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# The impact of adopting IT governance on financial performance: An empirical analysis among Brazilian firms

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ABSTRACT

Recently, there has been a great deal of interest on the part of many organizations in the concept of IT governance in order to justify IT investments. Some studies have shown that companies, which have good IT governance models, generate higher returns on their IT investments than their competitors. However, there is a lack of scientific research confirming that effective IT governance leads to better financial performance. In this paper, we attempt to determine whether companies that have adopted IT governance mechanisms have improved their financial performance, by measuring pre and post adoption performance indicators. We found that companies that adopted IT governance practices improved their performance when compared to the control group, particularly in relation to profitability. Furthermore, we found that the effects of adopting IT governance mechanisms on financial performance were more pronounced in the year following adoption than in the year in which they were adopted.



## 1. Introduction

IT governance has been treated as an important concern for businesses. The growing interest of companies in the subject has been justified by the reflection of the changing role and relevance of IT within organizations, and consequently, the need to ensure it is properly managed. IT governance applies concepts borrowed from corporate governance to strategically drive and control IT, particularly in relation

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to two key-issues: the value IT delivers to an organization, and the control and mitigation of IT-related risks (Peterson, 2004; Hardy, 2006). Most of its rules are based on common sense, standardization, experience, and best practices which are defined in order to ensure that the IT-function is carried out efficiently and effectively (Verhoef, 2007). IT governance arrangements encompass mechanisms that enable business and IT executives to formulate policies and procedures, implement them in specific applications, and monitor outcomes (Weill and Broadbent, 1998).

Some studies have shown that companies with good IT governance models present superior returns on their IT investments than their competitors, especially because they make better IT decisions (Weill, 2004; Weill and Ross, 2004). Committees, budgeting and approval processes, and participation of IT area in strategy development are a few of the IT governance mechanisms that encourage behavior consistent with the organization's mission, strategy, values, norms, and culture (Weill and Ross, 2004). Several cases of successful IT governance have been reported lately, especially in business magazines like Computerworld, CIO, and Informationweek. However, there is insufficient scientific research to confirm the effectiveness of IT governance in the achievement of better financial performance.

In previous research, different types of IT governance have been proposed (e.g., Brown and Grant, 2005; Sambamurthy and Zmud, 1999; Weill, 2004); however, it is still not clear how different governance types affect firm performance (Liang et al., 2011). Moreover, there are some studies measuring the effect of IT governance on performance (Weill and Ross, 2005; Lazic et al., 2011; Liang et al., 2011) although it cannot be concluded that superior IT governance performance leads to superior financial performance. Although the available studies are not conclusive, they provide important evidences about the relevance of IT governance to organizational performance. This research is motivated by the evident need for further studies into the impact of IT governance, especially because besides the costs involved in acquiring and maintaining an IT infrastructure, companies spend a great deal of money on consultancy services, certifications, training, and specific software for IT governance.

A country that has been highlighted in the world scenario is Brazil because it is experiencing the fastest economic growth in almost two decades (Businessweek, 2010). Moreover, according to Forbes (2012), some companies from Brazil, Colombia and the Netherlands gained presence on its list this year. Brazilian companies such as Petrobras, Banco Bradesco, Banco Itau, Banco do Brasil and Vale are ranked in top 55 world's biggest companies, and IT governance has been promoted by these companies in their institutional reports as good IT management implemented practices. IT governance has been pointed out in a series of articles and research – published, mostly in trade magazines (cf. Computerworld, 2006, 2007, 2009) – as a key priority for Brazilian companies today, following an international trend and highlighting this theme as an important research topic on Information Systems (IS) area.

With the aim of better understanding the effects of IT governance on organizational performance, we verified whether companies that adopted IT governance mechanisms have improved their financial performance since doing so. The study was carried out among the biggest Brazilian listed companies on the Sao Paulo Stock Exchange (BOVESPA) – the main Brazilian stock exchange – comparing the evolution of different performance indicators from companies which have formally adopted IT governance mechanisms against those of other companies in their respective industries. In this context, the term IT governance adopters refers to firms which have developed their own IT governance arrangements or those driven by frameworks like COBIT and ITIL. This kind of research is intended to be of use to both academics and practitioners who wish to identify the different benefits of IT and its management, serving as a guide to drive IT strategies. In this paper we contribute to the literature by analyzing the adoption of IT governance mechanisms as a key enabler and success factor for business performance itself.

## 2. Literature review

As IT becomes more important to organizations, new challenges naturally emerge in relation to its management. In recent years, companies have been spending about 50% of all capital investment on IT (Maizlish and Handler, 2005; Bloem et al., 2006); however, it has been very hard to see the real impact of these investments on organizational performance. Estimated statistics published by IDC Brazil (IDC, 2010) reveal that more than US$ 50 billion were spent on IT by Brazilian companies in 2010, surpassing the amount spent in 2009 by almost 7%.