What about the Business Rules?!

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Abstract

BPMN provides an excellent standard with which we can specify the detail of a business process. But what about the business rules? In this article, we explore how BPMN naturally links to other approaches, the benefits of separating rules from process, and how business rules can be linked to a BPMN model.

The Business Process Model and Notation (BPMN) standard provides an excellent way for modeling just about any type of business process. It is a rich standard that allows a process to be modelled in precise and nuanced detail, enabling us to capture crucial operational details. Yet a question that is often asked is how can we handle business rules when process modeling? After all, rules are core to many processes.

It is helpful to start with a definition. IIBA®'s **Business Analysis Body of Knowledge (BABOK®) Guide** defines a business rule as:

"A specific, practicable, testable directive that is under the control of the business and that serves as a criterion for guiding behavior, shaping judgements or making decisions"

IIBA, 2015

This is a wide-ranging definition, and there is a clear association between processes and rules—it is likely to be a process that uses, invokes or enforces the rules. This probably sounds rather abstract, so let's take an example. Imagine a bank that is assessing whether or not to provide a loan to a client. Before making the judgement over whether to offer the loan (and on what terms), it is likely that a wide range of factors will be taken into account—the client's age, credit rating, payment history, the loan amount, loan reason and so forth. It is likely that there is a very complex set of rules which drive the decision and ensuring the rules are applied correctly and fairly is essential. These rules will be central to the process of considering and granting (or denying) a loan.

It is very tempting when modeling processes to include the rules explicitly on the model, with decision gateways. Yet doing so tends to mean that models get very complicated very quickly. Organizations typically have very complex rule-sets (e.g. "If the client is over 25, and owns their own home, is borrowing less than £10,000 for reasons X, Y or Z with a credit score of Z or above then approve, else refer to rule #234"), and very soon a visual process model becomes littered with decision diamonds. Before long there can be dozens, or even hundreds of decision diamonds, making the model virtually unreadable.

With business rules—and particularly complex rulesets—it is beneficial to separate the rules from the process and maintain and model them separately. This has several advantages—firstly it makes the process model easier to read and keep up to date. Quite often processes change even if the underlying rules don't (or vice versa). More importantly, however, it enables rules to be defined once and shared across processes. It is quite possible that many of the rules that are relevant for the "Apply for new loan" are also relevant for the "Apply for increase to existing loan" process, and it is far easier to maintain them all in one place. This enables consistency too—it is always disconcerting to find that rules have inadvertently become out of kilter between processes!

BPMN provides an excellent way of handling this. It includes a specific 'Business Rules Task' that allows the rules to be defined and stored elsewhere, with the process model 'invoking' those rules. The rules can then be modelled separately, for example with Decision Model and Notation (DMN). Separating out the rules this way enables us to keep our process models concise and readable, and ensures that both our process and rules/decision artefacts are easily maintainable. It also enables us to facilitate a set of connected discussions—we can agree the detail of the process and the rules separately, but ensure that these sets of conversations are connected and that the overall process model works in a coherent, effective and efficient way.

In summary: BPMN is an excellent and comprehensive modeling approach, and it has a natural linkage to approaches that handle rules and decision making. DMN is a complementary approach that is well worth considering for any kind of complex or semi-complex ruleset.

References

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