

# On the Relationships Between Decision Management and Performance Measurement<sup>\*</sup>

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## Summary of the contribution

Decisions are a key aspect of every business and its processes and their management is of utmost importance for the achievement of strategic and operational goals in any organisational context. Therefore, decisions should be considered as first-class citizens that need to be modelled, measured, analysed, monitored to track their performance, and redesigned if necessary. Existing literature studies the definition of decisions themselves in terms of accuracy, certainty, consistency, covering and correctness. However, to the best of our knowledge, no prior work exists that analyses the relationship between decisions and process performance.

In this paper, we seek to improve the understanding of the relationship between decision management and process performance measurement by means of the analysis of the relationship between these two concepts in three ways. First, by analysing the impact of decisions related to business processes on process performance indicators (PPIs), and using guidelines in the form of a set of steps that can be used to identify decisions that affect the process performance. Second, by defining decision performance indicators (DPIs) to measure performance of decisions related to business processes. And third, by using process performance information in the definition of decisions. Some advantages of explicitly defining these relationships have been encountered, such as the provision of important insights regarding possible dysfunctional decisions from a performance point of view or the identification of possible actions to be taken to improve the performance. We also outline how these relationships can be modelled and supported by extending and integrating PPINOT, a metamodel for the definition and modelling of PPIs, with DMN, a standard that provides constructs to model and decouple decisions from process models.

**Keywords:** Performance Indicators, Decision management, DMN, PPINOT

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