Finding Balanced Scorecards for Business Driven IT Service Portfolio Management: A Literature Review

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ABSTRACT

During the last decades information technology (IT) management has changed. Starting from being a costly and rare resource, IT has evolved into a vital enabler for almost any kind of business today. This development demands for highly flexible management concepts allowing the business to actively control and govern IT performance. A widely used approach for multi-dimensional performance measurement in the context of IT management is the Balanced Scorecard (BSC). The authors aim at investigating the state of the art of IT BSC use through a comprehensive literature analysis. They also evaluate the adaptability of the different types of this concept to the most recent developments in IT management.

Keywords: Balanced Scorecard, Business-Driven Information Technology, IT Management, IT Balanced Scorecard, IT Performance Measurement, IT Service Portfolio, Literature Review

INTRODUCTION

IT management has evolved significantly since its early stages and is just now undergoing yet another evolutionary step. Initiating from the reactive “firefighting” on an individual infrastructure device level (resource orientation), it grew into the management of domains of resources (domain orientation) and has now reached the stage where end-to-end services are designed and operated proactively to fulfill user requirements (user orientation) (Machiraju, Bartolini, & Casati, 2005). Today’s IT service management (ITSM) frameworks, e.g., Information Technology Infrastructure Library (ITIL) (Cartlidge et al., 2007) and ISO/IEC 20000 (ISO, 2005) address the challenges associated with implementing standardized and automated service portfolios spanning multiple technological silos (Winniford, Conger, & Erickson-Harris,

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“However, ITSM is mostly using technical metrics” (Sauvé, Moura, Sampaio, João, & Radziuk, 2006, p. 1) while “in order for IT to help the business achieve its goals, ITSM decisions must be steered by business-oriented measures and objectives” (Bartolini, 2009, p. 13). This caused the further development of ITSM to evolve towards a Business-driven IT Management (BDIM) heralding the beginning of business orientation of IT. BDIM essentially is ITSM with business metrics. This allows IT-related decisions to be taken from a business perspective (Sauvé et al., 2006). To achieve this, BDIM extends current ITSM approaches by a business process centric view and dynamic cause and effect models between IT resources, services, and business processes (Bartolini, 2009; Machiraju et al., 2005).

However, the essential aspect of BDIM—the linkage of business and IT metrics for decision support, alignment and cost justification purposes—has been already addressed by tools like the Balanced Scorecard (BSC) for IT (Cram, 2007). Due to the wide variety of adaptations within different domains, we will employ the term “IT BSC” to summarize BSCs implemented to manage, any kind of IT domain. Although the IT BSC is available since almost two decades the novelty today is that the maturation of Business Process Management (BPM) allows the detailed measurement of business performance (Rosemann, Fielt, Kohlborn, & Korthaus, 2009). It now becomes possible to evaluate the cause and effect relations of IT and business performance not from a departmental view but holistically on the business process and IT services level at reasonable cost. Hence this article explores the question to what extent BSCs for IT can or already have been applied to link business processes and IT performance.

Given the extensive use of the IT BSC and the currently advancing topic of BDIM, this review contributes to the adaption of the IT BSC within the domain of BDIM by addressing the following questions:

1. What is the state-of-the-art in IT BSCs?
2. Which IT BSCs support the concept of BDIM?

Previous reviews have addressed the evolution of the IT BSC (Cram, 2007), performance management frameworks (Abran & Buglione, 2003) and capital investment-appraisal techniques (Milis & Mercken, 2004) thus describing performance management from a generic viewpoint. As of today, only two articles are available to address the differences in IT BSC applications, i.e., Sedera et al. (2001) and Györy et al. (2012). The article at hand builds upon and extends the results of the later to reflect the current state-of-the-art for the IT BSC from a BDIM viewpoint.

This paper proceeds as follows: Before presenting the applied research methodology, the next section briefly revisits the concepts of the BSC and BDIM. Our research findings are then synthesized afterwards. Subsequently, we discuss our findings and suggest a research agenda. The paper finally concludes with a brief summary, an outline of its limitations, and an outlook on future research.

CONCEPTUALIZATION OF THE TOPIC

To understand how an IT BSC may contribute to the concept of BDIM we first clarify our understanding of both concepts in this chapter (Györy et al., 2012). While the BSC is a precisely described management tool there are differences to the level of detail to which it is described in literature. Unfortunately, the recent management concept of BDIM is less accurately formulated.

For this article we adapt the definition proposed by Sauvé et al. (2006, p. 19): “BDIM refers to a new culture and a set of new tools and decision-making processes that explicitly focus on making IT help the business. BDIM
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