

Employee Competencies for Business Process Management

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Abstract. Business process management (BPM) is an approach which empowers companies to react flexibly to new market situations. The main goal of BPM is to improve efficiency and effectiveness of value-adding business processes. The changes caused by globalization do not only concern organization, technologies and processes, but also people. Employee competencies can be crucial competitive advantages.

The need for new specialized and competent personnel in BPM becomes apparent from the definition of new roles, such as “Chief Process Officer” (CPO). Field reports and surveys reveal that role concepts of BPM have so far not been completely established, due to a lack of appropriate structures or due to resistance within the companies.

This article considers and analyzes the success factor *employee competencies* in matters of the implementation of BPM in companies. For this purpose, competencies which are necessary for the roles in BPM are identified. Moreover, a classification method for the definition of role profiles is developed.

Keywords: Business Process Management, Measurement, Inter-Organizational Processes, Human Factors.

1 Introduction

Nowadays companies are facing an increasing stress of competition. They have to cope with shorter product lifecycles, rising customer demands, quicker technological developments and higher cost pressure. Classical production factors such as labor and capital are losing some of their significance. In order to create strategic competitive advantages, companies have to concentrate on their core competencies, which are significantly influenced by the skills and the knowledge of their employees.

To remain competitive despite the consequences of globalization, companies have to consider change as a continuous challenge. Besides organization, technologies and processes, the changes also affect the employees of the company.

One chance for companies to react flexibly to new situations is the targeted management of business processes. The main goal of business process management is to increase efficiency and effectiveness of companies by improving business processes

and thus to increase the company value. The implementation of business process management is accompanied by a changeover to process-orientation, leading to modifications in the organizational and operational structure of a company. New roles and responsibilities have to be defined. The operational structure is affected through changes in management and operation as new roles and responsibilities implicate new managerial authorities [1]. For the employees, change implies continuous learning in order to tackle new challenges and tasks. The focus of this article is on the success factor *employee competencies* because these empower companies to achieve competitive advantages.

Process-orientation is meanwhile widespread and of high importance. Nevertheless numerous companies did not name a designated executive officer for the management of business processes [2].

This article targets to answer the following questions which are derived from the above-mentioned aspects:

- Which competencies are necessary to meet the demands of the new roles in business process management?
- How can suited employees be identified?

In chapter 2 the different roles in business process management are described. In the following, the developed classification method for the definition of the levels of competencies will be introduced (chapter 3). Afterwards, the particular competencies are defined (chapter 4). In chapter 5 the competence framework developed for business process management including the competencies derived will be outlined. By means of this framework, the job specifications and occupational aptitude of the employees can be recorded and compared.

2 Roles in Business Process Management

In the following the classification of roles according to SCHMELZER AND SESSELMANN will be introduced. These authors define six roles in business process management¹. At the implementation stage of BPM, the task of the business process management *project leader* (BPM project leader) is the most responsible one. He may be supported by a *process consultant*. While the business process is executed, the *process owners* have the most important task because they are responsible for a whole process or for a subprocess. Other roles are the *process coordinator*, the *process controller* and the *process staff* [8]. Their responsibilities are shown in Table 1. The overall responsibility is taken by the top management. However, the management has no direct control over the *process staff* because they are reporting to the *process owner* [6].

The *project leader* and the *process consultant* are deployed mainly at the implementation phase of business process management. The people in the roles of the *process coordinator*, the *process owner*, the *process controller* and the *process staff* are responsible for the operation of the business process management [8].

¹ Further examples for role definitions can be found in [3], [4], [5], [6], [7].

Table 1. Roles in business process management²

BPM role	Responsibilities
Project leader	Responsible for the implementation of business process management
Process consultant	Conceptual and methodical assistance during the implementation phase
Process coordinator	Responsible for the advancement and the integration of the whole BPM system
Process owner	Responsible for target achievement and improvement of business (sub)processes
Process controller	Responsible for operation and enhancement of process controlling
Process staff	Responsible for the operation of process steps and activities

Fig. 1 shows the roles in business process management and their connections. *Project leader* and *process consultant* are coloured brighter because their functions are only important in some phases of the business process management circle. The dashed arrows represent the one-time appointment of the roles at the implementation phase of business process management. The solid arrows indicate the connection of the roles that are involved in the operation of business process management.

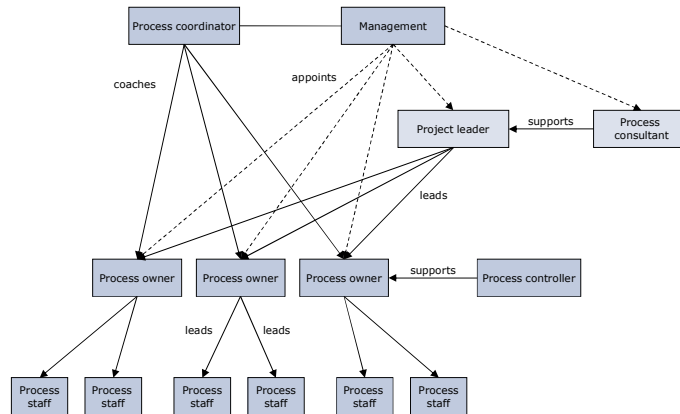


Fig. 1. Relations between BPM roles

In order to fill the various roles in business process management in the best possible way, in a first step a requirements analysis has to be made, i.e. it has to be defined which competencies are necessary for the fulfilment of the tasks. There are different kinds and levels of competencies required for business process management.

² According to [8].

These have been identified based on different references³ and job advertisements and will be focused on in the following. The employee competencies – covered in detail in chapter 4 – are: experience, expertise, determination, conceptual and analytic intellectual power, organizational skill, assertiveness, capacity for teamwork, communication skill, conflict management ability, customer orientation as well as leadership.

3 Classification Method for Levels of Competencies

Qualifications can be measured and proved through references, certificates and credentials. In case of skills which are acquired in informal learning processes, this kind of proof is generally not possible. A distinction in rating scales with parameter values e.g. ranging from “weak” to “strong” are too broad and arbitrary for an exact indication. Thus, they are insufficient for a precise classification. Therefore, competencies are measured by means of a multi-level competence scale [13]. In order to assess subjective characteristics objectively, a precise scale identifying various levels of competence and maturity is essential. The classification shows that an employee on a high level in the company hierarchy must comply with different requirements and must have different competencies than a member of a lower level in the company hierarchy [14].

Competencies are graded in levels, either on the basis of a numerical scale⁴ or of a verbal schema⁵. In order to develop a classification scale, both approaches will be combined: In addition to a numerical value marking each level, a verbal description is given. The classification scale is based on an ordinal scale, i.e. the levels of competence are ranked. Negative competencies are not included in this scale, because existing competencies are always positive [20]. If a certain level is reached, this implies that the person also meets the criteria of the lower levels. If one competence is not required in the job specification, the respective field is left blank.

The following level definitions are still very abstract. In chapter 4, these level definitions will be applied to the particular competencies, referring to observable behaviour and skills.

Level 1: Sufficient

The competencies meet the standard. They come up to the basic minimum requirements.

Level 2: Satisfactory

The competencies come up to the basic requirements. The standard is completely met.

Level 3: Good

The competencies exceed the standard. They are well distinctive and meet with the basic requirements over a longer period.

³ see [3], [4], [5], [6], [7], [8], [9], [10], [11], [12].

⁴ see [15], [16], [17].

⁵ see [18], [13], [19].

Level 4: Very good

The competencies are above average. The requirements specification is completely met.

Level 5: Excellent

The employee has special distinctive competencies exceeding the job specification.

The next figure illustrates the five abstract level definitions. The same layout will be used for the particular competence levels in chapter 4.

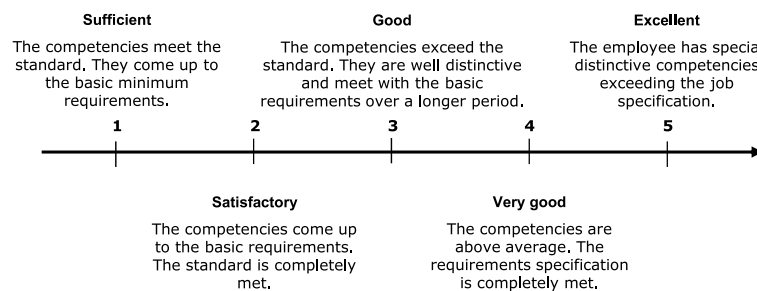


Fig. 2. Definition of abstract competence levels

4 Catalog of Competencies

In this section, the derived competencies required in business process management are listed and described. According to SPENCER AND SPENCER, competencies are described on the basis of three to six attitudes which can often be observed at work day-to-day [21]. In literature, there are different descriptions of competence levels. Below, five competence levels are assigned to each kind of competence required in business process management⁶, corresponding to the classification scale developed in chapter 3. Each level describes a working manner referring to the person's attitude. STEINMANN AND SCHREYÖGG describe such a classification scale as a behaviour expectation [24][22]. When measuring employee competencies, the level reached by the person is assessed and afterwards recorded in the corresponding competence framework. The resulting occupational aptitude can be compared to the job specification. The bigger the overlapping, the better is the person suited for the position to be filled. Besides information on possible competence deficits, information on so far unknown and unused competencies can be obtained. Thus it might be advisable to entrust an employee with a different task, in accordance with his qualifications and skills, ensuring that the internal resources in the company are used in the best possible way.

Experience

Competence increases through experience gathered at work. The more professional experience is gathered, the better knowledge with respect to technical, methodical and

⁶ According to [14], [19], [21], [22], [23].

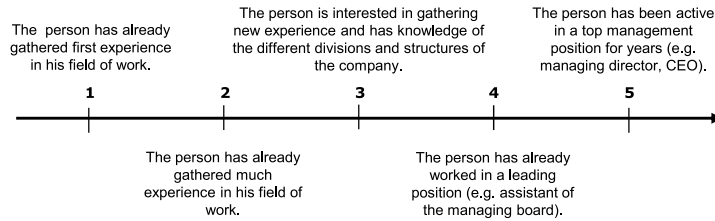


Fig. 3. Levels of competence: Experience

social areas [13] can be achieved. Fig. 3 shows the five particular competence levels for the competence *experience*.

Expertise

Special knowledge such as language skills or programming knowledge is called expertise. It can be acquired through training measures [13]. Fig. 4 shows the five particular competence levels of *expertise*.

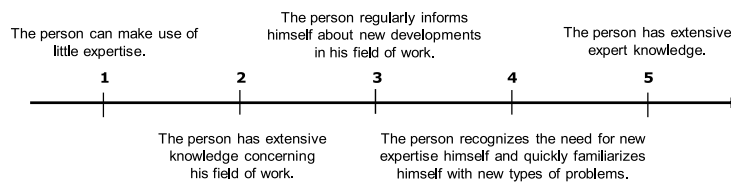


Fig. 4. Levels of competence: Expertise

Determination

Managers are responsible for the implementation of the strategic business objective defined by the top-management. It is the task of managers to make the employees aware of the objectives [25]. Fig. 5 shows the levels of the competence *determination*.

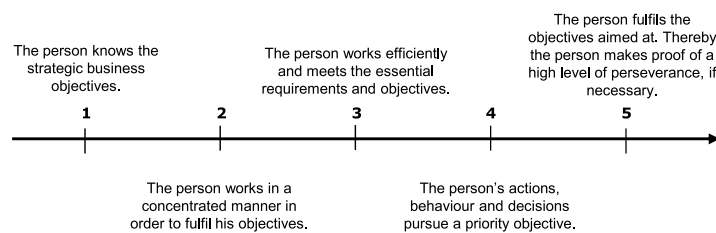


Fig. 5. Levels of competence: Determination

Conceptual and analytical intellectual power

Different tasks require the person, e.g. the process owner, to think and work in a structured and methodical manner. The person works very carefully and, even in

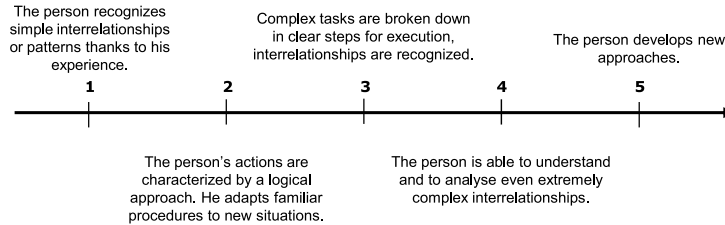


Fig. 6. Levels of competence: Conceptual and analytical intellectual power

complex situations, he does not lose track and acts analytically. The particular competence levels of *conceptual and analytical intellectual power* can be found in Fig. 6.

Organizational skill

In the case of unregulated workflows, it is essential that the employees have a high level of organizational skill. Thus they must be able to recognize coherences and to structure their work [25]. The following Fig. 7 shows the five competence levels of *organizational skill*.

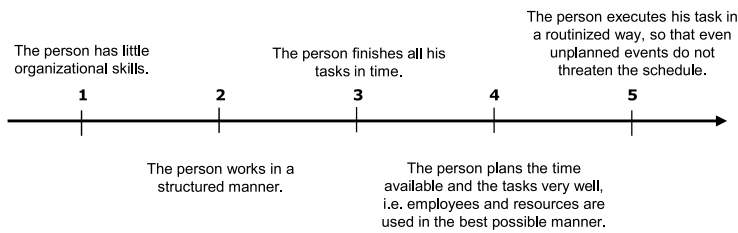


Fig. 7. Levels of competence: Organizational skill

Assertiveness

The person is able to convince his colleagues and employees of his ideas and objectives. He is willing to implement them, even in the case of resistance [13]. Assertiveness is consequent orientation of one's actions to the target desired [26]. The five competence levels of *assertiveness* are illustrated in Fig. 8.

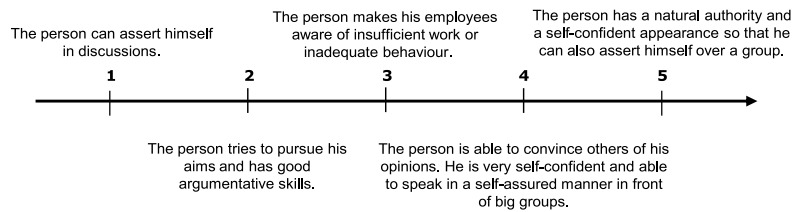


Fig. 8. Levels of competence: Assertiveness

Capacity for teamwork

Persons who have capacity for teamwork use their experience and knowledge to play a part in a team in order to reach common targets. Among their skills, there is willingness to compromise and openness to suggestions and arguments from team members. In order to work successfully in a team, the persons must have equal rights and be tolerant [13]. Fig. 9 details the particular levels of the competence *capacity for teamwork*.

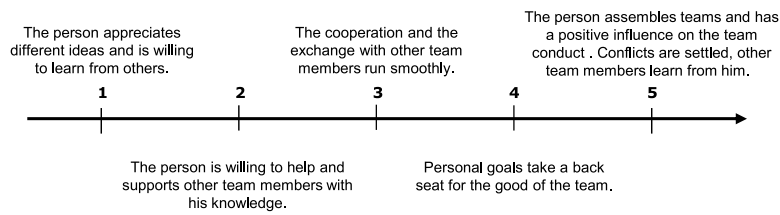


Fig. 9. Levels of competence: Capacity for teamwork

Communication skill

The person has the talent to communicate clearly, to listen attentively and to distinguish important from unimportant information during a conversation. An important characteristic is the correct interpretation of gesture and other nonverbal signals which help to understand the conversational partner and to be responsive to his concerns [15]. The competence levels of *communication skill* can be found in Fig. 10.

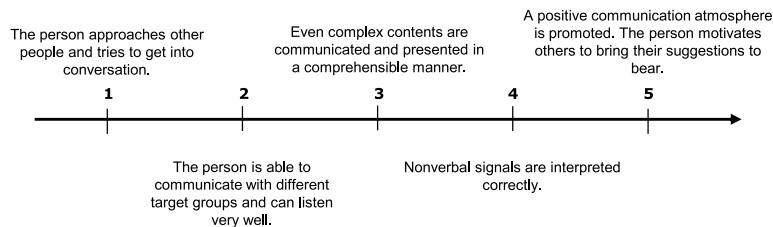


Fig. 10. Levels of competence: Communication skill

Conflict management ability

Whenever several people work on a common task as a team, inevitably conflict situations arise in which different opinions and ideas are expressed. In order to avoid escalation and negative influence on the project, it is important to behave correctly in a conflict situation. An employee who is able to deal well with conflicts is likely to take and give criticism in an objective and constructive manner. Criticism ought to be viewed as a chance to reconsider one’s own opinion. Fig. 11 shows the five competence levels of the *conflict management ability*.

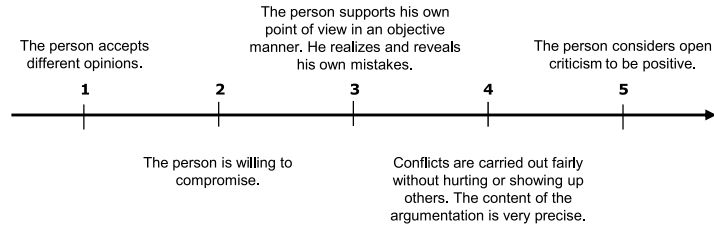


Fig. 11. Levels of competence: Conflict management ability

Customer orientation

Customer orientation means that the customer is the centre of corporate decisions and actions. The aim consists in reaching high customer satisfaction in order to establish durable customer relations. Fig. 12 shows the competence levels of *customer orientation*.

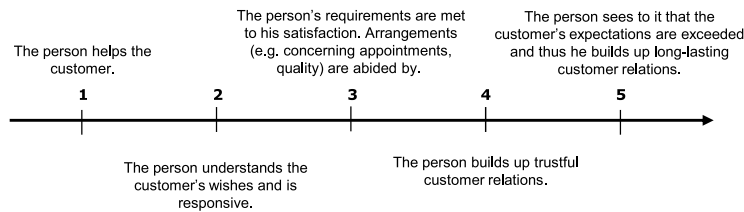


Fig. 12. Levels of competence: Customer orientation

Leadership

Superiors or project managers have to be informed about the knowledge and skills of their employees so that they can use them in a targeted way. Professional training is to be offered and feedback referring to the work performed is to be given. Independent and self-responsible actions are to be promoted. Decisions must be objective and comprehensible to the employees [13]. The five particular competence levels of *leadership* are shown in Fig. 13.

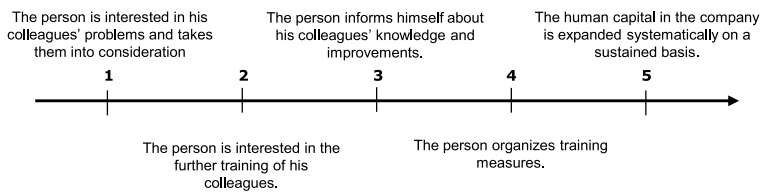


Fig. 13. Levels of competence: Leadership

5 Competence Framework for Business Process Management

The results from assessment methods for employee competencies, such as assessment centres or interviews, can be recorded in an aptitude profile. From these profiles, it is

possible to derive in which area competencies are at a high or at a low level so that corresponding measures can be taken [22]. Through comparison with the job specification, the occupational aptitude of different candidates can be ascertained and compared.

The competencies required in business process management are summarized in the competence framework described in the following (see Table 2). The competencies are grouped into specialist, character, methodical, social and entrepreneurial competencies. Each line shows the five point scale corresponding to the competence levels defined beforehand.

Table 2. Exemplary competence framework

Role	Process owner				
Responsibility	Responsible for designing, operating and improving the business process				
	1	2	3	4	5
Specialist competencies					
Experience					
Expertise					
Character competencies					
Determination				X	
Methodical competencies					
Intellectual power				X	
Organizational skill			X		
Social competencies					
Assertiveness				X	
Capacity for teamwork			X		
Communication skill			X		
Conflict management ability				X	
Entrepreneurial competencies					
Customer orientation					X
Leadership				X	

= Job specification,
 X = Aptitude profile

Competencies in the table are structured as follows: At first, the role of the employee is listed, followed by a description of his core tasks. From here, the competencies required are derived and recorded in the job specification. In a first step, specialist competencies are listed. These competencies (such as foreign language skills, modelling experience with particular tools, stays abroad, legal knowledge etc.) correspond to a certain position instead of a role and can be defined exactly. In a next step, the character and methodical competencies required for the role are listed. Social competencies and finally entrepreneurial competencies complete the framework.

The competence framework illustrated, is exemplified by the role of the *process owner*. The specialist competencies (marked by half-filled fields) have to be defined in accordance with the circumstances (e.g. international experience, ARIS skills and Spanish language skills).

The job specification of the role *process owner* is coloured in grey. Crosses mark the exemplary aptitude profile of an employee.

6 Conclusion

For the filling of new roles in business process management, suited employees must be identified; the developed method for the definition of competence profiles supports this procedure. Experience reports and surveys show that the role concepts of business process management presented have so far not been implemented completely due to a lack of structures or resistance in the company. Nevertheless, already new roles such as CPO are defined. This shows the need for competent personnel.

Job specifications are subject to continuous change because of globalized markets and process and product innovations. Thus they have to be adapted regularly. The competence framework presented in this article can be supplemented with new competencies or reduced depending on demands on the employees. Moreover it is possible to fine-tune the model through different weighting of the particular competencies. The more differentiated and comprehensive the roles are, the more difficult it is to analyze and record the qualifications required, so that the job specification does not consist of an unmanageable number of competencies.

In the context of change management, the method developed can be used as a starting point in order to not only identify competence deficits of employees, but also to prepare them for their future tasks.

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