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Viewpoint

On the role of context in business process management

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ABSTRACT

Business Process Management (BPM) has proven successful to help organizations improve and innovate, and its application has grown in scope and context. One essential problem related to this development is that the BPM body of knowledge does not account for a broader variety of business contexts. On the contrary, most approaches, methods, or models in BPM suggest one way forward, and we recognize that BPM projects following a one-size-fits-all approach are prone to fail, since they do not sufficiently consider situational requirements. In this viewpoint article, we argue that BPM needs to be contextual in order for projects to be most efficient and effective. We observe a lack of research on how to identify and characterize business contexts relevant for tailoring the right BPM approach. Therefore, we examine contextual factors that influence BPM and propose a framework to identify the context in which BPM is applied. We define context in BPM as situational factors related to goal-, process-, organization-, and environment-dimensions. Our viewpoint article not only creates awareness for contextual BPM, it also intends to stimulate research on the role of context in BPM and to help practitioners better understand the specific business context in which BPM initiatives are applied.

1. Introduction

Business Process Management (BPM) has gained importance over the last decades and many organizations today focus their attention on identifying and documenting business processes, defining key performance indicators (KPIs) for measuring and monitoring process performance, and implementing means for continuous process improvement and innovation (Gartner, 2013; Rosemann, 2014; vom Brocke & Rosemann, 2015; Zairi, 1997). BPM comprises both enterprise-wide BPM programs that aim to establish a comprehensive process view regarding the management of operations within the company (e.g., ERP implementation, culture development) and also the day-to-day management of single business processes (e.g., monitoring, implementation of software to automate and control processes) (de Bruin & Doebeli, 2010; Dyer et al., 2012; Harmon & Wolf, 2014).

Today, we see more and more organizations considering BPM in various business contexts (Harmon & Wolf, 2014), but we also see more and more organizations reporting on project failure. Therefore, much research has been conducted to examine success factors for BPM in general (Ravesteyn & Batenburg, 2010; Trkman, 2010) and how these factors influence the different stages of BPM adoption (Buh, Kovačič, & Indihar Štemberger, 2015). In this paper, we argue that one reason for the frequency of BPM project failure is the lack of knowledge about how to sufficiently address the different contexts in which BPM is applied (Benner & Tushman, 2003); or, in other words, BPM approaches, methods and models are not sensitive enough to diverse business contexts.

The contemporary BPM body of knowledge was developed for a specific type of business context, focusing mainly on clear-cut, structured processes that require improvement, standardization, or automation enabled by workflow management and enterprise systems in order to improve time, costs, and quality (vom Brocke & Rosemann, 2015). However, the extended scope of BPM to further business contexts that includes, for example, more creative business areas, leads to a variety of new requirements, which the current BPM body of knowledge has not sufficiently understood. Research should therefore explore internal and external factors that influence BPM requirements and derive customized BPM solutions contingent on those factors (Paim, Caulliraux, & Cardoso, 2008; Plattfaut, Niehaves, Pöppelbuß, & Becker, 2011; Roeser & Kern, 2015).

Contexts for BPM application are highly diverse and are determined by various contextual factors. For example, the nature of industries and organizational structures and cultures can differ largely across organizations (Chatman & Jehn, 1994; Trkman, 2010). But also within one organization, the scope of BPM can be highly

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diverse since BPM is no longer applied only to semi- or well-structured processes supported by or operated through application systems (Hammer, 2015; Harmon, 2015). Instead, a greater diversity of processes are subject to BPM, including innovation and strategic-planning processes (e.g., Gassmann, 2006). In addition, BPM today is applied to different purposes, with a trend from the exploitative to the exploratory capabilities of BPM (Benner & Tushman, 2003; Rosemann, 2014). While BPM has traditionally focused on increasing the efficiency and effectiveness of business processes through standardization or automation (exploitation), it also offers opportunities for innovation (exploration) (vom Brocke & Schmiedel, 2015).

Given the variety of contexts in which BPM is applied, we question the universal appropriateness of traditional methods and tools developed in BPM research and practice. The diversity of organizational processes and application fields provides various possibilities of how to manage business processes, for instance, whether to virtualize or standardize them (e.g., Hall & Johnson, 2009; Overby, 2008; Schäfermeyer, Grgecic, & Rosenkranz, 2010; Schäfermeyer, Rosenkranz, & Holten, 2012). It is unlikely that one single BPM approach fits all the needs and meets all the requirements with which BPM initiatives are often confronted. This view is supported by contradictory findings as to whether BPM activities increase or decrease organizational performance (for a detailed discussion see Benner & Tushman, 2003). The inconsistent results indicate that the effects of process management are contingent on numerous contextual factors (Benner & Tushman, 2003; Johns, 2006; Trkman, 2010), which are insufficiently considered in the contemporary BPM body of knowledge. Previous research on specific contexts in which BPM is applied is limited to single, mainly external, environmental contextual factors. It has been examined, for example, which role environmental factors play in the area of process design or process mining (Günther, Rinderle-Ma, Reichert, Van der Aalst, & Recker, 2008; Ploesser & Recker, 2011; Rosemann, Recker, & Flender, 2008). However, while not explicitly talking about "context," there is an emergent body of knowledge studying whether process management also needs to examine factors inherent to BPM, such as the characteristics of processes or the goals of BPM initiatives (Benner & Tushman, 2003; Davenport, 2015; Lillrank, 2003; Rosemann, 2014; Schäfermeyer et al., 2012; Seidel, Shortland, Court, & Elzinga, 2015; vom Brocke et al., 2014). While it is useful to consider discrete dimensions of context and examine their influence on aspects of BPM, it is also important to combine them to derive typical context patterns that are more meaningful than any of the dimensions would be in isolation (Johns, 2006; Rousseau & Fried, 2001).

The aim of this paper is to move the attention of BPM researchers and practitioners towards a more situational perspective on BPM and to encourage a consideration of a broad variety of contextual factors that determine business contexts in which BPM is applied. We believe that a situational view on process management would enable both researchers and practitioners to better understand the role of various contextual factors, to make more informed decisions, and to prevent wasted efforts (Rosenkranz, Seidel, Mendling, Schäfermeyer, & Recker, 2009; Schäfermeyer et al., 2010, 2012; Venkatesh, 2006). For this reason, we build on the current process management literature and propose a framework to better understand contextual factors that are relevant for BPM. This framework can provide a foundation for future BPM research striving towards a context-sensitive perspective in BPM research and practice. Our view of context is new in two ways. First, we view context not only as external to BPM (e.g. environmental or organizational characteristics) but also as inherent to BPM (e.g. process characteristics or BPM goals). Second, we do not consider contextual factors for single areas of BPM, such as modeling or monitoring, but aim to derive contextual factors that play a role for BPM in general.

The remainder of the paper is structured as follows. First, we review existing theories in order to understand the importance and facets of contextual factors based on theoretical findings. Second, we review research on contextual factors in BPM and related fields. Based on these observations, we derive an integrated framework of context in BPM and showcase with three illustrative examples how the framework can be used to determine context-sensitive BPM approaches. In conclusion, we discuss our framework and suggest an agenda for future research.

2. Theoretical background

Situational perspectives on the management of organizations have a long tradition in research. They build on the perception that organizations consist of interdependent parts that constitute a whole which, in turn, is interdependent with a larger environment (Thompson, 1967). Contrary to classical management theory which held that there is "one best way" of organizing such complex systems (Brech, 1957), contingency theories state that there are multiple ways that can be equally effective depending on the situation. In other words, there is no best way to structure or manage an organization, but the optimal course of action seems to be contingent upon the external and internal context (Donaldson, 2001; Morgan, 2007).

Contingency theories emphasize that various contextual factors are critical for organizational structure, decision making, and behavior. The most frequently discussed factors are task uncertainty, organization size, and environmental factors (Donaldson, 2001). High task uncertainty, for example, is likely to occur in case of non-routine and complex processes, and needs to be managed through little formalization, high professionalization, and participation (Donaldson, 2001). Choosing between a mechanic management approach (defined by formalization and control) and a more organic management approach (defined by autonomy and participation) therefore seems to depend on task uncertainty. As another exemplary contextual factor, the size of an organization appears to play an important role in how to manage an organization, since research has found that large organizations should focus more on formalization than smaller organizations (Donaldson, 2001).

Contingency perspectives have also been transferred to both lower and higher units of analysis such as organizational sub-unit tasks/processes and supply chains (Goodhue & Thompson, 1995; Overby, 2008; Trkman, 2010; Tushman & Nadler, 1978; Stonebraker & Afifi, 2004). This transfer was motivated by the view that not only organizations but also sub-units/processes and supply chains can be viewed as systems (people, tasks, structure, technology, etc.) which interact with each other and with their environment (Melão and Pidd, 2000). Thus, management practices should fit to the respective context, for example in the selection of the right information technology to support tasks (Gattiker & Goodhue, 2005; Goodhue & Thompson, 1995) or in the decision of which processes to virtualize (Overby, 2008).

Overall, the need for a context-sensitive view in process management can be derived from theories in the field of organizational design and process management. Following the notion that a contingency perspective considers both external and internal factors, contextual BPM requires a consideration of various environmental and organizational factors (e.g., environmental uncertainty, organizational size) as well as specific internal factors (e.g., type of process). As the number of potential contextual factors might be unlimited, the first step toward a contingency approach to BPM is to understand relevant contextual factors and to develop a classification system (Morgan, 2007; Zeithaml, Rajan Varadarajan, & Zeithaml, 1988). Such a framework not only helps to describe a