Analyzing the Impact of Governance of Enterprise IT on Hospital Performance: Tehran’s (Iran) Hospitals – A Case Study

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ABSTRACT

A gap exists in the extant literature on linking information technology governance vis-à-vis hospital performance. Specifically, this work offers insights to fill this gap by adopting the COBIT 5 framework and ISO 38500 standards in examining the relationship between IT governance principles and balanced scorecard (BSC) dimensions of hospital performance. The proposed study investigated the influence of IT governance on Tehran’s hospitals’ performance. Data were gathered and analyzed from fifty-three (53) questionnaires administered to Health Information Systems (HIS) professionals and IT managers. Results showed that all IT governance dimensions have a positive correlation with hospital performance and IT governance has a significant positive impact on Tehran's hospitals’ performance.

KEYWORDS

Balanced Scorecard (BSC), COBIT 5, Hospital Performance, ISO 38500, IT Governance

INTRODUCTION

With the advent and modernization of information technology (IT) in the form of rapid and well-coordinated information flow in business processes, greater data security and effective data management as well as improved report generation through business intelligence, smart data analytics and other strategic IT applications (Raghupathi & Tan, 2008), the ability of IT to generate, store, track and manage complex information sharing has now become commonplace. Today, IT has proliferated across multiple spectra of business and healthcare services; indeed, it has become an integral part of many organizational processes, diffusing into all aspects of business and healthcare services. With its increasingly meaningful applications, IT is also being touted as providing a strategic opportunity to promote competitive advantage over peers (Chaudhuri, 2011).

Owing to increasing pressures to standardize and share patient information among multi-provider caregivers, IT use in hospitals, just like most other ventures, has gradually dictated a somewhat predictable, although more drawn-out pattern than that occurring in other servicing industries equipped with more advanced IT resources. Early hospital IT systems have been largely isolated with
standalone applications that have little or no integration capability among them (Chaudhry, 2006). Now, faced with the challenge to provide higher quality care with limited resources and the need for better patient information access, healthcare organizations are having to apply IT much more strategically and inter-operationally (Raghupathi & Tan, 2008).

As IT investments and capabilities mature across various healthcare sector services, including hospitals, the need to manage IT resources aggressively has also increased. The rise in the complexity and sophistication of IT capability in hospitals has, in turn, called for enhanced IT governance in these organizations (Bradley et al., 2012; Kaarst-Brown 2005). In an era of rapid digital transformation of services, while IT has continued to become a vital and integral part of every business activity, its pervasive use in many healthcare organizations has also brought significance to the issue of IT governance. Following the emergence of IT governance concept in the early 1990s, practitioner specialists and academics have attempted to highlight how the value of aggressive action on IT governance can benefit organizational performance (Van Grembergen, 2010).

Despite the growing body of literature on health IT and informatics, it is only within the past two decades that comprehensive theoretical approaches have been advanced to explain hospital performance (Massimino, Kopelman & Joseph, 2015; West, 2006). Previous research has either been atheoretical and/or too narrowly focused on sub-criteria of hospital performance with little to limited empirical data available to address the efficacy of specific techniques (Ashmos, 1998; Massimino et al., 2015). As a result, a gap exists in the extant scientific literature on linking IT governance vis-à-vis hospital performance. Notwithstanding, the topic of IT governance for many health organizations, especially hospitals, remains elusive to define and implement effectively.

LITERATURE REVIEW

IT governance is the original but still popular term for Governance of Enterprise IT (GEIT) and Corporate Governance of IT (CGIT) (Harmer, 2014). In enterprises, IT governance should be the accountability of the board of directors under the leadership of the chairperson (S. De Haes, Van Grembergen, Wim, 2015). To date, numerous regulations and standards have been created to improve the quality of IT governance, for example, Sarbanes-Oxley Act, 8th EU Company Law Directive, OECD Principles of Corporate Governance, COSO Internal Control Integrated Framework, COBIT, ISO 38500 standard for corporate governance of IT and South Africa’s King III.

IT governance processes ensure that enterprise objectives are achieved over time; such processes include, but may not be limited to: (a) evaluating the needs of stakeholders; (b) directing (delegating) decision roles, responsibilities, and processes; and (c) monitoring the performance, compliance and progress of organizational goals and objectives against plans. Yet, clarity on the governance concept is critical and necessary to enable organizations to execute on their operational and strategic goals. As detailed in ISACA (2012b), governance entails accountability, responsibility and decision making, among other elements. Even so, IT governance and ISG are controlled by a variety of best practices, including ISO/IEC 38500, ISO/IEC 27001, COBIT, and ITIL. Today, COBIT has evolved to be the preferred framework for IT governance and COBIT is currently at version 5.0. COBIT 5 has been introduced as a single integrated framework for IT governance (Jairak & Praneetpolgrang, 2013).

Importantly, IT governance can serve a plethora of key purposes to drive organizational performance and innovation. In fact, if it is well-designed and properly implemented, IT governance will: (1) help shape key organizational decisions such as responding to legal mandates and institutional (not just IT) priorities; (2) reduce IT operational risks and inefficiencies, thereby enriching IT services quality and effectiveness, especially through the economy of scales and the adoption of agile developmental methodology; (3) lead to optimal use of the full portfolio of IT and non-IT resources (including both internal and external); (4) engage stakeholders and empower them with the capabilities to address new problems raised by digitization; and (5) strengthen accountability for results and working relationships between IT and business units of the corporation.
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