

USING PROJECT MANAGEMENT OFFICE (PMO) TO IMPROVE PROJECT MANAGEMENT ABILITIES

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Abstract

Project Management Office (PMO) is not a new phenomenon but, many questions remain about its role, implementation, relevance and value for the host companies. The purpose of this research is to check if and how can Project Management Office bring and hold value for companies. The sub-questions of this research considered the reasons for PMO Implementation, and its optimal implementation and liabilities. The technology was checked in the case study. The chosen procedure allowed collecting wide data taking into attention organizational environment and project environment. In total, 15 interviews were conducted, and 45 survey responses were analyzed. Present Project Management Offices and PMO-like inventions as well as current challenges of project management were tested, and expected value of project management was recognized. According to organizational background and recommendations from the literature, the research was made for the business about Implementation /development of Project Management Office implementation and functional.

Keywords: Project Management Office (PMO), Value of Project Management, PMO Implementation, PMO Liabilities

1. Introduction

The Project Management Office (PMO) is an organizational entity Implemented to assist project managers, teams and various management levels on strategic matters and functional entities throughout the organization in implementing project management principles, practices, methodologies, tools and techniques. The interest of the companies to develop and maintain organizational project management competency with the help of the specialized organizational entity PMO started in 1990s and stays significant these days. A recent survey-based on the

synchronic description of a large number of PMOs and their organizational contexts has shown extreme variety in both the form and function of PMOs. Many of Implemented Project Management Offices were recognized that starting from 1995. Other scholars found that many PMOs are lastly implemented when they were in the age of 1-5 years. The implementation of PMO in companies is increasing in number. The emergence of and the need for the PMO are associated with the increasing number and complexity of projects throughout the business world which led to a certain form of centralization. The project management office is a tool that addresses the need for selecting and managing multiple simultaneous projects in such a manner as to maximize the value obtained.

An organizational body or entity assigned various liabilities related to the centralized and coordinated management of those projects under its domain. The liabilities of the PMO can range from providing project management support functions to actually being responsible for the direct management of a project. Organization's project management needs are the drivers for implementing and running a Project Management Office. PMOs are specialized organizational units that play various roles and have different tasks. PMO efforts are arranged with strategic needs of the organization. Rather high degree of freedom in the way of how Project Management Office is organized, how much power it exercises and what liabilities it takes. Based on Project Management Institute functions performed by PMO can include administrative support of projects, resource arrangement of project staff, competencies development of project managers, and facilitation of communication between project's personnel. Thus, these days Project Management Office is an important subject. But, the academics argue about the efficiency of PMOs. 41% of respondents from non-Project Management Office staff found role fulfillment by PMOs in their companies moderately good or poor (ESI International 2011).

According to information about the young age of many Project Management Offices tested the frailty and repetitious transformations of PMOs. With repetition of those conclusions, adding that Project Management Office transformations observed do not reflect PMO life cycle of gradual Development.

The idea that Project Management Offices have to transform and change functions and organization in order to fit into the Present organizational needs and hold value-adding into companies was articulated by many scholars. The aim of the research project is to check if and how Implementation and performing of a PMO would bring value to a company. For achieving it, the proposed research seeks to answer the following questions:

1. What kinds of issues/problems trigger the Implementation of a Project Management Office?
2. What liabilities should the PMO have?
3. How should the Project Management Office be organized in terms of structure, size, level of authority, and personnel?

Relation between the findings and Present theories, traditions and best practices will be explored. PMO increase the potential for project success is the increasing complexity of the multi-project environment.

2. Literature Review

The use of the Project Management Office has a long history dating back to the 1930's. Lastly, the topic of PMO has resurfaced with its strong needs. Discusses key factors to achieving a project office's long-term vision. The following motivations for setting up a Project Management Office:

Improving all elements of project management and achieving a common project management approach; more efficient use of human and other resources in a multiple project environment; and improving quality (Dai, C. , Wells, W. 2004). The most popular aims of Implementation of PMO are to standardize project management procedure, improvement of information and administer control systems over the projects run simultaneously.

The five Project Management Office stages are also indicative of an organization's maturity in project management:

1. The Project Office
2. The Basic PMO
3. The Standard Project Management Office
4. The Advanced PMO
5. The Centre of Excellence

Lack of qualified project managers, problems with cost and time overwhelm in projects, and lack of comprehensive practices about a project portfolio management as triggering factors of Project Management Office implementation. It is considerable that project management standards and methods correlate with project performance (Dai, C., Wells, W. 2004). That standardized project management may drive project success. Thus, assigning project management standardization liability to PMO may lead to the goal of project management improvement.

One way of implementation and reconfiguration of Project Management Offices recognized to be organizational tensions: economic, political, standardization of project management procedure versus flexibility, raising or reducing organizational capacity to deliver projects. Different triggers guide to Implementation and transformation of the PMO, but the general aim of Project Management Office stays stable: it is improving quality of project management. About the ways to organize a PMO, describe staff approaches with no project managers, having only supportive role to projects approaches when project managers report directly to Project Management Office. According of study, generalized PMOs supply better services for virtual project managers But, the author stresses that research may be credible just for virtual project management and should not be centralized.

Project Management Office can be a virtual unit (Andersen, Henriksen, and Aarseth, 2007, p.98). Virtual PMO, the discharge of the functions of Project Management Office in the absence of an organizational entity, is the viable option for companies. The disadvantages of such a solution, according to the authors, could be possible inability to bring gradual improvements in the abilities within the organization or meet the needs, and difficulty to stay up-to-date utilizing the latest tools, techniques and technology. Three types of PMOs were recognized (Table 1):

Table 1 Types of Project Management Offices

	Type 1	Type 2	Type 3
Decision-making authority	Considerable	Less	Moderate
Number of projects	Many	Few	Most
Number of project managers	Many	Few, if any	Few, if any

The aspects of the PMO implementation that should be considered when implementing the Project Management Office are:

1. How much decision-making authority it has?
2. Is the entity distributed over the organization or grouped in one unit?
3. Where in the organization is it located?

Organization and liabilities of PMO are not static; they constantly evolve along with the changing background, new organizational needs and maturity of project management ability.

2.1 Project Management Office Liabilities

Project Management Institute suggests the range from project management support to the direct management of projects (PMI 2008). APM list the minimum functional of a PMO: administrative support and assistance to project managers; project information management; and assurance of project management processes (APM 2006). Governance and strategic management related liabilities (being mentioned in many literature sources and being an important part of a mature Project Management Office functional) were not included into the framework. This was in order to reduce the research complexity, considering that in the case organization projects are not the main part of the business delivery.

2.2 Value of Project Management Office

Hurt and Thomas (2009) state that effective PMOs can bring value to an organization by addressing specific problems of project management and, when those are resolved, hold value by changing its' goals and objectives, structures and processes. Certain elements should be in place, between them: a long-time idea; sentimental, Confidence, focused and quickly demonstrating value Project Management Office leadership; competent staff and a culture of discipline.

Performance is often used as the ultimate dependent variable in the literature on companies. After checking of the contribution of PM to organizational performance and applied competing values framework to PM in order to define the organizational performance in the background of PM and its assessment criteria.

3. Research Methodology

Qualitative approach was chosen for the given research project, as it allows collecting more wide and rich data, and ensures more flexibility rather than quantitative approach. The case

study has been conducted in an engineering Company. The organization experienced the period of rethinking its PMO. As the company has 3 rather independent projects, 3 cases were recognized for the case study research.

The data were collected through interviews with different project's personnel, as well as via survey sent to project managers. Relevant company documentation was studied to increase the validity of findings. First, the company background was overviewed to explain why the company management became interested in the Project Management Office existence and work, how the organization used to deal with projects, and how the functions traditionally associated with PMO were carried out during the research. Comparison is provided between the projects.

Then, it was recognized what kind of needs exist in the company and explored if the Implementation of Project Management Office could be a good solution. Since different PMO realization ways exist, the scholar checked what form would best suit the company.

Certain limitations to the research are related to the research procedure. The chosen research method (case study of 3 projects in one organization) does not provide the ground for statistical generalization of findings; but, it allows analytical generalization. The time and resources of the scholar were limited, which constrained the amount of the collected data and number of data sources. The attempt was made to gather good-quality data and consider perspectives of different project's personnel. The case organization is international; But, just the Iranian organization was within the scope of the research.

Aubry, Hobbs and Thuillier (2008) suggest that Project Management Office is a complex subject that could be understood as part of a historical process within an organizational background, as it is embedded into the host organization and both evolve simultaneously. Thus, case study method is considered to be more appropriate for the research, because it allows collecting highly detailed data about the processes and events.

A case study has been conducted in an engineering Company. The organization experienced interest in growing project management maturity. The study framework implies considering PMO as a part of the project management background, which is in turn placed into a wider organizational background. The first research question therefore touches upon the organizational environment (namely, such aspects of it as business, organizational features and organizational culture) and Present challenges of project management. The second research question relates to the liabilities of Project Management Office, while the third research question deals with the way of PMO implementation. The arrows indicate the assumption that Project Management Office should address the needs and challenges of project management, and perform in order to ensure value of project management.

The current PMO inventions and their effects on the project management in the organization will be highlighted, and the future possibilities will be explored. The outcomes of the research will be the description of the current situation in the company in terms of project management and the justified recommendations for the company about the development of role, liabilities and implementation of Project Management Office.

4. Case Organization

The case study is based on the Engineering Company providing engineering projects to other companies. The research was implemented at 2013 in Toseae Sanaye Tasisati Iran (TSTI) Company. TSTI Company was Implemented in 1984 by a group of engineers with extensive experience in their respective engineering fields: TSTI Company has gained wide recognition and outstanding reputation through its quality workmanship, innovative engineering and project management skills enabling it to expand from being a mechanical and electrical (M&E) contractor into a full-service engineering and construction contractor catering to major domestic and international clients.

TSTI Company ranks among Iranian's leading engineering and construction firms specializing in Engineering, Procurement and Construction of Mechanical and Electrical Services including: Residential, urban, Industrial, Oil, Gas and Petrochemical Project. The case study is based on the Company's Projects. The organization is principally divided into 3 projects.

5. Data collection

As an advantage of case study method, dealing with contemporary events allows the scholar to use full variety of evidence: documents, archival records, observations, interviews with the people involved, and artifacts. Using of multiple data sources mitigates the potential problem of construct validity. Thus, 3 types of data sources were used in the research project:

1. Documentation. Relevant document sources such as organizational charts, organizational culture survey results, the company project management procedure, and the company general management procedure were accessed via the company intranet.
2. Direct observation. Internal news published in the intranet and press-releases were reviewed in order to overview strategic goals, organizational changes and new directives and inventions related to project management.
3. Interviews and Survey. Potential project's personnel of PMO were recognized in each project, and the subject area was discussed with them and The data collected via questionnaire were used descriptively.

6. Data Analysis

There is no standardized procedure to analyze qualitative data due to their diverse nature. But, usually 3 processes are applied: summarizing, categorization, and structuring of meanings. For the survey data analysis, quantitative methods were applied depending on the type of variables. Mostly the quantitative data served for producing descriptive statistics. Only few statistical dependencies were found. For identification areas for improvement in project management (based on the survey data), Importance Performance Analysis was applied. The combined data from the company documentation, interview transcripts and descriptive survey data were summarized, partly coded and divided into categories following the conceptual framework of the research.

Project Management Office roles are spread over the organization and have different forms. Below the reader will find the description of PMO inventions in each project.

Project1: there is rather well-functioning Project Management Office on the project level with wide experience. The PMO exists since 2005; in 2010 it has been extended over the regions but centralized in Iran in 2013.

Project2: the Project Management Office is declared but is rather new and not so mature. Quality and Environment manager and PMO roles are usually embraced by one person; they are both on project and section levels. There is a need to clarify the role and liabilities of Project Management Office in order to improve project management ability.

Project3: there is a role of Planning manager, but no PMO role exists. There is an ongoing initiative of implementing a Project Office on a section level. The objectives and implementation strategy were being defined when the data were collected.

7. Discussion

Most informative discussions about cross- section projects took place in Project2 and Project3, both of them identifying a number of difficulties undertaking them.

Representatives of Project2 mentioned some potential benefits of cross- section projects:

- Spread knowledge and develop expertise
- Opportunity for better profits
- Reduce the risk of one section
- Support for project sponsor in managing resources, deliverables, quality and financials.

Project3 representatives mentioned that there is more difficult to cope with cross-projects. It is easier to reach common understanding within the Projects: firstly, some regulations are being set up; secondly, in conflict situations upper management helps to make the decision. As a conclusion, there could be political reasons for absence of common rules and regulations on cross- section projects delivery. Some sections sounded positively for this fact interpreting it as an opportunity for higher profits in case of successful negotiations. Others notify of more challenging environment for those projects and poorer performance.

In the Project1, cross- section projects were taken care of by Project Management Office; no particular difficulties were mentioned during the interview. The areas for project management improvement were recognized by analysis of the survey data. In the Project1 monitoring and control of project performance are expected to be improved. Interesting that this finding underpins the statement of the PMO responsible about temporarily freezing of projects supervision which took place before.

In the Project2, promotion of project culture and competencies development is recognized to require improvement. In addition, interviewees recognized the problems related to resources availability, and importance of using a good risk management approach.

In the Project3, additional areas for improvement are promotion of project culture and competencies development, plus some operational-level tasks. This supports the idea of Implementation of a simple, first-stage project office which is an ongoing initiative in one of the sections. Project3 interviewees mentioned the benefits they expect after Implementation of a project office: control resources; improve sales-to-delivery and delivery-to-sales processes; structured, well-defined and documented way of working. In the Project2, the interviewees mentioned that the need for high project performance is self-evident. In all 3 projects a number of liabilities from Area are rated highest in terms of desired quality of meaning that high project performance is greatly appreciated.

Interviewees in all three projects mentioned reinforcement of organization project management ability as a goal: increase project management expertise (Project3); improve delivery of bigger projects, use project management procedure and tools more efficiently (Project2). Project1 named improvement and refinement of the project management processes, and preparation of project managers with leadership and administrative skills prevailing over technical skills as a future task.

About decision-making authority, Project2 and Project3 survey respondents consider that Project Management Office needs to have more decision-making authority over projects. One survey respondent from Project1 suggests that approaches to handle projects by PMO must be adjusted to the size and complexity of the projects. Project1 and Project2 survey respondents expressed the strongest wish for a Project Management Office on the organizational level. The discussions during the interviews demonstrated different preferences: mostly, they concerned PMO on the project level. One of the challenges for an organizational-wide Project Management Office is separation of the projects: It is very fragmented company, which means that it's quite difficult to arrange people, managers in different branches around one way of working. The organization is not ready for a full-functioning company-wide PMO yet. In this background, the initiation of Project Management Office having only few objectives aimed to arrange Project1 and Project2 seems quite reasonable.

In Project1 seemed that the Present PMO is rather confident and clear about the future; it is backed up by several years of experience and rather good effectiveness. The vision of the Project Management Office is to stay a small organization, provide support to smaller projects and supervise large, strategically important and cross-functional projects. Namely, it is demanded to resume to monitoring and control of project performance and conducting project audits, and improve cross-project learning. The proposal for project2 is also to differentiate level of authority over projects depending on the types of projects: cross- section and strategically important projects deserve more attention. Thus, project categorization has to be applied. The current scheme of multiple PMOs at different hierarchical levels is reasonable. Technical project managers do not have to be arranged into one separate unit. Talking about Project3, their vision is to start Project Management Office as a small project support office on a section level in order to improve project delivery. There is no concern about taking direct liability over projects yet; thus, project managers should not be integrated into separate section at the moment. Possibly, the PMO should have more control over larger projects including several parties. The need to improve many aspects of project management process is indicated by the survey findings; but, they are not considered to be an area for external support.

8. Conclusion

The Project Management Office is an organizational entity Implemented to assist project managers, teams and various management levels on strategic matters but, uncertainty level about its role, implementation, relevance and value for the host companies is still considerable. The present research aimed to identify if and how can PMO bring and hold value, highlighting the specifics of the engineering company. The case study procedure allowed collecting wide data taking into attention organizational environment and project environment, including flow of the events. The drivers of Project Management Office Implementation or re-thinking were found to be the intention to increase project management maturity; the expected value comprises such elements as increase of profits through improved project delivery, strengthening competitive advantage and finding new business opportunities, growing competencies of the Organization and developing personnel.

The methods of Project Management Office implementation were discussed about the type of projects, decision-making authority and Project Management Office personnel. The main ideas drawn from the investigation are assigning different liabilities and level of authority over different types of projects, location of Project Management Offices in the organizational units understanding a need for it, and keeping technology-oriented project managers within their home organizational units. Regarding Project Management Office liabilities, the analysis has demonstrated that project-related competence development and cross-project learning are a potential area of Project Management Office liabilities in all the three projects. The success factors of Project Management Office are addressing specific needs of the company, clear definition and communication of Project Management Office goals, aim, role, authority, and liabilities, gradual development, strong leadership, competent personnel experienced in project management.

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