

# Chapter 7

## Effective Agile IT Governance Mechanisms in Higher Education Institutions

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### ABSTRACT

*Higher education institutions (HEIs) rely heavily on information technology (IT) to create innovations. Therefore, IT governance (ITG) is essential for education activities, particularly during the ongoing COVID-19 pandemic. However, the traditional concept of ITG is not fully equipped to deal with the current changes occurring in the digital age. Today's ITG requires an agile approach that can respond to disruptions in the HEI environment. Consequently, universities increasingly need to adopt agile strategies to ensure superior performance. This research proposes a conceptualization comprising three agile dimensions within the ITG construct: structures, processes, and relational mechanisms. An extensive qualitative evaluation of industry uncovered 46 agile governance mechanisms. Moreover, 16 professors rated these elements to assess agile ITG in their HEIs to determine those most effective for HEIs. This led to the identification of four structure elements, seven processes, and seven relational mechanisms.*

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## INTRODUCTION

In the past decade, the use of information technology (IT) has become critical in all types of organizations to support growth and sustainability and to adhere to digital innovations (Bianchi et al., 2017; Wu et al., 2015). Higher education institutions (HEIs) are a special type of organization in which technological infrastructure consists of a variety of applications, academic systems, cloud applications, heterogeneous technologies, and different e-learning platforms (for supporting the activities of teaching, learning, and research) (Coen & Kelly, 2007). With this diverse use of different ITs, IT management in the context of an HEI can be complex (Bianchi et al., 2017).

Previous research has shown that the dynamics of environmental change affect universities (Bianchi et al., 2017). One of the most recent examples is the ongoing coronavirus (COVID-19) pandemic, which has imposed tremendous challenges on HEIs. During this crisis, universities have had to shift their educational activities to online services for students to take part in remote learning activities. In turn, universities are facing increasing competition from other universities not previously regarded as competitors, as they were not providing learning services in the same region, resulting in a disruption to universities' competitive environment. In light of whole countries shutting down and restricting physical contact, HEIs need to find ways to cope with these conditions and continue to foster digital innovations. To do so, they need to develop a management approach to frame a digital strategy and to assess and align several initiatives and projects. HEIs face the challenges of defining and implementing a digital strategy and, simultaneously, mastering the digital transformation, which is continuing to accelerate as a result of the coronavirus pandemic. Universities need a systematic approach to develop and improve their business and operating models with digital assets. Reorganization efforts through the deployment of new digital technologies, though, lead to significant changes in the organizational architecture of HEIs. As a result, business and operating models must be changed at the core or even completely revised.

Mastering such fundamental changes in HEIs requires appropriate leadership and effective IT governance (ITG) consisting of a framework of structures, processes, and communication mechanisms (Bianchi et al., 2017; de Haes & van Grembergen, 2015). However, the traditional concept of ITG with respect to controlling the formulation and implementation of IT strategy and thus ensuring the fusion of business and IT is not fully equipped to deal with the changes occurring in the digital age (Borgman et al., 2016). Traditional ITG methods and tools are often too cumbersome and inflexible (Ambler & Lines, 2012). Recent rapid developments in technology require new agile or adaptive ways of working (Clark et al., 2016; Gill et al., 2018). The new emerging digital trends are significantly changing the IT landscape and, as such, are challenging the boundaries of traditional ITG. The governance concept needs to shift from its traditional focus on control and compliance to an outcome-oriented and agile approach that can respond to changing dynamics (Horlach et al., 2016; Sommer et al., 2014). In other words, with respect to the IT organization of HEIs and the need to meet new demands and increased agility, existing ITG needs to be adapted. In doing so, universities will be able to rely heavily on agile ITG to secure better organizational performance.

The general concept of agility within ITG needs to ensure the IT to quickly react operationally and strategically to changes in the external environment (Fink & Neumann, 2007). New ITG and alignment mechanisms need to be developed and established to align universities' strategic and operational activities with both digital and traditional IT in a faster and more agile manner (Horlach et al., 2016).

How agile ITG mechanisms are defined in the context of universities remains unclear. This leads to an increasing demand for conceptualizations of agile ITG mechanisms for HEIs. To address this re-

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