

Exploring How Corporate Governance Codes Address IT Governance

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IT governance, also referred to as governance of enterprise IT (GEIT) or corporate governance of IT, is a subset of corporate governance that is concerned with enterprise IT assets. In an analogy to corporate governance, IT governance is concerned with the oversight of IT assets, their contribution to business value and the mitigation of IT-related risk.¹ A commonly referenced definition states:

Enterprise governance of IT is an integral part of corporate governance exercised by the board and addresses the definition and implementation of processes, structures and relational mechanisms in the organization that enable both business and IT people to execute their responsibilities in support of business/IT alignment and the creation of business value from IT-enabled business investments.²

Prior studies identify five domains that warrant oversight of the board of directors (BoD) and executive management in governing IT assets:^{3, 4, 5, 6}

- **Strategic alignment**—Focuses on aligning business and IT strategies and operations
- **Value delivery**—Concentrates on optimizing expenses and proving the value of IT
- **Risk management**—Addresses the IT-related business risk
- **Resource management**—Optimizes IT-related knowledge and resources
- **Performance measurement**—Monitors IT-enabled investment and service delivery

Emerging research calls for more board-level engagement in IT governance and identifies serious consequences for enterprises if the board is not involved. For example, high levels of board engagement in IT governance, regardless of existing IT needs, increases enterprise performance.⁷ From the board perspective, there is also a growing need to comply with an increasing amount of regulatory and legal requirements (e.g., privacy), of which many also impact IT. These

Steven De Haes, Ph.D.

Is a full professor of information systems management at the University of Antwerp—Faculty of Applied Economics and at the Antwerp Management School (Belgium). He is actively engaged in teaching and applied research in the domains of digital strategies; IT governance and management; IT strategy and alignment; IT value and performance management; IT assurance and audit; and information risk and security. He acts as the academic director for this research program.

Anant Joshi, Ph.D.

Is a researcher at the University of Antwerp and Antwerp Management School (Belgium) and an assistant professor at Maastricht University (The Netherlands). His research interests include corporate governance of IT, business value of IT and corporate governance.

Tim Huygh

Is a Ph.D. candidate in information technology governance at the department of management information systems of the Faculty of Applied Economics at the University of Antwerp. His research interests include IT governance and management, and business/IT alignment.

Salvi Jansen

Is a business engineer in management information systems and a consultant at KPMG Advisory in Belgium. Working in the IT governance and strategic alignment field, he aims to provide the business with fact-based insights and enjoys delivering audit and advisory engagements in a variety of sectors. His research interest is IT governance and focuses on the processes, controls and capabilities that are needed at the executive level to direct and control IT management.

regulatory requirements redefine the responsibilities of the BoD for IT governance.⁸

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Despite the agreement between researchers and practitioners on the need for board-level involvement in IT governance, it appears that this is more the exception than the rule in practice.^{9, 10, 11} This article builds on the assumption that the

behavior of the board toward IT governance and digital leadership can be influenced by external factors, such as corporate governance codes,¹² and describes the study that answers the questions:

- What IT governance-related guidelines are contained in national corporate governance codes?
- What differences can be observed between various corporate governance codes?

Research Design

The research began with a literature review to underpin the study and to define the main concepts that were used in the research project.

Next, a sample of international corporate governance codes was analyzed. The selection of national corporate governance codes was based on two dimensions—geography (i.e., continent) and economy (i.e., income groups). Using an index of all of the corporate governance codes around the world,¹³ a national corporate governance code was selected to populate as many cells as possible (**figure 1**). When a country had multiple corporate governance codes, the most recent code for listed companies was selected. An additional requirement was that the corporate governance code should be available in English. The final sample of national corporate governance codes (N=15) is presented in **figure 1**.

Figure 1—Final Sample of National Corporate Governance Codes by Continent and Income Group (N=15)

		Continent					
		Africa	Asia	Europe	Australia	North America	South America
Income group	High	Seychelles (SC)	Japan (JP)	Belgium (BE)	Australia (AU)	United States (US)	—
	Middle	South Africa (ZA)	Lebanon (LB)	Macedonia (MK)	Fiji (FJ)	Mexico (MX)	Brazil (BR)
	Low	Ghana (GH)	India (IN)	Armenia (AM)	—	—	Guyana (GY)

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To analyze each corporate governance code for IT-governance-related content, an IT governance transparency framework was used.¹⁴ This IT governance disclosure framework contains 39 disclosure items that are distributed over the following domains (focus areas): IT strategic

alignment, IT value delivery, IT risk management and IT performance measurement (**figure 2**). Because the IT resource management domain overlays all other focus areas,¹⁵ the framework incorporates IT resource items across all of the four remaining IT governance focus areas.¹⁶ Using the

Figure 2—Item-level Analysis of Corporate Governance Codes for IT Governance-related Guidance

Country	Code Info		IT Governance Disclosure Items																																										
	Year	Pages	IT Strategic Alignment (ITSA)											IT Value Delivery (ITVD)										IT Risk Management (ITRM)				IT Performance Measurement (ITPM)																	
			IT expert on the board	IT expert with experience on the board	A chief information officer (CIO) or an equivalent position in the firm			IT committee	IT risk is part of audit committee or risk committee	IT is part of audit committee	IT steering committee	IT planning committee	Technology committee	IT committee at an executive level	CIO or equivalent is on the board	IT governance framework standard: ITIL/COBIT®/ISO, etc.	IT as an issue in the board meeting	Suggestion/decision/advice by the board on IT	Special report/section on IT/IT projects in annual report	IT mentioned as a strategic business issue	IT projected as strength	IT projected as opportunity	Project updates or comments	IT is explicitly mentioned for achieving specific business objectives	Comments/updates on IT performance	IT training	Green IT	Direction and status about IT outsourcing and insourcing	IT is referred under the operational risk	Special ITRM program	Use of IT for regulation and compliance	IT/electronic data processing (EDP) audit	Information and security policy/plan (IT security)	The role of IT in accounting and the reporting standards (IAS)	Operations continuity plan	Explicit information on IT expenditure	IT budget	IT hardware cost	IT software cost	Explicit IT manpower cost is mentioned	IT expenses are mentioned under administrative cost	IT-related assets are mentioned under intangible assets	Direct cost on IT is mentioned in currency or percentage		
Seychelles (SC)	2010	44																																											
South Africa (ZA)	2009	66	x	x	x	x	x	x	x					x		x	x	x		x										x	x	x		x		x									
Ghana (GH)	2010	27																																											
Japan (JP)	2015	44																																											
Lebanon (LB)	2010	28																																											
India (IN)	2009	24																																											
Belgium (BE)	2009	42																																											
Macedonia (MK)	2006	26																																											
Armenia (AM)	2010	18																																											
Australia (AU)	2014	44																																											
Fiji (FJ)	2008	16																																											
United States (US)	2013	27																																											
Mexico (MX)	2010	42																																											
Brazil (BR)	2009	74																																											
Guyana (GY)	2011	16																																											

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IT governance transparency framework as a coding frame, a binary classification approach was used to analyze the national corporate governance codes, i.e., an item is scored 1 if the item is present as a guideline or practice in the corporate governance code and scored 0 otherwise.

Corporate Governance Codes Make Little Reference to IT Governance or Digital Leadership

Figure 2 presents the item-level analysis of the 15 corporate governance codes for IT governance-related content. A first general observation is that, aside from the South African code, the corporate governance codes score very low overall for including IT-governance-related practices or guidelines. A reasonable explanation is that many national corporate governance codes are based on the Organization for Economic Cooperation and Development (OECD) principles of corporate governance.¹⁷ Eight of the 15 national corporate governance codes explicitly state that they are based on the OECD principles. The remaining seven corporate governance codes show a lot of similarities with the OECD principles, but do not explicitly refer to OECD. Because the G20/OECD principles do not include specific directives regarding IT governance or IT-governance disclosure (aside from using the company website as a disclosure channel for material company information), it is not an unreasonable assumption that this might lead to a low attention to IT-governance-related matters in the national corporate governance codes that use these principles as a blueprint.

An interesting observation at the item level is that use of IT for regulation and compliance in the IT risk management domain is found in 11 of the 15 selected corporate governance codes. Again, a reasonable explanation can be found in the G20/OECD principles on corporate governance. As part of disclosure and transparency, it states that the organization website provides an excellent means to disclose material company information.¹⁸ This is, indeed, a way of using IT for regulation and

compliance. Finally, the IT is part of audit committee item, belonging to the IT strategic alignment domain, is also found in the Macedonia corporate governance code. These are the only two disclosure items that were found in corporate governance codes other than South Africa.

Indeed, the South Africa corporate governance code, King III,¹⁹ contains a significant amount of IT-governance-related guidance. King III came into effect for South African entities beginning 1 March 2010 and is applicable to all entities (regardless of their size and whether or not they are listed). King III contains an IT-governance chapter consisting of seven IT-governance principles and some additional and more detailed recommended practices for each of these principles (**figure 3**).²⁰

Conclusions and Implications

In this research project, a selection of national corporate governance codes was analyzed for IT governance-related content. The findings showed that only the contemporary South African corporate governance code, King III, contains a significant amount of IT governance-related guidance.

As IT becomes more pervasive in firms all over the world, it makes sense for boards to take on accountability for IT-related matters. This view is shared by researchers and practitioners alike. In transitioning from COBIT® 4.1 to COBIT® 5, ISACA® clearly emphasized the need for board involvement in enterprise governance and management of IT. It did so by explicitly including board-level accountabilities and responsibilities in the EDM domain, thereby further emphasizing the separation between the governance and management of IT. Because boards around the world are directly influenced by corporate governance codes, it makes sense for the committees that are drafting national corporate governance codes to include guidance for board members, to enable them for their accountabilities and responsibilities in the realm of IT governance.

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Figure 3—King III IT Governance Principles and Recommended Practices

Principle	Description	Recommended Practices
5.1	The board should be responsible for information technology governance.	<ul style="list-style-type: none"> • 5.1.1. The board should assume the responsibility for the governance of IT and place it on the board agenda. • 5.1.2. The board should ensure that an IT charter and policies are established and implemented. • 5.1.3. The board should ensure promotion of an ethical IT governance culture and awareness of a common IT language. • 5.1.4. The board should ensure that an IT internal control framework is adopted and implemented. • 5.1.5. The board should receive independent assurance on the effectiveness of the IT internal controls.
5.2	IT should be aligned with the performance and sustainability objectives of the entity.	<ul style="list-style-type: none"> • 5.2.1. The board should ensure that the IT strategy is integrated with the company's strategic and business processes. • 5.2.2. The board should ensure that there is a process in place to identify and exploit opportunities to improve the performance and sustainability of the company through the use of IT.
5.3	The board should delegate the responsibility for the implementation of an IT governance framework to management.	<ul style="list-style-type: none"> • 5.3.1. Management should be responsible for the implementation of the structures, processes and mechanisms for the IT governance framework. • 5.3.2. The board may appoint an IT steering committee or similar function to assist with its governance of IT. • 5.3.3. The chief executive officer (CEO) should appoint a CIO responsible for the management of IT. • 5.3.4. The CIO should be a suitably qualified and experienced person who should have access and interact regularly on strategic IT matters with the board and/or appropriate board committee and executive management.
5.4	The board should monitor and evaluate significant IT investments and expenditure.	<ul style="list-style-type: none"> • 5.4.1. The board should oversee the value delivery of IT and monitor the return on investment from significant IT projects. • 5.4.2. The board should ensure that intellectual property contained in information systems is protected. • 5.4.3. The board should obtain independent assurance on the IT governance and controls supporting outsourced IT services.
5.5	IT should form an integral part of the entity's risk management process.	<ul style="list-style-type: none"> • 5.5.1. Management should regularly demonstrate to the board that the company has adequate business resilience arrangements in place for disaster recovery. • 5.5.2. The board should ensure that the company complies with IT laws and that IT-related rules, codes and standards are considered.
5.6	The board should ensure that information assets are managed effectively.	<ul style="list-style-type: none"> • 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. • 5.6.2. The board should ensure that all personal information is treated by the company as an important business asset and is identified. • 5.6.3. The board should ensure that an information security management system (ISMS) is developed and implemented. • 5.6.4. The board should approve the information security strategy and delegate and empower management to implement the strategy.

Figure 3—King III IT Governance Principles and Recommended Practices (cont.)

Principle	Description	Recommended Practices
5.7	A risk committee and audit committee should assist the board in carrying out its IT responsibilities.	<ul style="list-style-type: none"> • 5.7.1. The risk committee should ensure that IT risk is adequately addressed. • 5.7.2. The risk committee should obtain appropriate assurance that controls are in place and effective in addressing IT risk. • 5.7.3. The audit committee should consider IT as it relates to financial reporting and the going concern of the company. • 5.7.4. The audit committee should consider the use of technology to improve audit coverage and efficiency.

Source: Institute of Directors in South Africa; King III Code of Corporate Governance for South Africa, 2009, https://c.ymcdn.com/sites/www.iodsa.co.za/resource/collection/94445006-4F18-4335-B7FB-7F5A8B23FB3F/King_III_Code_for_Governance_Principles_.pdf

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