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Business Rules

The proper use of business rules has been an active topic of conversation since the mid-Eighties when Expert Systems were all the rage. Since then, rule-based techniques have been embedded into many different kinds of software systems and are used in various methodologies that facilitate the use of business rules in business operations.

Throughout the Nineties, most of the interest in business rules was focused on the Business Rules Group (www.businessrulesgroup.org), an informal group of individuals that met for discussions that generated a number of important white papers on business rules. The BRCommunity portal publishes information about the business rules community (www.brcommunity.com) while the Business Rules Forum (www.businessrulesforum.com) and the European Business Rules Conference (www.eurobizrules.org) provide places where those interested in business rules meet and exchange information. All of these venues are still active, but increasingly, one is also encountering business rule discussions at BPM events. This is driven by the movement of business rules software vendors into the BPM market and by the fact that BPM Suites are incorporating business rule capabilities into their products. In keeping with the current interest in business rules, BPTrends plans to publish a comprehensive report on Business Rules Management Products toward the end of this year.

If one studies the way business rules are used and what the various business rules methodologists advocate, one quickly realizes that there are two different approaches to business rules. One popular approach argues that business rules constitute an independent approach to defining the logic that governs decisions and that all business rules used in an organization should be isolated and managed in a single system that is independent of specific software applications or documentation in which specific rules are used. Those advocating this approach usually urge that companies start at the top, define company goals and policies, establish standard company vocabularies (i.e. an Ontology), and then systematically elaborate all of the business rules used throughout the organization. There's nothing wrong, in theory, with this approach, but it can be time consuming and requires a very serious commitment on the part of management.

The alternative approach is more pragmatic and simply urges that business rules should be identified whenever a new project is undertaken. Those advocating this incremental approach still want to isolate business rules from specific applications or processes and manage them independently, but they aren't so insistent on a comprehensive, top-down system. Instead, the hope is that a company can define rules on a project-by-project basis and then integrate them into a single system at a later date.

These two approaches mirror the difference between (1) process analysts that want to begin with an organization-wide business process architecture, use it to establish major process boundaries and high level performance measures, and then drill down to specific processes and (2) process analysts who simply focus on



whatever specific process seems to be causing problems.

However one approaches the capture of rules, nearly everyone agrees that business rules and business processes constitute more or less independent but complementary ways of thinking about an organization. Either can conceptualize the other as a subsidiary element in their perspective, but, in fact, the people developing the two perspectives have been working independently. One approach focuses on steps and procedures while the other focuses on decisions and logical inference.

Figure 1 suggests how one can think of rules and processes as two different ways of organizing knowledge about how a company works. Each occupies a separate face of an organization pyramid. Each primarily occupies the middle level of the pyramid and each depends on IT or HR to implement or embody their insights. For example, an employee manual can include business rules or a description of a specific process that employees should follow. A software application can be used to automate a business process or it can be used to automate business rules, or both.

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The Business Rules Management Perspective

The Business Process Management Perspective

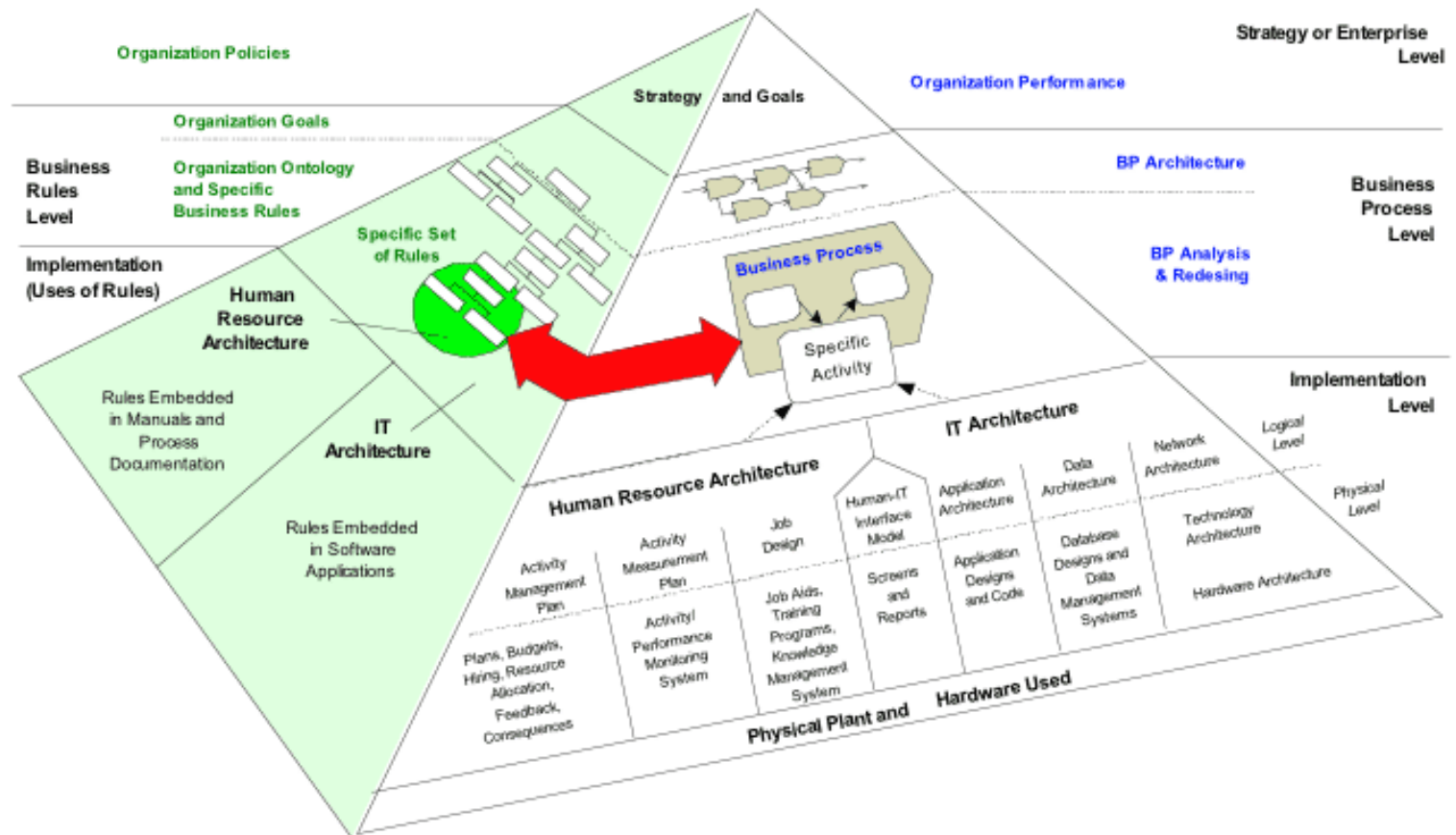


Figure 1. Two Complementary Perspectives on Business Modeling

For many, the question that is most interesting, at the moment, is how best to think about the relationship between processes and rules, which we've highlighted with a red arrow in Figure 1. Put more provocatively, if an organization has limited resources, where should they begin - with the definition of business rules or with the definition of business processes?

For some companies, the nature of the organization is the deciding issue. Industries like Insurance and Finance whose processes rely heavily on business rules are more likely to invest in large scale business rule management systems. Companies in industries like manufacturing or retail, where workflow and people interactions are very important, have tended to focus on process work. In the longer term, however, the decision will probably depend on the tools we use for business modeling.

The OMG has established a task force to standardize the semantics of business models. One of their current projects is the creation of a Business Process Metamodel. Another project involves the creation of a standard Business Rules Metamodel. Obviously if either metamodel is to be useful it must define an interface to the other.

One attribute of business rules describes the processes in which they are used. One attribute of a process describes the business rules that are used at specific decision points within a process.

As the OMG work has proceeded, each group has been trying to work out exactly what the nature of the relationship is and how it should be defined. In the course of the next year the OMG's work should provide a better basis for defining the semantic relationships between rules and processes. This, in turn, will allow software vendors to create tools that are more effective in simultaneously managing both perspectives.

Today, there are software vendors with tools for the development of rule-based management systems and other software vendors offering Business Process Management Suites. Increasingly, however, as we noted earlier, these two groups are merging and offering products that support both the capture and automation of both business rules and processes.

It behooves those interested in processes to learn more about the various business rule approaches, just as it behooves those interested in rules to learn more about the latest approaches to business process analysis and design. In the near future business modelers are going to have tools that can capture both rules and processes and generate systems that automate and manage them together. It's time we develop some more sophisticated models for how we analyze and manage integrated rule-process systems.

'Til next time,

Paul Harmon

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