

# Business/IT Alignment through IT Governance Patterns in Portuguese Healthcare

*Ruben Pereira, Department of Computer Science, Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal*

*Miguel Mira da Silva, Department of Computer Science, Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal*

*Luís Velez Lapão, Collaborating Center for Health Workforce Policy and Planning, Instituto de Higiene e Medicina Tropical, Universidade Nova de Lisboa, Lisboa, Portugal*

---

## ABSTRACT

*The pervasive use of technology in organizations to address the increased services complexity has created a critical dependency on information technology (IT) that calls to a specific focus on IT Governance (ITG). However, determining the right ITG mechanisms remains a complex endeavor. This paper uses Design Science Research and proposes an exploratory research by analyzing ITG case studies to elicit possible ITG mechanisms patterns. Six interviews were performed in Portuguese healthcare services organizations to assess the ITG practices. The goal of the authors is to build some theories (ITG mechanisms patterns), which will guide healthcare services organizations about the advisable ITG mechanisms given their specific context. The authors also intend to elicit conclusions regarding the most relevant ITG mechanisms for Portuguese healthcare services organizations. Additionally, a comparison is made with the financial industry to identify improvement opportunities. The authors finish the paper with limitations, contribution and future work.*

*Keywords:* Business/IT Alignment, Case Study, Design Science Research, IT Governance, Healthcare Patterns

---

## INTRODUCTION

Information Technology (IT) has become crucial to the support, sustainability and growth of most businesses (Law & Ngai, 2005; Quershil, 2009). IT not only has the potential to support existing business strategies, but also to shape

new strategies (Guldentops, 2003; Henderson and Venkatraman, 1993). In this mindset, IT becomes a relevant success factor for survival and prosperity and an opportunity to differentiate and to achieve competitive advantage (Grembergen and De Haes, 2009).

DOI: 10.4018/ijitbag.2014010101

Additionally, the pervasive use of technology has created a critical dependency on IT that calls for a specific focus on IT Governance (ITG) (De Haes & Grembergen, 2008; Grembergen et al., 2003).

ITG define and spread the necessary mechanisms as a means of rationalizing, directing and coordinating an organization's IT-related decision making to ensure the present and future business/IT alignment objectives (Park et al., 2006; Gerrard, 2009; Weill and Ross, 2004).

ITG mechanisms are expected to support IT-related decisions, actions and assets that are more tightly aligned with an organization's strategic and tactical intentions.

However, good ITG is no longer a "nice to have", but a "must have" (Pereira & Mira da Silva, 2012). Good ITG can contribute to higher returns on assets at a time when businesses are increasing their technology investment (Webb et al., 2006). Gartner states that ITG was recognized as a CIO top-10 issue for more than five years and has risen in priority between 2007 and 2009 (Gerrard, 2009).

A mixture of structures, processes and relational mechanisms exists (Grembergen et al., 2003). It is known that enterprises which have addressed clearly ITG have actively implemented a set of ITG mechanisms that encourage behaviors consistent with the organization's mission, strategy, values, norms, and culture (Weill, 2004).

When designing ITG, it is important to recognize that it is contingent upon a variety of sometimes, conflicting internal and external factors. Determining the right mechanisms for each organization is therefore a complex endeavor (Grembergen et al., 2003). It requires commitment from both the enterprise leadership and professionals.

Recent studies have identified some ITG problems as the inconsistencies and incongruities about the ITG mechanisms (Almeida et al., 2013) or the lack of consensus about ITG definition (Pereira and Mira da Silva, 2012). However, little research can be found on how organizations can effectively implement ITG (De Haes & Grembergen, 2008a; Lapão et al., 2009).

Our research aims at analyzing several ITG case studies (CSs) and elicits some ITG mechanisms patterns. Such patterns solve "real world" problems because they capture and allow for the reuse of experiences of best practice in a specific professional domain (Schadewitz & Timothy, 2007). The patterns are composed by one or more ITG practices.

These patterns should not be seen as cookbook recipes to be followed by organizations when implementing ITG. They should be seen as a roadmap for guidance about the most relevant ITG mechanisms to implement given a specific organizational context.

The main motivation for this paper was De Haes and Grembergen (2008a) paper suggesting that more research is needed to address the ITG mechanisms implementation in different contexts.

The paper has the following structure: Introduction (1), Research Methodology (2), Related Work (3), Case Studies Analysis (4), Evaluation (5), Lessons Learned (6), and finally Conclusion (7).

## RESEARCH METHODOLOGY

The Design Science Research (DSR) was used for two main reasons: first, this study focus on ITG which is highly related with information systems (IS) domain and DSR began growing in popularity for use in scholarly investigations in IS (Osterle et al., 2011); second, ITG current solutions has been pointed as too complex (Pereira and Mira da Silva, 2012) and DSR is suitable to capture the complexity of the topic (Schermann et al., 2009).

From the four artifacts produced by DSR (constructs, models, methods and instantiations) we will focus on the first two, constructs and models. Constructs are necessary to describe certain aspects of a problem domain and allowing for the development of the research project's terminology (Schermann et al., 2009) while models use constructs to represent a real world situation, the design problem and the solution space (Simon, 1996).

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/article/businessit-alignment-through-it-governance-patterns-in-portuguese-healthcare/110920](http://www.igi-global.com/article/businessit-alignment-through-it-governance-patterns-in-portuguese-healthcare/110920)

## Related Content

---

### The Impact of IT Governance Practices on Strategic Alignment

Kari Hiekkanen (2015). *International Journal of IT/Business Alignment and Governance* (pp. 1-13).

[www.irma-international.org/article/the-impact-of-it-governance-practices-on-strategic-alignment/138927](http://www.irma-international.org/article/the-impact-of-it-governance-practices-on-strategic-alignment/138927)

### Blockchain Technology in Ecosystems

Sidhu Sharma, Mohammad Haider Syed and Shahnawaz Khan (2022). *Blockchain Technology and Computational Excellence for Society 5.0* (pp. 1-15).

[www.irma-international.org/chapter/blockchain-technology-in-ecosystems/295161](http://www.irma-international.org/chapter/blockchain-technology-in-ecosystems/295161)

### Detection of Strategies in IT Organizations through an Integrated IT Compliance Model

Antonio Folgueras Marcos, José Carlos Alva Tello, Belén Ruiz-Mezcua and Ángel García Crespo (2012). *Business Strategy and Applications in Enterprise IT Governance* (pp. 260-279).

[www.irma-international.org/chapter/detection-strategies-organizations-through-integrated/68055](http://www.irma-international.org/chapter/detection-strategies-organizations-through-integrated/68055)

### Improvement of the Organizational Performance through Compliance with Best Practices in Abu-Dhabi

Zoheir Ezziane and Abdulla Al Shamisi (2013). *International Journal of IT/Business Alignment and Governance* (pp. 19-36).

[www.irma-international.org/article/improvement-of-the-organizational-performance-through-compliance-with-best-practices-in-abu-dhabi/101914](http://www.irma-international.org/article/improvement-of-the-organizational-performance-through-compliance-with-best-practices-in-abu-dhabi/101914)

### Unexplored Linkages between Corporate Governance and IT Governance: An Evaluation and Call to Research

Michael A. Borth and Randy V. Bradley (2009). *Information Technology Governance and Service Management: Frameworks and Adaptations* (pp. 202-220).

[www.irma-international.org/chapter/unexplored-linkages-between-corporate-governance/23692](http://www.irma-international.org/chapter/unexplored-linkages-between-corporate-governance/23692)