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Discussion Paper

Process Improvement through Economically Driven Routing of Instances

by

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Structured Abstract

Purpose – Process improvement is a fundamental activity of the BPM lifecycle. However, practitioners still lack concrete guidance and adequate objectives for process improvement. Moreover, improvement projects typically tie up considerable amounts of capital and are very risky. Thus, more guidance is needed on how to derive concrete recommendations for process improvement in a goal-oriented manner.

Design/methodology/approach – We propose a decision model that determines along which paths the instances of a process should be routed to maximize the value contribution of the process. To do so, the decision model requires a process model and a set of historical process instances as inputs.

Findings – The decision model builds on the idea that only the parameters of the process, i.e., the values according to which it is decided on which path an instance traverses the process, can be modified, without altering the structure of the process. The decision model determines the parameter setting that maximizes the value contribution of the process, which is measured in terms of the expected cash flow of the process. When determining the optimal parameter setting, the decision model considers that different instances and paths have different cash flow effects.

Practical implications – We prototypically implemented the decision model and report on the insights from a demonstration example that is based on the order verification process of an IT distributor.

Originality/value – The decision model complements existing approaches to process improvement as it reveals additional improvement potential by focusing on the decision points in a process without altering the structure of the process. The decision model also enables identifying an optimal parameter setting, as a concrete recommendation for process improvement, in line with the principles of value-based BPM.

Keywords: Business process management; process improvement; process design; decision model; economic valuation

Classification: Research paper