

Chapter 12

BPM as an Enterprise Capability



Be not afraid of growing slowly, be afraid only of standing still.
Chinese proverb

In this book we presented a range of methods and related techniques for the identification, discovery, analysis, redesign, implementation, and monitoring of business processes. Along the six phases of the BPM lifecycle, we also discussed software tools and systems that can support us in the application of these methods for the effective management of business processes. In other words, given a business process in need of improvement, we discussed how a *BPM project* can be carried out to achieve the desired improvement goals, regardless of whether these are related to efficiency, quality, or anything else.

Due to the need to improve different business processes, chances are that multiple BPM projects are being conducted at the same time within the same organization. Collectively, we call the set of BPM projects within a company, including its specific management structure, a *BPM program*. Depending on various characteristics, such as the overall performance of an organization, its size, and its context, the number of concurrent projects may be high and the scope of the individual projects themselves may be large. As a result, the coordination of the BPM program may become extremely complex and individual projects may fail altogether because of their decreasing relevance or lack of progress.

This chapter deals with the following question: “What does it take to successfully manage a BPM program?” To answer this question, we consider BPM as an enterprise capability, which places it at the same level as other organizational management disciplines such as risk management and human performance management. After introducing the typical reasons for BPM programs to fail, we introduce transversal aspects of BPM, such as governance and strategic alignment, and discuss how these are critical to avoid the fail reasons. Next, we organize these aspects in a *BPM maturity model* and show how to use this model to assess the BPM maturity of an organization.

12.1 Barriers to BPM Success

A common problem among BPM practitioners is how to relate perceived BPM success to actual success. Perceived measures of BPM success that are often mentioned include: the configuration of a modeling tool, the completion of a Six Sigma training course, the delivery of a job description for a process owner, the roll-out of a BPMS, or an update of the process architecture. However, BPM success should not be a function of the quality of an activity (e.g., the quality of a training program) or artifact (e.g., the quality of a process architecture). BPM success should ultimately link to business success, i.e., to the ability to meet or exceed the business performance objectives that are part of the corporate strategy. Accordingly, common reasons for the failure of BPM programs include:

- A sole focus on BPM methods and tools, not on business goals,
- The belief that BPM is the single source of truth,
- BPM projects that are managed as isolated silos, and
- An overall inability to change.

Let us discuss these reasons in a bit more detail. One of the major fail reasons for a BPM program is that the focus is exclusively on methods and tools along the various phases of the BPM lifecycle. The perspective is then lost on what effective value can be derived from their application. For example, an organization may enthusiastically roll out an enterprise-wide Six Sigma training and start using Six Sigma-specific techniques all around. However, that company's strategic objective may not at all be to improve the quality of existing products. If its aim would be, for example, to outsmart competitors through innovative products, the focus on Six Sigma is misplaced. Similarly, another organization may acquire a BPMS thinking that this process automation software will fulfill all its process improvement needs, but the licensing costs could overshadow the corporate aims for cost reduction.

As to the second reason, it should be clear at this point in this book that BPM is a powerful concept to think about how organizations perform and may perform better. Yet, there are two things to keep in mind. First of all, there are other management concepts that can deliver value to organizations. The trick is to see how BPM and other management disciplines can be aligned such that they reinforce each other, rather than that they lead to tribalism and organizational infighting. Secondly, BPM is not something that comes natural to everyone. People are often highly committed to their job and to the activities they perform, but may easily fail to see how their work fits in the bigger picture. It is counterproductive to push BPM down their throats.

Moving to the third reason, BPM is a holistic management concept: it stresses the relevance of looking at the relations between activities, people, and technology to deliver products and services. It is, therefore, slightly ironic when ongoing BPM projects are managed in isolation from each other, which is the third reason in the list above. Such a situation may lead to all kinds of problems. Participants who are active in different processes that undergo process change may get confused by

the differences between methods, policies and technologies used across the projects. Something similar may apply to customers that interact with an organization through different processes undergoing change. Finally, a company's top management may not appreciate the loss of efficiency due to bad management of the interrelationships between projects or the outright mistakes that follow from it.

Finally, it is worth stressing again how difficult it is to bring about change. A fantastic to-be process model, even if it is based on a meticulous analysis of the as-is process and incorporates a range of innovative principles, is still a far cry from an improved, operational business process. Clearly, the process implementation phase of the BPM lifecycle is duly concerned with introducing a new process design into an organization. Still, it is well known that organizational changes do not easily stick (see the "Change Management" box in Section 9.3.2 on page 362). This is not different for BPM programs.

The failure reasons we discussed here can be traced back to a lack of strategic alignment, a weak or nonexistent governance structure, or an underestimation of the role that employees and an organization's culture have within the success of applying BPM. We will see how these aspects can be addressed through the notion of BPM maturity, as discussed in the next section.

Exercise 12.1 Indicate to what extent the following activities can be considered a success for a BPM program. For your assessment, try to distinguish between prerequisites and measures of success. *Prerequisites for success* are those activities conducive to or necessary for the eventual success of a BPM program, but are not an end in themselves. In contrast, *measures of success* are activities that relate to the achievement of a business goal through BPM.

- (a) The BPM team has correctly configured a modeling tool.
- (b) A process analyst has completed a Six Sigma training course.
- (c) The job description of a process owner has been updated.
- (d) The cycle time of the order-to-cash process was reduced by 5%.
- (e) A BPMS was installed.
- (f) The handling time of over 90% of claims was reduced to up to 5 days.
- (g) The process architecture was updated.

12.2 The Six Success Factors of BPM Maturity

Let us consider the case of an insurance company that has a BPM team within each line of business: home, motor, and commercial insurance. Each of these teams may spawn a new BPM project based on the needs of the particular insurance service they manage. For example, there might be a project to improve the home insurance claims handling process for efficiency reasons, or another project, shared between motor and commercial insurance, to improve the quality of the process for validating customer policies. When dealing with multiple projects at a time, to avoid the failure reasons discussed in the previous section, we need to go beyond the application of the methods and tools that we learned in this book.

First of all, we also need to employ methods and tools for managing individual projects and for managing the entire program. These are not specifically related to BPM and can be adapted from current project management practices, such as *PRINCE2* (Projects in Controlled Environments), an ISO standard, or *PMBOK* (Project Management Body of Knowledge) from the Project Management Institute.

A mature BPM organization should thoroughly apply a variety of BPM-specific methods and tools across the various phases of the BPM lifecycle, coordinated by the use of methods and tools for project and program management. As such, *methods* and *information technology* (IT) are two factors critical to the success of a BPM program. This book has put a strong emphasis on these methods and IT. However, we also need to consider other factors that are equally important for BPM success. First of all, we need to put in place a *governance* structure that establishes relevant and transparent accountability, decision making processes, and quality control mechanisms. This includes, for example, the definition of the responsibilities of the various roles involved in a BPM project, such as the process owner or the process analyst, as well as setting appropriate BPM standards, i.e., which methods are to be used in each phase of the lifecycle. A governance structure is especially relevant when moving from a project to a program dimension, when effective coordination becomes indispensable.

A company should also aim to ensure *strategic alignment* in each phase of the lifecycle. This entails the clear definition of desired process outcomes and process performance measures (also called KPIs), which are based on the objectives of process customers and stakeholders. Such definitions can serve as a guide in the choice of what BPM methods and tools to use. As an example, if a company aims to improve process quality, it should focus on value-added analysis rather than on the critical path method, as the latter is more suited to analyze time issues.

Last but not least, people and organizational culture are deeply important for the success of a BPM program. As to the *people*, think of the development of appropriate skills for the employees of the organization, both in terms of BPM knowledge (methods and IT) by those who are expected to apply it (e.g., process owners and process analysts) as well as in terms of process knowledge (procedures, policies) by those who participate in the processes. Without the right skill set, the use of BPM methods and tools will not be effective. *Culture*, in this context, is the set of corporate values and beliefs, which may contribute to shaping the process-thinking mindset of employees. This, in turn, has implications on the extent to which process participants will adhere to new process designs or how much corporate leaders will be interested in and value BPM.

In light of the above, we can identify six orthogonal factors that are critical to the success of a BPM program: (i) strategic alignment, (ii) governance, (iii) methods, (iv) IT, (v) people, and (vi) culture. These *critical success factors* have been organized by Rosemann and de Bruin in the *BPM Maturity Model* [33, 150], as shown in Figure 12.1.¹ This model is intended as an instrument to measure the

¹The original model has been adapted to the terminology of this book.

Strategic Alignment	Governance	Methods	Information Technology	People	Culture	Factors
Strategy-driven BPM project planning	BPM decision making	Process identification and discovery	Process identification and discovery	Process knowledge	Responsiveness to process change	Capability areas
Strategy and process capability linkage	BPM roles and responsibilities	Process analysis and redesign	Process analysis and redesign	BPM knowledge	Embedding of process values and beliefs	
Enterprise process architecture	Performance measurement system	Process implementation and execution	Process implementation and execution	BPM and process training	Adherence to process design	
Process performance measures	BPM standards, conventions and guidelines	Process monitoring	Process monitoring	Process collaboration & communication	Leadership attention to BPM	
Process customers and stakeholders	BPM quality controls	BPM project and program management	BPM project and program management	Propensity to lead BPM	BPM social networks	

Fig. 12.1 The BPM Maturity Model, adapted from [33, 150]

maturity of a BPM program within a given organization. The underlying assumption is as follows: a higher BPM maturity will be reflected in higher business process performance; in turn, a higher business process performance will lead to higher organizational performance. In the next section, we will discuss how to use this model to measure the maturity of a BPM program within an organization. For now, let us focus on the six success factors.

Each factor sports five *capability areas*, as illustrated in Figure 12.1. For example, *strategic alignment* includes a capability area for strategy-driven BPM project planning, while *governance* includes a capability area for BPM decision making. Note how the capability areas for both *methods* and *IT* are related to the different phases of the BPM lifecycle, extended with a capability area for the overall management of BPM projects and programs for each of these factors.

Let us now consider how these factors are orthogonal to each other. By way of example, *methods* and *IT* measure the degree of the application of different BPM methods and related tools within the BPM lifecycle. For example, in what way is BPMN (as a process modeling technique) used during process discovery? Do we limit ourselves to capturing simple sequences or do we include elaborate routing and exception handling constructs? Furthermore, how do we discover business processes? Do we only rely on workshops or do we also use document analysis, observations, and interviews? Clearly, the more sophisticated the models we create during process discovery and the more extensive the ways we discover processes, the higher our maturity in process discovery methods will be.

Governance, among others, measures the existence of BPM standards to select which methods and tools to use, as well as the existence of conventions and guidelines to restrict the use of these methods and tools. For example, we model business processes with BPMN and use Signavio as the modeling tool (standards),

limit the size of each model to 30 nodes and avoid, where possible, the use of the OR-join (guidelines). Moreover, we organize workshop sessions of maximum 3 h each, each followed by a consolidation activity (guidelines).

People measures the knowledge our employees possess of such methods and IT, and the maturity of corporate BPM training activities. For example, have our employees acquired a strong knowledge of BPMN or do they rely on external consultants? And were they trained internally or did we employ external training institutions?

Exercise 12.2 In recent years, many companies have started initiatives towards digital transformation, better customer experience, and regulatory compliance. Partially, these initiatives are operationalized by the help of BPM programs. Rabobank is one of the largest financial service providers in The Netherlands. In a white paper [166], Pieter van Langen, a senior manager with Rabobank, reports on their BPM program and the way they use ARIS as a process modeling tool.

The speed and quality of our application development determines how our customers experience the service. [...] Therefore, we can't afford any mistakes in our software. This is all the more true now that the supporting role of employees at local member banks is disappearing. Processes must be fully functional. At the same time, we must make sure that we can promptly anticipate customers' desires and comply with laws and regulations. This requires clear-cut and transparent processes for software development. [...] If we develop an application for an innovative mobile service, it is crucial to know exactly what its impact will be on the environment and other systems and processes. We use models to do this. [...] We wanted to be able to find and maintain all system documentation related to our IT in one central location. [...] Moreover, we wanted everyone, from the business analyst to the architect, to be able to count on the fact that the retrieved system documentation will be correct, and that everybody can feel confident in using it. [...] In this way we have more control over the quality of the applications we develop. These benefits directly translate into a better service for our customers.

Which of the six BPM critical success factors does Van Langen's report refer to?

In the previous chapters of this book, we covered in-depth *methods* and *IT*. In the rest of this section we overview the other four success factors: *strategic alignment*, *governance*, *people*, and *culture*.

12.2.1 Strategic Alignment

Strategic alignment measures the role and impact of business strategy on BPM, as well as the role and impact of BPM on business strategy. It can be broken down into the following capability areas:

1. **Strategy-driven BPM project planning:** How aligned are the methods and tools we choose in each phase of the BPM lifecycle to the particular business goals we want to achieve?

2. **Strategy and process capability linkage:** Does the business strategy directly influence the business processes and vice versa?
3. **Enterprise process architecture:** How well is the enterprise process architecture specified?
4. **Process performance measures:** How well are process outcomes and related process performance measures defined?
5. **Process customers and stakeholders:** How well is the view of customers and other process stakeholders incorporated in BPM projects?

Strategy-driven BPM project planning refers to the level of strategic alignment throughout the BPM lifecycle. This is defined by the choice of which methods and tools we use in each phase of the lifecycle. Strategic alignment already starts in process identification, where strategic importance is one of the criteria we use to drive the selection of which processes to manage. For example, if our business strategy is that of “customer intimacy”, we need to prioritize the management of those core processes that have the strongest influence on customer experience. During discovery, we will pay particular attention to modeling all interactions with the customer for the process chosen, given that customer interactions have a strong effect on the overall customer experience. Next, during analysis, we would pick qualitative techniques, such as value-added analysis where the customer perspective is central, and measure primarily external quality through quantitative analysis techniques using metrics such as customer satisfaction or violations of service level agreements. Likewise, during the redesign phase, if we decide to employ redesign heuristics, we will first focus on the application of those heuristics that tend to increase quality, such as *empower* or *triage*.

The next capability area is the *strategy and process capability linkage*, which captures the bi-directional relation between strategy and business processes. This area involves the strategic implications that exist for our business processes (strategy to process) and, vice versa, the process implications that exist for our business strategy (process to strategy). Balanced scorecards (see Section 2.1 on page 35) provide a concrete method to link strategy with processes. Typical questions to ask when studying the strategy-to-process link are:

- *Do we know which processes are impacted by a change of strategy?* For example, as part of a strategy that aims at cost leadership, we realize that the travel insurance service is no longer profitable and, therefore, we decide to discontinue it. As a result, all processes related to this insurance service (development, sales, and claims handling) will have to be decommissioned too.
- *Which processes should we handle in-house as core competency and which ones are candidates for outsourcing or offshoring?* For example, the claims handling process for pet insurance is high-volume and low-value (this process is carried out frequently but the profit generated is limited due to the low value of the related insurance policy). As a result, in pursuit of cost leadership, we decide to outsource this process in order to reduce its operational costs.

The following questions can be used to study the process-to-strategy link:

- *How does process performance influence strategy implementation?* Or in other words: *Which processes could become a bottleneck to the execution of the business strategy?* For example, if our business strategy aims at simplifying business operations through standardization, having different variants of the claims handling process (one per insurance service) will hamper this strategy.
- *Is the strategy designed and continually reviewed in light of current and emerging process capabilities?* Or in other words: *Do new process capabilities enable new strategic options?* For example, we may review our marketing strategy in view of the emergence of digital marketing processes through social media.

Another capability area is the *enterprise process architecture*. As discussed in Chapter 2, an enterprise-wide process architecture can offer a high-level yet comprehensive view on how the organization delivers value to its customers and shareholders via its set of core processes, how these processes are enabled by the support processes, and how they are regulated by the management processes. Given that the process architecture is the starting point of any BPM project, it is important that this artifact is well defined, as complete as possible (enterprise-level versus project-level), and kept up-to-date with regular review cycles for the success of the overall BPM program.

Moving on, the next capability area under strategic alignment is *process performance measures*. In order to measure process performance and, ultimately, to translate business strategy into process objectives, we need to clearly define objectives and related process measures for each business process. This information needs to be shared among all relevant process stakeholders. As illustrated in Chapter 2 (see page 51), a concrete way to achieve this is to equip each process with a *process profile*. In such a profile the following information is included: the process vision in line with the business strategy, the envisaged outcomes, and the success factors. The latter can be complemented with a list of process measures over relevant performance dimensions (e.g., time, cost) and related process performance objectives, so that it becomes clear how the process responds to our business goals. For example, let us consider again our insurance company, which manages a number of insurance services as a result of different mergers. The vision of this company's set of claims handling processes could be that of "generating superior customer advocacy through the provision of simple, timely, low cost delivery on the customer promise." Such an objective incarnates two strategic goals: (i) increasing customer satisfaction (front-office level—quality dimension), and (ii) reducing the number of independent claims handling processes due to previous mergers (back-office level—efficiency dimension). For each goal, we define one or more process performance measures and related performance objectives. For example, we measure customer satisfaction as the average between customer rating and customer loyalty index, both with the objective of exceeding 90%.

It is important that process performance measures are standardized across processes and process variants (e.g., different insurance services) to enable cross-process measurements and hierarchical aggregations. For example, by standardizing

the definition of customer rating and customer loyalty index, we can measure these KPIs across all our insurance processes, including different processes (service development, sales, claims handling) and their variants (home, motor, and commercial insurance). Moreover, we can aggregate these into a single measure of customer satisfaction, and in turn, we can aggregate the latter with the rate of customer complaints to obtain a single measure of customer excellence. Balanced scorecards offer a concrete method for the cascading definition and measurement of process performance measures.

For the success of the overall BPM program, we need to consider a last capability area: *process customers and stakeholders*. This last capability area focuses on process stakeholders, such as company shareholders, executives, and government bodies, as well as on customers and other external parties who have an interest or participate in the process. This means taking into account the various priorities that influential individuals or groups have, which are often conflicting. For instance, a change at the executive level (e.g., a new CEO) may have a significant impact on the popularity of the BPM program and, consequently, on its success even though nothing has changed in the way BPM is carried out internally. Likewise, if a BPM project aimed at rectifying the negative opinions that customers have on certain services fails, this may undermine the survival of the overall BPM program. Hence, it is of utmost importance to incorporate the views of the various process stakeholders in a BPM program. When dealing with external parties such as customers, the focus is on the core processes, since these provide the touchpoints to interface directly with external parties. Consider a claims handling process in view of a business strategy aimed at improving customer experience. A BPM project tasked to redesign this process according to this strategic objective will have to pay special attention to the number and quality of the touchpoints with the customer, depending on the particular target audience: An insurance brand that focuses on a young clientele may reduce and digitalize all customer touchpoints (e.g., milestone updates only, via email), while an insurance brand that targets an elderly clientele may decide to increase the number and duration of these touch points (e.g., various progress updates, via phone).

Exercise 12.3 In a case study, Reisert, Zelt, and Wacker report on the corporate strategy of the software vendor SAP and the way how they used BPM to achieve their goals [139].

In order to produce innovative solutions faster and more simply, SAP started in 2008 to transform its research and development processes. SAP moved away from complex and static project methods toward agile and simple processes, thereby significantly reducing the throughput time of the standard innovation cycle. Based on the experience of this transformation and optimization, [...] SAP decided to increase the emphasis on Business Process Management (BPM). Therefore, BPM initiatives were implemented on a company-wide level in the effort to establish a process infrastructure and a process improvement culture. [...] The key success factor in SAP's journey from BPM concepts and ideas to measurable impact [...] was the strategic alignment of BPM with top management support. [...] The Process Manager is responsible for defining the process improvement goal (with approval from the Business Owner), which is typically derived from the SAP strategy (improvement portfolio, strategic objectives), from a current issue in the process

(impediment, audit finding), or from an idea from the SAP idea management initiative. [...] The effect of the process changes are measured according to Process Performance Indicators (PPIs), which include throughput time, customer satisfaction, and cost per unit output. These PPIs are measured by the Process Manager and compared with previously defined success criteria. [...] Although the triggers for actual process improvement can be numerous, the [...] activities involved in improving a process are standardized and, as such, are documented in the SAP Process Map.

Which capability areas associated with *strategic alignment* are described?

12.2.2 Governance

BPM *governance* is dedicated to the definition of appropriate and transparent accountability in terms of roles and responsibilities for different levels of BPM (program, project, and operations). Furthermore, it is tasked with the design of decision-making and reward processes to guide process-related actions. We can articulate BPM governance according to the following capability areas:

1. **BPM decision making:** What BPM decisions can be taken and when, to handle both expected and unexpected circumstances?
2. **BPM roles and responsibilities:** Is there a clear definition of BPM roles and associated responsibilities?
3. **Process performance measurement system:** What mechanisms are in place to measure process performance and how appropriate are these mechanisms based on the chosen performance measures?
4. **BPM standards, conventions, and guidelines:** How well are BPM standards, conventions, and guidelines defined?
5. **BPM quality controls:** What control measures are in place to review and guarantee quality in all phases of a BPM project?

The first capability area is *BPM decision making*. A critical challenge for BPM governance is the clear definition and consistent execution of related BPM decision-making processes that guide actions in both expected and unexpected circumstances. For example, who can take the decision to start or to stop a BPM project? In addition to who can make which decision, it is important to stipulate the required speed of decision making and the authorization levels to influence resource allocation and organizational responses to process change. This requires alignment with related governance processes, such as IT change management and business continuity management. In BPM decision making, we determine the whole approach to BPM, what decisions to take and when (e.g., the BPM lifecycle and related decisions: when to start each phase, when to start the whole project), while in BPM project planning we ensure alignment in each phase of the lifecycle.

Another capability area of BPM governance is *BPM roles and responsibilities*. This covers the entire range of BPM-related roles, from process analysts, who are e.g., apply BPM methods and IT under the advice of the BPM methodologist,

through to process owners, who manage individual BPM projects. In large organizations with a *BPM Center of Excellence*, this also includes the dedicated role of the *BPM Program Manager*, also called the Chief Process Officer (CPO) or the Chief Process and Innovation Officer (CPIO); this role manages the whole BPM initiative and is ultimately accountable for its results. This capability area also includes, when available, BPM decision boards and committees. For example these are the *BPM Steering Committee*, which is made up of the BPM management team and provides overall direction to the development of the BPM program, and the *BPM Advisory Board*, which offers external advice and controls the quality of the BPM program. This capability demands a clear specification of the duties and responsibilities of each role, as well as of their reporting structure. A description of the roles and responsibilities of all involved in the BPM program is provided in the “Stakeholders in the BPM Lifecycle” box on page 24.

A *process performance measurement system* is required for the efficient measurement of process performance. While the actual definition of process performance measures is part of the strategic alignment factor, this capability area specifies who is accountable for measuring process performance, which (cost-effective) procedures are to be followed for performing the measurements, and what supporting tools should be used. Typically, the person accountable for measuring process performance is the process owner, while the definition of the actual measurement procedures is done by the process analysts in consultation with the BPM methodologist.

BPM standards, conventions, and guidelines must be clearly defined and documented to ensure consistency across BPM projects and the sustainability of the overall BPM program. BPM standards define which methods and software tools are to be used across the BPM lifecycle. They also include the standardization of project and program management methods and tools to ensure the effective coordination of different projects within the BPM program. Guidelines and conventions restrict the use of such methods and tools. For example, in Chapter 5 we discussed a series of process modeling guidelines to restrict the vocabulary, structure, and appearance of BPMN models (see page 192). Guidelines and conventions also apply to other phases of the lifecycle beyond discovery. For example, in process identification they can be used to determine the scope of business processes, or the hierarchical levels of the process architecture; in process analysis they can be used to configure the content of an issue register; in process redesign, they can be used to restrict the number and type of heuristics to use. While conventions are hard constraints, guidelines are recommended but not mandatory. It is the role of the BPM methodologist to set standards, guidelines, and conventions and to keep these up-to-date and relevant.

Finally, *BPM quality controls* capture the regular review cycles on BPM projects to maintain the quality and currency of process management principles (e.g., process reuse should prevail over process development, or process automation should only apply to a redesigned process). It also includes mechanisms to monitor the compliance with BPM standards and guidelines, as defined in the previous capability area, as well as with relevant organizational policies.

Exercise 12.4 In their case study, Reisert, Zelt, and Wacker also report on the governance of BPM at SAP [139].

As the transformation significantly reduced the standard innovation cycle's throughput time, SAP decided to build on this success and founded the Productivity Consulting Group (PCG). [...] PCG was founded as a process office with direct oversight over SAP's corporate functions throughout all regions. The PCG is responsible for establishing a process infrastructure in the company, including process governance, idea management, and improvement services. The PCG is located in the area of SAP's COO [the Chief Operations Officer], which facilitates a direct connection between the PCG's portfolio and the corporate strategy. By grouping PCG with an organizational unit called Business Insight and Technology, the company ensures a close relationship with IT projects and innovations. [...] PCG manages the SAP Process Map and provides SAP-wide BPM standards on how to design, measure, and improve processes. It also manages the BPM community, which entails educating the Process Managers on BPM methodology. Process Managers are responsible for defining, operating, and improving processes, so they pursue the business goals, strategies, and objectives defined by Business Owners. [...] The effect of the process changes are measured according to Process Performance Indicators (PPIs). [...] SAP uses its own process maturity model that has been tailored to the company's needs.

Which capability areas associated with *governance* are described?

12.2.3 *People*

The *people* factor is about the different individuals and groups that are directly involved in carrying out the various BPM projects but, just as importantly, also about those that are affected by such projects. What needs to be understood is what knowledge people have access to and how the interaction between them takes place to realize an improvement of business process performance. This critical success factor involves the following capability areas:

1. **Process knowledge:** To what level do process participants and related process stakeholders know the processes they participate in?
2. **BPM knowledge:** How much do the people in BPM roles, such as process analysts, know about BPM methods and tools?
3. **BPM and process training:** How developed is the corporate training in BPM and business processes?
4. **Process collaboration and communication:** How do process stakeholders collaborate and communicate with each other for the achievement of process objectives?
5. **Propensity to lead BPM:** How willing is a company's management team to lead BPM projects?

Process knowledge relates to the comprehensiveness and depth of the capabilities of all the involved stakeholders in light of the specific requirements of a process. For people who fulfill a process-oriented role, such as process owners, it is obvious that they need to understand a business process in quite some depth. However, also for

regular process participants it may be essential for the success of a BPM program that they understand the overall processes that their work contributes to.

The second capability area, *BPM knowledge*, captures both the explicit and tacit knowledge about BPM principles and practices among people. To what extent is BPM as a management practice generally understood and recognized? A sign that people in an organization have acquired at least a basic understanding of BPM is whether they are familiar with process concepts, such as activities and cases. Specifically for those people who fulfill a BPM role this capability area is also about their knowledge of and skillfulness in existing BPM methods, techniques, and tools. For process analysts, for example, it is important to know how versed they are in the use of different modeling techniques and redesign methods.

The next capability area, *BPM and process training*, captures to what extent an organization invests in the development and maintenance of BPM skills and process knowledge. It relates to the content of educational programs, internal or external, that are available to the employees of the company, the organizational efforts taken to let these people follow such programs (e.g., incentive schemes for participating in training such as reduced workloads), and the certifications that can be acquired by following these. Training is related both to upskilling in knowledge of BPM methods, techniques, and tools for those involved in the BPM program (e.g., training a process analyst on new process mining techniques) and to increasing the knowledge of relevant business processes for those who participate in these processes (e.g., updating a claims handler on the latest insurance procedures and policies). Many large organizations, for example, have set up internal programs to train their employees in the application of Six Sigma techniques; employees can acquire belts of different colors (e.g., Green Belt, Black Belt) as certificates for the programs they have completed. Thus, this capability area does not only focus on the scope and depth of the training offered, but is also concerned with the success of such initiatives.

The *process collaboration and communication* area focuses on the way individuals and groups interact in order to achieve desired process outcomes in a collaborative manner. This area relates to the formal channels that are used in the communication between process stakeholders, such as process participants and process owners, for example, in terms of meetings and briefings that take place. From a more informal perspective, it is important to understand whether people are able to communicate in terms of concepts that make sense in a BPM context: Do they use terms such as “processes”, “cases”, and “triggers” in a consistent way? A final element worth mentioning is the infrastructure that is available to foster collaboration and communication, such as an intranet or messaging tools.

The final capability area that we discuss in relation to the people factor is *Propensity to lead BPM*. For any organization that desires change, it is crucial that senior management is willing to lead, take responsibility of, and be accountable for change initiatives. This, of course, also applies to BPM projects or programs. Particularly in this area, it is important to distinguish between the formal role that people have on the one hand and the actual role that people perform. The actual advocate of a BPM program may be different than the manager who is formally

responsible for it, for example. While such a mismatch may still lead to successful outcomes, no BPM program will succeed without anyone preaching the BPM gospel and steering the projects when they are in turbulence.

Exercise 12.5 Continuing with the case study by Reisert, Zelt, and Wacker, the extract below reports on the activities of the Productivity Consulting Group (PCG), which is in charge of BPM at SAP and of the people in relation to BPM activities [139].

The PCG supports a series of communication and enablement activities in order to establish a solid relationship with the BPM community.

- SAP Process Excellence Newsletter: Bi-monthly issues that contain training offers, information on upcoming events and success stories on process improvement.
- Process Manager Information Sessions: Bi-monthly sessions for Process Managers to share best practices and roll out information about BPM standards.
- Process Management Training: Classroom and virtual training sessions on [SAP's] BPM methodology, tools, and best practices (from Process Managers for Process Managers).
- SAP Process Summit: Annual event where all Process Managers come together to exchange best practices, get inspiration from external speakers, and learn about new topics related to BPM.
- SAP Process Excellence Award: Increases the visibility of excellent processes and provides a platform for employees who are working on process improvement by rewarding outstanding processes that accomplish measurable process improvements and have a positive impact on the company.

Which capability areas associated with *people* are described?

12.2.4 Culture

The measures in *culture* quantify the extent to which corporate culture is supportive of BPM. Corporate culture in essence refers to the values and beliefs of the persons working in the organization and, more specifically, how far these stimulate a process-thinking mindset and a positive attitude towards process redesign. *Culture* covers the following capability areas:

1. **Responsiveness to process change:** To what extent does the organization embrace and respond to continuous process change?
2. **Embedding of process values and beliefs:** How deep is process-thinking ingrained in the corporate values and beliefs?
3. **Adherence to process design:** To what degree do process participants adhere to process designs?
4. **Leadership attention to BPM:** How much support do leaders exhibit for BPM?
5. **BPM social networks:** Are social networks in place to shape and disseminate BPM in the organization?

Responsiveness to process change describes how easy it is for process stakeholders to embrace new ways of carrying out processes. One of the key benefits of BPM

is the ability of an organization to respond to environmental changes quickly and to drive innovation internally. For this reason, BPM is often described as a *dynamic capability*. A key prerequisite for change is the willingness to change, and this willingness is deeply encoded in the corporate culture. If this is missing, it requires a continuous effort over a longer period of time to foster this responsiveness.

Process values and beliefs are associated with how explicitly members of the organization think in terms of processes and which positive attitudes are related to this. For instance, do employees naturally see themselves as process participants who contribute to the overall objective of a process, or do they perceive themselves as subordinates to a manager in a particular silo of the organization? In those organizations that exhibit a strong BPM culture, we often find processes explicitly mentioned in strategic documents such as the corporate vision, the mission statements, or the description of the value proposition. When processes are often mentioned in that context, it is likely that the key persons in the organization maintain a strongly positive attitude towards BPM and that many employees have a good understanding of BPM concepts.

When such a general, positive attitude towards BPM has been established, it is also observed that the *adherence to process design*, which is the next capability area of culture, is high. This aspect is closely related with the overall acceptance of the BPM principles and ideas as much as the specific process improvements that stem from redesign projects. Process participants who adhere to the process design mostly act in this way, because of a deeper understanding of the dependencies between different tasks in the process and the overall benefits that result from working in a well-organized fashion. Such an attitude is an asset of any BPM project and for the BPM program altogether.

Management support is often mentioned as the most important success factor at all. Such support is not self-evident and requires ongoing *leadership attention to BPM* on different levels. This, in turn, requires the ongoing efforts of all persons involved within the various BPM projects. Management support is quickly gained when substantial benefits can be demonstrated in a monetary way. It is also easily lost when results fail to appear. Therefore, process owners always have to assess the actions of their project members from the perspective of major impact they can deliver in order to foster leadership attention.

Finally, the principles and ideas of BPM should not only be clear to process analysts, but also to any stakeholder group in the organization. *BPM social networks* subsumes all initiatives beyond formally defined projects that stimulate the exchange of experiences in BPM communities of practice or events organized by a BPM Center of Excellence. Such forums are highly important for the dissemination of BPM in the organization and for nurturing its reputation. Often such events and meetings are supported with social media technologies such as Yammer, Facebook, or Twitter.

Exercise 12.6 The last extract from the case study by Reisert, Zelt, and Wacker reports on the results and lessons learned from the way SAP embraced BPM [139].

With the implementation of the SAP Process Map and easy-to-use tools for process documentation, process modeling has become an important part of Process Managers' jobs. Currently, 626 employees have an editor user for process modeling, and more than 1,200 employees are enrolled in internal training that helps them to design and leverage processes at SAP. Today, 92% of all Level 3 processes are documented and published in the SAP Process Map, and 1,023 processes on Level 3 and below are documented. [...] Based on a sample of 100 projects per year, SAP currently achieves a typical result of 20:1 payback and a customer satisfaction that exceeds 75%. In addition, many processes' processing time has been reduced significantly, including a process in the marketing services team that eliminated eleven process steps and reduced processing time by up to 74%. [...] A strong BPM community and a culture that supports BPM initiatives, where every single employee contributes to process improvement, are essential. SAP established the Process Excellence Award, process management events, and other activities that contribute to the creation of a process management culture and a deeper understanding of the value of BPM.

Which results can be related to the capability areas associated with *culture*? Consider also the descriptions for Exercise 12.5 (page 488).

12.3 Measuring Process Maturity and BPM Maturity

Maturity models, such as the BPM Maturity Model presented in the previous section, aim to assess two properties in an integrated way: the *breadth* of how complete a given spectrum of aspects is, and the *depth* with which each aspect is addressed. In the management of business processes, we can distinguish two complementary approaches to maturity assessment: BPM maturity and process maturity. *BPM maturity* is concerned with assessing how broad and deep the spectrum of BPM activities is, within the BPM program of an organization. This can be done, for example, by using the six critical success factors of the BPM Maturity Model that we introduced before. In contrast, *process maturity* is concerned with assessing how broad and deep a given spectrum of business processes is within the organization. In fact, based on the particular business sector in which it operates, an organization is ideally expected to put in place a given set of business processes, so process maturity measures the range and quality of these processes.

First, let us focus on *process maturity* assessment. One of the most widely-used frameworks for process maturity assessment is the *Capability Maturity Model Integration* (CMMI), administered by the CMMI Institute. This framework distinguishes a number of so-called process areas. There are three domain-independent areas: process management, project management, and support, plus various other areas that are specific for a particular domain. The latter are defined in various CMMI specifications, e.g., for product and service development, and for their acquisition.

The coverage of process areas and the degree of their support provide the basis for a process maturity assessment in terms of the five CMMI maturity levels: Level 1 (Initial), Level 2 (Managed), Level 3 (Defined), Level 4 (Quantitatively managed), and Level 5 (Optimizing). The higher the level of maturity, the broader

the spectrum of processes the company is engaged in, and the higher the level of sophistication of each individual process, ranging from generic to specific practices. As process maturity increases, also documentation and performance monitoring of the processes in place increases. Note, however, that CMMI focuses on *what* processes should be implemented, rather than on *how* they should be implemented. In fact, different organizations may implement the very same process in a different way and achieve different performance results. This means that, even though successful organizations are associated with high levels of CMMI maturity, applying CMMI alone does not guarantee higher business performance.

Second, we turn to *BPM maturity*. The BPM Maturity Model that we presented in the previous section adopts the nomenclature of the CMMI maturity levels to differentiate between five levels of maturity of a BPM program. These levels are described below.

Level 1 (Initial): At this level of maturity, BPM is nonexistent or rarely used within the organization. When available, BPM projects are carried out in an ad hoc fashion within individual IT or business divisions. Such initiatives are uncoordinated, and have a limited scope and minimal employee involvement.

Level 2 (Managed): The organization starts capitalizing on its first BPM experiences to build up BPM capabilities. A process-thinking mindset starts to emerge among its employees. As the awareness of BPM increases, the first processes are documented and analyzed. There is also increasing involvement of the management level, though knowledge of BPM methods and tools remains with external experts.

Level 3 (Defined): The organization reaps the benefits of the first BPM projects, though the focus is still on the early stages of the BPM lifecycle. The use of methods and tools becomes more sophisticated. In-house BPM training is established to reduce the dependence upon external experts. The first process collaboration and communication forums are set up to facilitate the dissemination of BPM experiences (e.g., using intranets to share process models).

Level 4 (Quantitatively managed): The focus of BPM projects shifts towards the last phases of the lifecycle: change management accompanies BPM projects to guarantee the acceptance of the redesigned processes; systematic performance monitoring ensures that BPM projects deliver strategic benefits. A *BPM Center of Excellence* is established with well-defined roles to coordinate all BPM efforts. There is process orientation in every project (not only in BPM-specific ones) and the company minimally relies on external expertise.

Level 5 (Optimizing): BPM is fully-established, on both the operational level and the strategic level, where it has become an integral part of any manager's activities, accountabilities, and performance measurements. BPM methods and tools are widely accepted and a standardized, company-wide approach to BPM is in place. As BPM becomes the way business is done, the *BPM Center of Excellence* reduces in size.

An approach to obtain a single measurement of BPM maturity on a scale from 1 (Initial) to 5 (Optimizing) is to start by measuring the maturity of each

BPM capability area. For example, we may interview the process analysts of our organization to assess their knowledge of discovery methods (maturity of the capability area *BPM knowledge* under *people*) and how far these methods are effectively applied in practice (maturity of *process identification and discovery* under *methods*). For each capability area that we assess, we assign it a maturity level from 1 to 5. This measurement per capability area can be used as feedback information for specific BPM roles, e.g., informing the process methodologist of the quality of the BPM corporate training. Next, we average these results for each success factor to obtain respective maturity assessments. These latter assessments may be reported to the BPM program manager, e.g., the CPO or CPIO. Finally, we average across all success factors to obtain a single measurement of the maturity of the overall BPM program. This can be used by the BPM program manager in discussions with the CEO and other board members.

From the application of the BPM Maturity Model to various organizations, three patterns of adoption have emerged, as shown in Figure 12.2. The blue pattern (high maturity in strategic alignment and governance, low elsewhere) is typical of those organizations where BPM is driven from the top, e.g., the program is sponsored by the CFO or directly by the CEO. There is strong executive support for BPM, often because of a sense of urgency. For example, new regulations demand a large-scale improvement of all the claims handling processes, which are at the core of insurance companies, in order to avoid government fines. As such, the BPM program is strategically aligned; it relies on a well-defined governance structure to maximize standardization and reuse across projects, and to accelerate the achievement of results. However, given the sense of urgency, organizations in this pattern tend to heavily rely on external expertise (consultants) to achieve their BPM results quickly, rather than investing in internal training. Consequently, the use of methods and IT may be ad hoc rather than systematic.

Acknowledgement This figure is adapted from teaching materials of Michael Rosemann, Queensland University of Technology.

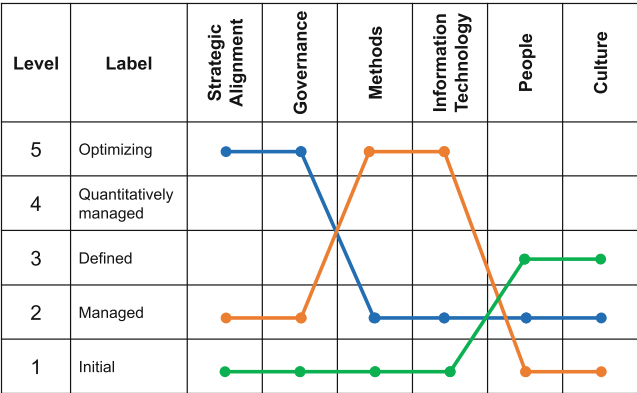


Fig. 12.2 Patterns of BPM maturity

The orange pattern (high maturity in methods and IT, low elsewhere) is typical of those organizations where BPM is driven from within the IT department, under the sponsorship of an IT director or the CIO directly. As such, in this bottom-up approach to BPM, there is a strong emphasis on BPM methods and software solutions, which are applied extensively and in-depth. This leads to high-quality outputs such as sophisticated process models or feature-rich process automation solutions. However, the use of these methods and tools is not necessarily driven by an alignment with corporate priorities. Hence, the outputs produced may be hardly used outside IT. Moreover, organizations in this pattern suffer from an inability to democratize BPM internally, due to the often-introverted personality of the technical experts driving BPM.

Finally, the green pattern (medium maturity in people and culture, low elsewhere) is observed in those organizations that are affected by rule-based governance and heavy unionization, where everyone’s buy-in is sought for any redesign decision. For example, this is the case for certain agencies in the public sector. Here, BPM may be democratized across different organizational levels. However, its principles are hardly embedded in the corporate values and beliefs, because there is no strong urgency to change (e.g., the company has the monopoly of the market). In addition, the quest for widespread consensus implies that all key decisions as part of any BPM project have to be scrutinized by different committees, leading to a slowdown in the delivery of BPM results.

Figure 12.3 shows an example of BPM maturity assessment for an insurance company. The assessment is framed in the context of a BPM roadmap, which describes desired levels of maturity over time. The company in this example follows the orange pattern: The driver for BPM is methods and IT, rather than strategy.

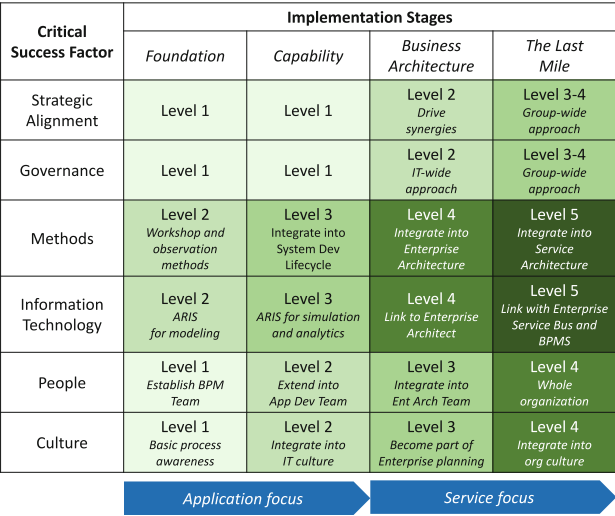


Fig. 12.3 Example of BPM maturity assessment for an insurance company

Acknowledgement This figure is adapted from teaching materials of Michael Rosemann, Queensland University of Technology.

The assessment of an organization in terms of the various levels of BPM or process maturity leads to a so-called *appraisal*. Appraisals can be conducted internally within the organization (also called self-appraisals) or by external organizations with expertise in BPM or process maturity assessment. For example, different types of appraisals are distinguished for measuring process maturity, as defined in the *Standard CMMI Appraisal Method for Process Improvement* (SCAMPI).

Exercise 12.7 In Exercises 12.3 to 12.6 on pages 483–489, we have learned about the BPM program at SAP. Assess the BPM maturity of SAP from what is reported in the quoted text.

Finally, it has to be emphasized that a maturity assessment captures only the current state of the processes or of the BPM program. Several BPM experts have teamed up to formulate the principles that eventually will make BPM more mature and more successful. The box on “Ten Principles of Good BPM” summarizes them.

TEN PRINCIPLES OF GOOD BPM

The ideas behind BPM maturity are summarized in the Ten Principles of Good Business Process Management [189]:

- 1. Principle of Context Awareness** BPM should fit the organizational context. It should not follow a cookbook approach.
- 2. Principle of Continuity** BPM should be a permanent practice. It should not be a one-off project.
- 3. Principle of Enablement** BPM should develop capabilities. It should not be limited to firefighting.
- 4. Principle of Holism** BPM should be inclusive in scope. It should not have an isolated focus.
- 5. Principle of Institutionalization** BPM should be embedded in the organizational structure. It should not be an ad hoc responsibility.
- 6. Principle of Involvement** BPM should integrate all stakeholder groups. It should not neglect employee participation.
- 7. Principle of Joint Understanding** BPM should create shared meaning. It should not be the language of experts.
- 8. Principle of Purpose** BPM should contribute to strategic value creation. It should not be done for the sake of doing it.
- 9. Principle of Simplicity** BPM should be economical. It should not be over-engineered.
- 10. Principle of Technology Appropriation** BPM should make opportune use of technology. It should not consider technology management as an afterthought.

12.4 Recap

This chapter argued that to achieve sustainable success with BPM, we need to go beyond the application of methods, techniques, and software tools, and consider BPM as an enterprise capability embedded in the corporate structure. Accordingly, BPM should not be seen as a one-off project, but as a coordinated set of projects developed over time, each of these aiming to improve one or more business processes via the BPM lifecycle.

First, we presented typical fail reasons of BPM programs and traced these back to a lack of strategic alignment, a weak or nonexistent governance structure, or an underestimation of the role that employees and corporate culture play for the success of the BPM program. Using these causes, we then introduced the BPM Maturity Model as a tool to measure the success, or maturity, of a BPM program within an organization. This model revolves around six critical success factors: strategic alignment, governance, methods, IT, people, and culture, each sporting five capability areas. The underlying assumption is that BPM success influences business process success, which in turn influences business success.

Finally, we turned to maturity assessment, where we differentiated between BPM maturity and process maturity. The former measures the completeness and quality of the set of processes executed in an organization; the latter measures the maturity of the BPM program that drives the management of these processes. We overviewed the CMMI framework for process maturity assessment, and reused the nomenclature of its maturity levels to discuss five levels of BPM maturity according to the BPM Maturity Model. From this, we delineated three key patterns of BPM adoption within companies.

12.5 Solutions to Exercises

Solution 12.1 Many activities that the BPM team and other BPM stakeholders are responsible for only have an indirect effect on the success of the BPM program. These are prerequisites rather than measures of success.

- (a) The BPM team has correctly configured a modeling tool. Without this step, it will be difficult to systematically model processes. This is a prerequisite for success.
- (b) A process analyst has completed a Six Sigma training course. Without this step, it will be difficult to systematically analyze various processes. This is a prerequisite for success.
- (c) The job description of a process owner has been updated. Without this step, the responsibility for a certain process might not be clear. This is a prerequisite for success.
- (d) The cycle time of the order-to-cash process was reduced by 10%. This is likely a measure of success, which might spring from a BPM project to improve the

order-to-cash process. Whether it is a true success measure or not depends on the actual business goal set for the organization. For example, if the goal was to improve operational efficiency by at least 5%, then the reduction of cycle time by 10% in the order-to-cash process is probably an indication of the achievement of this goal.

- (e) A BPMS was installed. Without this step, we cannot automate business processes with the BPMS. This is a prerequisite for success.
- (f) The handling time of over 90% of claims was reduced to up to 5 days. This is likely a measure of success, which might result from a BPM project to improve the claims handling process.
- (g) The process architecture was updated. Through this step, we provide the infrastructure for specific BPM projects. This is prerequisite for success.

Solution 12.2

- Strategy: High customer experience, no mistakes in software, functional processes, compliance with law, transparent processes for software development.
- Governance: All documentation in one location, documentation always up-to-date.
- Methods: Use models to trace impact of development on systems and processes.
- Information Technology: In-house development to support customer processes in an innovative way.
- People: Trust in correctness of documentation.
- Culture: Transparency through well-documented processes.

Solution 12.3

1. Strategy-driven BPM project planning: Each process has improvement goals derived from strategic priorities. Selection criteria are not explicitly discussed in the quoted text.
2. Strategy and process capability linkage: Strategy and processes are directly related. On the one hand, strategy is formulated in terms of process performance: “produce innovative solutions faster and more simply”. On the other hand, the improvement objectives refer to strategy.
3. Enterprise process architecture: The SAP Process Map described in the text, which we illustrated in Section 2.2.5 (see page 55), is the process landscape model. It plays a central role for the strategic alignment of all BPM projects at SAP.
4. Process performance measures: Each process improvement project at SAP has a clear improvement objective tied to specific process performance measures.
5. Process customers and stakeholders: Strategic objectives are driven by the customer perspective.

Solution 12.4

1. BPM decision making: The Productivity Consulting Group (PCG) in SAP is responsible for decision making related to BPM projects. It closely cooperates with the unit responsible for IT projects and innovation.

2. BPM roles and responsibilities: PCG manages BPM standards and the SAP Process Map. Process managers are responsible for defining, operating, and improving processes, in pursuit of the company's business goals. Business owners define objectives.
3. Performance measurement system: While not explicitly mentioned, it is reasonable to assume that mechanisms are in place for the measurement of process performance measures. At SAP, these mechanisms are part of the BPM standards defined by the PCG.
4. BPM standards, conventions, and guidelines: PCG defines BPM standards for the whole corporation.
5. BPM quality controls: A SAP-specific maturity model is used to assess quality.

Solution 12.5

1. Process knowledge: The newsletter helps to keep stakeholders up-to-date, including process participants.
2. BPM knowledge: The information sessions, trainings, and the process summit disseminate BPM knowledge. Hence, we can assume that the level of BPM knowledge is high with all those involved in BPM initiatives at SAP.
3. BPM and process training: Corporate training on BPM and on business processes is available through SAP's Process Management Training.
4. Process collaboration and communication: Beyond their duties to improve those processes they are responsible for, process managers also have forums like the Process Manager Information Sessions to exchange experiences. While not explicitly mentioned in the text, it is reasonable to assume that this has a positive cascading effect on process participants.
5. Propensity to lead BPM: Business owners and process managers have to agree on the process strategy and drive processes towards improving process performance measures.

Solution 12.6

1. Responsiveness to process change: Several measures promote a culture of continuous improvement.
2. Embedding of process values and beliefs: The overall organizational anchoring of BPM at SAP strongly establishes process values at all levels of the organization. An extensive number of employees have received BPM training and various projects have contributed to tangible improvements in the organization. All this contributes to a strong embedding of process values and beliefs, leading to a high credibility of the overall BPM program.
3. Adherence to process design: Substantial improvements are reported in relation to customer satisfaction and processing times. These numbers indicate that changes to processes have found their way into daily work routines.
4. Leadership attention to BPM: The BPM program has achieved a substantial improvement to various processes. Such success contributes to management attention.

5. BPM social networks: The PCG has established various networking activities, through which people can meet and learn about ways of enhancing their BPM-related skills.

Solution 12.7 The BPM maturity of SAP is high. A BPM Center of Excellence is in place called Productivity Consulting Group. This means that at least Level 4 (Quantitatively managed) is reached. There are also indications that Level 5 could be reached, because BPM is part of the managers' daily work. Corporate BPM standards are also in place and used quite extensively within the company. An appraisal would determine the correct BPM maturity level.

12.6 Further Exercises

Exercise 12.8 In a case study, Kloppenburg, Kettenbohrer, Beimborn, and Bögle report on the BPM approach at Lufthansa Technik, the technical division of the airline Lufthansa [79].

At its 30 subsidiaries worldwide, more than 20,000 employees perform tasks like aircraft overhaul, component maintenance, and V.I.P. cabin completion. The basis for all aircraft-related tasks are the approvals of the respective aviation authorities from 69 countries. To gain these approvals, Lufthansa Technik must demonstrate to these regulatory authorities its compliance with international laws and standards. The company accomplishes this requirement based on the process-oriented management system called IQ MOVE. Since the beginning of the IQ MOVE implementation in 2002, "Finding all relevant procedures quickly and easily" has been the guiding vision of the development and operation of the system. Its acceptance by the employees is the key indicator of the success of the IQ MOVE implementation. [...] An essential step in increasing employees' acceptance was the introduction of a process-management role concept that facilitates clear assignment of management responsibilities to specific roles, such as Process Owner, Process Architect, and Process Manager (for process responsibility) and Line Manager (for disciplinary responsibility). Intensive training and coaching for these roles has helped to improve the operation of processes by, for example, keeping processes up-to-date and providing process training to employees. In addition, the integration of top management into the system development is ensured by regular reporting to and discussion with the organization's senior line managers.

- (a) Which of the six BPM capability areas does the quoted text refer to?
- (b) On which maturity level is the described organization?

Exercise 12.9 In a case study, Wolinski and Bala report on the BPM approach at Siemens [194].

Siemens strengthened its process-wise approach and worldwide process standardization by implementing a formalized process policy. As a first step, the Business Process Excellence (BPE) regulation (also referred to as BPE policy) was introduced. It formulated the Siemens Processes for Excellence (SIPEX) process standards, which replaced the previous processes base, referred to as Reference Process House (RPH). At the same time, process roles (sponsor, owner, and manager) and corporate tools with which to visualize the processes, such as ARIS, were introduced. In the Polish organization, the program was formulated as a vehicle with which to implement the process organization. The goal of the initiative, which

was referred to internally as “Streamlining business processes”, included Chief Financial Officers (CFOs) as process sponsors and the head of the business process management team as the program manager. [...] From the implementation of the program we learned four primary lessons:

- Complexity in many dimensions (number of processes, number of roles, and number of formal documents and circulars) is not supportive of effective process management.
- Having a strong, dedicated sponsor is one of the most important keys to success.
- Not everyone in the organization will appreciate the effort at first, but they will if an attempt is made to understand their businesses and support their efforts.
- Be flexible: without putting one’s best effort into implementing the corporate recommendations and without alignment with the business, no appreciation or cooperation should be expected.

- (a) Which of the six BPM capability areas does the quoted text refer to?
- (b) On which maturity level is the described organization?

Exercise 12.10 In a case study, Kovačič, Hauc, Buh, and Štemberger report on the BPM approach at Snaga, a public company operating in Slovenia [82].

Snaga is a Slovenian public company that provides a series of waste treatment services for 368,000 citizens of the Municipality of Ljubljana and ten other municipalities. In 2006, prior to adopting BPM and implementing a new information system, the company had obsolete and non-integrated IT solutions that did not provide sufficient support to the business operations. The existing business processes were not well organized, resulting in unnecessary duplication of work and excessive delays. The company also faced new challenges in waste management and new legislation that dictated the development of waste-processing technologies. [...]

The company comprehensively transformed its business operations and adopted BPM in order to undertake the critical examination, rethinking, and then redesigning of current business processes, practices, and rules. The BPM project was conducted in three phases: (1) planning for strategic business transformation, (2) business process restructuring and information architecture development, and (3) information system development and implementation in six interdependent projects. [...]

A key change brought by the BPM adoption was the transition from a functional to a more process-oriented organization with an increased customer focus. The company implemented an ERP solution to support the redesigned business processes, established process ownership and a BPM office, and introduced KPIs to measure the performance and efficiency of processes and business operations using a business intelligence solution. The involvement rather than just [the] support of top management is one of the most important critical success factors in all phases of BPM adoption.

- (a) Which of the six BPM capability areas does the quoted text refer to?
- (b) On which maturity level is the described organization?

12.7 Further Readings

The BPM Maturity Model presented in this chapter is an adaptation of the original model by Rosemann & de Bruin [33, 150] to the terminology of this book. Rosemann & de Bruin’s BPM Maturity Model is the result of a consolidation of existing maturity models from the literature, corroborated with insights obtained

from a series of Delphi studies with BPM practitioners and academics [35], and validated with case studies in different business sectors, such as [34, 149, 151]. Further applications of this maturity model are reported in [13, 14] in the form of teaching cases. Recently, a new version of this model has been presented, which specifically focuses on BPM capabilities in the digital age [76].

Another maturity model that we discussed in this chapter is CMMI, which focuses on process maturity as opposed to BPM maturity. CMMI is the evolution of the Capability Maturity Model (CMM) [125], which was originally intended as an instrument to assess the ability of government contractors to deliver on a software project. While it originates from the area of software development, it has been widely applied as a general model of business process maturity, e.g., for IT service management processes. In its version 3.1, there are three official models of CMMI, based on the following areas of interest: product and service development (CMMI for Development) [25], service establishment and management (CMMI for Services) [46], and product and service acquisition (CMMI for Acquisition) [52]. The Standard CMMI Appraisal Method for Process Improvement (SCAMPI) that we mentioned in this chapter is described in [6].

A comprehensive overview of maturity models for BPM and for business processes, including an analysis of their overlap, differences and shortcomings, is provided in the book of Van Looy [94].

In the context of the BPM Maturity Model, we discussed critical success factors such as strategic alignment, governance, people, and culture. A discussion on the relation between these four factors and the various phases of the BPM lifecycle is provided in [98]. This is done in the context of a BPM success assessment framework, which explores the relation between BPM success and business success empirically. Strategic aspects of BPM are discussed in depth by many authors, including Luftman [96] and Burlton [23]; BPM governance aspects are covered, for example, by Spanyi [167], while the role of culture in BPM is explored, among others, by Schmiedel et al. [158]. Such aspects are also discussed from the viewpoint of expert BPM professionals and academics in the book by Harmon & Tregear [66], while many practical tips around these topics are offered by Tregear [174].

In this chapter we related the BPM maturity of an organization to the existence of a dedicated BPM Center of Excellence. However, we did not delve into the operational aspects of how to set up and manage such a Center. The books by Franz & Kirchmer [47] and by Alkharashi et al. [16] discuss such aspects and provide many practical guidelines.

The descriptions of how major companies use BPM that appeared in this chapter are taken from a book on BPM cases [188]. This book includes 31 case studies in different industries. Several of these explicitly discuss BPM as an enterprise capability.