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INFORMATION TECHNOLOGY GOVERNANCE DISCLOSURE COMPLIANCE OF JSE-LISTED COMPANIES

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─Abstract ─

Information Technology (IT) plays a vital role in the operations of companies, easing most business processes. However, IT introduces unique risks for which governance is essential. The Johannesburg Stock Exchange (JSE) of listed companies are required to comply with the King Code of Governance 2009 (King III), including requirements related to IT, yet previous research indicated areas for improvement in compliance. This study determined the extent to which JSE-listed companies comply with the King III IT governance requirements by means of an empirical review of companies' most recent financial reports, and found that not all businesses fully comply with these requirements. It is believed that this study will assist the Institute of Directors in Southern Africa, authors of the King reports, in clarifying the disclosure requirements of IT governance. These findings will benefit investors as agreement with governance is an important investment consideration. In addition, the present study clarifies compliance requirements of King III for companies' management.

Key Words: *Information Technology (IT), IT-related risks, IT risk, IT governance, JSE-listed, King III*

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1. INTRODUCTION

Information Technology (IT) plays an ever-growing role in how companies achieve their business objectives (Hirth, 2008). Amnseven (2010) is among those who declare that IT assistance is needed for management to advance the efficiency and effectiveness of their business procedures, work group collaboration and decision-making to strengthen the position of their companies in a dynamic environment. The most important tasks in the financial reporting procedures in particular are accomplished and supported by using IT. Whittington and Pany (2006) point out that IT-based systems improve the reliability of financial information as they process transactions uniformly, thereby eliminating human errors that may occur in a manual system. In order to guarantee reliable financial reporting, however, the usage and development of effective IT controls are of the utmost importance (Pirta & Strazdina, 2012). In addition, IT is a fast-developing field that frequently undergoes significant changes and renewal. These changes introduce risks to the IT culture that require specific and effective controls to be in place (Hall, 2011).

The IT governance network (2013) defines IT governance as the "senior management's ability to direct, measure and evaluate the use of a company's IT resources in support of the achievement of the organisation's strategic objectives. Leadership, organisational structure and processes are used to leverage IT resources to produce the information required and drive the alignment, delivery of value, management of risk, optimised use of resources, sustainability and the management of performance." IT governance was therefore introduced to more effectively manage and deal with the risks imposed by the technology. In order to minimise and control these risks, some countries have developed and implemented different IT risk assessment and governance policies.

In South Africa, the King Codes of Governance (including the King Code of Governance 2009 (King III)) were introduced by The Institute of Directors in Southern Africa (IODSA) in response to increasing concerns about corporate failures and the perceived need for a formal code of corporate governance (Walker & Meiring, 2010). King III became effective in March 2010 (IODSA, 2016) and is the first King report to incorporate IT governance (Walker & Meiring, 2010). King I on corporate governance was published in 1994 by the Institute of Directors and the report aimed to assist companies and their directors by providing a comprehensive set of principles and guidelines to codify, clarify

and elaborate on the common law principles of corporate governance. King II was issued in March 2002, which reviewed and expanded on King I with the same intention: to assist the companies and directors with corporate governance (Walker & Meiring, 2010). The King II report was then replaced by the third King code and this was due to the introduction of some new practices, including the composition and role of the Board of Directors, the Board committees and the emphasis on IT governance, as well as the need to publish an integrated report (Muwandi, 2010).

The importance of identifying and addressing IT-related risks is evident, although previous research indicates that some companies did not meet the necessary requirements. Janse van Vuuren (2006) investigated which companies complied with risk management according to King II — which includes IT— and found that compliance varied between 33% and 95%, depending on the requirement criterion.

2. THE USE OF IT IN BUSINESS AND THE NEED FOR ITS GOVERNANCE

The unprecedented advances in technology have revolutionised nearly all aspects of contemporary life. Today, organisations are embracing IT development to keep pace with growing competition in the market environment, raising productivity, helping companies improve business processes, achieve cost efficiencies and help drive revenue growth (Oven, White, Katyal, & Henchock, 2012). IT has accelerated data processing and swiftly achieves multiple tasks (Alkebsi, Aziz, Mohammed, & Dhaifallah, 2014). Technology is able to convert information into new, comprehensible, more attractive and more useful forms (Curtin, Foley, Sen & Morin, 1998).

Mackechnie (2015) acknowledges that IT has become the vital integral part of every business plan, from small businesses that own a single computer to multi-national corporations that operate mainframe systems and databases. Technologically advanced business processes assists companies to be enduring and to have a competitive advantage (Jovarauskienė & Pilinkienė, 2009).

However, IT, as well as its rapid change, introduces risks that companies need to address. Risks such as exposure to malware, failure to comply with corporate IT policies and controls, compromised system or data breeches, unauthorised changes to master files, and uncontrolled access to data, affect organisations and

their internal audit functions, making it important for the entity's systems to govern these risks through effective controls (Ellingwood, 2011 & Marx *et al.*, 2011:9-12 & Mizoguchi, 2012).

The purpose of IT governance is therefore to direct IT endeavours to ensure that they meet the objectives set out in a company's strategy (Noraini, Bokolo, Rozi, and Masrah, 2015). This is in line with the recommended IT governance risk disclosure requirement that "IT should be aligned with the performance and sustainability objectives of the company" (IODSA, 2009) (Table 1). It has been claimed that an organisation needs to provide an equivalent level of commitment to IT governance as it allocates to corporate governance in order to achieve corporate success (Rao, 2003). Brisebois, Boyd and Shadid (2009) affirm that IT governance should be reviewed in terms of how it adds value to the company and should conform to its overall corporate governance strategy. The extent to which companies' performance succeeds in these respects should be monitored by the respective board of directors (IODSA, 2009). Refer to Table 1 which indicates the recommended IT governance risk disclosure requirements.

Deloitte conducted a survey of 1 200 Chief Audit Executives in 29 countries and eight industry sectors in 2016. In this survey, only 13 percent of the participants felt that they were content with their groups' skills, due to a lack of specifically advanced information technology skills. In addition, while organisations develop suitable internal controls, the disclosure of the IT-related risks and the methods that companies use to overcome these risks are left unaddressed or only partially addressed (Hirth, 2008). Incomplete disclosure results in an incomplete plan that may expose the organisation to great risks of data loss, material misstatements of financial statements or potential failure of the organisation (Hirth, 2008). These threats therefore indicate a substantial risk to organisations' ability to continue as going concerns, making IT governance of the greatest importance. Investors view compliance with governance as an important investment consideration. Research conducted by Gompers, Ishii and Metrick (2001) established "a striking relationship between corporate governance and stock returns."

3. KING III's IT GOVERNANCE REQUIREMENTS

In accordance with the Institute of Directors in Southern Africa (2009), King III deals with IT governance in detail because the technology introduces operational risks. For example, when a company outsources its IT services, it may create risks

as trusted information is being exposed. IT governance should assess the confidentiality, integrity and availability of the information system.

King III makes recommendations regarding IT governance that South African companies should abide by, which are set out in the left-hand column of Table 1. The second column indicates examples of statements formulated by audit firms based on King III's requirements that indicate compliance. These statements provide more clarity on the IT governance risk disclosure requirements. These requirements were used as a basis to evaluate compliance of the JSE-listed companies.

Table 1: Recommended IT governance risk disclosure requirements

TEST (IODSA, 2009)	**Examples of statements indicating compliance**
1. The Board of Directors should be responsible for IT governance.	• The IT governance framework is established in the entity (PwC, 2015:1). • IT governance is part of the company's Board of Directors' agenda (PwC, 2015:1).
2. IT should be aligned with the performance and sustainability objectives of the company.	• The IT strategy is integrated with the company's strategic and business processes (KPMG, 2009:6). • The IT value proposition is defined, maintained and validated by the organisation (KPMG, 2009:6). • Specific consideration is given to all the negative impacts that IT could have on the business environment of the company (KPMG, 2009:6). • There is a process in place to identify and to exploit opportunities to improve the performance and sustainability of the company through the use of IT (KPMG, 2009:6).
3. The Board of Directors should delegate to management the responsibility to implement an IT governance framework.	• The responsibility for implementation of the structures, processes and mechanisms for the IT governance framework is delegated to management (Roos, 2012:7). • The Board of Directors have appointed an IT management committee or similar function to assist with its governance of IT (Roos, 2012:7). • The company's CEO has appointed a CIO responsible for the management of IT (Roos, 2012:7).
4. The Board of Directors should monitor and evaluate significant IT investments and expenditure.	• The amount spent on, and the value gained from IT (Roos, 2012:8). • The Board of Directors oversees value delivery in IT and monitors the return on investments from significant IT projects (Roos, 2012:8).

TEST (IODSA, 2009)	**Examples of statements indicating compliance**
5. IT should form an integral part of the company's risk management.	• IT-related risks forms part of the company's risk management activities and considerations (PwC, 2015:1). • The company complies with the IT-related laws, rules, codes and standards (PwC, 2015:1). • The management of the company regularly report to the Board of Directors that the company has adequate business resilience arrangements in place for disaster recovery (PwC, 2015:1).
6. The Board of Directors should ensure that information assets are managed effectively.	• Information is managed and personal information (information privacy) is protected (KPMG, 2009:6). • The Board of Directors ensures that an Information Security Management System is developed and implemented (KPMG, 2009:6). • The Board of Directors approves the information security strategy and delegates and empowers management to implement the strategy (KPMG, 2009:6).
7. A risk committee and audit committee should assist the Board of Directors in carrying out its IT responsibilities.	• The risk committee ensures that IT-related risks are adequately addressed (PwC 2015:1). • The risk committee obtains appropriate assurance that controls are in place and are effective to address IT-related risks (PwC 2015:1). • The audit committee considers IT as part of the going concern of the company as it relates to financial reporting (PwC 2015:1). • The audit committee considers the use of technology to improve audit coverage and efficiency (PwC 2015:1).

Although King III sets forth the "apply or explain" principle in companies' reporting procedures, companies should disclose both compliance and non-compliance: "All entities should by way of explanation make a positive statement about how the principles have been applied or have not been applied. This level of disclosure will allow stakeholders to comment on and challenge the board on the quality of governance" (IODSA, 2009:16). The integrated report should therefore include the core information (that King III is applied as the company's corporate code of governance), and the detailed reporting (the application register or fact sheet) is allowed to be available on the company's website (IODSA, 2013).

4. PROBLEM STATEMENT

IT threats places organisations' ability to continue as going concerns at great risk. In addition to this, compliance with governance is seen as a vital investment consideration, making it of utmost importance to know the extent to which

companies comply thereto. The extent to which companies listed on the JSE comply with King III's IT governance requirements is however unknown. This study investigated how far these companies comply in 2016 compared with the 2006 compliance based on King II.

5. RESEARCH METHODOLOGY

A partially mixed sequential dominant status design approach was followed. King III's IT governance requirements were analysed and the latest, publicly available integrated reports as at 31 March 2016 of the selected companies were compared to the statements set out in Table 1 to determine compliance to these requirements, as they are required to do by law (JSE, 2012). This was done by means of a qualitative documentary analysis of the integrated reports which was the dominant approach. In addition, a quantitative approach was subsequently followed to determine the extent of compliance of the selected companies. The extent of individual companies' compliance to all IT governance requirements were analysed as well as the extent of compliance of all selected companies per individual requirement.

The sample comprised the top 40 JSE-listed companies, which are the largest listed businesses in the country based on market capitalisation, and represent diverse industries.

6. FINDINGS

The evidence for the compliance of the top 40 JSE-listed companies with King III's IT governance requirements are presented in Table 2.

Table 2: Top 40 JSE-listed companies' compliance with King III's IT governance requirements

JSE Top 40 company No.	Recommended IT governance risk disclosure requirements as per Table 1							Compliance verified
	1	2	3	4	5	6	7	
1								Company with JSE as secondary listing
2	✔	✔	✔	✔	✔	✔	✔	Fully
3	✔	✔	✔	✔	✔	✔	✔	Fully
4								Company with JSE as secondary listing
5	✔	✔	✔	✔	✔	✔	✔	Fully

JSE Top 40 company No.	Recommended IT governance risk disclosure requirements as per Table 1							Compliance verified
	1	2	3	4	5	6	7	
6	✔	✔	✔	✔	✔	✔	✔	Fully
7								Company with JSE as secondary listing
8	✔	✔	✔	✔	✔	✔	✔	Fully
9								Company with JSE as secondary listing
10								Company with JSE as secondary listing
11								Company with JSE as secondary listing
12	✔	✔	✔	✔	✔	✔	✔	Fully but without statement about how the principles have been applied or have not been applied
13								Company with JSE as secondary listing
14	✔	✔	✔	✔	✔	✔	✔	Fully
15	✔	✔	✔	✔	✔	✔	✔	Fully but without statement about how the principles have been applied or have not been applied
16								Company with JSE as secondary listing
17	✔	✔	✔	✔	✔	✔	✔	Fully
18								Company with JSE as secondary listing
19	✔	✔	✔	✔	✔	✔	✔	Company with JSE as secondary listing, also comply with King IIII
20	✔	✔	✔	✔	✔	✔	✔	Fully
21	✔	✔	✔	✔	✔	✔	✔	Company with JSE as secondary listing, also comply with King IIII
22	✔	✔	✔	✔	✔	✔	✔	Fully
23	✔	✔	✔	✔	✔	✔	✔	Fully but without statement about how the principles have been applied or have not been applied
24	✔	✔	✔	✔	✔	✔	✔	Fully
25								Company with JSE as secondary listing
26	✔	✔	✔	✔	✔	✔	✔	Fully but without statement about how the principles have been applied or have not been applied

JSE Top 40 company No.	Recommended IT governance risk disclosure requirements as per Table 1							Compliance verified
	1	2	3	4	5	6	7	
27	✔	✔	✔	✔	✔	✔	✔	Fully
28								Company with JSE as secondary listing
29	✔	✔	✔	✔	✔	✔	✔	Fully
30	✔	✔	✔	✔	✔	✔	✔	Fully but without statement about how the principles have been applied or have not been applied
31								Company with JSE as secondary listing
32	✔	✔	✔	✔	✔	✔	✔	Fully but without statement about how the principles have been applied or have not been applied
33	✔	✔	✔	✔	✔	✔	✔	Fully
34	✔	✔	✔	✔	✔	✔	✔	Fully
35								Company with JSE as secondary listing
36	✔	✔	✔	✔	✔	✔	✔	Fully
37	✔	✔	✔	✔	✔	✔	✔	Fully
38	✔	✔	✔	✔	✔	✔	✔	Fully
39	✔	✔	✔	✔	✔	✔	✔	Fully
40	✔	✔	✔	✔	✔	✔	✔	Fully

Nineteen of these companies (47 per cent) are fully compliant. These companies all indicated that they satisfy the JSE listings requirements and principles set out in King III and that a King III fact sheet or application register can be found on their respective websites, as verified.

Six of the companies (15 per cent) partially comply. They claimed full compliance in their integrated reports, without a positive statement about how the principles have been applied as is required by King III. Five of the six companies had an application register displaying full compliance, without statements of compliance. The sixth company declared compliance with King III and explained only instances of non-compliance. It is submitted that these companies are aware of the need to comply with King III, but not of the requirement to indicate how the requirement was satisfied or not.

Lastly, 15 of the top 40 companies (38 per cent) do not comply with any of the IT governance requirements. These companies' non-compliance is, however, lawful due to their listing on the JSE being a secondary listing. Secondary listing is defined as "any listing of a security on a market other than its primary exchange" (Investordictionary, 2016). This term is used to indicate all companies with their primary listing on a market other than the JSE. King III applies only to primary listed companies, as paragraph 18.4 of the JSE listing requirements (JSE, 2012) states that secondary listed companies are only required to comply with its primary listing stipulations, making the application of King III unnecessary for these companies. However, these dually listed companies must, in the pre-listing statement, disclose the corporate governance arrangements for the primary exchange. All such companies declared compliance with their primary listing's corporate governance report in their integrated report, indicating full compliance with their corporate governance.

The findings above indicate that IT corporate governance improved from previous studies performed (Janse van Vuuren, 2006). Although only 15 per cent of the top 40 JSE-listed companies did not fully comply, these companies are argued to be the top companies based on market capitalisation and the extent of compliance of other entities is therefore a concern.

7. CONCLUSION

IT has become an integral part of business due to its fast processing ability in today's information-dense society, and can result in improved productivity and cost efficiencies. Although IT may be extremely useful, it is ever changing, which continuously introduces risks that companies need to address. King III therefore introduced formal IT governance to South Africa and requires companies to explain compliance and non-compliance in their integrated reports (IODSA, 2009). JSE-listed entities have to comply with King III.

The findings revealed that the top 40 companies display good, but not excellent, IT governance through King III compliance. Fifteen per cent of the companies partially complied. This indicates a significant improvement from previous studies performed on King II risk governance where compliance varied between 33 per cent and 95 per cent. However, better compliance was expected from these leading businesses. It is advised that companies ensure that compliance and non-compliance are explained as required by King III.

These findings will assist the Institute of Directors in Southern Africa to clarify the disclosure requirements as part of the development of King IV, which will be currently being developed. In addition, we wish to highlight the lack of disclosure to governing bodies of companies to aid transparency to the benefit of all company stakeholders, such as investors.

Further research may be conducted to investigate whether other JSE-listed companies comply with the IT requirements of King III. Research can also be performed to determine the reason for the improvement in compliance between the different King reports. Subsequent investigation may determine compliance with King IV IT governance requirements after its implementation.

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