

E-Business Process Management and IT Governance

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INTRODUCTION

E-business process management (e-BPM) entails management of e-business processes with the customer initiating the process and involves non-linear processes with strong focus on value networks leveraging collaboration and alliances, rather than just business processes within the confines of the organization (Kim & Ramkaran, 2004). E-BPM requires organizations to take a process approach to managing their e-business processes (Smith & Fingar, 2003). The advent of business process reengineering (BPR) (Davenport, 1993; Hammer & Champy, 1993) resulted in numerous organizations initiating BPR programs. While BPR aims to enhance an organization's process capability by adopting engineering discipline, e-BPM goes a step further and targets to improve the organizational process management capability (Smith & Fingar, 2004).

Organizations target end-to-end business processes that deliver maximum customer value through e-BPM (Smith & Fingar, 2003). However, by their very nature, end-to-end business processes more often than not span multiple enterprises incorporating their individual value chains (Porter, 1985; Smith & Fingar, 2003; Smith, Neal, Ferrara, & Hayden, 2002) and involve e-business processes (Kim & Ramkaran, 2004). Integrating fragments of processes across multiple functions and organizations not only involves shared activities and tasks among business and trading partners, but also the capability to integrate disparate IT systems (Kalakota & Robinson, 2003). Effective management of e-business processes depends to a great extent on the enabling information technologies. In fact, Smith and Fingar in 2003 have stated that BPM is about technology. Porter's value chain is about end-to-end business processes needed to get from a customer order to the delivery of the final product or service (Porter, 1985).

The pervasive use of technology has created a critical dependency on IT that demands for a specific focus on governance of IT (Grembergen, 2004). Explicitly or implicitly, organizations specify business activities as business processes, and without realizing these tend to be e-business processes. However, given the current business conditions and a clear understanding by organiza-

tions about the complexities of their e-business processes, management of e-business processes is taking center stage (Smith et al., 2002). In the current business scenario where e-business processes, along with information are considered key organizational assets and management of business processes a strategic capability (Kalakota & Robinson, 2003), it is imperative that organizations clearly delineate the need for relevant and pertinent information as it provides visibility and transparency. Additionally, IT being the single most important predictor of the business value of IT (Weill & Ross, 2004) drives the need to analyze and understand the implications of e-BPM on IT governance.

The key objective of this article is to investigate the implications of e-BPM on IT governance through the analysis of available literature. In particular, the article argues that a direct influence of e-BPM on IT governance performance is inevitable. While the importance of both effective e-BPM and IT governance is intuitively clear, there is currently little research on elements of IT governance that get enabled by e-BPM. More importantly, there is the lack of a theoretical framework that could be used to analyze. To address this shortcoming, the article also presents an analysis framework. The analysis framework is particularly useful as it incorporates elements from prevalent IT governance frameworks. Using the analysis framework, the article then examines the implications of e-BPM on IT governance and develops research propositions. The aim of developing the propositions is to enable further investigation and research thereby contributing to IT management theory.

BACKGROUND

E-BPM and Its Current State of Adoption

E-BPM views business processes from an end-to-end perspective (Smith & Fingar, 2003). Successful e-BPM adoption views end-to-end processes as a crucial element as these possess characteristics that make their management imperative and technology has not been able to cope with the reality to such processes (Smith et al., 2002).

According a survey conducted by the *BPM Institute*, the three most critical factors that enable organizations to gain the highest return on BPM initiatives are (BPM Institute, 2004):

- Identification of high value e-business processes in areas such as compliance and regulatory requirements, risk management, customer-facing services and supply chain operations.
- Developing metrics to achieve measurable, quantifiable results through improvements in operational efficiency, process visibility and control and business agility (Weill, Subramani, & Broadbent, 2002).
- Establishment of long-term goals to evolve from process improvement to process excellence.

It is obvious that organizations to be effective in addressing all the three critical factors mentioned above must have a high level of e-process management capability. In order to enhance their e-process management capability organizations must address it from dimensions that include the levers that have the ability to make the capability change happen and the capability levels itself (Fisher, 2004).

IT Governance

Firms manage their key assets that typically include—human assets, physical assets, financial assets, intellectual property assets, relationship assets, and information/information technology assets. Maturity across the governance of the key assets varies significantly with financial and physical assets typically best governed and information assets among the worst (Weill & Ross, 2004). IT implementations to make these happen require both large upfront and ongoing investments. Changing business needs and to some extent changing technologies necessitates this (Weill & Ross, 2004). Organizations must get acceptable value from their investments in IT. Top performing organizations generate returns on their IT investments up to 40% more than their competitors (Weill & Broadbent, 1998). Effective IT governance is the single most important predictor of the value (Weill, 2004; Weill & Ross, 2004).

Developing an Analytical Framework

Two IT governance frameworks (i.e., the COBIT Framework of the IT Governance Institute (ITGI) and the IT Governance Design Framework specified by the MIT Sloan's Center for Information Systems Research (CISR)) are considered for analyzing the implications of e-BPM on IT governance.

The CISR IT Governance Design Framework (Weill & Ross, 2004) takes a two-dimensional stakeholder approach to IT governance. It considers IT as one the six key assets needing governance as part of overall corporate governance. The IT Governance Design Framework addresses critical issues along two dimensions presented as the Governance Arrangement Matrix (Weill 2004; Weill & Ross, 2004):

- **Decision Categories:** Major categories of decisions that organizations must make in order to ensure effective management and use of IT. These are: (1) IT principles, (2) IT architecture, (3) IT infrastructure, (4) Business application needs and (5) IT investment and prioritization.
- **Governance Archetypes:** Structures and stakeholders for specifying decision rights; the framework identifies six archetypes for various decisions. These are: (1) business monarchy, (2) IT monarchy, (3) feudal, (4) federal, (5) duopoly, and (6) anarchy.

ITGI's COBIT Framework (IT Governance Institute, 2000a) takes a one-dimensional control oriented approach to IT governance (IT governance Institute, 2000a). COBIT is a business process oriented and therefore addresses itself in the first place to the owners of these processes. This approach stems from the fact that the process owners are responsible for the performance of their processes, where IT is an integral part (IT Governance Institute, 2000b). The COBIT framework provides a set of 34 high-level control objectives, one for each of the IT processes, categorized into four domains: (1) planning and organization, (2) acquisition and implementation, (3) delivery and support, and (4) monitoring.

Additionally, the COBIT Framework provides management guidelines that are action oriented and generic management directions for controlling the enterprise's information processes, for tracking organizational goals, for IT process performance monitoring and for benchmarking organizational achievements (IT Governance Institute, 2000b) through the (1) IT governance maturity model to assess and benchmark IT governance capabilities and maturity, (2) critical success factors that specify the most critical implementation guidelines to achieve control over IT processes, (3) key goal indicators that determine whether an IT process has achieved its business requirements, and (4) key performance indicators that indicate how well an IT process is performing and whether it is on target to achieve its business goals. Deeper analyses of both frameworks reveal similar underlying issues. Presented below is a proposed mapping between the two frameworks and the underlying commonalities are amply evident.

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