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WORKING PAPER

Goal-Oriented Requirements Engineering for BPMN Modelling

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July 2010

2010/660

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D/2010/7012/31

Goal-Oriented Requirements Engineering for BPMN Modelling

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Abstract:

Context: Central to the development of BPMS technology was the promotion of a new language, Business Process Modelling Notation (BPMN). The primary goal of BPMN is to provide a common language for describing process behaviour, shareable by business and IT, which includes business users, business analysts, and technical developers.

Objective: What seems to be missing in the way that business users are supposed to use BPMN, is an explicit consideration of the strategic rationale of having certain business processes as well as support for describing business processes in terms familiar to business people.

Method: We extended current work on Goal-Oriented Requirements Engineering (GORE) for business process design, i.e. B-SCP framework [1] and the work of Lapouchnian et al. [2], in order to obtain a GORE for BPMN modelling method that meets the objective. Then, we applied the Seven-Eleven Japan case exemplar to investigate the feasibility of our approach, and we conducted case study research at two organisations to discover the added value of our approach.

Results: Our case study findings suggest that our approach improves the semantic correctness of business process models, and that the information needs of business users are satisfied by the content that our approach tries to model. Moreover, we found that our approach improves the systemic design of business processes, and that our approach offers a useful output format to business users.

Conclusion: Although the BPMN specification intends to bridge the gap between business and IT, this paper shows that business users can benefit from a more explicit and targeted support for BPMN modelling that takes into account strategic requirements for business processes and employs a restricted, less technical language for describing business processes.

Keywords: Goal-Oriented Requirements Engineering, Business Process Management Systems, B-SCP, BPMN, Atlas Transformation Language, Case Study Research