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Diminishing the Gap Between IT Governance Maturity Theory and Practice: Renewing the Approach

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ABSTRACT

IT governance research suggests the existence of a gap between theoretical frameworks and practice. Although current ITG research is largely focused on hard governance (structure, processes), soft governance (behavior, collaboration) is equally important and might be crucial to close the gap. The goal of this study is to determine what IT governance maturity models are available and if there remains a mismatch. The authors conducted a systematic literature review to create an overview of available IT governance maturity models. The study shows five new IT governance maturity models were introduced. Only one of the new IT governance maturity models covers hard and soft IT governance in detail. This model and corresponding instrument was used to illustrate its usability in practice. The authors demonstrate that combining the instrument with structured interviews results in a usable instrument to determine an organization's current maturity level of hard and soft IT governance.

KEYWORDS

Collaboration, Design Science, Informal Organization, IT Governance, IT Governance Maturity, Leadership, Organizational Culture, Soft Governance

INTRODUCTION

IT governance is a relatively new topic (Van Grembergen, 2004), with the first publications appearing in the late 1990s. The number of IT governance publications began to grow from 2006/2007 (Smits & van Hillegersberg, 2014a). It is widely acknowledged that corporate governance and IT governance are related. However, little is known regarding how this relationship actually works. Corporate governance is of "enormous practical importance" (Shleifer & Vishny, 1997). Various publications suggest that IT governance constitutes an integral part of corporate governance (ITGI, 2003; Lainhart & John, 2000; Van Grembergen, De Haes, & Guldentops, 2004). Corporate governance issues cannot be solved without considering IT (Van Grembergen et al., 2004). We define IT governance as the structures, process, cultures and systems that engender the successful operation of the IT of the (complete) organization, an adaptation of the corporate governance definition of Keasey and Wright (1993). Thus, IT governance is not restricted to the IT organization.

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The frameworks used for IT governance vary considerably, as can be seen in several global surveys from the ITGI addressed to 749 CEO-/CIO-level executives in 23 countries, and summarized in Table 1 (ITGI, 2008, 2011). To illustrate the diverse nature of these frameworks, we added the column 'Content'. Unfortunately, the most recent global survey from 2016 does not include a question concerning the use of IT governance frameworks.

With 13% growth for Six Sigma, 12% growth for PMI/PMBOK, 11% growth for security frameworks, 4% growth for ITIL, 3% growth for TOGAF (from 0), and a 1% decrease for COBIT in a period of four years, there is no clear leader. Furthermore, it is clear that more general frameworks like Six Sigma are fast growers, too. The relationship with project and portfolio management frameworks like PMI/PMBOK and PRINCE2 as well as architecture frameworks like TOGAF can be illustrated with cases found in academic research in which IT governance is implemented using portfolio management and architecture (Wittenburg, Matthes, Fischer, & Hallermeier, 2007).

The latest COBIT version is COBIT 2019, released at the end of 2018, shortly after the literature review in this study (ISACA, 2018). The penultimate release is COBIT 5.0 (ISACA, 2012). COBIT uses a classification consisting of five focus areas: strategic alignment, value delivery, resource management, risk management and performance measurement.

Previous research indicated a mismatch between the IT governance literature and practice (ITGI, 2011; Smits & van Hillegersberg, 2013, 2014a). These studies are based on surveys and systematic literature reviews using abstract and citation databases until spring 2013. New IT governance maturity research covering this gap might have been published. This review was intended to determine if new IT governance maturity models have become available recently.

Table 1. Use of IT governance frameworks (ITGI, 2008, 2011)

Framework	Content	2011	2007	2005
ITIL or ISO/IEC 20000	Service management	28%	24%	13%
ISO/IEC 17799, ISO/IEC 27000 or other security frameworks	Information security	21%	10%	9%
Internally developed frameworks	Unknown/differ		14%	33%
Six Sigma	Quality	15%	2%	5%
COBIT (ISACA)	IT governance	13%	14%	9%
PMI/PMBOK	Project management	13%	1%	3%
Risk IT (ISACA)	Risk management	12%		
IT assurance framework (ISACA)	IT assurance	10%		
CMM or CMMI	Software development or process improvement	9%	4%	4%
ISO/IEC 38500	IT governance	8%		
BMIS (Business Model for Information Security, ISACA)	Information security	8%		
PRINCE2	Project management	6%	2%	
Val IT (ISACA)	Enterprise value (IT investments)	5%	0%	
TOGAF	Enterprise architecture	3%	0%	
COSO ERM	Enterprise risk management	2%	1%	4%