Velimir Tasic

University of Warsaw

PROJECT MANAGEMENT OFFICE – TYPOLOGY AND BENEFITS

Summary: This paper formulates a research approach based on the experience of practitioners with more than fifteen years of project management (PM) experience. The author explores the created assumptions of a project management office (PMO), which underlie this research, and provides a research literature review of specific PM research originating from this perspective. The author concludes by summarizing the findings of expert interviews and providing questions into the way ahead of future research. In this way, attention is refocused on PMO learned lessons, context-dependent judgment, situational ethics and reflexivity which enables PM stakeholders to see how the relations function in the context of PMO typology and benefits.

Keywords: project management office, lessons learned, PMO typology, PMO benefits.

1. Introduction

Product portfolio innovation is required for a potentially successful business operation. *Time to market* is the main concept that challenges product innovations [Aubry et al. 2007; Aubry et. al. 2009]. Strategically, contemporary organization growth potential comes from research projects [Jamieson, Morris 2007]. Therefore, a project management office (PMO) is seen as a solution for overcoming management challenges in contemporary organizations.

A PMO as a strategic research unit and an idea integrated with contemporary organization structure has been extensively explored in the last fifteen years. The researchers discovered the PMOs in many contexts, for example: a PMO described as an organizational innovation [Hobbs et al. 2008], a PMO relationship to project performance [Xiaoyi Dai, Wells 2004], a PMO as knowledge-based archetypes [Desouza, Evaristo, 2006), a PMO as a knowledge broker [Pemsel, Wiewiora 2013], a PMO as agents and subjects of change and renewal [Pellegrinelli, Garagna 2009], a PMO in transition [Aubry et al. 2010], PMO roles and their impact on

portfolio management execution and success [Natalie Unger et al. 2012], PMO typology [Hobbs, Aubry 2008; Glückler, Aubry 2013], the effects of a centralized and decentralized PMO [Curlee 2008], identifying forces driving PMO changes [Aubry et al. 2010; Rose 2012], etc.

A PMO is a structurally integrated unit that provides services and organizational focus on project management (PM). A PMO is designed to coordinate and manage projects under a contemporary organization portfolio. A PMO is sometimes referred to as a program management office, a project office or a program office. Each PMO concept may have a different mission depending on the organization's alternative for PMO creation. A PMO is mostly created to support a specific business unit/department functional purpose, or it could have an organizationally wide focus to manage the organization projects, programs and/or portfolios.

PMBOK® Guide–Fifth Edition [PMI, 2013, p. 11] defines a PMO as "a management structure that standardizes the project-related governance processes and facilitates sharing of the resources, methodologies, tools and techniques. The responsibilities of a PMO can range from providing PM support functions to actually being responsible for direct management of one or more projects". PM as a field of science is one of the fastest growing concepts. Over the last few decades researchers have been intensively creating ideas of new paradigms and rethinking the traditional PM concept [Andersen 2006; Maylor 2006; Aubry et. al. 2009; Gustavsson, Hallin 2014].

The project managers and PMOs are a subset of the contemporary organization structure. The exponential development of information technology has been one of the reasons for the increased interest in PMOs. More and more contemporary organizations are utilizing information technology solutions in order to gain a competitive advantage on the market. The increasing complexities of projects require a more thorough management model – for some practitioners, a PMO is the only alternative.

Three experts have participated in the research. All are PM professionals and members of international PM associations. They each have on average more than fifteen years of experience working on different projects in different organizations. They strongly believe in the development of PM methodologies and in recent years have performed as main speakers at on average more than ten conferences. They come from leading industries such as information technology, telecommunications, technology for medicine and the oil industry.

The research is conducted through interviews. The interview questions are focused on a PMO and a PMO manager. The questions are defined in accordance with the research literature (journal articles) and PMBOK® Guide-Fifth Edition [2013]. In this way, the questions are compared with the research literature on these topics and the coding is guided mostly by PMBOK® [2013]. First, the questions are focused on the ideas associated with the benefits of creating the PMO

and typology of a PMO [Hobbs et al. 2008; Xiaoyi Dai, Wells 2004; Pellegrinelli, Garagna 2009; Unger et al. 2012; Müller et al. 2013; Hobbs, Aubry 2008; PMBOK® 2013]. Next, the questions are focused on the competencies of a PMO manager [Müller et al. 2013; PMBOK® 2013].

2. Methodology

The main objective of this research is to identify the specific phenomena and features of a project management office (PMO) that relate to the conceptualization of complexity, and to describe the relationship between them and the PM concept in contemporary organizations.

The research approach uses the coding of case-study write-ups in order to identify the key concepts according to "The project management office or PMO: A quest for understanding" [Hobbs, Aubry 2010], PMBOK® Guide [PMI, 2013) and the relationships between them. As a result of further development and refining of the mentioned coding grounds, the framework is proposed.

"Engaged Scholarship is defined as a participative form of research of obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems" [Van de Ven, 2007, p. 9].

Van de Ven's [2007] quotation inspired the way how the methodology for the in-depth case studies has been designed. PMOs represent a complex phenomenon not only by the variety of expressions, but also by the number of entities to which they relate in a single or multiple projects oriented organization [Hobbs, Aubry 2010].

In this perspective, a PMO could be seen as a socially constructed unit that is part of a complex organizational system. Taking that approach will give a completely new vision and mission of the PMO in a contemporary organization.

Inspired by Van de Ven [2007], the methodology proposed here brings together different points of view of the key stakeholders involved with PMOs, using a combination of qualitative (structured interview as a method) and literature review (correlated with the perspectives of existing literature on PM) instruments that permit to uncover some of the essential elements and properties of the PMO.

Three experts from four economic sectors (information technology, telecommunications, technology for medicine and the oil industry) were interviewed (details in Table 1. below). All the experts included in the sample have lead projects for internal and external customers, all have high levels of product innovation, and all have more than fifteen years of experience in the PM area.

The research questions have been modeled using a framework based on the conditions, action/interaction and consequences of establishing an effective PMO. The process was operationalized by using the structured interviews from the case studies in order to collect data for the present study. This approach supported the critical realist epistemology by identifying the underlying objective structures

through an interview-based study, and improving the subjective interpretations of the structures by using the literature review approach.

For the purpose of the research that impacts on PMO creation and the benefits from learned lessons, the first applications of PMOs have been excluded from the study due to a specific context leading to the non-generalization of findings. Even if the first applications constitute worthwhile research, the present study focuses on existing PMOs' benefits and learned lessons.

The research paper can be seen at a micro level as an investigation and an attempt to contribute to building a practical understanding of PMOs. The present state of the PMO and the PM is the product of specific organization history and can be understood best in the context of contemporary organization relationships.

The main limitation of this research is the small number of interviews with experts (the research is an ongoing activity and for the next conference several more experts will be interviewed). The advantage of this research is that the experts have more than fifteen years of PM experience.

Table 1. Description of experts' profile

Elements of research	Expert profile
Age	About 40
Book writer and contributor	All
Education	University Education
Years of experience	on average 25
PM experience	on average 15
Economic sectors	information technology, telecommunications, and technology for medicine and the oil industry

The research questions are:

1. Why do PMOs take various forms in organizations?

2. What is your main argument for creating a PMO; why should organizations implement PMO ideas?

3. Typology of Project Management Offices

According to a definition, "Typology is a system used for putting things into groups according to how they are similar; the study of how things can be divided into different types. Study of or analysis or classification based on types or categories. Study of or study based on types; especially: classification (as of personality, human physique, or bacterial strains) based on the comparative study of types" [DM 2014].

Typology is "a classification according to general type, especially in archaeology, psychology, or the social sciences; it is a study or analysis using a classification according to a general type" [OD 2014].

Simplicity is "the state, quality, or an instance of being simple" [DR 2014]. In organizational science the idea of typology is guided by idea of simplicity. Focus is put on the higher quality of understanding an organizational phenomenon by creating groups of several similar characteristics. The research case of this conference paper is the PMO as a complex organizational phenomenon.

The organizational phenomenon of the PMO keeps the interest within the PM research literature. An indicator of that trend is the evident recent research production in the subject area among specialized PM journals [Müller et al. 2013; Aubry et al. 2010; Hurt, Thomas 2009; Pellegrinelli, Garagna 2009; Hobbs, Aubry 2008]. The idea can also be extended to other PM subjects that relate to organizational PM science such as a program, a portfolio, multi-projects, business projects, etc. Mintzberg [1979] was a pioneer in the ideas of defining organizational typology. He reviewed the generous literature on this complex subject and concluded that organizations could be grouped into five internally consistent and clearly differentiated types.

The reductions of the complexity of organizations to a small number of types have tremendous advantages for those that research, design, and manage them. This chapter of the article is focused on the type of process which attempts to reduce the great diversity of PMOs to a reasonable number of types, based upon the answers from expert interviews and PM research literature review.

The PM research literature is clear about the phenomenon, although it is far from agreeing on the answers that will help professionals to solve the challenge. Criticism comes from different players. In order to avoid fashionable business models in today's popular business environment, the author has decided to ask experts and summarize the perspectives of the PM research literature. Furthermore, other researchers conclude that a PMO is still in a "ferment era and it is not stabilized yet" [Hobbs et al. 2008; Müller et al. 2013]. Crawford [2010] suggests that the researchers need to go back to what a PMO really does in contemporary organizations and "focus on PMO outcomes and examine it through a range of theoretical lenses".

The PM research literature defines different types of PMOs. One of them starts from a project resource allocation perspective and defines a single-project and multi-project PMOs. A detailed presentation is in Table 2, below [Hobbs, Aubry 2008; Hobbs, Aubry 2010].

The expert overview is an agreement on several ideas that draw a clear picture of PMO differences. Contemporary organizations do business in a significantly competitive environment. The idea of creating a PMO in an organization should come as an answer to specific opportunities that create value added to project stakeholders. Different organizations have different stakeholders and that diversity notably influences the differences among PMOs. A solution needs to be directed with the approach that project stakeholders receive higher quality services.

Table 2. "Typologies of PMO's in the literature" [Hobbs, Aubry 2010]

Author	Single-project entities	Multi-project entities		
Dinsmore (1999)	Autonomous Project Team	Project Support Office	Project Management Center of Excellence	Program Management Office
Gartner Research Group		Project Repository	Coach	Enterprise
Crawford (2002)	Level 1: Project Control Office	Level 2: Business Unit Project Office	Level 3: Strategic Project Office	
Englund, Graham, & Dinsmore (2003)		Project Support Office	Project Management Center of Excellence	Program Management Office
Kendall & Rollins (2003)		Project Repository	Coach	Enterprise "Deliver Now"
Garfein (2005)	Project Office	Basic PMO	Mature PMO	Enterprise PMO

The experts agree on the statement that "there is no one-size-fits all" when it comes to PMOs. Organizations are constantly active in the development of new advantages and innovations, and hence further influence the diversity of PMOs. PMOs are often seen as change and/or research drivers, therefore diversity is reasonably connected to the definition of creating.

4. PMO creation benefits and questions

The beginning is the most challenging period in the process of creating a PMO in an organization. The value of the PMO is dependent on the direction that is given by organization management. Different PMOs have different functions within a contemporary organization structure but all have the focus to impact positively on a project, a program and/or a portfolio product [PMI 2012].

Since the 1990s, organizations have begun to recognize that strategies and initiatives were essentially achieved via projects, organization recognition of PM models and techniques seen as a critical competency gathering place in contemporary organizations [Hurt, Thomas 2009; Hobbs, Aubry 2010]. The most notable form of establishing PM techniques in a contemporary organization is through a PMO (see, for example [Hobbs, Aubry 2007; Hobbs, Aubry 2010; Crawford 2006; Hurt, Thomas 2009; Hill 2004; PMI 2012]).

One of the interviewees starts answering with questions which are worth consulting before the start of creating a PMO:
- Why do we need a PMO?
- What will be the cost of creating a PMO?

- What is the value of creating a PMO for the organization, the customers and the project managers?
- The answer the question if an organization is ready for a PMO is a potentially successful start. If the organization is not ready, the management of the organization needs to reflect upon the PMO's ideas. Perhaps the organization is not mature enough in PM and the project managers need to spend some time with organization executives talking about the benefits of PM discipline for the organization.

PMI [2012] reported the following benefits of creating a PMO in an organization:

– Reduction of failed projects,
– Delivery of projects under budget,
– Improvement of productivity,
– Delivery of projects ahead of schedule,
– Increase of cost savings.

While some contemporary organizations question PMO establishment and rely on functional managers, senior management, or professional project managers to fulfill the responsibilities of initiating, creating, developing, maintaining, and managing PM competencies; others have developed a specialized group of professionals to take on some or all of these activities.

A PMO can take various forms and it is a research proven solution, ranging from simply providing administrative support for projects to provide coaching models (e.g. as a center of excellence for PM practices, tools, models, etc.) to act as a mature PM function whose mandate is to formally manage and deliver the projects' outcome for the contemporary organization stakeholders [Hurt, Thomas 2009; PMI 2012].

What are the main priorities for the organization (e.g. budget, schedule, innovation, delivering cost effective, etc.)? An organization strategy is a guide for establishing a PMO and matches the organization with the PMO (strategy priorities must be aligned to the PMO and vice versa). Otherwise the organization is run on two different roads, which further causes PMO failing [PMI 2012]. Understanding company key drivers is the only way that the PMO will contribute to creating new value in the organization.

The responsibilities of PMOs range widely, from providing a knowledge broker of PM best practices to conducting formal portfolio management reviews. A PMO oversight does not need be limited to project development or just projects separation (e.g. information technology projects). The PMO responsibility is to coordinate and track both the projects and services of an organization. The PMO monitors performance on service-level agreements. The PMO gives a single point of control and coordination that works for the contemporary organization.

Coming up with a PMO that works for any given organization is an activity re-quiring both customization and patience. When it comes to creating a PMO, there

are no exact road maps to follow, benchmarks to shoot for or metrics against which to measure the ideas. The most effective PMOs are those that reap improvements over time, continuously push the projects to improve on their performance and create a sustainable PM environment.

5. Conclusion

The purpose of writing this paper is to explore the challenges of projects and a PMO in the complexity of project organization system relationships and in the project research literature. Firstly, the author summarizes what is commonly associated and defined with a PMO in the PM literature (Introduction). Later, he delves deeper into the challenges, by exploring generic PMO approaches from the perspective of both PMO typology and benefits.

This research paper presents a practical contribution to the research of PM and a PMO. The expert advisors agree on the message from literature that "the PMO should no longer be considered as an isolated island within an organization" [Aubry et al. 2007]. The PMO should be seen and developed as an idea of adding a new value to a mature contemporary organization and improving the overall PM activities within the organization. The research assumption is that the PMO is a part of an organization network system of complex relationships that links organization strategy, projects-program-portfolio strategy and structures, and thus it is a unit of entry into the contemporary organization which challenges the foundations of the PM.

The paper presents a brief investigation of the creation and the reconfiguration of PMOs as an organizational advantage. A PMO typology discussion is centered on the implementation or reconfiguration of the PMO in practice. The objective of the paper is to contribute to a better understanding of PMOs and of the dynamic relationship between the PMO and the PM context in contemporary organizations. An additional objective is also to explore the creation benefits of PMOs as an organizational advantage into the mainstream of research literature on the place of the PM in contemporary organizations, and more widely to the "rethinking of project management" [Maylor 2006].

Finally, the author highlights the need for both researchers and practitioners to beware of how they describe the knowledge, dimensions, skills, challenges and various other aspects of PMOs, in such ways they ought to be open to new knowledge which may further enrich the research and theory development of PM literature as well as PM best practice.

References

Andersen E.S., 2006, *Toward a project management theory for renewal projects*, "Project Management Journal", vol. 37, no. 4, pp. 15-30.

Aubry M., Hobbs B., Müller R., Blomquist T., 2010, *Identifying forces driving PMO changes*, "Project Management Journal", vol. 41, pp. 30-45.

Aubry M., Hobbs B., Thuillier D., 2007, *A new framework for understanding organisational project management through the PMO*, "International Journal of Project Management", vol. 25, Issue 4, May 2007, pp. 328-336.

Aubry M., Hobbs B., Thuillier D., 2009, *The contribution of the project management office to organizational performance*, "International Journal of Managing Projects in Business", vol. 2, Issue 1, pp. 141-148.

Aubry M., Müller R., Hobbs B., Blomquist T., 2010, *Project management offices in transition*, International Journal of Project Management, vol. 28, Issue 8, pp. 766-778.

Crawford L., 2006, *Developing organizational project management capability*: *Theory and practice*, "Project Management Journal", vol. 37(3), pp. 74-86.

Crawford L.H., 2010, *Deconstructing the PMO*, http://www.economia.uniroma2.it/euram/pa per_view.php?id=1541p=10, Paper presented at the EURAM 2010, Rome (4.10.2014).

Curlee W., 2008, *Modern virtual project management*: *The effects of a centralized and decentralized project management office*, "Project Management Journal" vol. 39: S83–S96.

Desouza K.C., Evaristo J.R., 2006, *Project management offices: A case of knowledge-based archetypes*, "International Journal of Information Management", vol. 26, I. 5, pp. 414-423.

Hill G.M., 2004, *Evolving the project management office: A competency continuum*, "Information Systems Management", 21(4), pp. 45-51.

Hobbs B., Aubry M., 2007, *A multiphase research program investigating project management offices (PMOs): The results of phase 1*, "Project Management Journal", vol. 38(1), pp. 74-86.

Hobbs B., Aubry M., 2008, *An empirically grounded search for a typology of project management offices*, "Project Management Journal", vol. 39: S69–S82.

Hobbs B., Aubry M., 2010, *The project management office or PMO: A quest for understanding*, Newtown Square, PA: Project Management Institute.

Hobbs B., Aubry M., Thuillier D., 2008, *The project management office as an organisational innovation*, "International Journal of Project Management", vol. 26, Issue 5, pp. 547-555.

Hurt M., Thomas J.L., 2009, *Building value through sustainable project management offices*, "Project Management Journal", vol. 40(1), pp. 55-72.

Jamieson A., Morris P.W.G., 2007, *Moving From Corporate Strategy to Project Strategy, in The Wiley Guide to Managing Projects*, eds. P.W.G. Morris, J.K. Pinto, John Wiley Sons, Inc., Hoboken, NJ, USA.

Karrbom Gustavsson T., Hallin A., 2014, *Rethinking dichotomization: A critical perspective on the use of "hard" and "soft" in project management research*, "International Journal of Project Management", vol. 32, Issue 4, pp. 568-577.

Maylor H., 2006, *Special Issue on rethinking project management* (EPSRC network 2004–2006), "International Journal of Project Management", vol. 24, Issue 8, pp. 635-637.

Mintzberg H., 1979, *The structuring of organizations*: *A synthesis of the research*, Englewood Cliffs, NJ, Prentice Hall.

Müller R., Glückler J., Aubry M., 2013, *A Relational Typology of Project Management Offices*, "Project Management Journal", vol. 44, pp. 59-76.

Müller R., Glückler J., Aubry M., Shao J., 2013, *Project Management Knowledge Flows in Networks of Project Managers and Project Management Offices*: *A Case Study in the Pharmaceutical Industry*, "Project Management Journal", vol. 44, pp. 4-19.

Pellegrinelli S., Garagna L., 2009, *Towards a conceptualisation of PMOs as agents and subjects of change and renewal*, "International Journal of Project Management", vol. 27, Issue 7, pp. 649-656.

Pemsel S., Wiewiora A., 2013, *Project management office a knowledge broker in project-based organisations*, "International Journal of Project Management", vol. 31, Issue 1, pp. 31-42.

PMI, 2012, WHITE PAPER, The Project Management Office, In Sync with Strategy. Project Management Institute (i. The State of the PMO 2010, PM Solutions. Results based on more than 290 respondents from around the world and across a variety of industries, including PMO leaders, team members, project and program managers. ii. 2011 Pulse of the Profession, Project Management Institute. Results based on a survey of more than 1,000 PMI members and credential holders. iii. The Global State of the PMO: Its Value, Effectiveness and Role as the Hub of Training, ESI, March 2011. Results based on a survey of more than 3,700 respondents from around the world. iv. The State of the PMO in 2011, Forrester Research. Results based on an online survey of 693 PMO leaders conducted from April to May 2011 in conjunction with PMI's Program Management Office Community of Practice).

Project Management Institute (PMI), (2013). A Guide to the Project Management Body of Knowledge (PMBOK® Guide)-Fifth Edition, p.11.

Rose K.H., 2012, *Identifying the Forces Driving Frequent Change in PMOs*, "Project Management Journal", vol. 43, pp. 103.

Unger B.N., Gemünden H.G., Aubry M., 2012, *The three roles of a project portfolio management office: Their impact on portfolio management execution and success*, "International Journal of Project Management", vol. 30, Issue 5, pp. 608-620.

Van de Ven A.H., 2007, Engaged scholarship: Creating knowledge for science and practice, Oxford University Press, Oxford, UK.

Xiaoyi Dai Ch., Wells W.G., 2004, *An exploration of project management office features and their relationship to project performance*, "International Journal of Project Management", vol. 22, Issue 7, pp. 523-532.

DM (2014) – http://www.merriam-webster.com/dictionary/typology (4.17.2014).

OD (2014) – http://www.oxforddictionaries.com/definition/english/typology (4.17.2014).

DR (2014) – http://dictionary.reference.com/browse/Simplicity?s=t (4.17.2014).

BIURO PROJEKTÓW – TYPOLOGIA I KORZYŚCI TWORZENIA

Streszczenie: W artykule zaprezentowane zostało podejście badawcze wynikające z ponad piętnastoletnich doświadczeń zarządzania projektami (Project Management PM) Autor prezentuje założenia dla tworzenia biura zarządzania projektem (PMO), które leżą u podstaw tego podejścia. W artykule dokonano przeglądu literatury poświęconej prezentacji badań dotyczących istoty tworzenia PMO w procesie zarządzania projektami. W podsumowaniu artykułu autor przedstawia wnioski dotyczące opinii ekspertów na temat typologii oraz korzyści wynikających z tworzenia biur zarządzania projektami.

 Słowa kluczowe: biuro projektów (PMO), typologia PMO, korzyści tworzenia PMO.