

Professional Project Portfolio Management

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1. Introduction

Project-oriented organizations perform simultaneously a number of different projects and programmes, they hold a portfolio of projects and programmes.

The more projects and programmes a company performs, the more complex it becomes. Project-oriented organizations have dynamic boundaries and contexts. On the one hand the number and the sizes of the projects and programmes are constantly changing, permanent and temporary resources are employed, and cooperations are organized in virtual teams. On the other hand varying strategic alliances are established and relationships to the different social environments of the different projects and programmes are managed.

In order to manage these dynamics project-oriented organizations reqire besides periodic corporate identity activities, such as strategic planning activities, reflections of the corporate culture, and continuous organizational development, specific integrative structures, such as a project portfolio and a PM Office. Project portfolio management, becomes a core management competence of project-oriented organizations. Specific management processes and management methods have to be applied for the management of the project portfolio.

2. Strategy, Structure and Culture of the Project-oriented Organization

A Project-oriented organization is an organization which

- defines "Management by Projects" as an organizational strategy,
- · applies temporary organizations for the performance of relatively unique processes,
- · manages a project portfolio of different project types,
- · has specific permanent organizations to provide integrative functions,
- applies a "New Management Paradigm", and
- perceives itself as being project-oriented.

Project-oriented organizations consider projects not only as tools to perform unique processes, but as a strategic option for the organizational design of the company. By applying "Management by Projects" the following organizational objectives are pursued:

- organizational differentiation and decentralization of management responsibility by projects,
- quality assurance by holistic project definitions and by project team work,
- goal orientation and personnel development in projects, and
- organizational learning by projects.

Project-oriented organizations perceive projects and programmes as temporary organizations for the performance of relatively unique processes of large scale, such as contracts for external clients as well as product developments, marketing campaigns or reengineering activities for internal clients.

The more projects of different types an organization holds in its project portfolio, the more differentiated it becomes and the higher becomes its management complexity. In order to support the successful performance of the single projects as well as to ensure the compliance of the objectives of the different projects with the overall company strategies, specific integrative structures, such as a strategic center, expert pools, a PM Office, and a Project Portfolio Group are required. Some of these permanent organizations might be virtual. Further the project-oriented organization defines specific management processes, such as project- and programme management and project portfolio management.

Further, in a project-oriented organization the application of a "New Management Paradigm" is required. Traditional management approaches are emphasizing detailed planning methods, focusing on the assignment of clear defined work packages to individuals, relying on contractual agreements with clients and suppliers and using the hierarchy as central integration instrument. Compared with this traditional management approach the major concepts common to "new" management approaches such as

- consideration of organization as competitive advantage,
- empowerment of employees,
- process-orientation,
- team work in flat organizations,
- continuous and discontinuous organizational change,
- · customer-orientation, and
- networking with clients and suppliers,

can be perceived as a "New Management Paradigm".

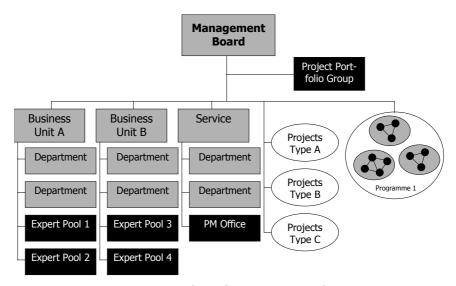


Figure 1: Organization Chart of a Project-oriented Organization

3. Specific Processes of the Project-oriented Organization

The project-oriented organization is characterized by specific business processes as shown in a spider web presentation in Figure 2. For the performance of each of these processes individual and organizational competences are required. The existing competences, i.e. the know how and the experiences for the performance of the processes, can be evaluated and presented as a competence area in the spider web. Further the competence area, to be achieved in a defined period of time, can also be visualized.

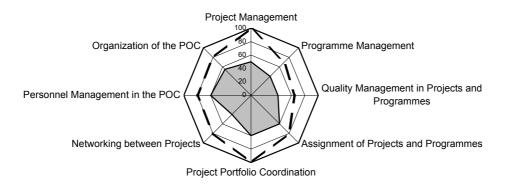


Figure 2: Specific Processes of the Project-oriented Organization

Project management is a core business process of the project-oriented organization. It consists of the sub-processes project start, project coordination, project controlling, resolution of a project discontinuity, and project close down. Objects of consideration in the project management process are the project objectives, the scope of work, the project schedule, the project ressources, the project costs and project revenues, as well as the project organization, the project culture, and the project context (project environment relationships, relationships to the company strategies, relationships to other projects, and business case).

Programme management has to be performed in addition to the management of the single projects of a programme. The programme management methods are similar to the project management methods, i.e. there is a programme work breakdown structure, a programme bar chart, a programme environment analysis, etc.

Quality management in projects and programmes basically refers to the performance of management audits and of management consultings for projects and programmes. Further the investments, initiated by projects or programmes, can be evaluated.

Personnel management processes in project-oriented organizations are recruitment, disposition and development of project personnel. Persons, who perform the roles Project Owner, Project Manager, and Project Team Member as well as persons performing the roles (internal) PM Consultant, PM Auditor and PM Trainer, can be considered as project personnel. A project management career path can give orientation for all personnel development activities in the project-oriented organization.

Project-oriented organizations have specific integrative organisational structures, such as PM Offices, Project Portfolio Groups or Expert Pools, and specific integrative tools such as PM procedures and standard project plans. These structures and tools have to be designed according to the specific requirements of the project-oriented organization.

4. Project Portfolio Definition

For integration purposes projects might be clustered in different ways. Considering the sequence, in which a set of projects is performed a "chain of projects" results, by relating a set of projects to each other according to a specific criterion, such as the technology applied or a geographic region, a "network of projects" results, and by considering all projects performed by an organization, the "proj-

ect portfolio" results. A project portfolio is defined as the set of all projects and programmes a projectoriented organization holds at a given point in time and the relationships between these projects and programmes.

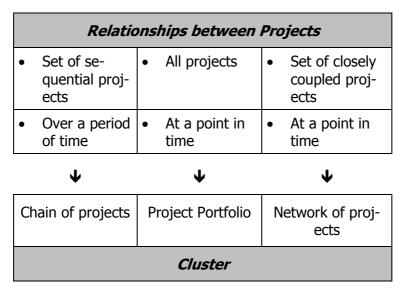


Figure 3: Clustering of Projects

In a project portfolio different project types, such as internal and external projects, unique and repetitive projects, marketing-, contracting-, organizational development projects, etc., might be included.

5. Project Portfolio Management Processes

Project portfolio management processes are the assignment of projects and programmes, the project portfolio coordination, and the networking between projects and programmes.

5.1 Assignment of Projects and Networking between Projects

Objectives of the process of assigning projects and programmes are to decide about a proposed investment and, in case that the investment decision is positive, to decide about the organization form, appropriate to initialize the investment. Appropriate organizations for the initialization of the investment might either be units of the permanent organization, or projects or programmes as temporary organizations.

Further in the assignment process a project or programme owner has to be nominated. In the investment decision not only financial criteria, but also client satisfaction, innovation, and available process and resource competences have to be considered. The most important methods to be applied in the assignment process are the business case analysis and the definition of project boundaries and of the project context.

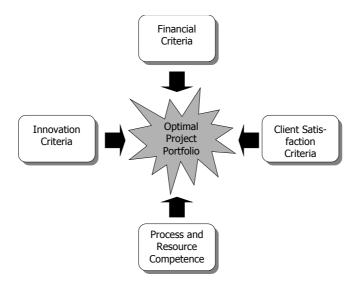


Figure 4: Project Portfolio Score Card

Objectives of the process of networking between projects and programmes is to ensure synergies between a set of projects, e.g. performed for the same client, in the same geographic region or with the same technology. An example of a network of projects performed in cooperation with the same IT contractor is shown in Figure 5.

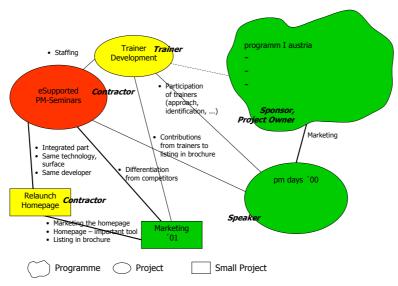


Figure 5: Network of Projects (Example)

5.1 Project Portfolio Coordination: Process and Methods

The objectives of the project portfolio coordination process are:

- Optimizing the results of the project portfolio (and not of the single projects or programmes)
- Selection of projects and programmes to be started
- Interrupting or stopping projects or programmes
- Definition of project and programme priorities
- Coordination of internal and external project and programme resources
- Organization of learning of and among projects and programmes.

The basis for the coordination of the project portfolio is a project portfolio database, including data about the project types, relations of a project to other projects, information about the project organizations, information about relevant project environments, and project ratios. These data can be used

for preparing project portfolio reports, which are the basis for project portfolio related decisions. The project portfolio database is not a project information system but contains aggregated project data only. It might be integrated with a project information system.

For the coordination of a project portfolio a specific process and specific methods, such as the preparation of a project proposal-, and project portfolio reporting methods, are required. Typical project portfolio reporting methods are the bar chart of projects, the projects profit versus risk graph, the progress chart of projects, etc.



Figure 6: Project Portfolio List

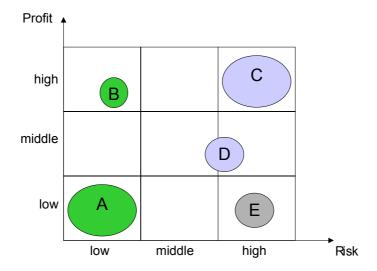


Figure 7: Project Portfolio Matrix

5.2. Project Portfolio Coordination: Roles

The functions and responsibilities of the project portfolio coordination process can be described in a responsibility matrix as shown in Figure 8: Responsibilities for the performances of the different functions are assigned to the Project Portfolio Group, the PM Office, the selected Project (Programme) Owners, Staff Members and Project Managers, and Investment Proposal Teams. The documents, resulting from the process, are specified.

Functions	Project Portfolio Group	PM Office	Selected Project Owners	Staff Members, Project Managers	Investment Proposal Teams	Documents
Preparation of Coordination	ļ		ļ			
Up dating project portfolio database		Р	<u> </u>			
Developing project portfolio reports		Р				1)
Gathering investment proposals		Р			Α	2)
Gathering selected project progress reports		Р		Α		3)
Invitation of participants	ı	Р		ı		4)
Performance of Coordination						
Distribution of information material	ı	Р	ı			
Performance of Project Portfolio Group meeting	Р	Α	Α			5)
Follow-up of Coordination						
Up dating project portfolio database	ļ	Р				6)
Information to employees	Α	Р		ı	I	

Legend

- P ... Performance
- A ... Assistance
- I ... Information

Documents

- 1. Project Portfolio Reports
- 2. New Investment Proposals
- 3. Selected Project Progress Reports
- 4. Invitation to the project portfolio group meeting
- 5. Minutes of the project portfolio group meeting
- 6. Updated project portfolio database

Figure 8: Project Portfolio Coordination-Process-Responsibility Matrix

The responsibility matrix shows, that the Project Portfolio Group meeting is prepared, performed and followed-up by the Project Portfolio Group and the PM Office.

It is the responsibility of the Project Portfolio Group (PPG) to manage the project portfolio. The members of the PPG should be managers of those business units of the permanent organization, which are frequently involved in projects and programmes. They should have a strong strategic perspective. The PPG usually meets every (other) week for 2-4 hours.

Depending on the complexity and the dynamics of the projects and programmes a PPG can coordinate up to 60 projects at a given point in time. If there are more than 60 projects, more than one PPG might be established, possibly for different divisions or regions of a company.

The services provided by a PM Office relate to project and programme management as well as to project portfolio management. The PM Office has the ownership of the project and programme magement process and supports the PPG. The PM Office maintains and updates the project portfolio database, prepares project portfolio reports, supports investment proposal teams in the preparation of proposals, and provides progress reports of projects with discontinuities. An organization chart of a PM Office is shown in Figure 9. The organizational integration of a PM Office in the project-oriented company might be either as a department within a profit center or as a service center cooperating with different profit centers. In large companies there might be several PM Offices, maintaining networking relations.

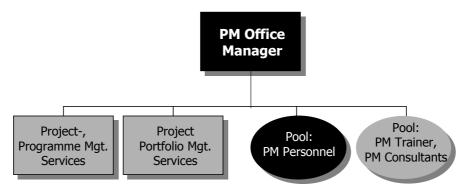


Figure 9: Organization Chart of a PM Office

6. Conclusion

For project-oriented organizations it is not sufficient to have the competence to manage single projects efficiently, but additional competences, such as the competences for the assignment of projects and programmes, for project and programme coaching and auditing, for networking between projects, and for programme management and project portfolio coordination are required. For all of these processes an explicit assessment and continuous further development is necessary.

Literature

Gareis, R, and Huemann M, 2000, "Project Management Competences in the Project-oriented Company" The Gower Handbook of Project Management, ed JR Turner and SJ Simister, Gower, Aldershot.