

# Chapter 10

## The Viable Governance Model: A Theoretical Model for the Corporate Governance of IT

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### ABSTRACT

*Empirical studies into the governance of Information Technology (IT) have advanced our understanding of the mechanisms used to control the management of IT. However, there has been relatively little research into the formulation of a theoretical model of IT governance that explains and organises the growing collection of mechanisms into a coherent whole. To further advance the concept of the corporate governance of IT, the Viable Governance Model (VGM) is proposed. The VGM is a theoretical model of governance based on the laws and principles of cybernetics as embodied in Stafford Beer's Viable System Model (VSM). The VGM is used to formulate a series of design propositions or principles that may be used to guide the design and implementation of specific IT governance arrangements. The study draws on empirical studies or professional standards to establish how these theoretical design propositions may be satisfied in practice.*

### INTRODUCTION

Much of the earlier research into what would now be classified under the rubric of the governance of IT examined the manner in which IT activities were organised. (Blanton, Watson, & Moody, 1992; Boynton, Jacobs, & Zmud, 1992; Zmud,

1984). Many original, seminal studies explored the antecedents, or contingent factors, that influenced the adoption of a particular IT structural mode or form (see e.g., Brown, 1997; Brown & Magill, 1994, 1998; Sambamurthy & Zmud, 1999). With each new study, the investigation into IT governance modes became increasingly complex: from a single IT function (e.g., systems development) to multiple functions; from single

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level analysis (enterprise) to multi-level analysis (enterprise and business unit); and from bivariate to multivariate analysis (Brown & Grant, 2005). By the early 1990s, research into IT governance structures and their antecedents had reached a critical point. Amongst researchers there was now “considerable consensus regarding the influence of different contingency factors on an enterprise’s choice of a particular governance mode” (Sambamurthy & Zmud, 2000, p. 105).

Despite this agreement, Sambamurthy and Zmud (2000, p. 105) expressed concern that there were growing evidence that this “accumulated wisdom might be inadequate in shaping appropriate insights for contemporary practice”. The authors challenged the research community to shift its thinking away from its traditional focus on base governance structures (centralised, decentralised and federal forms) to more complex forms.

As the new century began, either prompted by the challenge issued by Sambamurthy and Zmud or by an independent awareness of the “considerable gap” that was “growing between scholarly research and contemporary practice”, the academic community began to look at governance anew. There was a move towards investigating mechanisms of co-ordination rather than just structure (Brown, 1999; Peterson, O’Callaghan, & Ribbers, 2000). Although Peterson et al. (2000) provided a comprehensive examination of candidate IT governance mechanisms; they did not provide a comprehensive blueprint for constructing a system of IT governance. Interestingly, the authors referenced Ashby’s *Law of Requisite Variety* (Ashby, 1956) as part of the theoretical foundations for their work, which is the principal cybernetic law that underpins Stafford Beer’s Viable System Model (VSM).

Contemporary studies have sought to move beyond the traditional fragmented conceptualisation of IT governance by advocating systemic or holistic models of IT governance (e.g., Dahlberg & Kivijarvi, 2006; Ribbers, Peterson, & Parker, 2002). For example, Dahlberg and Kivijarvi

(2006) proposed an “integrated IT governance framework” that sought to integrate the structural and process perspectives of IT governance. Whilst the proposed framework advanced the evolutionary process towards more integrated conceptions of IT governance, the framework was limited to the linkages between high-level concepts (e.g., alignment, benefits, and risks).

Peter Weill, together with a number of collaborators, produced a series of publications that investigated how different governance mechanisms could be used to enact different governance frameworks or archetypes (Broadbent & Weill, 2003; Weill, 2004; Weill & Ross, 2004, 2005, 2009; Weill & Woodham, 2002). The work of Weill and associates significantly expanded our understanding of what decisions need to be made (IT domains), who makes those decisions (IT governance archetypes), and how those decisions are enacted (IT governance mechanisms). However, despite its substantial contribution to the field of IT governance, this thread of research did not proffer a unifying theoretical model of IT governance, especially not at the corporate level. Rather, the empirical research identified a potpourri of structures, processes and mechanisms that might be combined to construct the different IT governance archetypes. Furthermore, the research did not adequately address several critical elements of IT governance identified by the professional literature, such as the international standard ISO/IEC 38500 for the corporate governance of IT (ISO, 2008). In particular, Weill and Ross (2004) did not examine the critical role played by the board of directors in a system of IT governance, concentrating exclusively upon “executive level” governance.

Whilst empirical studies into IT governance have provided detailed analysis of the frameworks, mechanisms and practices used by contemporary organizations to govern their IT resource, there has been relatively little research into the formulation of a theoretical model of IT governance that integrates the empirical findings into a coherent

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