## **Process Portfolio Management<sup>1</sup>**

## Michael Rosemann

Queensland University of Technology

In a recent conversation, the manager in charge for Business Process Management at one of Australia's largest insurance companies stated,

"Now that we have a more or less advanced methodology for managing the lifecycle of business processes, modeled, analyzed, and improved a good chunk of our processes, we are starting to think about the next challenge. How do we facilitate a health check on our processes and how do we channel limited resources into the right business processes so we maximize the return-on-investment?"

During the conversation it became clear that he was looking for the big picture. It was obvious that an additional view was required – a view that could complement the current, singular focus on individual business processes that leads to the management of each process in isolation. Such a consolidating view of the complete landscape of business processes is the heart of process portfolio management, a coherent treatment of the entire set of processes, allowing them to be improved in total, rather than streamlining one and, consequently, unknowingly, sub-optimizing others. While process portfolio management seems to be under-utilized in the Business Process Management domain, it adopts a classical methodology that is core for the management of products, investments, and IT – among others.

Process portfolio management plays a pivotal role in successful Business Process Management (Figure 1) for a number of reasons. It provides an approach, or a mindset, that is essential in directing limited resources in terms of funds, people, etc., into the processes with the highest demand for an increased process orientation. In the true sense of a balanced portfolio, process portfolio management can be used to diversify the BPM activities, leading to parallel projects in different stages of the business process lifecycle. In summary, process portfolio management marks the difference between the isolated and uncoordinated improvement and management of a single process and the holistic process-based management of an organization.

However, the actual activities and intent of process portfolio management depend very much on where the organization can be positioned in terms of its overall BPM development stage. Roughly, three main phases can be differentiated.

In the first phase, process portfolio management can be used to provide an initial structure in a process-unaware organization. As such, it is very similar to the idea of designing a process architecture, typically consisting of governing strategic processes — industry- and, often, company-specific (core) processes — and a more generic set of enabling support processes. Figure 2 provides an example for such a process architecture, using an example from the insurance industry. The design of a comprehensive and well-accepted process architecture can take months, and its final simplicity regularly does not reflect the real amount of effort that was put into the design of the very first process architecture. In this phase, process portfolio management plays a supporting role. A first allocation of process owners might be possible, or individual BPM initiatives can be positioned in a bigger picture. In most cases, however, the lack of underlying data about the business processes will compromise deeper interpretations and comparisons.

<sup>&</sup>lt;sup>1</sup> I would like to thank Jamie Cornes, Roger Tregear and Tonia de Bruin for their critical feedback to earlier versions of this paper.

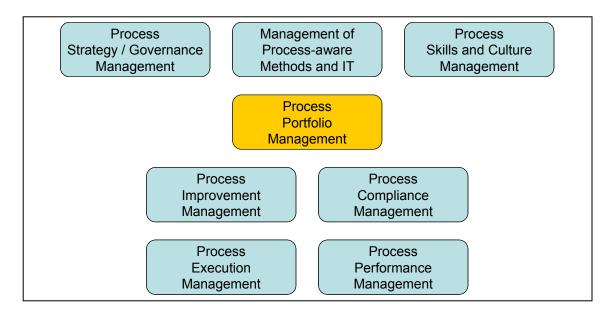


Figure 1. Process Portfolio Management in the context of BPM Activities

In the second phase, a *process-aware organization* has a better understanding of the most important set of its business processes. Often, an amazingly high number of as-is and to-be process models have been developed, and, less often, these are continuously managed. If consistent and sufficient modeling guidelines, including detailed conventions and an integrated model repository, are used, this set of models provides a rich, but typically under-utilized,

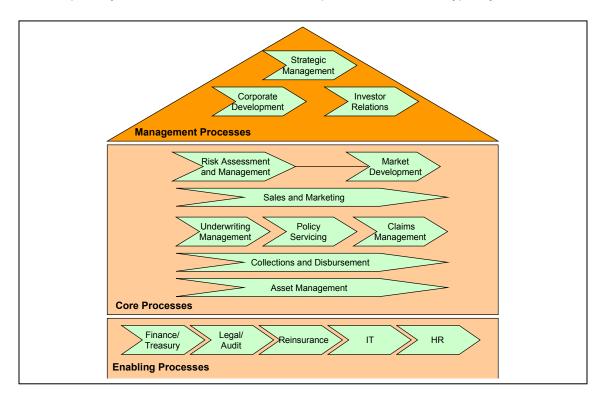
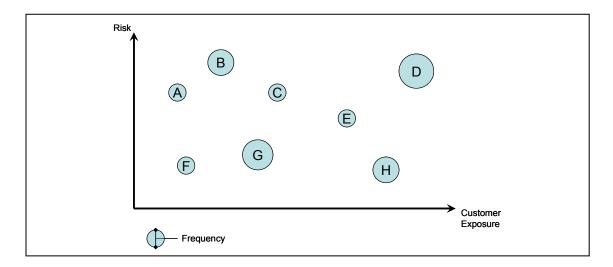


Figure 2. An Example for a Process Architecture

knowledge base. This is the phase in which many companies can currently be positioned, and this is where process portfolio management can make a first substantial contribution. In this phase it is important to derive a solid understanding of the information requirements of "crossprocess" managers, i.e., the owners of a range of business processes. Their mindset could include guestions such as "Which processes provide the biggest opportunities for off-shoring?." "Which processes are critical in our upcoming CRM-project?," or "How should we distribute the \$1 million allocated to BPM this year across different processes?" Awareness of these questions will have a significant impact on the identification of critical business processes and the way they are modeled. If, for example, the management is interested in "What processes are exposed to the largest risk?" it will obviously be necessary to capture risk information in the process models. The problem in many process-modeling projects, however, is that tool capabilities and modeler's expertise matter more than the actual objectives of the management. Once the process-related information needs of the management - derived from the critical business issues - are understood, and the required information is modeled, it comes down to the utilization of appropriate business process query language and intuitive visualizations of the results. Such visualizations would provide summarizing information about comparative process metrics, and it can be expected that 2x2 matrices will form a good starting point for a number of process portfolios used as process decision support tools. For example, in a current research project, we design such an information layer on top of a very comprehensive ARIS database. This layer can not only support process portfolios, but will equally consolidate information from data and application models into data and application portfolios. The core idea is that the modeling languages used to design the process models will be transparent to the management, and that management might never see the actual models. Instead of seeing the actual models, they are the recipients of customized reports derived from the underlying database of models.

Figure 3 provides an example for such a potential process portfolio derived from a model repository, i.e., build-time information. This diagram depicts the portfolio of processes arranged by their degree of customer exposure, risk, and frequency. While management might think in these dimensions in order to get an overview about what risky processes are frequently exposed to customers, it is the challenge of business analysts to convert such information demands into operational queries against the model repository. In this case, "customer exposure" could be measured by the relative number of activities in the process model exposed to the most important customers. A proxy for risk would be the consolidated consequences (individual probabilities of failure multiplied by impact) of risks in a process model. The diameter of each process bubble would represent the (static) frequency of a process. It has to be stressed that the information of such portfolios remains limited as they are derived entirely from process models (build-time), and not from actual process executions (run-time).



## Figure. 3. Customer-Risk-Frequency-Portfolio

The third and most advanced phase of process portfolio management, the process-mature organization, utilizes not only process model data, but also corresponding information about the actual process executions. This requires the wider use of process-aware information systems, including accessible audit trails. Once such an integrated process performance management system is implemented, the benefits for the purposes of building a "process ownership executive information system" (POEIS if you want) are limitless. The consolidated data about process executions, exceptions, and analyses over time and between products, customers, locations, etc., can easily populate a separate data warehouse. More importantly, this data now provides true opportunities for all types of comparative analyses between business processes.

While many organizations have significantly matured in their understanding of the opportunities, and also the constraints, of business process management, many of them lack well-defined accountability for their entire portfolio of business processes. In the same way that a manager in charge of strategic marketing is not the product manager, there will be a clear distinction between the role of the centralized process portfolio manager and the duties of decentralized process owners. In terms of BPM governance, a process portfolio manager can be seen as an additional role within the corporate BPM team. The process portfolio manager will be measured by his/her ongoing awareness of the entire range of an organization's business processes and the capability of allocating BPM resources to the most promising processes. The more advanced the organization is in its BPM maturity – i.e., the more it moves from simple overview architectures to a widely populated model repository, even with information about actual process executions – the more critical it will be to shift the initial focus on individual processes to a view that manages the entire potpourri of organizational business processes.

## **About the Author**

**Dr Michael Rosemann** is Professor at Queensland University of Technology (QUT), Brisbane, Australia, and Co-Leader of QUT's Business Process Management Group. The best way to contact Michael is via email <a href="mailto:m.rosemann@qut.edu.au">m.rosemann@qut.edu.au</a>.