMG (Cairns 2017) and VBS Bank sagas (Mertin 2018).

Corporate scandals both globally and locally, have resulted in efforts to increase "regulatory frameworks to restore investor confidence and to bring about greater transparency and accountability to corporate affairs" (Moloi & Barac 2009: 49). South Africa responded to governance developments by releasing the King I report in 1994, which has been revised with three subsequent versions (King II, King III and King IV). Information Technology (IT) governance is a branch of corporate governance (Selig 2008) which arose from the importance of information (Adendorff, Botha, Tolom & Adendorff 2014) and the need to leverage an organisation's strategy using IT. Moreover, IT plays a vital strategic business role (Annwareen 2008). Most organisations' IT spend represents a large portion of their total expenditure (Weil & Woodham 2002; Grewal & Knutsson 2005; Son 2012). Despite its benefits, IT also creates inherent business risks (Muchenje 2012). Dahlberg and Lahdelma (2007) share this view, indicating that when IT is embedded in an organisation, it creates significant threats to the organisation and to the continuity of its operations. IT risks can however be managed by the board of directors, which exercises oversight through properly implemented IT governance (Lubbard 2014). Son (2012) reports that although numerous organisations have established IT governance structures, there is little known on how to successfully implement IT governance structures in organisations. A PricewaterhouseCoopers (PWC) global survey revealed that while IT governance principles are known universally, they are not necessarily applied to the same extent (Information Technology Governance Institute (ITGI) 2008). Weill and Ross (2004) report that organisations with effective IT governance report profits 20% higher than those of their counterparts following similar competitive strategies. Moreover, the success of most organisations depends of how effectively IT is managed and controlled to ensure that project rewards

are realised (Bowen, Cheung & Rohde 2007). With this in mind, entities should follow the requirements of the King Code in terms of IT governance.

State-owned entities (SOEs)[1] are fundamental to governments' structure, as they assist in the pursuit of political, social and economic agendas (Fourie 2014). In South Africa, these entities play an important role in the country's socio-economic development. For example, in 2015, SOEs contributed 20% to South Africa's economic growth (National Treasury 2015), 20% to investment globally, 40% to output and 5% to employment (World Bank Group 2014). However, SOEs are under immense pressure from stakeholders to enhance their operations (International Federation of Accountants 2013; Peng, Bruton, Stan & Huang 2016; Njenge 2015), given that they are funded through taxpayers' money (Peng *et al.* 2016). The structures of SOEs often make them subject to poor accountability (Heath & Norman 2004). For example, board appointments are often informed by politics rather than by qualifications and experience (Thomas 2012). Furthermore, these entities are often fraught with corruption, lack of human resources, and poor integration between government departments (McGregor 2014) as well as operational and structural problems (Fourie 2001). Therefore, good governance is of paramount importance. The oversight of this lies with parliament and the SOEs' boards and executives (Department of Public Service and Administration 2012).

Since the early 1970s, there has been ongoing research on IT governance. However, most of these studies have been conducted in developed countries (Weill & Ross 2004; Grewal & Knutsson 2005; Castillo & Stanojevic 2011; Son 2012; Lubbard 2014). Studies in the context of South Africa – a developing country – has focused on the state of IT governance in general or on private entities (Motloutsi 2009; Boamah-Abu 2010; Maseko 2015; Marchbank 2016), and not on the public sector, barring one study by Terblanche (2011). Her study, based on public entities, established a suitable framework for IT governance. Given the current corruption challenges experienced by SOEs in South Africa and other developing countries (Owoye & Bissessar, 2012) it is imperative that SOEs have sound governance practices in terms of reporting. In the words of Owoye and Bissessar (2012: 1), "with the absence of effective checks and balances, corruption continues". The current study therefore assesses the state of one area of governance – IT governance – in South African SOEs.

The paper commences with a review of the existing international and local research literature. This is followed by a description of the research method and the findings of the study. The conclusions, limitations and areas for future research are presented in the last section.

[1] SOEs are also referred to as parastatals, state-owned corporations, government-owned businesses and publicly owned corporations (PWC 2015; Presidential Review Committee (PRC) n.d.; Fleischmann & Fox 2009).

LITERATURE REVIEW

There have been four versions of the King Code to date. The first King Code was released in 1994, followed by King II in 2002, and King III in 2009. The most recent version, King IV, was released in November 2016 and is applicable to organisations with financial years ending after 1 April 2017. This study deals with King III. The purpose of the principles in King III is not to be a one-size-fits-all framework, but rather to make organisations aware of the need of corporate governance (PWC 2012). Furthermore, King III has adopted an 'apply or explain' governance framework (PWC 2012). This means that when the board of the company deem it appropriate to adopt a practice which is different from the recommend guideline in King III, the board must explain this and justify the reason. IT governance – an area of corporate governance – was addressed for the first time in King III, given the rapid developments in IT over recent years and the significant associated risks (IoDSA 2009).

At the outset it is important to define 'IT governance'. Gartner (2010) states that it is a "… process that ensures the effective and efficient use of IT in enabling an organisation to achieve its goals". ITGI (2003: 11) states that IT governance "consists of leadership and organisational structures and processes that ensure that the organisation's IT extends and sustains the organisation's strategy and objectives". Weill and Ross (2004: 4) propose that IT governance is "the decision rights and accountability framework for encouraging desirable behaviours in the use of IT" while the King Code defines IT governance as "a framework that ensures efficient and effective administration of IT resources to enable the success of an organisation's strategic goals" (IoDSA 2009: 52). Regardless of how IT governance is defined, it ensures the maximisation of IT benefits, responsible use of IT resources, harmonisation of IT with the organisation, and the management of IT risks (Lubbard 2014).

An IT governance system should therefore communicate the state of IT governance to stakeholders (PWC 2012). Communication should be through board disclosures by sharing information that is valuable for decision-making (Simpson 2013). The global financial crisis heightened concerns around governance structures and the need for transparency (Association of Chartered Certified Accountants (ACCA) 2009). Therefore, as a minimum, disclosures allow organisations and regulators to react in a timely manner to underlying economic predicaments and assist stakeholders in understanding an organisation's policies and structures in terms of compliance with governance and ethical standards (Hong Kong Society of Accountants 2001). Organisations view information disclosure as an opportunity for open and transparent communication with stakeholders and a way of improving their internal reporting processes and governance structures (ACCA 2009). However, good reporting does not necessarily indicate good governance (ACCA 2009). It does, however, demonstrate the emphasis placed on governance by the board (Financial Markets Authority 2016). Some authors (De Haes, Joshi, Huygh

& Jansen 2015) reiterate this view, pointing out that the board's involvement in IT governance improves the organisation's performance as well as reporting on non-financial disclosures.

IT has revolutionised business operations and has become an invaluable business asset. The extensive use of IT and the dependency of most businesses on it, has placed the spotlight on IT governance (De Haes & Van Grembergen 2005). IT violations could cause substantial financial loss and create regulatory risk to organisations. Executives should therefore view IT governance as a matter of prime strategic importance (Janahi, Griffiths & Al-Ammal 2015). Sound IT governance which supports organisational strategies, lays the foundation for good practices and allows top-performing organisations to derive value from IT (Weill & Ross 2004). Strong IT governance is the most convincing predictor of IT-generated value in organisations (Weill & Ross 2005a). This notion is supported by Adendorff *et al.* (2014) who maintain that IT governance is the most important part of business management as a strategic corporate governance instrument.

Organisations with strong IT governance are most likely to lead in the effective use of IT to sustain their business (Guildentops 2003; Weill & Ross 2004). Weak IT governance is likely lead to the incomplete or ineffective use of technology, reducing the reliability and integrity of management and financial information and increasing the risk of poor security and control (Guildentops 2003). IT governance is of particular importance because, if adequately exploited, it can become a major driver of economic wealth for an organisation. Particularly in South Africa, the government's IT sector operates in silos, with departments purchasing their own IT requirements without much consideration for the future (Ntuli 2013), resulting in wasteful IT expenditure. For example, IT projects often overrun timelines and budgets, and in most cases, do not add value to the organisation (Marnewick & Labuschagne 2011). Furthermore, many organisations make IT decisions with no consideration for good corporate governance principles (Marnewick & Labuschagne 2011). As IT constitutes a large proportion of investment, it requires proper governance.

There is no single best formula for IT governance. However, it is important to note that effective IT governance does not occur by accident (Weill & Ross 2005b). Therefore, in exercising its fiduciary duties, the board should ensure oversight of IT governance (IoDSA 2009; Coertze & von Solms 2013). IT governance should occur at all three levels of the organisation, with lower and middle level management focusing on the framework, while executive management and the board focus on the King Code principles (Butler & Butler 2010).

SOEs are not immune to the risks of IT as they are also largely dependent on IT in their business operations. It is therefore necessary to implement structures to govern and oversee IT spending in SOEs

which can also result in substantial cost savings (Shane, Lafferty & Beasley 1999). According to common law, the King Code is binding to SOEs. For example, in the court case between the South African Broadcasting Corporation v Mpofu, the principles of King were deemed to be binding on SOEs (Kleitman 2016). Similarly, in the Minister of Water Affairs and Forestry v Stilfontein Gold Mining Company, the King Code principles were used as a benchmark against which to measure the conduct of directors insofar as their fiduciary duties were questioned (Kleitman 2016). Consequently, it is evident that the King Code plays a pivotal role in providing guidelines for IT governance implementation in SOEs.

The South African government has made positive developments by improving SOEs' functioning and operations. These developments include: the close monitoring of SOEs by National Treasury (Ministry of Public Enterprises 2001); the establishment of the PRC to provide feedback on the performance of SOEs (The Presidency 2016); and a restructuring programme between 2000 and 2004, focusing on the transport, telecommunications, energy and defence industries (Ministry of Public Enterprises 2001). Some of the objectives of the restructuring was to attract foreign investment, promote fair competition, enhance SOEs' competitiveness, reduce state debt and mobilise private sector investment and expertise (Ministry of Public Enterprises 2001). More recently, in 2016, on the recommendation of the PRC, the Presidential SOE Coordinating Council was established, in order to improve SOEs' performance (The Presidency 2016). In addition, the PRC recommended that the South African public sector establish a culture of good governance, specifically in terms of IT (Van Der Walt, Von Solms & Coetsee 2014).

The public sector should be at the forefront of promoting IT governance transparency in the South African economy. However, the lack of accountability and transparency in the public sector leads to inefficient markets and economic instability, deterring long-term sustainability (Bergmann 2014). IT governance is one of the ways in which SOEs can ensure sound IT spend and optimal use of IT resources to make their expected contributions to the economy and to ensure high returns on their IT investment (Wibowo 2011). SOEs implementing proper IT governance would benefit from reduced IT costs, thereby freeing up funds which could be redirected to other more critical areas (Ntuli 2013). IT governance should be incorporated into the integrated reports to ensure that the specific opportunities and threats associated with IT are appropriately managed (De Haes *et al.* 2015). It is against this background that this study sought to investigate the extent to which IT governance has been disclosed in the integrated reports of SOEs, according to the principles of the King Code.

RESEARCH METHOD

Qualitative data collection methods were used to answer the research question of the state of IT governance disclosure in SOEs. This involved the use of non-numerical data (Saunders, Lewis &

Thornhill 2009), which included the IT governance disclosures, which was collected from secondary data in the SOEs' annual integrated reports. Purposive sampling, "synonymous with qualitative research" (Given 2008: 697), was used to select the sample. The sample was limited to SOEs found on the Schedule 2 list of public entities who have listed bonds or equities on the Johannesburg Stock Exchange (JSE).

Schedule 2 entities are a focus of this study, as these entities make a significant contribution to the South African economy and a considerable portion of the South African government's capital spend is made on these entities (Ministry of Public Enterprises 2001). It would be expected that the IT spend in these entities would be significant, and governance would be of paramount importance. According to the South African Finance Minister, most major infrastructure is financed in the SOEs' Statements of Financial Position. Consequently, these entities need to be financially sound and operate effectively in order to make any real impact on the economy (Ministry of Finance 2015).

Schedule 2 consists of 21 entities. However, only nine of these entities have listed bonds or equities on the JSE. Thus, all nine entities - ACSA SOC Limited; Denel SOC Limited; Development Bank of Southern Africa SOC Limited; Eskom SOC Limited; Industrial Development Corporation of South Africa SOC Limited; Land and Agricultural Development Bank of South Africa SOC Limited; Telkom SA Limited; Trans-Caledon Tunnel Authority SOC Limited; and Transnet SOC Limited - were selected for this study.

Integrated reports are publicly available, thus permission to use this information was not required. However, the information remains sensitive and no mention of the SOEs' actual names appeared in the results. Despite the fact that these are publicly available documents, they were only used by the researchers for the intended purpose of the study. Only audited integrated reports were used in the study, with a cut-off date of 31 March 2017. Therefore, one year of integrated reports were reviewed for each of the nine entities.

DATA ANALYSIS AND RESEARCH FINDINGS

The integrated reports were analysed using content analysis. This involved the analysis and observation of data contained in the reports to evaluate the inclusion or exclusion of any analytical criteria (Zikmund 2003). The SOEs' integrated reports were evaluated against a checklist containing 24 recommended guidelines in King III. If an entity disclosed the information as set out in King III, it was allocated a 'yes'; if the entity did not disclose the information, it was allocated a 'no.' Integrated reports are the medium through which SOEs disclose their governance information to stakeholders. For the purposes

of answering the research question, where a guideline was disclosed elsewhere in the integrated report, other than the specific section referring to 'IT governance' it was considered to be disclosed.

King III information technology governance disclosures

From the analysis of the integrated reports, the IT governance disclosures consisted of one to two pages. However, certain SOEs did not have a specific section that addressed IT governance. Based on the analysis, 67% of entities had a specific disclosure page dedicated to IT governance, while 33% did not have such a section but did meet certain of the disclosures by providing information elsewhere in the reports. However, all entities had some form of King III IT governance disclosure. Furthermore, all the entities stated in their integrated reports that they complied with the King III Code, however, it was established that only three entities met at least 70% of all the related disclosures (i.e. 17 of the 24 recommended practices). Only one entity met all the disclosures, followed by 92% and 71% for the second and third best disclosure requirements respectively for the SOEs.

The SOE which met all the disclosure requirements used the 'apply and explain' principle in its disclosures. This SOE stated the principle as well as whether or not it was compliant. Where the SOE did not follow the guidelines as set out in King III, it explained how compliance was achieved. The three entities identified as adhering to at least 70% of King III disclosures all had a specific section in the integrated report dedicated to IT governance. The results of the analysis for the specific principles of King III are set out in the respective tables below.

Table 1: *Results for the analysis of King III - Role of the board*

Recommended practice: Principle 5.1		**Yes**		**No**	
		n **SOE**	**%**	***n*** **SOE**	**%**
5.1.1	The board should assume the responsibility for the governance of IT and place it on the board's agenda	6	67	3	33
5.1.2	The board should ensure that an IT charter and policies are established and implemented	1	11	8	89
5.1.3	The board should the ensure promotion of an ethical IT governance culture and awareness and of a common IT language	5	56	4	44
5.1.4	The board should ensure that an IT internal control framework is adopted and implemented	5	56	4	44
5.1.5	The board should receive independent assurance on the effectiveness of the IT internal controls	3	33	6	67
	Total	20	44	25	56

n: number of SOEs

The results indicate that of the five disclosures relating to the role of the board, 44% were adhered to while the remaining 56% were not adhered to. Principle 5.1.1 regarding the boards' responsibility for IT governance had the highest disclosure, with six of the nine entities disclosing this principle in the integrated reports. As reported in the literature (IoDSA 2009; Coertze & von Solms, 2013), the board should ensure oversight of IT governance in exercising its fiduciary duties. Therefore, three entities did not comply with this requirement. Principle 5.1.2 'The board should ensure that an IT charter and policies are established and implemented' was only disclosed by one entity. Several entities stated that they obtained assurance on the effectiveness of internal controls, but they did not specifically mention the IT controls.

Table 2: *Results for the analysis of King III - Role of the board concerning IT strategy*

Recommended practice: Principle 5.2		**Yes**		**No**	
		n **SOE**	**%**	***n*** **SOE**	**%**
5.2.1.	The board should ensure that the IT strategy is integrated with the company's strategic and business processes	7	78	2	22
5.2.2.	The board should ensure that there is a process in place to identity and exploit opportunities to improve the performance and sustainability of the company through the use of IT	7	78	2	22
	Total	14	78	4	22

n: number of SOEs

The results show that seven (78%) entities adhered to the disclosures for Principle 5.2. There was an increased compliance in respect of disclosures in these principles, as most of the SOEs appear to understand the need for leveraging the use of IT against their strategies. As Weill and Ross (2004) attest, implementing effective IT governance to support organisational strategies lays a solid foundation for good governance.

Table 3: *Results for the analysis of King III - Management to assist the board in exercising oversight of IT governance*

Recommended practice: Principle 5.3		**Yes**		**No**	
		n **SOE**	**%**	***n*** **SOE**	**%**
5.3.1.	Management should be responsible for the implementation of the structures, processes, and mechanisms for the IT governance framework	6	67	3	33
5.3.2.	The board may appoint an IT steering committee or similar function to assist with its governance of IT	8	89	1	11
5.3.3.	The CEO should appoint a CIO responsible for the management of IT	5	56	4	44

5.3.4.	The CIO should be a suitably qualified and experienced person who should have access to the board and/or appropriate board committee and executive management and interact regularly on strategic IT matters	5	56	4	44
	Total	24	67	12	33

n: number of SOEs

Principle 5.3 had 67% of the disclosures adhered to. The highest recorded percentage of adherence was at 89% for principle 5.3.2 "The board may appoint an IT steering committee or similar function to assist with its governance of IT". Principles 5.3.3 and 5.3.4, on the other hand, recorded the least number of disclosure on CIO qualifications and experience. Five (56%) of the nine entities stated who their CIO was and whether they were qualified for the position.

Table 4: *Results for the analysis of King III - Board to ensure positive rate on return of IT investments*

Recommended practice: Principle 5.4		**Yes**		**No**	
		n **SOE**	**%**	***n*** **SOE**	**%**
5.4.1.	The board should oversee the value delivery of IT and monitor the ROI from significant IT projects	3	33	6	67
5.4.2.	The board should ensure that intellectual property contained in Information System is protected	2	22	7	78
5.4.3.	The board should obtain independent assurance on the IT governance and controls supporting outsourced IT services	2	22	7	78
	Total	7	26	20	74

n: number of SOEs

Of the entities reviewed, only 26% adhered to the disclosures recommended in Principle 5.4 regarding the board ensuring a positive rate of return on IT investments. As observed by Wibowo (2011), IT governance is a way in which SOEs can ensure sound IT spend and optimum use of IT resources in order for them to make a valid contribution to the economy and ensure high returns on their IT investment. Therefore, the lack of disclosure for this principle is concerning. This result could be attributed to the fact that some of the entities not outsourcing services in the period under review. Most of the entities mentioned security as a key risk area, but there was no mention of the protection of intellectual property.

Table 5: *Results for the analysis of King III - Disaster recovery process*

		Yes		**No**	
	Recommended practice: Principle 5.5	***n*** **SOE**	**%**	***n*** **SOE**	**%**

5.5.1.	Management should regularly demonstrate to the board that the company has adequate business resilience arrangements in place for disaster recovery	6	67	3	33
5.5.2.	The board should ensure that the company complies with IT laws and that IT related rules, codes, and standards are considered	3	33	6	67
	Total	9	50	9	50

n: number of SOEs

A total 50% of the disclosures for Principle 5.5 were adhered to by the SOEs. Six (67%) of the nine entities disclosed Principle 5.5.1, while three (33%) adhered to the disclosure of Principle 5.5.2. All the entities stated that they complied with laws and regulations in general, however, only three entities elaborated that they complied with IT laws and regulations.

Table 6: *Results for the analysis of King III - Information security policy*

	Recommended practice: Principle 5.6	***n*** **SOE**	**%**	***n*** **SOE**	**%**
5.6.1.	The board should ensure that there are systems in place for the management of information, which should include information security, information management, and information privacy	4	44	5	56
5.6.2.	The board should ensure that all personal information is treated by the company as an important business asset and that it is identified	2	22	7	78
5.6.3.	The board should ensure that an Information Security Management System is developed and implemented	4	44	5	56
5.6.4.	The board should approve the information security strategy and delegate and empower management to implement the strategy	3	33	6	67
	Total	13	36	19	64

n: number of SOEs

Of the SOEs reviewed, 36% adhered to the disclosures for Principle 5.6. The highest adherence to disclosure (44%) was observed for Principles 5.6.1 and 5.6.3 while Principle 5.6.2 had the lowest adherence with only 22%. This is most likely due to entities not wanting to disclose their security strategy information, however, all the SOEs did mention cybersecurity as one of their top priority risks. McFadzean, Ezingeard, and Birchall (2007) state that executives view information security as a competitive weapon, which supports the above inference.

Table 7: *Results for the analysis of King III - Risk and Audit Committee to address IT risks*

Recommended practice: Principle 5.7	**Yes**	**No**

		n SOE	%	*n* SOE	%
5.7.1.	The risk committee should ensure that IT risks are adequately addressed	7	78	2	22
5.7.2.	The risk committee should obtain appropriate assurance that controls are in place and sufficiently effective to address IT risks	6	67	3	33
5.7.3.	The audit committee should consider IT as it relates to financial reporting and the going concern of the company	6	67	3	33
5.7.4.	The audit committee should consider the use of technology to improve audit coverage and efficiency	6	67	3	33
	Total	25	69	11	31

n: number of SOEs

Seven (78%) entities disclosed Principle 5.7.1 while six (67%) disclosed the remaining attached guidelines 5.7.2 to 5.7.4. This resulted in an overall compliance of 69%. This figure is likely due to the fact that most entities realise the risks that IT brings and therefore consider IT as one of the top priority risks, as documented in their integrated reports. Another reason is that four of the nine entities combined their audit and risk committees rather than having two stand-alone committees. The JSE allows the audit committee and the risk committee to be combined as long as they comply with the more stringent criteria imposed on the audit committees with regard to independence (Deloitte 2016).

CONCLUSIONS, RECOMMENDATIONS, LIMITATIONS AND AREAS FOR FUTURE RESEARCH

The study sought to establish whether IT governance was disclosed by SOEs as set out in their integrated reports. The disclosures were evaluated against the King III IT governance recommended guidelines. When considering the impact of IT, and the significant portion of the budget that is allocated to this area, governance of disclosure is important. Furthermore, SOEs are funded by the government using taxpayers' funds and should therefore be accountable to the public for IT expenditure. Added to this, stakeholders have a greater need for transparency and accountability given the recent corporate scandals, and should be informed of the state of IT governance within the organisation. IT governance information should be incorporated into the integrated annual report not only because of its importance but also because of the unique opportunities and threats that are associated with IT.

First, the findings reveal that all the entities stated in their integrated reports that they complied with the King III Code, however, it was established that only three entities met at least 70% of all the related disclosures (i.e. 17 of the 24 recommended practices). Only one entity met all the disclosures, followed by 92% and 71% for the second and third best disclosure requirements respectively for the SOEs.

The SOE which met all the disclosure requirements used the 'apply and explain' principle in its disclosures. This SOE stated the principle as well as whether or not it was compliant. Where the SOE did not follow the guidelines as set out in King III, it explained how compliance was achieved. The three entities identified as adhering to at least 70% of King III disclosures all had a specific section in the integrated report dedicated to IT governance. This study can be useful to SOEs' boards in evaluating the IT information contained in their integrated reports in order to conceptualise what measures they need to implement to ensure compliance. The mere fact that all companies had some form of IT governance disclosure indicates that IT governance systems are likely to be in place and that more attention needs to be given to IT governance reporting.

It is recommended that the disclosures provided by SOEs be more complete in order to provide a clearer picture of the state of IT governance in SOEs. This is because integrated reports are one of the most common forms of feedback that stakeholders are more likely to look at in order to understand an entity's IT governance processes. Furthermore, it was found that the three entities that adhered to at least 70% of King III disclosures all had a specific section in the integrated report dedicated to IT governance. Therefore, it is recommended that SOEs have a separate section dedicated to IT governance.

One of the limitations of the research was that the results of the study may only apply to South African SOEs, particularly those listed in Schedule 2. The study is spread across many industries, which may have different levels of investment and risks related to IT. This may affect the importance attached to IT governance. Another limitation is the research is non-empirical as the results of the study are biased towards information disclosed in integrated reports, which may not give a complete picture of the current state of IT governance. This is most likely due to the fact that reporting is based on historical data rather than current information. Using approaches such as questionnaires, future studies could identify IT governance disclosure based on current empirical data. A third limitation, was that the study was conducted during a transformation period in South African corporate governance principles, and does not reflect the latest developments in terms of King IV. This study however affords the opportunity for future research. Future research on disclosure of IT governance in South Africa, incorporating the changes of King IV, should be conducted annually so as determine whether the extent of disclosure has improved or deteriorated. Moreover, the significance of this research is to provide a contribution that can be used by the Ministry of Public Enterprises to revise existing policies or to prioritise IT governance policies.

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