IT Value Management as a Vehicle to Unleash the Business Value from IT Enabled Investments: A Literature Study

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ABSTRACT

Already in the nineties studies which discussed the IT productivity paradox, where no clear correlation could be found between IT spend and the bottom-line impact, other research streams emerged, revealing findings that do illustrate the positive impact of IT enabled investments on firm performance. Several studies concluded that the necessary conditions to overcome the IT productivity paradox are to be found in a better IT value management approach. New IT value management frameworks and models are emerging and promoted by both academics and advisory entities, while organizations recognize its importance, they still struggle with getting such IT value management practices implemented into their organizations. This paper investigates prior research on IT value management and the implementation of it using a model of structures, processes and relational mechanisms. By doing so, this paper hopefully will create interest in exploring future research opportunities for academics and provide practitioners with an accurate overview of proven governance and management practices described in literature that can be used in their day-to-day operations.

Keywords: IT Enabled Investments, Information Technology, IT Value Management, Literature Study, Management Practices, Productivity Paradox

INTRODUCTION

The study field regarding value creation out of information technology (IT) enabled investments has always been open to discussion as manifested by inclusive and contesting results (Mukhopadhyay et al., 1995, 1997; OGC, 2007; Sircar et al., 2000). Already in the nineties, studies discussed the IT productivity paradox (Brynjolfsson, 1993; Brynjolfsson & Hitt, 1996; Hitt & Brynjolfsson, 1996; Roach, 1991), where no clear correlation could be found between
IT spend and the bottom-line impact. In the early twenty-first century, studies continued to challenge the value of IT (Carr, 2003; Lin & Shao, 2006). According to Willcocks and Lester (1996), an important part of this vagueness is caused by weaknesses in the measurement and evaluation practices of IT performance. In this context Brynjolfsson (1993) omits in his research “it appears that the shortfall of IT productivity is as much due to deficiencies in our measurement and methodological toolkit as to mismanagement by developers and users of IT” (p. 2). On the other hand, other research streams emerged, revealing findings that do illustrate the positive impact of IT enabled investments on firm performance (Anderson et al., 2006; Chari et al., 2008; Dos Santos et al., 1993). For instance, Chari (2008) concludes that “increasing IT investment to accompany a firm’s overall diversification may be justified by the greater performance impact of such investments” (p. 232). Anderson (2006) found positive evidence on value creation out of IT enabled investments in transform industries where IT takes the role of redefining the business (Chan, 2000). Chan (2000) assigns these IT value research streams to the question of what value do IT enabled investments deliver. On this topic much more research has been executed (Davern & Wilkin, 2010). For instance on market level (e.g., the impact of IT investments on stock prices) (Ferguson et al., 2005), on organizational level (e.g., effect of IT investments on firm profit and firm productivity) (Thatcher & Pingry, 2004), and on individual level (e.g., impact on business decision making). (Arnold et al., 2006) Also, several models have been developed to measure and evaluate business value from IT enabled investments in an integrated way (Davern & Wilkin, 2010; Frisk, 2007; Tallon et al., 2000).

On the contrary, less literature is available on how IT enabled investments should be managed and organized in order to achieve the scheduled business value, which is confirmed by Chan’s (2000) conclusions stating that more research is needed on questions such as why, where, when, how, and to whom do IT enabled investments provide value. In this paper, we will focus on the how question including various difficult issues to address. In the first place, the transformation of IT enabled investments into business value does not only include IT, but involves also business people, business processes and so on. Melville et al. (2004) states that the achievement of business value “leads to a context-contingent set of synergistic combinations of IT and other organizational resources, including workplace practices, change initiatives, organizational structure, and financial condition” (p. 311). Only by combining IT and non-IT resources a sustained competitive advantage can be obtained through IT enabled investments (Melville et al., 2004). Secondly, there is a need for superior managerial skills and approaches (Dehning & Stratopoulos, 2003). Unlike technical skills, managerial skills are likely to be a source of sustained competitive advantage (Mata et al., 1995) and therefore important in managing and organizing IT enabled investments. According to Peppard and Ward (2005) this should be more emphasized than IT itself. In addition, such management involvement can be achieved through well integrated IT governance practices in IT investment decision making. (Weill & Ross, 2004; Willcocks & Lester, 1996) Many authors (Henderson & Lentz, 1994; Kohli & Devaraj, 2004; Lentz et al., 2002; Peppard & Ward, 2004; Soh & Markus, 1995) have therefore developed frameworks, models and mechanisms to create an integrated approach for the creation and capturing of business value out of IT enabled investments. Moreover, a more practice oriented approach has been developed by the IT Governance Institute (ITGI, 2008), called Val IT, to support business executives in achieving return from the large amounts of money they spend on IT (ITGI, 2007; Thorp, 2003; Van Grembergen & De Haes, 2009). Despite of these approaches, Keyes-Pearce (2005) “signals room for further development of theoretical considerations and frameworks targeting IT value management” (p. 7).

The aim of this paper is to give a comprehensive overview on IT value management theories, models and practices based on lit-
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