

ASSESSING AND DEVELOPING COMPETENCES OF PROJECT MANAGEMENT PROFESSIONALS

Renate Prantner¹

¹ PROJEKTMANAGEMENT **GROUP**, Vienna University of Economics and Business
Administration

Short Abstract

Competences in project management are required from project management professionals to assure quality in projects. For different project roles (project owner, project manager, project team member, project contributor) different competences are required. Competences are required by individuals, but also by project teams and by the project overall. The competences required might vary according to different project management approaches, and to cultural and national differences.

The definition of different competences required according to different approaches (e.g. the ICB of the IPMA or the PMBOK of PMI) as well as to different corporate and national cultures is one of the objectives of the research project “An innovative Web-based Tool for Training, Self-testing and Assessing of Project Management Professionals (PM CAT)”, which is planned in cooperation with the ISM University of Management and Economics, the Baltic Education Technology Institute (BETI), the Lithuanian Project Management Association (LPVA), Nova Distance (ND) and Gea College (GEA).

Keywords: projects, individual pm competences, knowledge, experience

Paper

1 Project Management Competence Assessment Tool – PM CAT

In literature a variety of different definitions for “competence” exist. Competence can be divided into individual, collective and organisational competences. In the context of PM CAT we will focus on individual competences.

Weinberg for example states that competences are all capabilities, knowledge and thinking methods, a person acquires and uses during his lifetime. (WEINBERG 1998) Basis for the pm individual competence definition applied in PM CAT and this paper is the definition applied by Huemann 2001, which defines individual competence as a potential of a person based on (explicit) knowledge and experience to professionally perform an organisational role, in this case the pm process. (HUEMANN 2001)

In the following the research project will be described in more detail.

The research project PM CAT, which has officially started in October 2005, has been initiated by the ISM University of Management and Economics (Lithuania) in cooperation with the PROJEKTMANAGEMENT **GROUP** (Austria), the Baltic Education Technology Institute BETI (Lithuania), the Lithuanian Project Management Association LPVA (Lithuania), Nova Distance ND (Sweden) and Gea College (Slovenia). The project will be managed and coordinated by ISM University of Management and Economics (Lithuania) and will end in October 2007.

The PROJEKTMANAGEMENT **GROUP** offers the theoretical background and management approach for performing the research in the first part of the project. Both, the results of the research and the applied systemic-constructivistic pm management approach *ROLAND GAREIS Project- and programme management*® will provide the basis for the creation of the PM CAT tool itself.

In the first research phase, analyses of project-oriented companies in Austria and Lithuania are performed. This research takes place as a part of the research programme *project orientation [international]*, which has been initiated by the PROJEKTMANAGEMENT **GROUP** at the beginning of 2005. By applying the maturity model of the project-oriented company and the maturity model of the project-oriented nation, it is the objective of this research programme to analyse and benchmark about 350 project-oriented companies in about 15 project-oriented nations (www.poi.pmggroup.at, 20.11.2005).

By applying the two maturity models which are based on *ROLAND GAREIS Management of the project-oriented company*® and *ROLAND GAREIS Management of the project-oriented society*® project-oriented companies in Austria and Lithuania will be analysed. Further analyses in the other project partner countries are being considered.

All in all three different modules will be created: a PM Thesaurus Module (Content), a PM Competence Assessment Module and a PM Competence Development Module. In the following some details of these modules shall be described.

The PM Thesaurus Module will be based on the pm management approach *ROLAND GAREIS Project- and programme management*® which also is the basis for the competence baseline of Austria (pma baseline). The module will offer definitions for pm-related keywords. These keywords will be extracted from the International Competence Baseline (ICB) of the IPMA. Besides logical linkages between these keywords will be offered, which until now are not provided by the ICB itself. So far, only some terms in the ICB are defined, but no consistency within the terms exists.

In a further step the PM Competence Assessment Module shall provide web-based testing facilities for pm professionals. This Module will be divided in two different sections, according to the individual pm competence definition used for *PM CAT*: in one part questions will be asked concerning the (explicit) knowledge of pm professionals, in a second part questions concerning the pm experience have to be answered.

In the third PM Competence Development Module, the results of the pm professional's answers to these questions will be mapped against the defined knowledge and experience areas. In deficit areas learning possibilities to improve the pm professionals' individual competences shall be given.

The main objectives of *PM CAT* are:

- to assess and further develop pm individual competences of pm professionals in the project partner countries Austria, Lithuania, Slovenia and Sweden
- to develop a web-based tool for training, self-testing and assessing of those professionals
- to establish *PM CAT* as a basis for further learning tools in the future

Additional objectives are:

- to make a contribution to the modernisation and standardisation of the assessment of project management professionals by the IPMA
- to develop a Lithuanian pm baseline according to the standards of the IPMA
- to provide with *PM CAT* a new communication and networking platform for pm professionals

2 Research theses

Basic research in *PM CAT* is based on the following theses:

- For different project roles (project owner, project manager, project team member, project contributor) different competences are necessary. Competences are required by individuals, but also by project teams and by the project overall.
- Required competences might vary according to different management approaches.
- Project management competences of individuals, teams and projects can be described, assessed and further developed.
- Required competences by individuals and organisational competences have to correlate with each other.

3 Different Competences according to different project roles

Competences in project management are essential for project management professionals to assure quality in projects and perform the process of project management successfully. Therefore project management can be perceived as the ability of a project manager, to perform the project management process professionally, which means by applying best practices. Both, knowledge and experience are needed by pm professionals, to creatively design the pm process. (GAREIS 2001)

For different project roles performed by individuals different project management competences are required. The following individual project roles can appear in a project: project owner, project manager, project team member and project contributor. Detailed role descriptions for the project owner, project team member, project contributor also exist.

Role: Project manager
Objectives
<ul style="list-style-type: none"> • Realize project interests • Ensure the realization of the project objectives • Lead the project teams and the project contributors • Represent the project toward representatives of the relevant environments • Develop and adapt the project management documentation
Position in the organization
<ul style="list-style-type: none"> • Reports to the project owner team • Member of the project team • Leads the project team members and the project contributors
Tasks
Tasks in the project start
<ul style="list-style-type: none"> • Design the project start process (possibly together with selected project team members) • Transfer Know-how from the pre-project phase into the project (together with project team members and project team and project owner team) • Agree on the project objectives (together with project team members)

<ul style="list-style-type: none"> • Develop adequate project plans (together with project team members) • Design an adequate project organization, team-building (together with project team members) • Develop the project culture, establish the project as a social system (together with project team members) • •risk management, avoidance and/or promotion of and provision for project discontinuities (together with project team members) • Design project context relationships (together with project team members) • Perform the initial project marketing (together with project team members) • Develop project management documentation „project start“•
Tasks in project coordination
<ul style="list-style-type: none"> • Controlling (intermediary) results of the work packages • Disposition of project resources for work packages (together with project team members) • Accept work packages • Participate in sub-team meetings (periodically) • Communicate with representatives of relevant environments • Continuous project marketing
Tasks in project controlling
<ul style="list-style-type: none"> • Design the project controlling process (possibly together with selected project team members) • Determine the project status (together with project team members) • Agree on or perform controlling measures (together with project team members) • Further develop the project organization and/or project culture (together with project team members) • Adapt project objectives (together with project team members) • Develop project progress reports (together with project team members) • Redesign the project context relationships (together with project team members) • Perform project marketing tasks (together with project team members)
Tasks in resolving a project discontinuity
<ul style="list-style-type: none"> • Propose the definition of a project discontinuity to the project owner team • Design the processes for resolving the project discontinuity (together with project owner team) • Work out immediate measures (together with project team) • Perform cause analysis (together with project team) • Work out alternative strategies (together with project team) • Perform measures to resolve the discontinuity and check for success (together with project team) • End the project discontinuity (together with project owner team)
Tasks in project close-down
<ul style="list-style-type: none"> • Design the project close-down process (possibly together with selected project team members) • Plan the post-project phase • Transfer Know-how into the permanent organization (together with project team members and representatives of the permanent organization) • Develop the project close-down report • Perform closing project marketing (together with project team members) • Perform emotional close-down of the project (together with project team members)
Environment relationships
<ul style="list-style-type: none"> • Project owner team • Project team members • Project contributors • Cooperation partners, suppliers, media
Formal authority
<ul style="list-style-type: none"> • Holding project owner team meetings and project team meetings • Purchasing decisions up to EUR... • Coordination of the project team members and the project contributors • Selection of the project team (together with project owner team and line managers of the project team members)

**Figure 1: Role description “Project Manager”
(GAREIS 2005)**

Role descriptions for e.g. the project manager define all the necessary specific project management functions to be performed. (GAREIS 2005) The pm competence of e.g. a project manager therefore can be defined as his capability to fulfil all functions specified in the role description. Figure 1 shows the description of the Role “Project Manager”.

Beside project management competence, a project manager also needs information about the relevant product, the company and industry. In international projects further intercultural and language competences are essential for the project success as well.

4 Different Competences according to different management approaches

Due to the various definitions of competence, shortly mentioned in chapter I, various different definitions of individual project management competence exist due to different project management approaches.

Currently a variety of different project management approaches is offered by national pm associations. In the context of this paper only the competence definitions of the ICB by the IPMA, the pma baseline of Austria and PMBOK® by the US based Project Management Institute (PMI) will be shortly described. Further comparison will be part of the detailed research phase in PM CAT.

ICB

Individual pm competence due to the ICB Version 2.0 is based on knowledge, experience, the personal attitude of individuals and the general impression. The ICB names 28 core and 14 additional elements of knowledge and experience. Furthermore 8 aspects for personal attitudes and 10 aspects for the general impression are defined. The ICB was derived from 4 national competence baselines of the France, Germany, Switzerland and the UK and therefore is not based on a single management approach. Rather can the ICB be seen as a collection of relevant elements, to be known by project management professionals.

National member organisations can use the ICB to create their own national competence baseline (NCB) due to national and cultural characteristics. The ICB is currently being further developed and revised.

pma baseline

The pma baseline in its current version 2.3 published by the PROJEKTMANAGEMENT AUSTRIA is the national competence baseline of Austria derived from the ICB. This baseline was developed in cooperation with the PROJEKTMANAGEMENT **GROUP** of the Vienna University of Economics and Business Administration and follows the systemic-constructivistic project management approach *ROLAND GAREIS Project and Programme Management®*.

Individual pm competence is based on knowledge (explicit) and experience of the project manager. This approach uses the concepts of explicit and tacit knowledge developed by Polanyi and Nonaka and Takeuchi (POLANYI 1967, and NONAKA and TAKEUCHI 1995). Personal or social dimensions of pm competence are not considered and no explicit definition of pm competence is given. (PROJEKTMANAGEMENT AUSTRIA 2005)

PMBOK®

In contrast to the ICB the PMBOK® doesn't define pm competence as such, but the knowledge, which is expected of a pm professional. The PMBOK® defines 9 functional knowledge areas: project integration management, project cost management, project

communications management, project scope management, project quality management, project risk management, project time management project human resource management and project procurement management with 37 component processes. The PMBOK® is based on a traditional pm approach. (PROJECT MANAGEMENT INSTITUTE 2000)

Another important factor for the success and quality in projects is the social competence of individuals. These competences are needed for example in team meetings and the organisation of workshops etc.

5 Assessment of individual competences

To assess individual pm competences, certification programmes have been introduced by the different project management associations in order to externally measure competence development. In the following the certification process of PROJEKT MANAGEMENT AUSTRIA the member organisation of the IPMA for Austria will be shortly described.

PROJEKT MANGEMENT AUSTRIA offers a four level certification system, divided into junior project manager, project manager, senior project manager and pm executive. Due to the different levels different project roles have to be performed by the individual and different levels of pm competence have to be proven. A junior project manager therefore only needs basic knowledge gained as a pm assistant or project controller, whereas a project manager needs to have both, special knowledge in the pm process and relevant experience as a project manager or a pm office member. To qualify as a senior project manager the pm professional needs to have expert knowledge and comprehensive experience as a project coach. To reach the last level experience as a programme manager or pm office leader have to be proven.

The knowledge assessment for the first three levels (B, C, D) is performed with a multiple response test consisting of 80 questions. The evaluation of this test is IT-supported. The second part for assessing the experience dimension is either preparing a case study and/or passing an exam. The evaluation of this second part is performed by the pma assessors. Assessors are independent already certified level B project managers.

PM CAT wants to follow the Austrian example and will provide a web-based PM Competence Assessment Module for pm professionals. According to the applied pm competence definition this module will include a knowledge and an experience part.

6 Further development of individual competences

As project management has established itself as a specific job profile in recent years, the further development of pm competences is of overall importance.

Different instruments for the further development of organisational, individual and project team pm competences have to be developed. Specific career paths in organisations in order to assure that individuals gain experience also support the further development of individual project management competences. Such career paths are often organised according to the national management associations' certification systems.

Methods to develop competences for individuals are for example self assessments and training. Pm competences of project teams can be promoted by e.g. establishing workshops, reflections and supervisions. Learning and developing pm competences on the organisational

level can be achieved for example by benchmarking the organisation with other competitors. (GAREIS, HUEMANN 2000)

After assessing the pm competences of pm professionals PM CAT shall provide online various learning and training possibilities for further development of individual competences (distance learning courses, university training courses, seminars etc.), when deficits in certain areas have been identified.

7 Correlation of individual and organisational competences

PM competences are not only essential for individuals but for the project team as such and the organisation likewise. Therefore on one hand individual, organisational and team project management competences have to be clearly differentiated. On the other hand also close relationships between these competences have to be considered. (HUEMANN 2000)

In PM CAT the maturity model for the project-oriented company, which is based on *ROLAND GAREIS Management of the project-oriented company*® is applied in order to evaluate the organisational pm competences. In a second step this information shall help to define individual competences for pm professionals.

The maturity model, which is visualised by a multi-dimensional spider web, consists of eight dimensions such as project management, programme management, assurance of the management quality in a project or programme, assignment of a project or programme, project portfolio coordination and networking, organisational design of the project-oriented company, personnel management in the project-oriented company and business process management in the project-oriented company. The overall maturity of the project-oriented company is visualized by as an area.

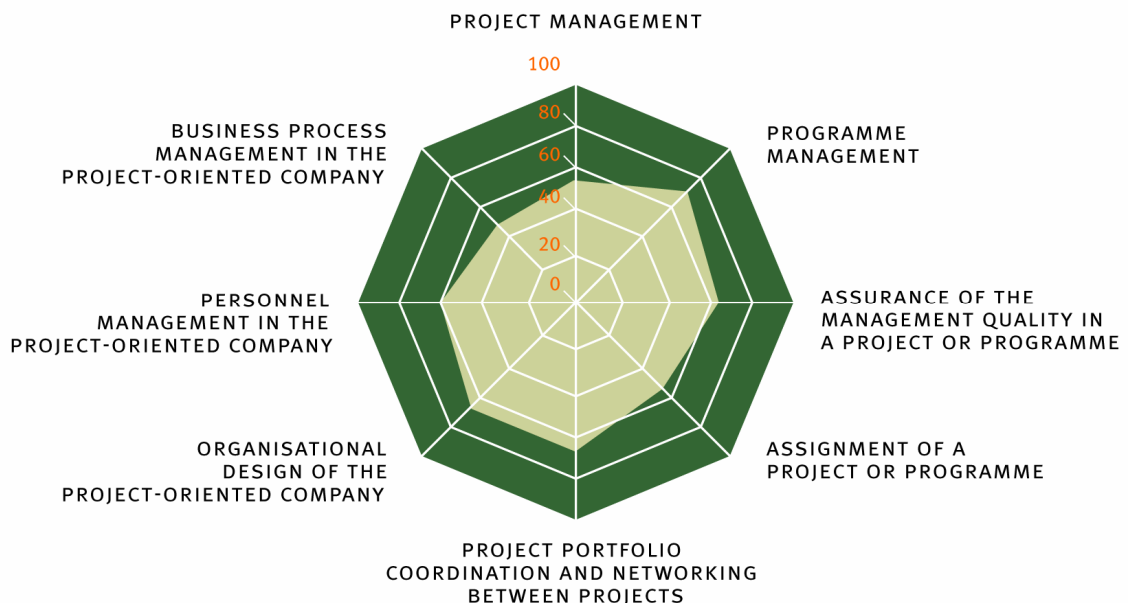


Figure 2: Maturity Model of the project-oriented Company
(Source: www.poi.pmgroun.at; 03.11.2005)

8 Conclusion

In the next few months PM CAT will emphasize on analysing project-oriented companies in Lithuania and Austria. Further analyses are being considered. Besides different management approaches will be compared due to their competence definition and a rough first draft of the overall PM CAT tool will be created. As the research project PM CAT has only started there are no results up till now.

REFERENCES

1. Caupin G., Knöpfel H., Morris P., Motzel E., Pannenbäcker O., 1999 IPMA Competence Baseline, Version 2.0, 1999.
2. Faulstich, P. 1998. Strategien der betrieblichen Weiterentwicklung, Kompetenz und Organisation, Verlag Vahlen, 1998.
3. Gareis R., 2001. Assessment of Competences of Project-oriented Companies: Application of a Process based Maturity Model, PMI Symposium 2001.
4. Gareis R., 2002. pm baseline, Knowledge Elements for Project and Programme Management and for the Management of Project-oriented Organisations, Version 1.0, July 2001, PROJEKT MANAGEMENT AUSTRIA, www.p-m-a.at, 2002
5. Gareis R., 2004. Management of the Project-oriented Company, in: Wiley Guide to Managing Projects, Wiley & Sons, Hoboken, New York.
6. Gareis R., 2005 Happy Projects® in English, First Edition, Manz Publishing, Vienna, 2005.
7. Gareis R., Huemann M., 2000. Project Management Competences in the Project-oriented Organisation, in: The Gower Handbook of Project Management, JR Turner and SJ Simister (ed), Gower, Aldershot, 2000.
8. Gareis, R., Huemann, M.: Specific Competences in the Project-oriented Society, PM-Research Workshop Vienna VI, Gareis, R. (ed.), University of Economics and Business Administration Vienna, November 1999 (CD-Rom).
9. Gareis R., Huemann M., (2001): Assessing and Benchmarking Project-oriented Societies, in: Project Management –International Project Management Journal, Project Management Association Finland, Norwegian Project Management Forum, Vol. 7, No.1, 2001, p.14-25 2001.
10. Huemann, M. (2000): Individual Project Management Competences –The Need for Project Management Knowledge and Experience, 15th IPMA World Congress on Project Management, May 2000.
11. Huemann, M.: Individuelle Projektmanagement-Kompetenz in Projektorientierten Unternehmen, Doctoral Thesis Vienna University of Economics and Business Administration, Vienna, 2001.
12. Morris, W.G.: Updating the Project Management Bodies of Knowledge, in Project Management Journal, September 2001. p.21 – 30.
13. Motzel, E, Pannenbäcker, O. (Ed.) (1998): Projektmanagement-Kanon. Der deutsche Zugang zum Project Management Body of Knowledge. TÜV-Verlag, Köln, 1998.
14. Nonaka, I., and Takeuchi, H. (1995): The knowledge-creating company. New York: Oxford University Press, 1995.
15. PROJEKT MANAGMENT AUSTRIA (2005): pma baseline Wissensselemente zum Projekt- und Programmmanagement sowie zum Management Projektorientierter O rganisationen, Version 2.3 2005.
16. Project Management Institute (2000): A Guide to the Project Management Body of Knowledge (2000 ed.) Newtown Square, Project Management Institute, 2000.
Polayni, M. 1967: The Tacit Dimension, New York: Doubleday Anchor, 1967.
17. Turner R., Huemann M., (2000): Current and future trends in the education in project managers, in PM Forum, 2000.
18. www.poa.pmggroup.at, 20.11.2005.
19. www.poi.pmggroup.at, 20.11.2005.