An empirical study about the status of business process management

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Abstract

Purpose – Recently, business process management (BPM) is among the most important managerial topics because it allows companies an agile adaptation to changing business requirements. Consultants and researchers are regularly proposing new methods and concepts based on BPM for further increasing the efficiency of corporate processes. However, from an empirical point of view it is crucial to determine the current status in practice and derive goals for research and technology transfer. This paper aims to address these issues.

Design/methodology/approach – For this reason the survey "Status Quto Business Process Management" is carried out in Austria, Germany, and Switzerland on a yearly basis. This survey aims at identifying current trends and strategic plans of companies as well as its realization in practice and highlights the remaining steps towards the process (-focused) organization (PFO). The paper summarizes the results of the survey carried out in 2006 among 185 decision makers and shows a comparison with the results of the previous years as well as comparable surveys.

Findings – This paper analyzes the current state of BPM in the market, analyzes the strategic, organizational and technical aspects of BPM in the participating companies. The survey shows that although the majority of the participating companies are involved with BPM initiatives, only a very small number of companies follows holistic approaches and has reached the status of a PFO.

Research limitations/implications – As the survey especially focused on IT-driven companies a limitation of this survey could be seen in the fact that it does not exactly cover the branch distribution of the population, e.g. the financial sector is over-represented due to the fact that the survey included branch specific questions for the financial sector (note that these questions are not part of this paper). However, the comparison with the surveys "BP Report" and "State of BPM" shows that these surveys come with similar distributions of the branches.

Practical implications – This paper provides a very useful source for companies in benchmarking their status regarding BPM. It provides them with information that allows to compare their status on the way towards a PFO with their competitors.

Originality/value – This paper provides a very useful source for companies in benchmarking their status regarding BPM. The survey does not only investigate what is being done by the participating companies but also interested in the reasons why it is done. Compared to existing surveys it: investigates connections between processes and business strategy, process risk handling, references models, as well as methods for evaluating the contributions of IT to the business processes; uses statistical methods for measuring the significance of the results and; has a specific focus on companies in the Germany-speaking countries Austria, Germany and Switzerland.

Keywords Process management, Benchmarking, Management strategy

Paper type Research paper

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1. Introduction

Recently, companies are constantly facing changing business requirements and challenges such as decreasing product life cycles, international competition and increasing cost pressure, e.g. due to the demand to apply latest state-of-the-art technology. In order to achieve corporate business objectives, a strong coherence between business and IT has become an important factor of competition on all market places and in nearly all industries (Kersten and Verhoef, 2003). In this context, business process management (BPM) is a methodology that allows companies a faster organizational adaptation to the continuously changing requirements of the market and its customers. It enables development and continuous improvement of corporate strategies and allows companies to concentrate on value-generating and supplementary business processes. "BPM is supporting business processes using methods, techniques, and software to design, enact, control, and analyze operational processes involving humans, organizations, applications, documents and other sources of information" (van der Aalst *et al.*, 2003). BPM is further characterized by its orientation on processes, customers, values, services, employees, competencies and learning. For many companies, BPM became the basis for efficiently realizing different technologies and concepts (e.g. balanced score card, workflow management, or business monitoring). Consultants and researchers are regularly proposing new methods and concepts based on BPM to further increase corporate profits while leveraging efficiency of value-adding processes. However, from an empirical point of view it is crucial to determine the current status of BPM in practice and derive goals for research and technology transfer. Therefore, this paper analyzes the current state of BPM in the market, analyzes the strategic, organizational and technical aspects of BPM in the participating companies and answers the research question:

RQ1. What is the status of the participating companies towards the process (-focused) organization (PFO).

PFOs design end-to-end business processes, measure and manage process level results rather than tasks and think in terms of customer goals, not localized functional goals (Gardner, 2004; Green, 2004; Hakes, 1991; Hammer, 2002; Harmon, 2006; Harmon and Wolf, 2006; Hollingsworth, 1995; Kaplan and Norton, 1993; Kersten and Verhoef, 2003; Madison, 2005).

In order to investigate the current state of BPM, the survey "Status Quo of Business Process Management" is carried out every year in the German-speaking countries Austria, Germany and Switzerland. The results demonstrated in this paper especially refer to the survey performed in the fourth quarter of 2006 in Germany, Austria and Switzerland. A comparison with the results of the studies carried out in the previous two years and comparable studies "Business Process Report" and "State of Business Process Management" is provided as well. "Status Quo BPM" differs from existing surveys regarding some major issues:

- "Status Quo BPM" does not only investigate what is being done by the participating companies but is also interested in the reasons why it is done. For example, Status Quo asks why the companies are not considering BPM, do not consider the alignment between strategy and processes or why they prefer proprietary developments to standardized systems.

- Among these three surveys "Status Quo BPM" is the only survey which investigates connections between processes and business strategy, process risk handling, reference models, and methods for evaluating the contributions of IT to the business processes.
- Compared to the other studies, "Status Quo BPM" uses statistical methods for measuring the significance of the results by using the *t*-test: the information about the confidence level will be provided in the following form: (T-score, confidence level in per cent).
- "Status Quo BPM" has a specific focus on companies in the German-speaking countries Austria, Germany and Switzerland. Regarding the specific focus on these three countries as well as the size and diversity of the respondents this study provides amore representative overview of the current state of BPM than other surveys.

The remainder is organized as follows: Section 2 defines, the surveys methodology and the criteria used for evaluating the state of the participating companies on their way towards the PFO. Sections 3-6 present the data and describe the results of the survey "Status Quo BPM". Section 7 shows, the status of the participating companies on their way towards the PFO. Section 8 provides, the discussion on the difference to two other surveys and the final section concludes.

2. Methodology

This section describes, the methodology used for carrying out this survey and especially describes the demographic characteristics of the respondents, the sampling and questionnaire design as well as limitations. The target population of the survey was medium and large enterprises with a focus on IT-driven branches such as finance, industry and IT. The questionnaire was online for six weeks and 185 invited companies responded via telephone, e-mail and internet. The respondents to this survey were either already participating in the previous years (about 50 per cent) or newly invited companies randomly selected from business directories. As the survey especially focused on IT-driven companies a limitation of this survey could be seen in the fact that it does not exactly cover the branch distribution of the population, e.g. the financial sector is over represented due to the fact that the survey included branch specific questions for the financial sector (note that these questions are not part of this paper). However, the comparison with the surveys "BP Report" and "State of BPM" shows that these surveys come with similar distributions of the branches.

Table I shows, the branches of the participating companies which are mainly from financial service, industry, IT, commerce/service and logistics sectors. As shown in Table II the largest class of the participating companies have between 1,001 and 5,000 employees and thus, can be classified as large companies.

Table III shows that more than 60 per cent of the participants have managerial functions. The majority of the persons subsumed in the class "Other Position" are specialists from the departments responsible for IT and/or BPM.

In order to answer this research question the following criteria were evaluated in each participating company. Based on previous work (Gardner, 2004; Green, 2004; Hakes, 1991; Hammer, 2002, 2006; Harmon and Wolf, 2006; Hollingsworth, 1995;

Branch	Percentage
Financial services	34
Industry	16
Others	10
IT	11
Consumer products	8
Logistics	7
Telecommunication	4
Electric utility	3
Health insurance	3
Public sector	3
Commerce/service	2

Table I. Branches of the participating companies

Employees	Percentage
1-50	11
51-100	7
101-500	23
501-1,000	10
1,001-5,000	30
>5,000	18

Table II. Number of employees in the participating companies

Function	Percentage
CEO	13
Head of department	11
Area manager	23
Section leader	15
Other position	38

Table III. Functions of the participating persons

Kaplan and Norton, 1993; Kersten and Verhoef, 2003; Madison, 2005) the major criteria for a PFO can be defined as following: there is/are:

- a strategy systematically aligned with the business processes;
- mechanisms such as the balanced scorecard for supporting and measuring the alignment;
- management methodologies such a lean, six sigma, or process improvement;
- a chief process officer (CPO) supported by process advisers and process owners;
- the allocation of IT-resources according to the given business processes;
- a complete intra- or even interorganizational business process coverage; and
- mechanisms for business process risk management.

Based on these criteria the questions showed in Table IV were selected. The questions were chosen in order to allow an optimal coverage of the areas: strategy, process, technology, people, and controls.

As a matter of course, this questionnaire considers only a selection of questions that are usually used for measuring the maturity of companies. Nevertheless, it can be stated that the selected questions allow to deduce a categorization of the companies regarding their process maturity and give a trend of the status of these corporations towards the PFO. Owing to the fact that this survey was already carried out for the third time, pre testing was reduced to a minimum. Instead experiences from the previous years were considered.

3. Alignment with the business strategy

As one of the major pre-conditions for implementing sustainable BPM, corporate decision makers have to align business processes with the corporate business strategy. A well defined strategy is the basis for the optimal alignment with the associated-business processes and enables the definition and implementation of well-integrated and unique business processes (Harmon, 2006). However, defining an adequate business strategy and aligning it with the corporate business processes requires investment of time, effort, and an experienced management team. As a result, many companies either do not have a defined business strategy or neglect the alignment between their strategy and their corporate business processes. "Status Quo BPM" shows that the systematical integration of BPM into strategical management is still an open issue for more than half of the interviewees. About 60 per cent of the participants admit not or only partially having any long-term connection between their business processes and business strategy. They point out that their business processes are only partially or even not at all aligned with the business strategy. Figure 1 shows the responses of the participants of "Status Quo BPM" regarding this issue.

The interviewees mention some major reasons why their business processes are not aligned with the business strategy:

- The most common reason is the lack of commitment of the upper management that is the mandatory prerequisite for the successful realization of a business strategy. Therefore, indecisive leadership or the absence of measurable goals may result in business processes that are not aligned with the business strategy.

Area	Question
Strategy	Are the business processes systematically connected with the business strategy?
Process	How extensively is your company working with processes?
	Do your own corporate processes take priority over the standardized processes coming with IT systems?
Technology	Which IT-systems affect the design of your processes?
People	Does your company have a CPO?
	Who is responsible for defining the IT portfolio?
Controls	Which process management methods do you use to support the management and improvement of business processes?
	How do you manage business process risks?

Table IV.
Questions of the survey "Status Quo BPM"

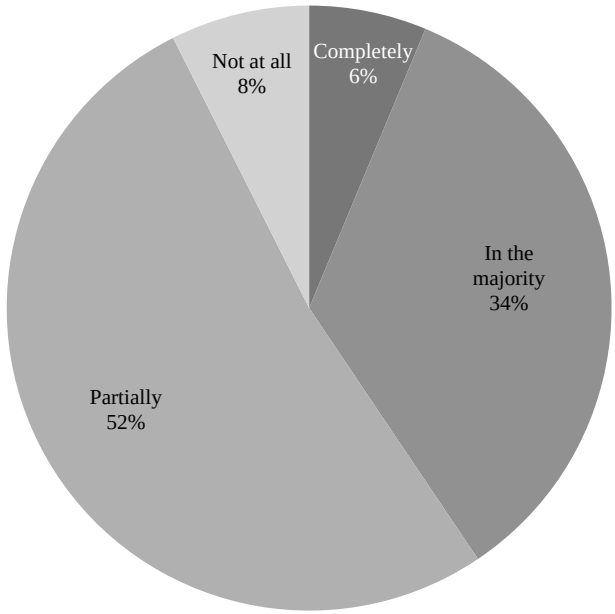

Figure 1.
Are the business processes systematically connected with the business strategy?

- Another reason that interviewees bring forward is the absence of know-how among corporate decision makers regarding the implementation of BPM.
- Furthermore, the simple absence of a defined business strategy is another reason for the missing alignment between business strategy and business processes (Ernst & Young, 2002 for a study showing that companies often lack a defined business strategy). The lack of a business strategy makes the alignment obsolete.

Only 6 per cent of the participating organizations state that their business processes are completely aligned with their business strategy. About one-third of the participants define that at least the majority of their business processes is aligned with the business strategy. While 46 per cent of the companies are working with important core processes, only 25 per cent have a complete process model (meaning that all processes are defined, documented and used as a basis for the definiton of new IT systems) and just 6 per cent have even included all important partners in their process model. Since the implementation of business processes is a time-consuming process, many companies prefer to implement the most important core-processes first, where they especially focus on end-to-end processes involving the customer.

4. Process management methods

"Status Quo BPM" further asked its participants which management methods they are using in order to support the better alignment between strategy and processes as well as the continuous improvement of these processes. The balanced scorecard approach is currently adopted by 39 per cent of the respondents. The balanced scorecard is a management system that is intended to support information age companies in improving strategic performance and results. This concept retains traditional financial

measures but suggests the use of three other perspectives for adequately managing future value: the learning and growth, the business process and the customer perspective (Kaplan and Norton, 1993). About 37 per cent of the participants are currently using benchmarking which is a continuous management approach that aims at evaluating the corporate processes in relation to best practice, usually within the same sector.

"Total quality management" – currently adopted by 34 per cent of the respondents – is "a philosophy of management that strives to make the best use of all available resources and opportunities by constant improvement" (Hakes, 1991). Another method which recently became more popular is six sigma. This approach was developed by Motorola in 1986 and defined as: "a high performance system for executing business strategy". The six sigma management system can be characterized as (Pande and Holpp, 2001; Hammer, 2002):

- a metric to measure and reduce defects;
- a methodology to understand and manage the customer requirements, align key business processes in order to achieve those requirements, utilize rigorous data analysis to minimize variation and derive rapid and sustainable improvement to business processes; and
- a management system which helps organizations to align their business strategy to critical improvement efforts, to mobilize teams to attack high-impact projects, accelerate improved business results, and to govern efforts to ensure sustained improvements.

Compared with the result of last year almost double as many of the participants of "Status Quo BPM" are using six sigma in process management (Figure 2). In 2004, the study did not ask for this method but compared to the last year this increase can be regarded as a significant increase (t2.842; 99 per cent). Another significant change (t2.877; 99 per cent) compared to the year 2004 is the drop of participants using "value-based management". Value-based management also known as shareholder value maximization aims at aligning business decisions with primary regard to the interests of the shareholders. This concept has been widely criticized in the last years as it neglects aspects important for society but also the health of the company itself, e.g. by reducing investments in favor of additional dividends for the shareholders.

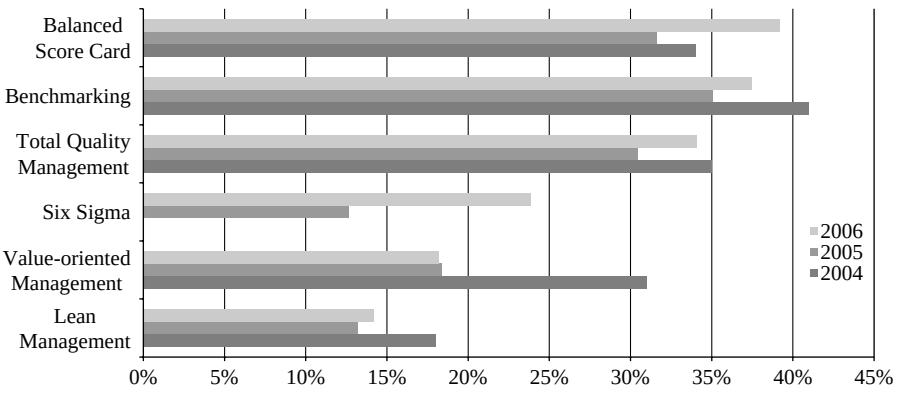

Figure 2.
Which process management methods do you use to support your business processes?

Beside the use of concrete methods for the controlling and improvement of BPM, the participants of "Status Quo BPM" were also questioned about the efficiency of their current process controlling. The interviewees evaluate their performance positive above the average regarding the following issues:

- process goals are aligned with business goals;
- process owners are defined; and
- processes are designed according to the customers' needs.

Only a small percentage of the participants state that activity-based costing is deployed in order to allow accurate economic controlling. The participants generally feel a lack of appropriate methods for the economic alignment of business processes and systems/services, as 75 per cent of the participants would welcome and use such tools. The interviewees further defined the major benefits they could realize by using process controlling. They mention "better understanding of their own business model", "shorter processing time", "increase in quality" and "customer satisfaction" as the major advantages.

Another important issue on the decision makers' agenda is the controlling of process-based risks, as security hazards pose major threats to corporate assets and may directly affect profit, shareholder value and/or a company's reputation. Corporate decision makers such as the chief security officer, the chief information officer (CIO) and the CPO are faced with a wide spectrum of potential risks that have to be mitigated by considering a cost-efficient usage of available resources, the strategic corporate goals and the existing business processes in order to guarantee confidentiality, integrity, safety and availability (Avizienis *et al.*, 2004). In addition, managers are confronted with new legal requirements such as those imposed by the Sarbanes-Oxley Act (Green, 2004), the Gramm-Leach-Bliley Act (Akhigbe and Whyte, 2004), KonTraG (Bitz, 2000) or Basel II (Engelmann and Rauhmeier, 2006). "Status Quo BPM" asked its participants about their attitude regarding the controlling of process-based risks with the result (multiple answers were possible) that 23 per cent have a holistic risk strategy for all process-based risks in place. In almost half of the companies answering this question the employees have a distinct awareness of process-based risks. More than one third of the participants (39 per cent) have even set key performance indicators and use these for risk controlling. 47 per cent further define that they apply targeted activities for risk controlling and 21 per cent define to transfer their risks.

5. Organization of business process management

Successful BPM requires a well-organized team in order to analyze, design, implement, and continuously optimize the business processes along with the business strategy. In "Status Quo BPM", the participants were asked which roles they assign in their organizations. The most frequent answer is process owner (82 per cent), the person who is responsible for business process design, process measurement and process documentation in order to improve corporate business processes. Moreover, the process owner is also responsible for allocating the resources (time, space, hardware, money, etc.) needed for process execution and coordinating activities between the process members. The process coach (52 per cent) focuses on supporting the whole team whereas the process coordinator (47 per cent) is responsible for the optimization of the whole process. Further, roles are process auditor who evaluates the process after

their implementation by using some measures like critical key performance indicators and process controller who is responsible for the business process performance. Both process auditor and process controller however, are not as common as the other roles among the participants of "Status Quo BPM". "BP Report" asked the same question with the result that that process owner, IT-manager and management are the most common roles in BPM.

Having an executive manager who has both IT and business knowledge in order to supervise the evolution of corporate BPM is of increasing importance for organizations. However, the CPO (Smith and Fingar, 2002), is still not established in many companies. In "Status Quo BPM" the tasks of a successful CPO are defined as:

- building up and maintaining business process models;
- process management consultancy;
- integrating the main processes into the business strategy;
- definition of process goals in accordance with the process owner, and
- process controlling.

Although the commitment of companies to the role of the CPO has significantly increased by about 12 per cent in the last two years (t2.558; 98 per cent), there is no defined role responsible for the integration and improvement of business processes in 63 per cent of the companies. "Status Quo BPM" shows that arranging process objectives in collaboration with the process manager does not belong to the main tasks of the CPO. Together, with the fact that just a quarter of the interviewees report that the CPO is also in charge of the budget, it supports the indication that the CPO is not an established role in most of the companies. The answers regarding the organizational affiliation of the CPO are quite inconsistent in throughout the participating companies. In 25 per cent of the participating companies the CPO is assigned to the operations department and in 20 per cent to the IT department whereas further answers are administration department with 15 per cent, finance department with 10 per cent and others with about 30 per cent.

6. Application of IT in business process management

The selection and implementation of appropriate IT-applications is a major pre-condition for efficiently executing corporate business processes. Two thirds of the respondents state that the definition of the IT-portfolio is performed by a team of the business department, the IT department and the organization department, often in cooperation with external consultants. About one third of the participants state that this selection is done by the IT-department, mostly together with external consultants, whereas 7 per cent of the responding companies are not using any defined method or approach. Beside an optimal approach for the selection of IT-investments it has to be guaranteed that new IT-systems are process-oriented in order to allow a optimal integration into the PFO. The interviewees were asked how they guarantee process orientation of new IT-systems or IT-portfolios. The majority of the respondents define that the new system should be customizable to the given requirements (64 per cent) or that it must already support the given processes (60 per cent). About 19 per cent say that it must be based on service-oriented architectures and still 15 per cent state that their business processes are adapted according to the new system.

"Status Quo BPM" further asked its participants which IT-applications or systems are having major influence on their business processes. The majority of the participants answered that proprietary systems (57 per cent) and enterprise resource planning (ERP) Systems (57 per cent). The comparison with results of the previous years (Figure 3) shows a major increase in the use of ERP systems between 2004 and 2006 (t1.806; 92 per cent). This result shows the increasing impact of standard software on corporate business processes, to the same extent in large as well as small- and medium-enterprises. Unlike ERP systems the study shows a difference in the use of proprietary software in small/medium and large companies. In large companies proprietary software has significantly higher influence on the business process than in medium and small companies (t1.795; 92 per cent).

Standard software promises to be cheaper in the long run than in-house development of software. As development and maintenance of proprietary software is a challenging task, many companies prefer the use of ERP systems that provide the advantage to enable the integration of business processes into a complete system (Werth and Walter, 2006). On the other hand, adapting standard software to company-specific requirements often turns out to be as or even more cost intensive as proprietary development (Allweyer, 2005). Furthermore, the use of standard software often result in neglecting the individual character of the business processes and in the long run turns out to reduce the individuality of the company (Carr, 2003). Just 11 per cent of the participating companies claim that the structure of their individual processes always has priority over pre-defined process given by standardized IT-systems. Compared to the results of 2004 the rate of participants giving this answer almost tripled from 4 per cent in 2004 to 11 per cent in 2006 (t1.953; 94 per cent). For 39 per cent, it is predominantly the case, for 42 per cent partially, and for 9 per cent rarely. The rate of participants that rarely prioritize their own business processes dropped from 15 per cent to about 9 per cent since 2004 (t2.585; 99 per cent). More than 50 per cent of the respondents who state using proprietary software, mention a lack of appropriate standard solutions for realizing their specific requirements as the main reason. Another common reason the interviews bring forward are higher expenses of standard software compared to individual software. This answer might be discrepant to the reason for using standard software mentioned

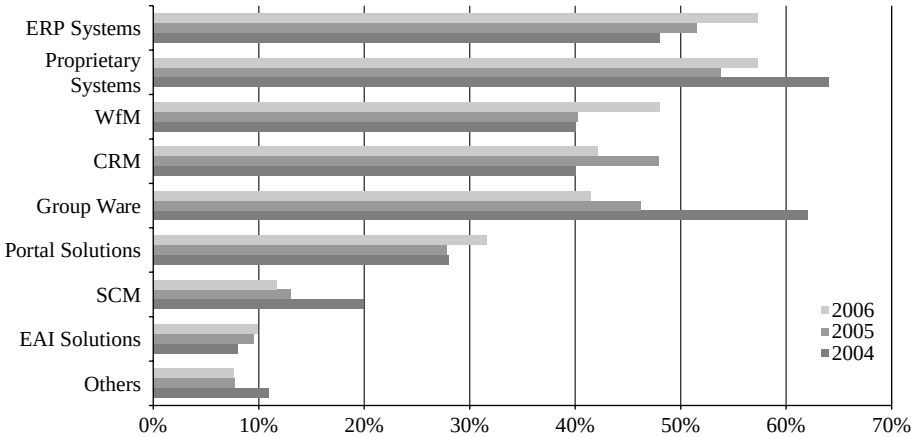

Figure 3.
Which IT-systems affect the design of your processes?

before, but heavily depends on the specific requirements of the given business processes and if in-house development is available.

Compared with the previous two years, supply chain management (SCM) solutions and Groupware Solutions have lost the interest of the companies. SCM is defined as:

> [...] the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole (Mentzer *et al.*, 2001).

The popularity of SCM has dropped from 20 per cent in 2004 to 12 per cent in 2006 (t2.199; 97 per cent). The use of Groupware which is "software that integrates work on a single project by several concurrent users at separated workstations" *The American Heritage Dictionaries of the English Language*, 2000 dropped from 62 to 42 per cent (t3.978; 99 per cent). A workflow management system (WFMs) is "a system that completely defines, manages and executes "workflows" through the execution of software whose order of execution is driven by a computer representation of the workflow logic" Hollingsworth, 1995. A workflow can be defined as "the computerized facilitation or automation of a business process, in whole or part" Hollingsworth, 1995. WFMs support the optimization of the business processes by monitoring operative data needed for continuous improvement during execution of the workflows. The further increase the agility of corporations to react to changes of the market because changes in the business processes can be implemented more easily, e.g. compared to standard software. About 48 per cent of the participants state that WFMs have major influence on their business processes.

"Status Quo BPM" asked its participants if they are involved with BPM-systems. About 37 per cent of the participants have either already integrated a BPM-system and 25 per cent are currently designing such a system. About 13 per cent believe that using such a system does not make sense. The companies were also asked which features are supported by the BPM-tool if they apply one. The most common features the participating companies demand from a BPM system are "process modeling" (84 per cent) and "process publication" (70 per cent). Further demanded features are process simulation, process monitoring and process controlling at a level of about 40 per cent. As "Status Quo BPM" is a product independent study, it intentionally did not ask for the usage of specific tools or tools vendors. However, the participants of "BP Report" were asked whether they are using a tool for documentation, modeling and analyzing their business processes, and if they do, to name these tools. As this study was set up by IDS Scheer, the survey offers only two possible answers to this question: ARIS, and others. Additionally, "BP Report" deals with questions like "Which Company/ERP Systems do you use?" and "Which platforms do you expect to be very popular in the future?". The possible answers are SAP, Microsoft, Oracle, Siebel, and others. SAP is the most popular answer among the participants. Related to the subject top topics in BPM, the interviewees are asked if they are already dealing with service oriented architectures (SOA) or planning to do so in the future. In comparison, "State of BPM" asked its participants about the use of business process tools. According to this survey, 39 per cent of the participating companies are either using simple software modeling tools like Visio and Powerpoint, more sophisticated, repository-based modeling tools like provision and ARIS, or modeling tools support operation reference (OR)-frameworks such as SCOR or eTOM.

7. Towards the process focused organization

Although the majority of the participants of "Status Quo BPM" believe that BPM is important, their understanding and level of development regarding BPM is still limited. "Status Quo BPM" shows that companies are often not aware of the advantages of BPM and why/how they should realize these additional benefits. Figure 4 shows the distribution of the participating companies regarding their process maturity. For measuring the status of the participating companies we used the criteria defined in Chapter 1 and evaluated each company according to these criteria. The results show that the majority of the companies is still on the way towards the PFO (50 per cent) or on a baseline level (37 per cent), whereas just about one eight of the participants can be regarded as fully developed PFO.

One of the major shortcomings is the lack of systematical integration of BPM into long-term business objectives and business strategy as a handle to control efficiency. The survey shows that only a small minority of the companies have completely associated their processes with the strategy. Defining processes that are optimally aligned with the corporate strategy is already a challenging task, that turns out to be impossible without having a clearly defined business strategy and a methodical framework as a basis. Methodical frameworks can be used in order to describe which activities, resources, and qualifications are required in order to perform specific projects, in which order the activities are performed, and which documents and intermediate data sets are produced Allweyer, 2005. Consistency between the operational and strategical level can only be assured through effective integration of BPM into the whole corporation. Although the use of operative instruments such as the balanced scorecard supports the alignment between strategy and processes, its real benefits can only be realized if the appropriate conceptual basis exists. Typical frameworks are organized on a general basis in order to be used in different projects or organizations. The business strategy forms the basis for the definition of business processes. The operational execution of theses processes may be implemented using WFMs by additionally integrating existing or new applications (e.g. by using web services) in order to allow the optimal allocation of need functionality according to the requirements of the business processes. This cycle is completed by monitoring the operational execution of these processes with the goal of generating data that can be used for decision making, realignment of strategy and processes and thus further improvement of the business processes. "Status Quo BPM" shows that the organization of BPM is a weak point of the companies. In spite of the increasing number of employment of CPOs in BPM, two thirds of the organizations do not have a CPO and even companies having a CPO in place often neglect assigning the needed competencies to this role.

Although many companies are still at the beginning of their journey towards the PFO, the majority (70 per cent) believes that BPM is rapidly gaining importance

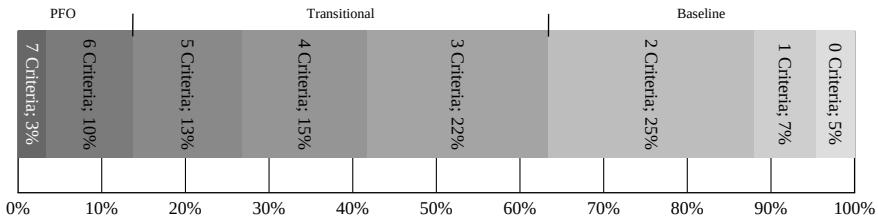

Figure 4.
Maturity of the participating companies

in business life. This fact is supported by the statements of the participating companies regarding their short-term plans (multiple answers were possible). Almost half of the interviewed companies are planning active controlling of resources and capacities for the following year (46 per cent), whereas 45 per cent stated to focus on the improvement of customer relationship management. Further important goals are the integration of single processes into an integrated process model (42 per cent), strategic alignment of business processes (41 per cent), the integration of quality management (40 per cent) as well as the standardization of heterogeneous business processes (38 per cent). All in all, 42 per cent had planned extensive projects for year 2007, whereas just 11 per cent of the participants had not; the remaining participants had planned small projects or not made any decisions at the date of the survey.

8. Comparison with other surveys

This section compares the survey "Status Quo BPM" with other surveys aiming to investigate quality, highlights and goals of BPM in European or international companies. It gives a short overview of these surveys and compares the questions asked in "Status Quo BPM" Section 4 with similar questions raised in the other surveys.

"Business Process Report" is a yearly survey conducted by IDS Scheer and was carried out for the fifth time in 2006 (Anderer and Châlons, 2006). In total, 150 German companies participated in this survey either online or via telephone interview. The participating companies are mainly from industry, commerce/service, telecommunication/energy, transportation/trade and bank/insurance sectors. About 40 per cent of the participants are large companies with more than 5,000 employees and one third are small- and medium-companies with less than 500 employees. "Business Process Report" focuses on topics such as the meaning of business processes for the participants, improvement potentials for an efficient process organization and the usage of BPM-tools. Furthermore, questions about the use of IT-systems in the participating companies with a special focus on ERP and SOA McGovern *et al.*, 2006 were asked. The drawback of this survey is its dependence from the tool vendor IDS Scheer and its limitation of certain questions to specific products.

The survey "State of Business Process Management" Harmon and Wolf, 2006 was carried out by the magazine *Business Process Trends* in June 2006. The survey was online for about one month on the web site of *Business Process Trends* in February 2006. About 348 respondents from the whole world responded to this survey. As this survey did not differentiate between respondents and companies, it is not guaranteed that all respondents are from different organizations. The interviewees are mainly from financial services, insurance, computer, consumer electronics, software development, consulting, and military branches. This survey has a clear focus on North America, as almost one half of the respondents came from this area. One third of the participants are from Europe and the rest from Asia, Australia, Africa and South America. About 40 per cent of the participating companies classify themselves as big, and the rest as medium and small organizations. "State of Business Process Management" focuses on similar topics as "Business Process Report" and "Status Quo BPM". The survey asks the participants about their goals regarding BPM, process performance, outsourcing and the organization of BPM. A focus of this survey lies on questions about BPM consulting. The companies are asked if they already work or consider working with consultants and how efficient the use of consultants in BPM projects is.

In the following the questions of "Status Quo BPM" are compared with similar questions of the surveys "State of BPM" and "BP Report".

8.1 Are the business processes systematically connected with the business strategy?
Although recent research (Harmon, 2006) shows the importance of defining the business strategy in line with the business processes, "Business Process Report" and "State of BPM" do not investigate this or related questions. Both surveys only consider the strategic goals participants reach through business process optimization. According to the responses of the interviewees, higher efficiency and productivity, less expenses, higher customer satisfaction and quality are the most important objectives of process optimization.

8.2 How extensively is your company working with processes?
Among the three surveys under consideration, only "Status Quo BPM" investigates how extensive companies are working with processes but "State of BPM" ask a similar question with the focus on external activities. The survey investigates if companies model processes that include partner or supplier activities. Only 6 per cent of the respondants indicated that their companies "always" modeled external processes, whereas the largest number of respondents (60 per cent) answered that they "never" or only "occasionally" did it. Furthermore, it lays a focus on examining current BPM projects in the participating companies with the result that the majority of companies is engaged in projects for "improving existing processes" and "redesigning a major business process". Both surveys ask for the benefits that the participating companies could realize by introducing BPM.

8.3 Do your own corporate processes take priority over the standardized processes coming with IT systems?
"State of BPM" treats standardization from another point of view than "Status Quo BPM". Especially, large companies have several processes in different units, which may be similar to each other. In order to perform the business procedures accurately and consistently, these processes are often standardized. The participating companies of the "State of BPM" are being asked if similar processes throughout the company are performed in a similar way. The majority of the respondents indicate that they occasionally or never standardize their processes. Only 4 per cent of the companies maintain standard processes throughout their whole organization. "Business Process Report" does not investigate this or related questions.

8.4 Which IT-systems affect the design of your processes?
"Status Quo BPM" asked its participants which IT-applications or systems affect the design of their procedures in order to identify the influence of applications on the design of business processes, whereas the other two surveys focused on the operational level. The participants of "BP Report" were asked whether they are using a tool for documentation, modeling and analyzing their business processes, and if they do, to name these tools. Owing to the fact that the survey is organized by IDS Scheer the survey offers only two possible answers: ARIS, and others. Additionally, "BP Report" deals with questions like "Which Company/ERP Systems do you use?" and "Which platforms do expect to be very popular?". The possible answers are SAP, Microsoft, Oracle,

Siebel, and others. SAP is the most popular answer among the participants. Related to the subject top topics in BPM, the interviewees are asked if they are already dealing with SOA or planning to do so in the future. The "State of BPM" includes questions about IT-applications in business processes. According to this survey, 39 per cent of the participating companies are either using simple software modeling tools like Visio and Powerpoint or more sophisticated, repository-based modeling tools like provision and ARIS, or modeling tools supporting OR-frameworks like SCOR or eTOM.

8.5 Does your company have a CPO?
"BP Report" asks its participants if they are in favor of introducing the role of a CPO. Almost 60 per cent of the respondants support this initiative. "State of BPM" asked its respondents if "their organizations have a BPM Group to coordinate, train, and support business process efforts within the organization". One-third or the respondents does not have a BPM Group, whereas the companies with a BPM Group had it located at the divisional or departmental level (19 per cent) and at the executive level (18 per cent).

8.6 Who is responsible for defining the IT portfolio?
Among the three surveys under consideration, only "Status Quo BPM" investigates who is responsible for defining the IT portfolio. Both other surveys did not investigate this or related questions.

8.7 Which process management methods do you use to support the management and improvement of business processes?
"State of BPM" asks its participants if process improvement programs are in place but it does not differentiate between the methods used. The majority of respondents answer this question with "occasionally" (33 per cent) and "frequently", (34 per cent). Only 20 per cent define that they "always" or "most times" have process improvement programs in place. "BP Report" did not investigate this or related questions.

8.8 How do you manage business process risks?
Among the three surveys under consideration, only "Status Quo BPM" investigates the management business process risks. Both other surveys did not investigate this or related questions.

The results indicate that the fact that these three surveys were performed in different countries does not have a large influence on the results. Tendencies to certain answers rather seem to depend on the sector and the size of the companies while companies from the same sector and of the same size have a similar interest in BPM.

9. Conclusions

Owing to constantly changing business requirements and challenges such as decreasing product life cycles, international competition and increasing cost pressure, companies are forced to improve their processes in order to keep pace with fast changing market requirements. As a consequence, BPM is among the most important managerial topics because it allows companies an agile adaptation to changing business requirements. Although consulter and researcher are regularly proposing new concepts, it is crucial to determine the effectiveness of these concepts in practice. Therefore, this paper presented the results of the survey "Status Quo Business Process Management"

that aims at analyzing the current state of BPM in the market in order to investigate the status of the participating companies towards the PFO. For defining the PFO maturity level of the participating companies towards the PFO, the study determined – based on existing literature – seven main criteria, which pose major pre-conditions for realizing the PFO. Therefore, the survey investigated the linking between processes and strategy, the process coverage of the companies, the efficiency of the organization as well as approaches for determining the optimal allocation of IT-resources for supporting the business processes. It considered management methods for supporting BPM and focused on the adoption of the balanced scorecard as an operative method aligning strategy and processes. The study further investigated the corporate responsibilities and organizational structures as well as the methods for managing process risks.

This paper provides a very useful source for companies in benchmarking their status regarding BPM. Compared to other recent surveys "BP Report" and "State of BPM" that were presented in this paper, "Status Quo BPM" does not only investigate what is being done by the participating companies but also interested in the reasons why it is done. "Status Quo BPM":

- investigated connections between processes and business strategy, process risk handling, reference models, as well as methods for evaluating the contributions of IT to the business processes;
- used statistical methods for measuring the significance of the results; and
- had a specific focus on companies in the German-speaking countries Austria, Germany and Switzerland.

The results of the survey "Status Quo BPM" indicate that although the majority of the participating companies follows BPM initiatives, many companies still have weaknesses in "living" BPM and that there is a large potential for further improvement. Almost all of the participants of "Status Quo BPM" believe that BPM is important but their understanding of the concept BPM is still not very mature. "Status Quo BPM" shows that the companies do not know about the advantages of BPM and why/how they should perform it. Nevertheless, the majority of the interviewees of "Status Quo BPM" believe that BPM is rapidly gaining importance in business life which implies that the topic BPM is still on the top of decision makers' agenda.

However, the survey showed that only a small part of the participating companies can be determined as PFO according to the criteria taken from literature. The vast majority of companies is still on their way towards a PFO that includes the design of end-to-end business processes, the measuring and managing of process level results rather than tasks and thinking in terms of customer goals, not localized functional goals. The most important fields that companies need to address in order to realize efficient BPM comprise:

- the association of the business strategy with the business processes and the systematical integration of BPM into long-term business objectives;
- the use of management methods in order to support the better alignment between strategy and processes and allow the continuous improvement of these processes;

- the controlling of process-based risks, as security hazards pose major threats to the efficient execution of corporate business processes and the consideration of new legal requirements;
- having an executive manager who has both IT and business knowledge – the CPO;
- the introduction of a process team including all necessary roles such as process owner, CPO, process controller, and process auditor; and
- the selection and implementation of process-oriented IT-applications in line with the business processes and thus with the business strategy.

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