

# Bi-Directional Business/IT Alignment

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**Hashim Chunpir**

*German Climate Computing Centre (DKRZ),  
Germany*

**Frederik Schulte**

*University of Hamburg, Germany*

**Yannick Bartens**

*University of Hamburg, Germany*

**Stefan D. Voß**

*University of Hamburg, Germany*

## INTRODUCTION

Business/IT alignment – as the process of aligning business and IT to achieve organizational objective and competitive advantages – is a core task of information management (IM) with implications for IT innovations management. Recent research has revealed the need to depict business/IT alignment as bi-directional process in IT governance frameworks to appropriately capture customer-driven IT requirements (Bartens et al., 2016; 2014a; 2014b; Chen, 2008; Patel, 2002, 2004).

The requirement for a bi-directional business/IT alignment becomes obvious regarding the case of e-business (Bartens et al., 2014b) and in two-sided markets (Bartens et al., 2016, 2014a). In this context, technological development often leads to altered customer requirements that trigger a need to adjust business models. Prominent examples can be observed in the media streaming movement. For a long time media were sold as products such as books, records, DVDs, etc. With the emergence of streaming technology, the respective business models faced a drastic need to adapt to flexibility and technology requirements of customers. While those requirements are incorporated in the discussion around buzz words like digital transformation (Patel & McCarthy, 2000) and digital transition (McFadden, 2012), they involve the reversal of the causal chain of requirements in IM. In contrast to current approaches, as the top-down business/IT alignment in the IT governance framework COBIT 5, in these business models, requirements can emerge out of the business operations and

may be defined by the customer. The business cooperation of T-Mobile and Spotify Inc., where the fulfillment of customer needs required the adjustment of both business models (Bartens et al., 2016), may serve as a specific example.

Current IT governance frameworks, definitions and models of IM predominantly still assume a one-directional top-down business/IT alignment process (Krcmar, 2010; Singh & Woo, 2009; Voß & Gutenschwager, 2001; Wollnik, 1988). Thus, they neglect the requirements of changing business models, e.g., in e-business. In the light of the work by Pérez Lorences and García Ávila (2013) as well as De Haes et al. (2013), IM and IT governance is a focus of discussion here and it is put into perspective in this article. Pathways on how IM models and definitions should be extended to integrate bi-directional business/IT alignment are introduced. The remainder of this article is structured as follows. Section 2 provides a brief literature review of IM and business/IT alignment. Section 3 proposes possible extensions of current IM models and definitions to cover bi-directional business/IT alignment. Section 4 gives conclusions and implications for related research.

## BACKGROUND: FUNDAMENTALS OF BUSINESS IT/ ALIGNMENT

In this section, a background on the fundamentals of business/IT alignment is given. The alignment of the strategic plans of a business and its IT can be considered an important responsibility and

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function of IM (Krcmar, 2010). Furthermore, the current state of IM and business/IT alignment is defined and presented in the following.

## **Information Management**

While a broad range of definitions on IM — even contradicting ones — are proposed in literature, the definition by Voß and Gutenschwager (2001) serves as a fundament for the discussion in this article. According to Voß and Gutenschwager, IM is seen as the economic (efficient) planning, acquisition, processing, distribution and allocation of information as a resource for the preparation and support of decisions (decision-making), as well as designing the required infrastructure for this purpose. Applying a similar definition, the majority of authors, argue that IM can be subdivided into several fields of action. One of them is a strategic field in which business IT/alignment as well as the definition and implementation of IT governance are key functions (Boaden & Lockett, 1991; Choo, 2002; Sabherwal et al., 2001; Krcmar, 2010; Voß & Gutenschwager, 2001). The above definitions do not explicitly incorporate business/IT alignment, but the distribution of information in order to support decisions and designing the corresponding circumstances as, e.g., described by Voß and Gutenschwager (2001), may be understood as an abstract depiction of a business/IT alignment process.

## **Business/IT Alignment and IT Governance**

The idea of aligning business and IT functions in order to facilitate business value through the usage of IT has received plenty of attention in recent years (Chan & Reich, 2007; De Haes et al., 2013; Luftman & Kempaiah, 2007; Van Grembergen & De Haes, 2009). Important contributions were provided by the studies of Henderson and Venkatraman (1993; 1999) and have been taken as reference by many authors up to today. In this line, Duffy (2002) describes business/IT alignment

as “the process and goal of achieving competitive advantage through developing and sustaining a symbiotic relationship between business and IT.” Recognizing the previously presented explanations on the definition of IM, business/IT alignment is widely considered part of IM (Maes et al., 2000).

Currently, scientific and practical insights on business/IT alignment are dominated by top-down approaches (Chen, 2008; J. C. Henderson & Venkatraman, 1993; Kearns & Sabherwal, 2007; Kooper, Maes, & Lindgreen, 2011; Lainhart, 2001; N. V. Patel, 2002, 2004). In practice, business/IT alignment is often guided by IT governance frameworks. The COBIT 5 Goals Cascade (ISACA, 2012a), e.g., applies a top-down alignment in this context (ISACA, 2012b; Krcmar, 2010; Van Grembergen & De Haes, 2009). Nonetheless, recent research reveals the existence and need of bottom-up alignment processes (Bartens et al., 2014b). In its origin this need is identified in highly dynamic environments, as well as sectors where the influence of IT on operations is above average. The acknowledgement and combination of the given single aspects by different authors form a holistic array of arguments for a transferability of this hypothesis to a general viewpoint. At this point, the contributions of Györy et al. (2012) (user-driven innovations, shadow IT), Patel (2002) (emergent organizations), Bartens et al. (2014a, 2014b, 2016) (merger of IT management and operations, requirements in two-sided markets) as well as Chen (2008) (bottom-up requirements and alignment) have to be mentioned.

## **BI-DIRECTIONAL ALIGNMENT IN INFORMATION MANAGEMENT**

The introductory sections revealed the ties between business/IT alignment and IM. In the following, the integration of the recent approaches on considering customer-driven or bottom up-requirements in business/IT alignment is outlined and IT governance implications are discussed. In addition, the proposed model is contrasted against different

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