Enterprise Modeling and Enterprise Architecture: The Constituents of Transformation and Alignment of Business and IT

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ABSTRACT

Several scholars have argued for the need to integrate both the IT perspective and the business perspective during development of enterprises and IS/IT architectures. In this process, it is necessary to be able to deal with a number of sub-areas to succeed with the transformation. One challenge is the need to move beyond a narrow focus on one tradition or technology, as well as to use and integrate different concepts within an enterprise. This integrated view also includes the use and development of guidelines (methods, tools, etc.), in addition to research methodologies and human aspects. Therefore, enterprise modeling and enterprise architecture must treat all slices in a comprehensive alignment context. In this paper, the author presents a conceptualization of the research area Enterprise Modeling and Enterprise Architecture with a focus on transformation and alignment of business and IT.

Keywords: Business, Enterprise Modeling, Enterprise Architecture, Business Transformation, Business and IT Alignment

1 INTRODUCTION

Enterprise modeling, enterprise architecture, and business process management are three areas that for a long time have been part of a tradition where the mission is to improve business practice and management (Harmon, 2010). There are close relations between these areas and the IS field in the quest to improve different dimensions of the industry, the public sector, and society. At the same time these areas also bring a number of other areas and subareas to the table where these different parts fit into a bigger picture. Based on practical experiences from a number of research projects and the current literature we have recognized that there is a need to conceptualize the domain and constituents of enterprise modeling and enterprise architecture with a specific focus on transformation and business and IT alignment. All these concepts will be further elaborated on in Section 2, where related research and a motivation for the research area are presented. Our main reason for making this elaboration is to create a solid foundation for further research in this area.

This paper is a position paper with the purpose of presenting a conceptualization of
the research area Enterprise Modeling and Enterprise Architecture with a focus on transformation and business and IT alignment. This conceptualization will also be the basis for the formulation of a number of challenges in the area of transformation and business and IT alignment.

The paper proceeds as follows. First, in Section 2, we present related research, which also gives the motivation for this position paper. In the following section, Section 3, we present a framework to conceptualize this domain together with adherent constituents and relevant themes and how they can form the research area enterprise modeling and enterprise architecture. Based on the framework, the next section, Section 4, presents a number of research directions and a research agenda for the area, including a number of formulated research questions. The final part of the article, Section 5, presents some conclusions about the usage of the framework presented.

2. RELATED RESEARCH AND MOTIVATION

To continue the introduction in Section 1, we recognize the transition process as being manifested through the action of taking a business from one state to an improved state, i.e., a transformation of the enterprise into something that is regarded as better. This transformation process (improvement) often involves activities such as understanding and evaluating the current situation of a business and then developing and implementing the new ways of working (Hayes, 2007). Enterprise modeling and business process management are in this context often used and applied as approaches and support in order to understand and evaluate (business diagnosis) the current situation, often referred to as the AS-IS situation, and to develop and implement improvements, often referred to as the TO-BE situation (Hayes, 2007).

The improvements that are depicted during a transformation process can be of various kinds, both in terms of what they are focusing on and in terms of the character of the improvement. Improvements can be about anything (what do we need to improve?) in the enterprise but the character of improvements can conceptually be categorized in different ways. Improvements can, for instance, be continuous or discontinuous (Hayes, 2007), and there can be a continuum between these two characters. If we rely on established business process concepts, the characters of improvement can be described as process improvement, process redesign, and process reengineering, of which the latter is the most discontinuous or radical in character (Harmon, 2010).

Business process management is mainly based on three traditions which historically have mostly been handled separately depending on what profession the one who applies them belongs to (Harmon, 2010). A challenge for business process management is therefore that we need to move beyond a narrow focus on one tradition or technology and actually deal with a number of conceptual ways to slice the business in an integrated way (Harmon, 2010). The same argument can be found in the area of enterprise architecture and enterprise modeling, where there is a need to conceptually slice the business but where these slices must then be treated as parts in some total alignment context where all the slices are related to each other (Lankhorst, 2005). For modeling and models this means that the actual produced artefacts (models) also need to be aligned, both within a certain phase and between different phases. Information system research has for some time also dealt with this alignment issue between organizational context and technology (cf., e.g., Orlikowski & Hofman, 1997). Several scholars have stated the need to capture both the IT perspective and the business perspective during development and implementation of IS (Alter, 2000; Bygstad, Nielsen & Munkwold, 2005; Gibson, 2003). This dual perspective is also relevant when we expand the view of IS and say that we need to create aligned IS/IT structures as a part of the total enterprise architecture (Lankhorst, 2005). This means that that we need to be aware of and able to cope
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