

The Effects of the Project Management Office on Companies Performance - A Case Study on a Project-Oriented Company

Shakib Zohrevandi
Department of Industrial Engineering
Master of industrial engineering
Payam Noor University of Tehran, Iran

Abstract

The purpose of this paper is to investigate the specific role of the Project Management Office (PMO) in a multi-project environment that how we can implement it with more efficiency. Research indicates that project management becomes increasingly difficult when there are many overlapping projects in a project-oriented company, resulting in a need for enhanced governance controls to increase success rates. It caused with implementation of a system that helps project management, the system named Project Management Office (PMO) that is special for companies that are project-oriented and has many overlapping projects. The Project Management Office with a special model that will explain let us to have management of multiple projects efficiently in a project-oriented company. Using a case study to test the method of research found that PMOs perform the PMO effects to different degrees and it is through performing these that the PMO delivers value to the company. After the system implementation, a qualitative evaluation was carried out by a document analysis and questionnaire application.

Keywords:

Project Management Office (PMO), Organizational Project Management, Organizational Performance, Project Management, Project-Oriented Company

1. Introduction

Companies have been faced to problem while doing multiple projects simultaneously, and eventually they could not finish them on time, so for solving this problem, I've prepared this article. I could using to implementation of project management office (PMO) and to use a special model. The Project Management Office (PMO) is an organizational body or entity assigned various responsibilities related to the centralized and coordinated management of those projects under its domain. The responsibilities of the PMO can range from providing project management support functions to actually being responsible for the direct management of a project¹. The Project Management Office (PMO) is a relatively recent phenomenon, but over the last 10 to 15 years it has become a prominent feature in many organizations². A Project Management Office (PMO), defined by Grey and Larson (2006)³ as a centralized unit to oversee project management, is often utilized. This literature review of references published between 2000 and 2012 provides mid-level decision makers a synthesis of ideas related to the role and value of the PMO.

This paper focuses to investigate the role of the Project Management Office (PMO) in a project-oriented company, with an emphasis on how the PMO is implemented in the company for the promise of increased project success. It is this collection of management, planning and review processes, as well as the associated decision rights that enables the organization to determine and establish performance metrics thus formalizing and clarifying their responsibilities of oversight and accountability (Selig & Waterhouse, 2006)⁴. This perspective has become an issue of importance in the project management literature in recent years (Miller and Hobbs, 2005⁵).

2. Research Objective

The intent of this paper was to investigate the specific role of the Project Management Office (PMO) for multi-project environment in a project-oriented company, with a special model that we can implement the PMO system according to the model structure and in the end we have a good result in project performance.

3. Literature Review

The goal of below literature review is to determine how a PMO can facilitate the application of governance principals, in support of greater project success. The intended audience is broad, including: mid-level engineering

managers, functional managers and anyone responsible for supporting project efforts and who is responsible for project performance.

3.1 Project Management Office (PMO)

The use of the PMO has a long history dating back to the 1930's (Wells 1999)⁶. Recently, the topic of PMO has resurfaced with its strong needs. (Block 1999)⁷ discusses key factors to achieving a project office's long-term vision. The Project Management Office (PMO) as an organizational entity established 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 techniques⁸.

The five PMO stages (Hill, 2004)⁹ are also indicative of an organization's maturity in project management:

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

As described by Dave Beal, Director of IT for the Comcast Oregon Market, the mission of the PMO, by any definition, is to align the various business groups within the enterprise to each other, and to any other PMOs within the organization, so as to ensure that all teams are working from one plan¹⁰. (Fleming and Koppelman 1998)¹¹ provide insights on the role of the project office in assisting project teams. (Bates 1998)¹² claims that establishment of a PMO and discusses the PMO manager role and requirements. (Whitten 2000)¹³ suggests bettering defining the PMO to get respect from the organization. Englund et al., (2003)¹⁴ declare that "As long as there is a multi-functional environment that requires the simultaneous management of numerous projects; the concept of a PMO remains valid" (p. 10). Hobbs and Aubry (2007)¹⁵ find that one of the key benefits of a PMO is the opportunity to maximize the use of finite resources across the various parallel efforts in a multi-project environment.

Implementing a PMO function may represent a significant change in organizational structure and culture. Institutions develop their unique culture because of the mix of individuals who have shared their common values and work ethics (Hauck, 2007)¹⁶. Engle (2005)¹⁷ suggests that a key goal in developing a PMO program is to develop a structure that supports a systematic, repeatable and documented set of processes. The research of Hobbs & Aubry (2007)¹⁸ and Dai & Wells (2004)¹⁹ demonstrates that PMOs are primarily geared towards doing projects right. Hobbs & Aubry (2007, p.82) found that the two most important PMO functional groups were Monitoring and Controlling Project Performance and Development of Project Management Competencies and Methodologies. These groups included functions such as:

- Report project status to upper management (performed by 83% of surveyed PMOs)
- Develop and implement a standard methodology (76%)
- Monitoring and controlling of project performance (65%)
- Develop competency of personnel, including training (65%)
- Implement and operate a project information system (60%)
- Develop and maintain a project scoreboard (58%)
- Promote project management within the organization (55%)
- Provide mentoring for project managers (49%)
- Provide a set of tools without an effort to standardize (42%)

3.2 Project Management Office Model

Dinsmore (1998)²⁰ proposes five PMO models:

1. Autonomous Project Team (APT)
2. Project Support Office (PSO)
3. Project Management Center of Excellence (PMCOE)
4. Program Management Office (PrgMO)
5. Chief Project Officer (CPO)

According to previous literature, companies have been faced to problem while doing multiple projects simultaneously, and eventually they could not finish them on time, so for solving this problem, I've prepared this article. I could using to implementation of project management office (PMO) and to use a special model, I was Able

to work and do a case study on a project-oriented company, to aid project management Order to manage multiple projects simultaneously and to finish them on time.

3.3 Organizational project management

Organizational project management is the application of knowledge, skills, tools and techniques to organizational and project activities to achieve the aims of an organization through projects²¹.

3.4 Organizational performance

Performance has its origin in the old French *parfournir* and is defined today's "something accomplished" (Merriam-Webster's Collegiate Dictionary, 2007)²². Cameron (1981)²³ suggests that organizational performance be defined as a subjective construct anchored in values and preferences of the stakeholders.

3.5 Project management

Project management was developed as a leadership concept of interdisciplinary activities with the objective to solve a temporary problem. This characteristic permits the project management to reach a high degree of innovation in the presented solutions to more complex's works (Litke, 1995)²⁴.

Project management according to Abbasi and Al-Mharmah (2000)²⁵ "is the art and science of planning, designing and managing work throughout all the phases of the project life cycle". It is also regarded as a system or process of planning, designing, scheduling, managing and controlling interconnected project activities in order to achieve specific objectives or goal within a specific time, budget and standards (Lewis, 2007)²⁶.

Project Management is an innovative management practice that tends to achieve stated or specified objectives within specific time and budget limits through optimum use of resources (Stuckenbruck & Zomorrodian, 1987)²⁷. According to the Project Management Institute, PMI (2001)²⁸ a project could be defined as a temporary endeavor to create a unique product or service and project management could be defined as the art of coordinating activities with the objective to reach the stakeholders expectations.

3.6 Project-oriented company

As used in this paper, any company or organization pursuing many project efforts at the same time; where new projects are added as others are completed. many projects are in various stages of the project life cycle; simultaneously proceeding while overlapping each other and potentially vying for the same resources (Dietrich, Järvenpää, Karjalainen, and Arto, 2006)²⁹.

4. Research Methodology

I began this paper first reviews the literature that was carried out to identify empirical studies of implementations of project management office (PMO), which indicated issues to be investigated in this field, then I began to identify management practices that some problems and difficulties in project management were identified, next I determined a method to implement of project management office (PMO) in projects that was developed by means of action research, and subsequently implemented, and finally using a case study method. Data collection was carried out through interviews, weekly observations, and document analysis. In questionnaires were used one research question: Did the method benefit the company' project management office (PMO)?

5. PMO Assessment Model

Based in the analysis of the studied company, it is possible to conclude that the PMO of this company can be characterized as a Project Management Center of Excellence. To this company the PMO is the focal point for project experience, but do not assume the responsibility for the projects results.

The PMO objectives of the analyzed company are the followings:

1. Systematic diffusion of the project management best practices
2. Project management standardization
3. To have a sufficient qualified number of project managers
4. Project management uniform culture
5. To obtain sustainable profitability
6. Improvement of the customer satisfaction (regarding time and quality)
7. Improvement of the project planning security

8. Improvement of the project controls
9. Continuous improvement of the business managed through projects

The PMO functions of the presented company are the following:

1. Providing or arranging PM training
2. Control of the hugest and most important projects
3. Providing project administrative support
4. Control of the program implementation status in the departments
5. Implementation of a project management training program
6. Develop and maintaining project historical archives
7. Implementation of a project management career
8. Developing and maintaining PM standards and methods

6. Case Application

The method was implemented in 2012 in a Company (TSTA Co) that doing projects in field of building and installation of mechanical and electrical equipments in Cities of Iran. The system was applied to three of its projects in which the goal was to implementation and develops of the project management office (PMO) system in the projects.

7. Results from Questionnaire

We used 35 people that had applied the method for presenting a questionnaire in TSTA Company. Figure 1 shows the percentile frequency of the answers regarding to the criteria. Has the system number 1? 28 people of the respondents agreed to number 1 (Providing or arranging PM training), But 7 people were indifferent or disagreed. 32 people agreed that the system has number 2, and 27 people agreed with number 3 (Providing project administrative support). Number 4 (Control of the program implementation status in the departments), the graph shows that 30 people of the respondents agreed with that. Number 5 (Implementation of a project management training program) 31 people agreed and 30 people agreed with number 6 (Develop and maintaining project historical archives). 32 people of the respondents agreed to number 7 (Implementation of a project management career), But 3 people were indifferent or disagreed and 25 people agreed that the system has number 8.

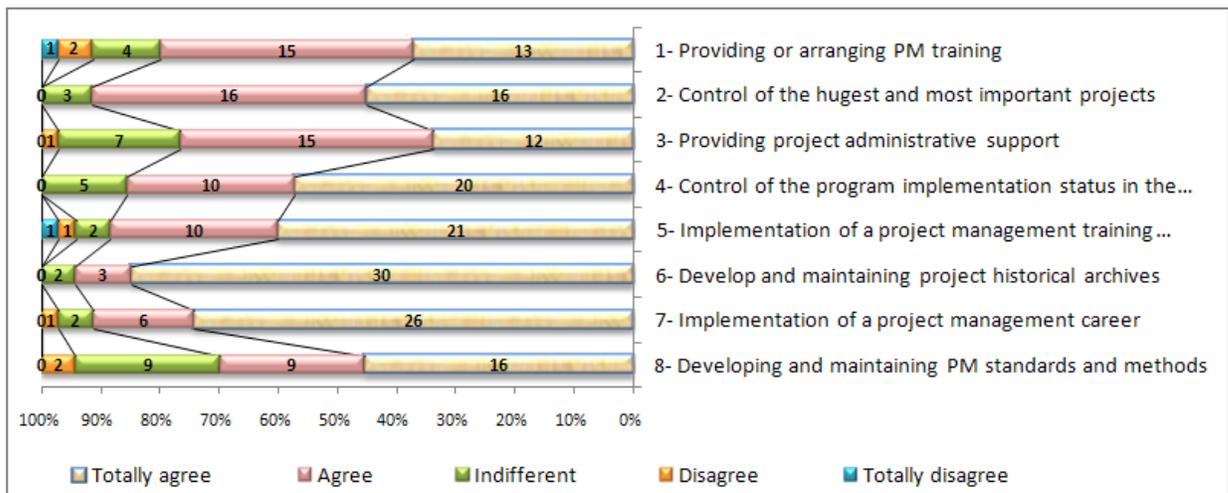


Figure 1: Results of the answers from the data interview reports

8. Conclusion

The purpose of this paper was to investigate the specific role of the Project Management Office (PMO) in a multi-project environment that how we can implement it with more efficiency with a special model. According to the results in above, we saw that most of the people in the company agreed to the system implementation results and we were able to manage several projects well. I've prepared this article because most of companies have been faced to problem while doing multiple projects simultaneously, and eventually they could not finish them on time, so for

solving this problem, I could use to implement the project management office (PMO) and to use a special model. We could answer the question that the method has benefit for project management office performance in the company. The review of the literature also makes clear that the research on this topic in general is not yet complete. And certainly there is not total agreement on the success rate of the PMO.

References

- ¹ Project Management Institute (2004), *A Guide to the Project Management Body of Knowledge*, 3rd Edition, Newtown Square, PA:PMI, (p.369).
- ² Derek Keating, PMP. (September 2009), *How Does The Project Management Office (PMO) Deliver Value To The Organisation?* (P VI).
- ³ Gray, C. F., & Larson, E. W. (2006), *Project Management: The managerial process (3rd Ed.)*, Boston: McGraw-Hill Irwin.
- ⁴ Selig, G. J., & Waterhouse, P. (2006), *IT Governance - an integrated framework and roadmap: How to plan, deploy and sustain for competitive advantage*, Retrieved Nov 20, 2007 from <http://www.technologyexecutivesclub.com/Articles/itgovernance/govroadmap.php>
- ⁵ Miller, R., & Hobbs, B. (2005), *Governance regimes for large complex projects*. *Project Management Journal Research Quarterly*, 36(3), 8
- ⁶ Wells, William. 1999. From the Editor, *Project Management Journal* 30 (March): 4-5
- ⁷ Block, Thomas. (1999). *The Seven secrets of a successful project office*. *PMNetwork* 13(April): 43-48.
- ⁸ Dai C.X. and Wells W.G. (2004) *An exploration of project management office features and their relationship to project performance*, *International Journal of Project Management*, Vol.22, 524.
- ⁹ Hill G.M. (2004) *Evolving the Project Management Office: A competency continuum*, *Information Systems Management Journal*, Fall 2004, 45-51
- ¹⁰ Dave Beal, *personal communication*, Nov 6th, 2007
- ¹¹ Fleming, Quentin and Koppelman, Joe. 1998. *Project Teams: The Role of the Project Office*, *Cost Engineering* 40 (August): 33-36
- ¹² Bates, William 1998. *Improving Project Management*. *IIE Solutions* 30 (10): 42-43
- ¹³ Whitten, Neal. 2000. *Is your PMO respected?* *PMNetwork* 14(April): 21.
- ¹⁴ Englund, R. L., Graham, R. J., & Dinsmore, P. C. (2003). *Creating the project office: A manager's guide to leading organizational change*. San Francisco: Jossey-Bass.
- ¹⁵ Hobbs, B., & Aubry, M. (2007). *A multi-phase research program investigating project management offices (PMOs): the results of phase I*. *Project Management Journal*, 38(1), 74-86.
- ¹⁶ Hauck, C. (2007). *How to choose the right project management office for your organization's culture*. Retrieved Jan 14, 2008.
- ¹⁷ Engle, P. (2005). *The project management office*. *Industrial Engineer*, 37(1), 20.
- ¹⁸ Hobbs B. and Aubry A. (2007) *A multi-phase research program investigating Project Management Offices (PMOs): The results of phase I*, *Project Management Journal*, Vol.38, No.1, 74-86.
- ¹⁹ Dai C.X. and Wells W.G. (2004) *An exploration of project management office features and their relationship to project performance*, *International Journal of Project Management*, Vol.22, 523-532.
- ²⁰ Dinsmore, P. C. (1998) *Winning Business with Enterprise Project Management*. New York: AMACOM.
- ²¹ Project Management Institute (2003), *Organizational project management maturity model*, Newtown Square, PA 19073-3299 USA.
- ²² Merriam-Webster's collegiate dictionary (11th ed.). (2007). Springfield, MA: Merriam-Webster.
- ²³ Cameron, K. S. (1981). *Construct space and subjectivity problems in organizational effectiveness*. *Public Productivity Review*, 5(2), 105-121.
- ²⁴ Litke, H.D. (1995) *Projekt-management: Methoden, Techniken, Verhaltensweisen*. München und Wien: Carl Hansen.
- ²⁵ Abbasi, Y. G. & Al-Mharmah (2000) 'Project management practice by the public sector in a developing country' *International Journal of Project Management*, 18(3), pp105-109.
- ²⁶ Lewis, J. P. (2007), *Fundamentals of Project Management*, 3rd ed, New York: AMACOM.
- ²⁷ Stukenbruck L. C. & Zomorrodian, A. (1987) 'Project Management: the promise for developing countries' *Project Management*, 5(3), pp.167-175.

-
- ²⁸ Project Management Institute. (2001) *a Guide to the Project Management Body of Knowledge (PMBok)*. Maryland: Project Management Institute Inc.
- ²⁹ Dietrich, P., Järvenpää, J., Karjalainen, J. & Artto., K. (2006). *Successful management in multi-project environment*. Retrieved Nov 11, 2007.

Biography



Shakib Zohrevandi, “I Live in Tehran/Iran, I was born at 22.Feb.1980. I’m industrial engineer and I’m studying in master of industrial engineering in payame noor university of Tehran/Iran. I will be graduated in May.2013”. I’m manager of planning department in TSTA Company in Tehran/Iran. My Proficiency is planning & project control and I've been working in that field from 2003 up to now and I did a lot of projects such as oil & gas, petrochemical, building, way and railway and I’m a member of Iranian Institute of Industrial Engineering (IIIE). I provided a paper about project management that titled “Quick Systems in Planning and Project Management a Structured Approach for developing a new project” and published it in proceeding of “2nd International Conference on Manufacturing Engineering & Management (ICMEM 2012).