Value Creation by Building an Intraorganizational Common Frame of Reference Concerning Project Management

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VALUE CREATION BY BUILDING AN INTRA-ORGANIZATIONAL COMMON FRAME OF REFERENCE CONCERNING PROJECT MANAGEMENT

Abstract

In this article we suggest that organizations should not focus on selecting between various project management (PM) approaches, tools, or behaviours. Instead, we claim that the real benefit from PM implementations comes from the mere creation of a common frame of reference. Based on four case studies we identify elements that enhance such a common frame of reference: (1) a common PM model, (2) common PM training, (3) common PM exams/certifications, and (4) activities for knowledge sharing. Values created, especially when the application of the elements were mandatory, were better communication, better customer satisfaction, and easier knowledge sharing.

Keywords: PMValue, common frame of reference, PM model, competence development, knowledge sharing

Introduction

The authors of this article have been involved in an international research project which aimed to determine the value for an organization of implementing project management (PM) (Thomas & Mulally, 2004; 2007). The research project was funded by the Project

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1 An early version of this article was presented at the PMI Research Conference 2008, Warsaw, Poland, July
Management Institute and co-lead by Dr. Janice Thomas, Athabasca University, and Mark Mullaly, President of Interthink Consulting Incorporated. The project included in-depth case studies in 65 organizations worldwide conducted by a network of 48 researchers.

This article reports on case studies in four Danish organizations carried out in 2007 by the authors. A common finding across the case studies was that the informants emphasised the need of having a uniform approach to processes, methods, instruments, attitudes, and behaviour for managing their projects. A project manager stated the following: 

” [A specific value of project management] is to be able to carry out change in a large organization in a structured way and with a well defined process, which both [the project team and the customer] have accepted as basis” (project manager in company B)

In this article such a uniform approach is called “a common frame of reference”. This is in line with Korsvold and Sletbakk Ramstad (2004) who state that “a common frame of reference [is] providing an understanding for “why/for whom to do it?” This is a shared understanding of the whole of the parts and the relationships of the processes in actual collective work practice of the .. project”.

In all four case companies, efforts were made to establish a common frame of reference. However, the initiatives varied across the organizations, and so did the perceived values of the initiatives.

The aim of the article is to shed light on how a common frame of reference concerning PM can be established, and which kinds of values it can create. Research (Thomas & Mu-
ially, 2007) has shown that the PM research community does not agree on how to determine and measure values related to PM. Both quantitative metrics like return on investments and intangible non-monetary benefits have been taken into consideration in previous studies. Still, a thorough understanding of value is missing. We believe that such an understanding only can be developed if in-depth empirical studies are made. Those studies should aim at hearing the voices of companies on what they actually do and what they value and perceive as important. Therefore, we especially address the following questions:

- In which ways have the case companies tried to establish a common frame of reference for project management?
- Which values (if any) can, according to the informants, be attributed to the common frame of reference concerning project management?
- What are the differences and similarities across the cases?

The structure of the article is the following: In the next section, we briefly introduce the four case companies and the research method used. Thereafter, we summarise our findings concerning the first two questions. In the last section, we discuss the findings and look at similarities and differences across the cases in order to answer the third question.
Method

The cases

The four Danish organizations selected for the case studies had a reputation in the media and in PM networks for having been engaged in competence development within PM over the last years.

In all organizations, a specific department was chosen as the unit of analysis for the research project. Key data of are summarised in Table 1:

<table>
<thead>
<tr>
<th>Case</th>
<th>Type of Company</th>
<th># of Employees</th>
<th>Unit</th>
<th># of Staff</th>
<th># of Project Managers</th>
<th># of Projects Annually</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>IT</td>
<td>3,000</td>
<td>Sales Department</td>
<td>150</td>
<td>43</td>
<td>130</td>
</tr>
<tr>
<td>B</td>
<td>Financial services</td>
<td>30,000</td>
<td>Corporate IT</td>
<td>1,000</td>
<td>126</td>
<td>200</td>
</tr>
<tr>
<td>C</td>
<td>Manufacturing</td>
<td>20,000</td>
<td>Corporate IT</td>
<td>400</td>
<td>16</td>
<td>50</td>
</tr>
<tr>
<td>D</td>
<td>Consulting engineers</td>
<td>5,000</td>
<td>Regional Office</td>
<td>100</td>
<td>42</td>
<td>500</td>
</tr>
</tbody>
</table>

Table 1: Case Companies

Research approach

A broad range of research approaches has been applied (Thomas and Mullaly 2004) starting with desk research about the organization and its history concerning PM implementation. Some of the organizational stakeholders, including project team members, project managers, project customers, and suppliers/subcontractors participated in surveys. Furthermore, the research team reviewed all relevant company documentation, including defined PM practices and procedures, HR policies with respect to PM, and key data on
strategically significant projects during the last ten years. Finally, one completed project file was analysed in detail to understand actual PM practices, assess the evidence of compliance with set policies and processes, and to check on the results of both regarding project performance.

Against this background, a minimum of seven interviews were conducted in each case organization with key stakeholders, including senior management, project sponsors, PM champions, PM office or PM support staff, project managers and HR representatives. Finally, the research team participated as observers in one project status meeting.

The interviews were recorded and transcribed. Afterwards, meta-matrices for each organization were developed in order to do both within-case analyses and cross-case analyses. Further, findings from the interviews were compared with data from the surveys and other collected data.

**Results**

*Findings from the Case Studies*

In the following, we summarise the efforts undertaken by each case organization to establish a common frame of reference for PM. Each presentation begins with a brief introduction to the context of the PM initiatives. After this introduction, we present the informants’ perceived values of the initiatives.
Company A

Initiatives implemented to establish a common frame of reference:

The company is one of Denmark’s major information technology providers. According to its mission statement, its aim is to enhance the efficiency of the public sector and thus improve its service to the public.

A few years ago, the company was facing a situation in which it would be carrying out a major programme comprising more than 60 individual customer projects. To cope with this challenge the company initiated a number of initiatives. A central PM office with a high amount of formal authority was established. The office developed and implemented a common PM model in 2004 in collaboration with the project managers and other parties in the unit of analysis. The model consisted of milestones and deliverables together with several templates.

Development of the model and other preparations for undertaking the programme took more than a year. To achieve a common understanding and to make the project managers develop an ownership attitude towards the model, all project managers were asked to participate in creating the model. Some were appointed to take part in a development team while others acted as reviewers. The model was developed and implemented in stages. It was revised when the developers received feedback and suggestions after the project managers had started using the model.

While using the model, all project managers were asked to deliver best practice examples, and many complied with the request. Furthermore, questions and answers about PM chal-
lenges and about the use of the PM model, as well as the related tools and methods were posted on the organizations’ intranet.

Another part of the model was the establishment of a parallel project organization in each of the 60 customers’ organization. Further, a common steering committee for each customer project was established. The case company was eager to ensure that the two project organizations mirrored each other and that the members of the steering committees possessed sufficient formal authority to make decisions.

To supplement the organizational solution and improve the decision-making capability, the PM office developed a formal escalation procedure so that everybody knew what to do if something went wrong. Further, the department established a detailed follow-up system with green, yellow, and red symbols to track progress and identify issues that needed to be resolved. The status was published on the intranet and on electronic posters in the canteen and other places in the organization so that everybody would get information about the immediate status.

Use of the PM model was mandatory. Not all project managers did appreciate that they were forced to use the model and its very detailed following up procedures. Some of them felt that their wings were clipped in relation to creativity and personal management style. However, the central PMO and top management insisted that the company would only profit from the common approach if everybody complied. In the end, the project managers agreed that the mandatory approach was beneficial for this specific programme, as the interdependence of the project activities was big and the deadlines tight. Further, it
helped a lot that the project managers were involved in developing the model. However, in the future they would prefer a more flexible approach.

Another approach to establish a common frame of reference was to do heavy investments in PM training and certification. In the whole organization, more than 130 project managers (out of 3,000 employees) were certified since 2002. All project managers in the unit of analysis were required to participate in a certification programme in PM (IPMA levels D and C). Further, all project managers received specific mandatory training. At the time when the research project ended, all the project managers started on a mandatory PRINCE2 training course.

To supplement the common PM model, and the PM education and certification, the corporation had established formal temporary knowledge sharing groups to which people were assigned on a mandatory basis. Besides regular meetings, the project managers in the knowledge sharing groups had video supported meetings. Finally, every new project manager was assigned a mentor for a shorter period.

To sum up: This company had several mandatory elements to enhance the development of a common frame of reference concerning PM.

*Perceived value of the common frame of reference:*

Company A managed to deliver the results agreed upon in all projects included in the programme on time. Further, the quality of the project results was so high that the organization did not need the three months it had planned for rework and could spend the resources on other activities. The informants agreed that especially the PM model, the pro-
ject organizing, the following-up procedure, and the escalation procedure were beneficial. The common framework made everybody focused on progress and on solving conflicts and problems immediately.

The very well integrated implementation of the many projects made it a lot easier to take advantage of the knowledge sharing groups established, as the participants could more easily give each other relevant ideas and feedback due to the common approach. One project manager said:

"... by using this model, we could much better discuss, [because] we were in the same phases and had been through the same processes........ (Project manager company A)

The value for the company included a high rate of customer satisfaction. Further, the success with the programme and the extensive training/certification has made the department very attractive in the eyes of other stakeholders. The result was that more people from outside the department showed interest in a project manager job in the department, while other organizations (customers and independent companies) wanted company A to help them develop their own project management skills or even wanted to hire one of the department’s project managers on a temporary basis. Therefore, an unexpected value of the well-integrated PM approach was the development of a new business area, namely selling PM knowledge:

"we have sharpened our competencies in project management with among other things certification of the project managers. That means we now have bigger contracts for both
private and public organisations.” (Managing Director company A (Bjerregaard, in a profession magazine for engineers)

Finally, the project managers in the department stated that they had developed a higher self-esteem due to the fact that they realized that they had been successful in delivering the project objectives and that this was recognized inside and outside the company.

Company B

Initiatives implemented to establish a common frame of reference:

Company B is an international bank that provides financial services to customers in four countries. The bank is the result of a merger between smaller banks. The employees of the bank are located in the four countries.

After the merger, the company experienced some major difficulties when carrying out cross-national projects as each of the former banks had their own ways of dealing with projects.

To ease the accomplishment of cross-national projects the company implemented a PM model with external assistance. It built on the PMBOK, but it was customized to meet the specific requirements of the organization. PM processes were formalised to a high degree for large projects. Internal working groups made adaptations, and experienced project managers acted as reviewers. Application of the model was mandatory for cross-national projects.
Recently, the company also established a central PM unit to promote the integration of cross-organizational projects. To build up and maintain a common frame of reference, the unit carried out two-day conferences for all project managers once a year. Further, the unit introduced other integrative functions (including using English as the company language) to support a common frame of reference and a common understanding across the distributed organization.

The central PM unit offered PMI and IPMA Certification to its project managers, but this was not promoted very much. Further, internal PM education on a basic level was offered.

**Perceived value of the common frame of reference:**

The informants perceived the common PM model as the main cause for a much more smooth accomplishment of cross-national projects. Previously, project managers had to introduce new tools and techniques on their own, and several project models were in use. The number of misunderstandings was reduced and communication became much easier due to the common understanding. In the words of the project managers:

"Suddenly we speak the same language [because of the PM model]. It makes the communication easier. That we have this model contributes absolutely to the fact that we have a common understanding. This is especially important because of the Nordic dimension, where all have their own background” (Project manager company B)
"The most important part [when developing the common PM model] was to get common terms and a common language about accomplishing projects established... It was not the templates which gave the greatest benefit” (Project manager company B)

"More people than the project managers, also on the business side, have been through training activities. The result has been good and made our job easier because we use the same terms as the core persons we meet” (Project manager company B).

In addition, sponsors were very satisfied with the common model:

"The world has become easier for me, when all project managers use the same template for monthly reports. Now I know what I have to read. It saves time.” (Sponsor company B)

Further, the two-day conferences and other integrative efforts made it much easier for the project managers to share knowledge across the projects and countries.

**Company C**

**Initiatives implemented to establish a common frame of reference:**

Company C is a leader in development and production of certain types of mechanical and electronic products. The group, which is one of the largest industrial groups in Denmark, consists of 53 factories in 21 countries. It has 110 sales companies and 110 agents and distributors all over the world.
Company C implemented its project PM model in 1997 and has been continuously improving it since. If a given project had a certain size (e.g. more than 100 workdays in the IT department) or was of strategic importance, use of the model was mandatory.

Similarly, PM training for new project managers was mandatory. Training included, in particular, an instruction on the use of the corporate PM model. General project management training was mandatory too, and was held internally. Terminology and management concepts used were the same for all training efforts. For each project manager in the unit of analysis, a mandatory personal leadership programme was carried out in 2007/2008. A psychologist coached the project managers.

The training modules of Company C ended with an in-company exam. Certification was not offered.

Company C gathered all project managers every second week for meetings to discuss lessons learned in the projects since last meeting and related matters. In addition, an annual conference for all project managers was held.

Furthermore, a tutoring activity took place in which the project manager was being evaluated and given feedback by his/her tutor.

**Perceived value of the common frame of reference:**

The greatest value of the PM model and the common training in applying the model was that the clarification phase was carried out in such a way that customer expectations and the expectations of the project team were aligned as early as possible. The structured way
of discussing ideas and scope was perceived to be especially helpful. The result of a good clarification phase was that the department was able to accomplish the projects within time and budget, and that the stakeholders were satisfied with the deliverables.

Because the model had shown its value, the project managers did not have to discuss the model when starting a project in one of the company’s business units. The business unit had realized that the model was helpful, and this saved a lot of time.

Company C starts new businesses all over the world on a regular basis. It is very important that the IT platform and infrastructure work from Day 1. Because of the common PM approach, it was very easy for the IT department to help establishing the new business.

A common frame of reference was very helpful for top management because progress could be easily monitored.

**Company D**

*Initiatives implemented to establish a common frame of reference:*

Company D is one of the largest and oldest consultancy companies in the field of engineering in Denmark. The company has realized that for staying competitive it is not enough to have skilled engineers because other companies may hire good staff as well. Instead, the company wanted to develop a competitive advantage by being better at PM than the competitors. The company’s top management was convinced that this would bring high value to the organization.
Company D implemented a common PM model as a part of the quality management efforts in the company. Use of the model was optional. The company had a substantial internal PM training programme, but no mandatory instruction in the use of the corporate PM model.

The company offered certification to project managers who had completed ten days of basic or advanced PM training. Further, participants in the PM training were organized in action learning groups.

Company D had based its competence development drive on internal best practices for two out of three regional offices. Six to seven of the most successful project managers were interviewed to determine why they were so successful. Together with internal consultants, they developed seven values related to PM.

Some of the project managers were invited to meet in a best practice programme, and other action learning groups were established.

**Perceived value of the common frame of reference:**

Until now, only a few elements of a common reference frame were introduced as mandatory, and we saw a lower interest in PM here compared to the other organizations. Nevertheless, the present initiative to gather project managers to discuss best practices opened the eyes of both management and project managers who found that listening to others’ experiences gave great value.
The benefits were perceived to be so high, that the initiative was going to be implemented in the remaining regional (and larger) office. Both management and the project managers found that the common frame of reference made them appear more professional towards their customers and therefore was valuable. The company was convinced that more value would be added the more mature they got in their project management approach.

Discussion

In this section, comparisons between the case companies are offered. First, elements for establishing a common frame of reference across the cases are identified. Secondly, values obtained according to the informants are analysed.

All four organizations worked on establishing some form of common frame of reference for PM. Typically, it included four different elements:

- a common PM model including tools and methods requiring a common approach to PM. (notice that a *PM model* is valid for all projects carried out in the organization regardless of type. Thus, it differs from a *project model* that applies to a specific type of projects – and specifies the required process model, structuring of tasks, organization, tools and so on. (Swedish, Norwegian and Danish Project Management Associations, 2006). The extent of the models varied and covered most of the spectrum - from very light to heavy (Saers 2003, Cockburn 1998).
- companywide generic PM training programmes – providing a common terminology and understanding of concepts, PM methods and tools.
• tailor-made internal examination or external certification of project managers as part of their career development.

• knowledge sharing activities among project managers to enhance common approaches. However, these activities appeared to be less formal and less systematic than, say, the training and examining efforts.

The elements are consistent with recent studies of systematic competence development such as presented by Suikkia, Tromstedta, and Haapasalob (2006). However, differences in the relative weight of the elements existed. Especially, the case organizations differed in the extent to which the elements or manifestations of the common frame were mandatory or just options for the project managers to apply. Table 2 summarises the details.

<table>
<thead>
<tr>
<th>Elements of a Common Frame of Reference</th>
<th>Use in Company A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of a Common Project Management Model</td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Optional</td>
</tr>
<tr>
<td>Project Management/Leadership Training</td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Optional</td>
</tr>
<tr>
<td>Examination/Certification of Project Managers</td>
<td>Mandatory</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Formal Project Management Knowledge Sharing</td>
<td>Mandatory</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>

Table 2: Mandatory and Optional Elements

Further, perceived values related to a common frame of reference stated by the informants differed to some extent across the cases. In Table 3, all obtained values as presented by the informants are presented. The letters in the brackets refer to the single case companies.
As shown in Table 3 the case companies stated a number of obtained values due to the development of a common frame of reference concerning PM. Company A, B, and C pointed to a considerably higher number of valuable outcomes than did Company D. A major difference between D and the other companies (see Table 2) was that in D applica-

<table>
<thead>
<tr>
<th>Values obtained</th>
<th>Because a common frame of reference enhance that</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better communication</td>
<td>The number of misunderstandings is reduced (B) Communication has become much easier due to a common understanding (B) People speak the same language/share common terms (B)</td>
</tr>
<tr>
<td>Efficient use of resources</td>
<td>Less rework is required due to high quality of the project results (A) Smoother accomplishment of cross-national projects takes place (B) It is easier for the project sponsor/top management to monitor progress (due to the use of standard templates. common terminology etc.) (B, C) A structured way of discussing ideas and scope exists (C) Discussions are shorter due to the fact that the model is generally accepted (C)</td>
</tr>
<tr>
<td>Better time management</td>
<td>Projects are delivered on time (A,B,C) It is easier to help customers in a fast speed because a long preparation time is not needed (C)</td>
</tr>
<tr>
<td>Better project progress</td>
<td>Increased focus on progress develops (A) Increased focus on solving conflicts and problems immediately exists (A) Customer expectations and project team expectations are aligned early in the project course (C)</td>
</tr>
<tr>
<td>Better financial management</td>
<td>Projects are accomplished within budget (C)</td>
</tr>
<tr>
<td>Better customer satisfaction</td>
<td>Customers are more satisfied (A) Stakeholders are satisfied with the project deliverables (C) The project team appears more professional towards the customers (D)</td>
</tr>
<tr>
<td>Easier knowledge sharing</td>
<td>Knowledge sharing is easier due to a common understanding (A) Knowledge sharing is easier due to integration efforts (B) Listening to others experiences takes place (D)</td>
</tr>
<tr>
<td>Higher self-esteem</td>
<td>Project managers develop higher self-esteem (A)</td>
</tr>
<tr>
<td>Improved future possibilities</td>
<td>A new business area (selling PM competencies) has developed (A) The company obtains bigger contracts for both private and public organizations (A)</td>
</tr>
</tbody>
</table>

**Table 3: Obtained values in the case companies according to the informants**
tion of the four elements identified in relation to creating a common frame of reference was optional, whereas at least two of the elements were mandatory in the other companies.

Advantages of mandatory elements seem to be that everybody in the organization will get to know the organization’s PM approach. Many informants reported that the common approach was very helpful for the reasons summarized in Table 3. The advantages appeared to be much more important than the potential disadvantage i.e. some employees feeling forced to spend time and efforts on something that was not immediately useful. In the interviews, only a few such skeptical stakeholders were found. For example, some of the project managers in Company A said that they found some parts of the PM model too cumbersome, too bureaucratic and inflexible.

No one in the case company seemed to think that too many resources were spent on developing a common frame of reference when the benefits were taken into account. Furthermore, they stated that the frame of reference must be continually developed.

Another observation is that the case companies used a range of technical tools that allowed PM teams to apply their frame of reference, including corporate intranets. However, such tools could not ensure a productive application of the framework by themselves. The creation of a conducive atmosphere together with incentives to use the tools were necessary. As a minimum, corporate management should demonstrate their commitment to the common frame of reference.

Based on the former analysis results we propose the following three hypotheses:
H1: A common frame of reference is more easily created if more elements, i.e. a common PM model; common PM training; certification or examination; and knowledge sharing activities, are put into use simultaneously.

H2: A common frame of reference is more easily created and maintained if the elements concerning PM are mandatory.

H3: Mandatory elements concerning PM are more likely to bring a number of values to the company at hand than are optional elements.

The authors of this article invite to more research on the above hypotheses.
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