Pertinence and Feasibility of a Unifying Holistic Approach of IT Governance

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ABSTRACT

In accordance with the Design Science percepts, the authors present in this paper an approach that aims to give a holistic unifying framework that ensures consistency and coherence between the existing IT governance approaches and mechanisms. It considers the advances and best practices suggested by COBIT ITIL, etc. Therefore, it proposes an operational implementation and instantiation of information system of IT governance based on SOA architecture. It meets the requirements posed by gaps in the research on IT governance, which have been proven by the literature study. as well as the managerial problems highlighted by a two-year in-depth case study conducted inside one of the largest telecommunication operators in Europe. The relevance and feasibility of this approach have been proven by the implementation of this approach in a another two-year in-depth action research case study inside another large European telecommunications operator.

Keywords: Case Study, Design Research, Holistic Approach, IT Governance, Unifying, Telecom Sector

1. INTRODUCTION

Information systems are considered as precious and strategic (Silva & Hirschheim, 2007) and are associated in a significant way to organizational performance (Santhanam & Hartono, 2003). Moreover, some empirical research (Weilll, 2004) have shown the link between the effectiveness of IT governance (ITG) and organizational performance, which gives the ITG a particular importance in the corporate governance with which it is considerably overlapped ((Willson & Pollard, 2009), (Wilkin & Chenhall, 2010)).

Furthermore, (De Haes, Van Grembergen and Debreceny (2013) and Van Grembergen & De Haes (2009) consider that the Enterprise governance of IT is an integral part of enterprise governance. They highlighted that it addresses the definition and implementation of processes, structures, and relational mechanisms in the organization that enable the board and senior business and IT management to execute their responsibilities in support of risk and value management ((De Haes, Van Grembergen and Debreceny, 2013), (Van Grembergen & De Haes, 2009)). As a matter of fact, good ITG is

based on the principles of corporate governance to manage and use IS as a leverage to achieve the objectives of the company's performance (Weilll, 2004).

The importance of ITG has driven practitioners and researchers in a continuous struggle to determine what ITG is, who is responsible for ITG in research and in practice, and how ITG can be recognized, implemented and managed over time (Jacobson, 2009). This confusion is due to the fact that ITG is a transversal phenomenon in research disciplines and in organizations' functions.

This explains the diversity of viewpoints and aspects under which the ITG has been considered and studied as well as by researchers as by practitioners. Nevertheless, these studies were done in different ways and few studies have been made considering ITG in its entirety, which is a significant lack in ITG research. As a matter of fact, efficient and effective implementation of governance and management of enterprise IT requires a holistic approach (De Haes, Van Grembergen and Debreceny, 2013). This research is therefore designed to address the question of the pertinence and the feasibility of a unifying holistic approach of ITG.

By enrolling our research in the rigorous percepts of Design Research ((Hevner, 2007), (Hevner & al, 2004)), we present in this paper a holistic approach of ITG, GISUF (Governance of Information Systems Unified Framework) that we implemented within in a large European Telecommunication Operator in a two years in-depth case study (Yin, 2009).

This approach aims to give a holistic unifying vision that ensures consistency and coherence between the existing ITG and Management approaches and mechanisms. So it takes into account the advances and best practices suggested by COBIT ((De Haes, Van Grembergen and Debreceny, 2013), (Wilkin & al, 2013)), ITIL (Kneller, 2010), etc. Therefore, it proposes an operational implementation of them in an instantiation of information systems of ITG based on SOA architecture.

This paper is structured as follows: First, we present an overview of the current state of research on the ITG and the research gap in this domain. Then, we illustrate the methodology followed to conduct our research. Next, we present the unifying holistic approach that we have set up in a large telecommunication operator. We conclude our research by discussing the design of such approach, its contributions and limits, as well as propositions for future research.

2. LITERATURE BACKGROUND

Contrary to what can make believe the common use of the term "ITG", there is no consensus on a unifying definition of this concept (Willson & Pollard, 2009). Trying to obtain from the existing literature a common definition turns quickly into a difficult exercise (Brown & Grant, 2005).

To integrate the diversity of these definitions Webb & al (2006) suggest that ITG is the strategic alignment of IS with the business in order to maximize the business value through the development and the maintenance, in an effective way, of the controls and responsibilities, the performance management, and the information systems risk management. While Van Grembergen & De Haes (2009) define enterprise governance IT as the ''the definition and implementation of processes, structures, and relational mechanisms in the organization that enable both business and IT to execute their responsibilities in support of business/IT alignment and the creation of business value from IT enabled investments.''

During the last two decades, several approaches or Frameworks of ITG and management have emerged. The best-known and most commonly used are COBIT ((De Haes, Van Grembergen and Debreceny, 2013) (Wilkin & al, 2013)), ITIL ((Chamfrault & Durand, 2006), (Kneller, 2010)), Val IT (ITGI, 2009), PMBOK (PMI, 2013), COSO (Moeller, 2007), CMMI (Chrissis & al, 2008), etc.

As mentioned by Makhlouf (2014), ITG and management approaches and mechanisms allow to know how is ITG done. As a matter of fact, ITG frameworks illustrated by professional and academic literature take into account

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