PROJECT MANAGEMENT PERSONNEL IN THE PROJECT-ORIENTED COMPANY

M. Huemann

Vienna University of Economics and Business Administration, PROJEKTMANAGEMENT GROUP, Austria

Abstract

In this paper the importance to professionally manage the competences of project management personnel in project-oriented companies is discussed. In project-oriented companies different persons need project management competences to fulfill their roles. Project management personnel comprises: project owner, project manager, project management assistant, project team member, and project contributor. A maturity model to analyze project management competences of project management personnel is introduced and an application is visualized.

Introduction

The demand for the establishment of the profession "project manager" is based on the demand for professional project managers in a project oriented company. Not only construction, engineering or information technology companies who perform external projects for customers have established the role project manager, but nowadays also insurance companies, banks, hospitals, or research institutes have a demand for competent project management personnel, who manage internal projects professionally. Thus the profession "project manager" is established to formalize the status of project managers and to promote project management.

Whether an organization considers project management as a profession can be observed. If project management is considered as a profession, role descriptions for project management personnel exist. Project-oriented organizations, that consider project management as a profession define a project management career path and competence profiles for the different career steps.

The strategic importance of human resource management and the specific requirements of the project-oriented company is yet not widely recognized in project-oriented companies (Huemann, Turner & Keegan, 2005). This paper emphasis the management of the competences of project management personnel and concentrates on the project manager.

The Need for Project Management Competences

In project-oriented companies different persons need project management competences to fulfill their roles. Project roles performed by individuals are project owner, project manager, project management assistant, project team member, and project contributor. That also means not only the project manager needs project management competence, but for instance also the project owner needs to understand the project management methods, otherwise the project owner cannot communicate with the project manager and the project team .

Further mangers, who perform roles in permanent functions in the project-oriented company need to have the competences to carry out their roles. Obviously the member of a project portfolio group needs to have knowledge and experience to carry out the assignment of a project or a programme, project portfolio coordination and project networking.

The project management competence of a project manager is the capability to fulfill all functions specified in the role description. (Gareis & Huemann, 2006). An example of a role description of a project manager can be found in Figure 1. What is to be considered as the functions of the project manager very much depends on the project management approach applied in the particular company. Whether it is a traditional one only emphasizing costs, schedule and scope or if it is a systemic project management approach also considering the context of the project, the project organization and the project culture (Gareis, 2005).

Role Description: Project Manager
Objectives
• Representation of the project interests • Contribution to the realization of the project objectives and to the optimization of the business case • Leading the project team and the project contributors • Representation of the project towards relevant environments
Organizational Position
• Member of the project team • Reports to the project owner team
Tasks
During the project assignment process
• Defining the project assignment together with project owner team • Nominating the project team members
During the project start process
• Know-how transfer from the pre-project phase into the project • Development of adequate project plans • Design of an adequate project organization • Performance of risk management • Design of project-context-relations • etc.
During the project controlling process
• Determination of the project status • Redefinition of project objectives • Development of project progress reports • etc.
During the resolution of a project discontinuity
• Analysis of the situation and definition of ad-hoc measures • Development of project scenarios • Definition of strategies and further measures • Communication of the project discontinuity to relevant project environments • etc.
During the project close-down process
• Coordination of the final contents work • Transfer of know-how into the base organization • Dissolution of project-environment relations • etc.

Figure 1: Part of the Role Description "Project Manager"

Competence Profile of a Project Manager

Besides the project management knowledge and experience and a certain self-understanding (attitude), a project manager needs product, company, and industry knowledge. In international projects, cultural awareness and language knowledge are also prerequisites. Depending on the project type and the culture of the organization the project manager may need also technical competence to get acknowledged by the project team, the customer and the organization. The more project management is considered a profession in the organization the less technical/contents competences will be asked for. The competence profile shown in figure 2 illustrates the minimum requirements of a senior project manager of an engineering company as an example.

Competences	Knowledge					Experience				
	5 very much	4 much	3 average	2 low	1 none	1 none	2 low	3 average	4 much	5 very much
Project and Program Management	■								■	
Management of the Project -oriented Company		■						■		
Project Contents Processes			■					■		
Business and Product		■							■	

Figure 2: Example: Competence Profile of a Senior Project Manager

A Maturity Model to Analyse the Project Management Competences

Recently there is a lot of discussion regarding the maturity of organizations (Cooke-Davies, 2005; Ibbs *et al. 2005*), but also maturity of persons is becoming a new puzz word. (Gareis & Huemann, 2006; Huemann, 2006a). Project management maturity of a person may be explained as the degree of competence and self-understanding (attitude) of a person to fulfill the functions of a particular project management related role. Figure 3 presents a maturity model for analyzing of the project management competences of project managers (mm-project manager model). It supports the analysis of knowledge and experience of a project manager in applying adequate methods for the project start, project coordination, project controlling, resolution of a project discontinuity (like a project crisis or chance), project close down. Further dimensions are designing the project management process and social project management competence.

The social project management competence is made visible as one dimension to show its importance. It includes methods for presentation and facilitation, team methods e.g. for team building, conflict management, feedback and reflection, negotiating, management of own emotions and emotions of others.

The project manager requires knowledge and experience not only to apply project management methods, but also to creatively design the project management process. The dimension designing the project management process, includes:

- selection of the appropriate communication structures such as single meetings or project workshops
- appropriate design of the communications: e.g. invitation of representatives of external organizations to a project workshop, or decision to involve a project management consultant
- selection of the appropriate IT- and telecom infrastructure
- definition of the appropriate project management methods and form for the project management documentations.
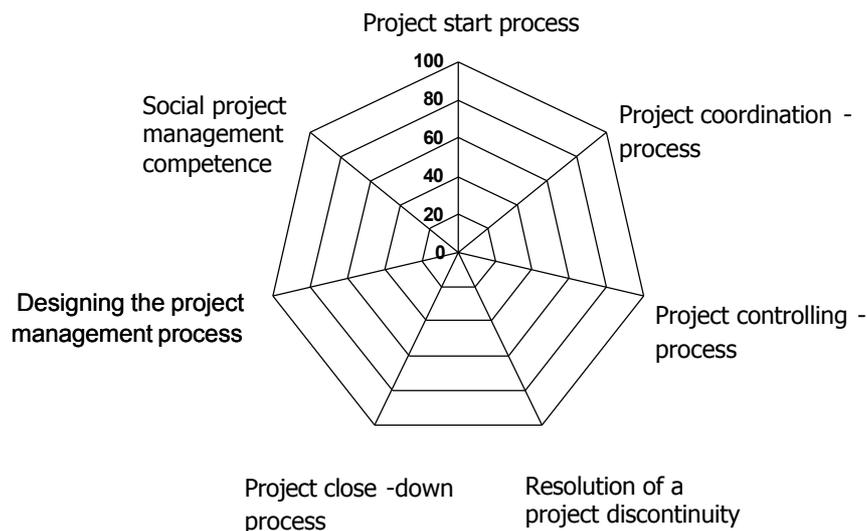

Figure 3: mm-project manager based on ROLAND GAREIS *Project and Programme Management* [®]

Further to considering the dimensions of the mm-project manager in an analysis the self-understanding (attitude) of the project manager is considered. The self-understanding is analysed by considering the attitude to apply project management methods, to perceive a holistic project responsibility, to assure the project progress and to have agreements in the project teams.

Process of the Analysis

The analysis is based on a self-analysis questionnaire which comprises questions regarding
- project management education: e.g. which project management courses the project manager has attended
- project management experience: e.g. in which projects the project manager has collected experience so far
- all dimensions of the model *mm-project manager* described above. Figure 4 shows an example question
- and the self-understanding of the persons as a project manager

Project start: Methods to design project –context relations		
1=none, 2=low, 3=average, 4=much, 5=very much	Knowledge	Experience
Project environment analysis		
Description: Pre- and post project phase		
Analysis: Relation to other projects		
Analysis: Relation to the company strategies		
Project marketing		
Business case analysis		

Figure 4: Example Question mm-project manager Questionnaire

Further an external analysis is performed by an assessor. The assessor conducts a 1-2 hours interview with the project manager and analyses the project management documents of a real project of the project manager. In the interview the results of the self-analysis are reflected and interpreted. In this interview the assessor feeds back whether the candidate has done a realistic, too optimistic or too critical self-analysis

Example: Results of the Analysis

The results can be shown on a single individual or for a group of project managers. Fig 5 shows the results of a group of 12 project managers of a business unit. The result is one spider web for the project management knowledge and another one for project management experience. The blue areas visualize the degree of the maturity of project management knowledge of the particular group of project managers and the degree of the maturity of project management experience of the particular group of project managers.

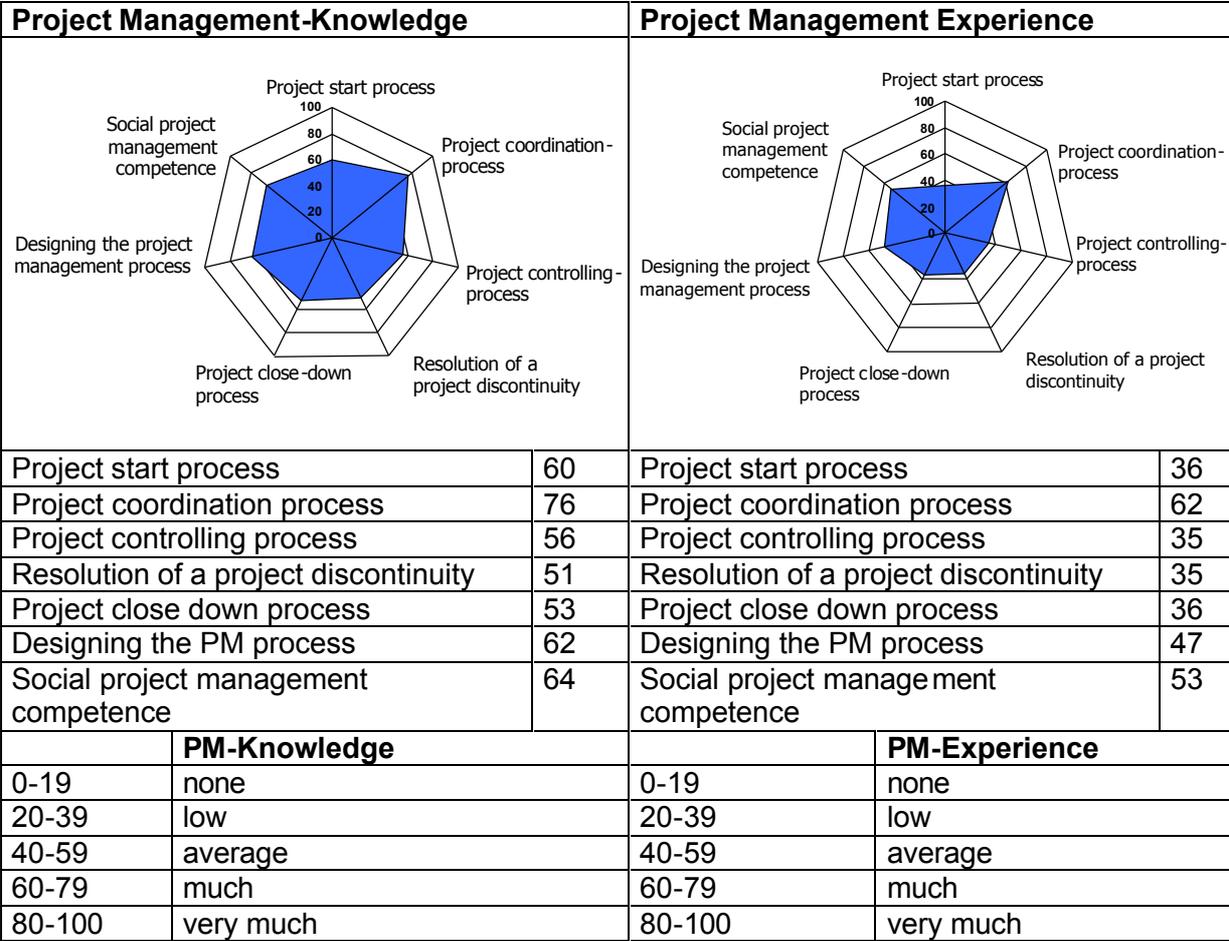| Project Management-Knowledge		Project Management Experience	
Project start process	60	Project start process	36
Project coordination process	76	Project coordination process	62
Project controlling process	56	Project controlling process	35
Resolution of a project discontinuity	51	Resolution of a project discontinuity	35
Project close down process	53	Project close down process	36
Designing the PM process	62	Designing the PM process	47
Social project management competence	64	Social project management competence	53
	PM-Knowledge		**PM-Experience**
0-19	none	0-19	none
20-39	low	20-39	low
40-59	average	40-59	average
60-79	much	60-79	much
80-100	very much	80-100	very much

Figure 5: Example Result: PM Knowledge and Experience of a Group of Project Managers

The area for project management knowledge is rather homogenous. In this group of project managers there exists much knowledge in the application of methods for the project start, the project coordination process as well for designing the project management process and the social project management competence. There is average knowledge for project controlling, management of a discontinuity and project close down. In comparison to the project management knowledge in this group of project managers there is less experience in most of the dimensions.

Figure 6 shows the self-understanding to fulfill the role of project managers of each analysed project manager. In this particular case the result shows that the project managers have relatively strong self-understanding to fulfill the role of a project manager. But there is particularly space for improvement in professional application of methods.
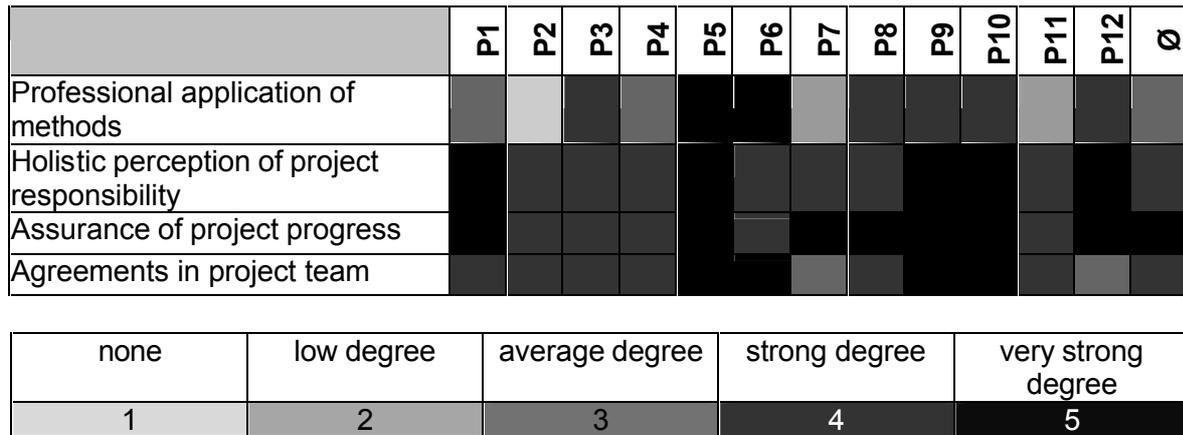
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	Ø
Professional application of methods													
Holistic perception of project responsibility													
Assurance of project progress													
Agreements in project team													

none	low degree	average degree	strong degree	very strong degree
1	2	3	4	5

Figure 6: Example Results: Self-Understanding of a Group of Project Managers

Possibilities of Application of the mm-project manager

There are different possibilities for applications of the maturity model to analyse project management personnel, for instance:

- Getting a status of the project management maturity of a group of project mangers or a single project manager to plan further development actions for the personnel as such or for the single person
- Comparing the single project manager to minimum requirements asked by a certification programme (Huemann, 2006a)
- Selecting of personnel for a particular project.
- Analysing the project management competence of a project manager within a management audit of a project or a programme (Huemann, 2006b).

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