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## Proposal for typology and definitions of service categories in a general PMO model

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### Abstract

The strategic importance of project management offices (PMOs) is not questionable therefore identifying the most specific and noticeable evaluation segments of PMOs leads to a better understanding of PMOs. As a starting point in our earlier publication along with the quest for the determination of a standardized, integrated, and comprehensive framework, we defined a PMO model summarizing grounding ideas of our research. This complex PMO model contains six building blocks that describe the complex role and status of PMO within the organization: the context (the environment of the PMO), the typology, the maturity, the internal processes of the PMO, the services, and the performance (the metrics of the PMO).

This study concentrates on the services and the typology of a PMO, based on a deep dive in the different approaches of these two categories. We achieve this first by elaborating a clear description of them and secondly by analyzing the relationship between them and the other categories of the model.

In our model, among the six categories 'typology' has the most direct connection to the organizational structure that a PMO serves. Following the analysis of state-of-the-art and relevant publications about this category, we recognized that the typology has various definitions leading to diffuse meaning. This research clarifies this concept to give a proposal for the exact definition of typology. Publications on PMO 'services' do not emphasize the definition itself enough. Instead, they focus on the PMO responsibilities within an organization, the needs, and the objectives to achieve. Our research provides a collection of all the service elements, and different grouping concepts of them. In his study we suggest a unified list of PMO services, their descriptions, and a grouping approach in line with the aim of PMO operation.

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### 1. Introduction

The purpose of this research is to provide a developed, integrated new framework for PMOs, which measures the processes more accurately. In order to achieve this goal, we need to define a model; it is difficult because PMOs have a double nature. On the one hand, they have to be considered a stable, unchanged organization, but on the other hand, they have to be examined as constantly changing organizations, too. Our model grants an opportunity to benchmark PMOs of other companies.

We build our proposed model on an extensive literature review rather than the usual questionnaire-based solutions, and perform the analysis and processing using a mixed, qualitative and quantitative method. In the quantitative part of the research, we analyze the articles as survey elements quantitatively (count them), and build and interpret the model like this. In addition, a qualitative approach should also be used for the sake of completeness (e.g. What are the roles within a PMO? How do we structure them?). In establishing the model, different, already published PMO approaches,

models and their structure and building blocks have to be interpreted. In our work, we unified the information from the very diverse literature background.

Monteiro, Santos & Varajão (2016) listed many different terms around the PMO, based on the database search in their research: i.e., type, model, typology, typologies, framework, functions, roles, organizational project management, project management maturity, and project governance [1]. This one is a demonstrative and persuasive example for cleansing the terminology that we are researching, analyzing, and proposing in our work. Based on our extensive literature overview referring to our earlier described model [2], we set a terminology catalog on the PMO (Table 1).

Table 1. Terminology catalog for the Model/System.

Model/System						
Structural elements	Types	Services	Own Processes	Context	Maturity	Performance
Building elements						
Components						
Relations	Categories	Services	Internal processes	Environment	Properties	Indicators
Connections	Natures	Functions	Operation	Governance rules		
Links	Configurations	Capabilities		Project culture		
		Features				
		Roles				
attributes						

## 2. Typology

In different dictionaries the definition of “typology” on one the hand is a classification of elements according to their characteristics, structural features, and specialties, describing the distinctions between them, and on the other hand it is the branch of knowledge that deals with classes with **common characteristics**. According to Mintzberg, typologies are useful when dealing with complex phenomena, and the study of organizations. He concluded that organizations could be grouped into five internally consistent and **clearly differentiated** configurations [3].

Table 2. Merging terms.

Terms are merged	To	Comment from the original publication
Business Project Office	Business Unit PMO	
Functional PMO	Business Unit PMO	
Headquarter PMO	Enterprise PMO	
Business PMO	Global PMO	Delocalization strategy
Federated PMO	Global PMO	
Project Repository	Knowledge PMO	
Technical PMO	New Product Development PMO	Focused on technology that is changing rapidly
Supporter	Project Support Office	

In our case, the type of PMO is a central component, but it is still only one of the 6 building components of our model, therefore the typology definition should follow the characteristics described above, and should not incorporate the attributes from other structural elements (i.e., services – authors use the major classification of services offered by the PMO).

We have collected and summarized several „typologies” of the PMO found in the literature. Monteiro, Santos & Varajão [1] gave a good basis for our typology list. We checked their assessments reviewing the referred publications and modified the classification if we noticed discrepancy.

Based on the typology assessment of 20 publications, 38 kinds of PMO are named with 95 instances of mentioning. Details can be found in Appendix A. While studying the results, we recognized similar wordings and terms. We made the merges in Table 2 with the following rules:

- Categories of two rows cannot be merged if within a given publication two categories were differentiated even they can be candidates for merging based on the approaches in other publications.
- Real interpretation of the content of terms should be cross-checked in the original source before the merge.

An important and interesting term is ‘validation’. In the description of the Project Management Strategic Integration Office (PMSIO), we can find the “translation of the business/strategy demands”, which means that this PMO type provides an advanced kind of a recent trend, business analyst support. Therefore, built on this interpretation, we renamed PMSIO to Business Analyst Services. After reworking the sheet in Appendix A based on these modifications and taking into account the occurrences, we got the top mentioned types of PMO. (Table 3)

Table 3. Top mentioned types of PMO.

Types	Occurrence	Before 2010	After 2010
Enterprise PMO	13	6	7
Program Management Office	9	5	4
Project Support Office	9	5	4
Business Unit PMO	8	2	6
Center of Excellence	8	5	3
IT PMO	5	1	4
Project Office	5	2	3

Monteiro, Santos & Varajão (2016) and Hobbs et al. (2010) raise the phenomenon of ‘changing in time’ of the preferred or operated PMO models [1], [4]. To test this hypothesis, we split all the occurrences of the most established PMO types into two categories: before and after the year 2010. The timing dimension did not give a really new classification point, only the occurrences of the Business Unit and the IT (Information Technology) PMOs show significant differences. (Table 3) In our general model typology point of view we are considering IT as a business unit.

While reviewing the remaining “types” of PMO in the list, in the literature we recognized that they were differentiated on a diverse basis: many times, the service or other components of our model was the differentiating factor, the “differentia specifica”.

In Table 4 we summarized these “non-types” according to the elements of our model. On the other hand, these attributes are proper and valid inputs for analyzing and building up these model elements.

Table 4. Non-types elements.

Services	Own Processes	Context	Maturity
Consulting PMO	Knowledge PMO	Global PMO	Basic PMO
Information Manager	Controller	Country PMO	Standards PMO
Project Coaching	Delivery Service	Regional PMO	Advanced PMO
Business Analysts			Mature PMO
Change Operations			
Coordinator			
Planning			
Portfolio Management			

The classification in Table 4 is easy to follow, understand and accept, only the Context column needs some further explanation. While the top ranked types refer to the organizational role of the PMO, the attributes listed in the Context column show a geographical approach. If the organizational and geographical differentiation appear parallel, it is better to use the organizational distinction because from our point of view the PMO should be considered as an organizational

entity rather than a geographical one. If they are different, the geographical impact can be calculated as a contextual element of the PMO.

After this cleansing, some types with a low number of mentions remain. We consider these as part of the typology (as they cannot be included in the other elements of the model); however, because of our strict merging rules we cannot consider them as major types.

Following the merge, the New Product Development PMO has 2 occurrences, while the Customer Group PMO and the Division PMO both have 1 occurrence.

Reviewing the description of these PMO types in the original publications, we can see that

- New Product Development PMO is a real Business Unit PMO.
- Division PMO can incorporate more than one Business Units.
- Customer Group PMO is a Business Unit PMO with a specialty providing not only internal services.

Our conclusion concerning these items is that on the one hand at our level of abstraction in our typology they belong to the Business Unit PMO line, and on the other hand they indicate the difficulties of modeling because of the diversities of PMO in types and services. In our research we reached the following list of potential types of our typology:

- Enterprise PMO
- Program Management Office
- Project Support Office
- Business Unit PMO
- Center of Excellence
- IT PMO
- Project Office

Thinking the list above further, we concluded on the following typology.

1. **Dedicated PMO:** project or program PMOs operate as temporary entities in an organization – because of its more general naming, we can use this category for typifying the special type PMOs;
2. **Business Unit (BU) PMO:** responsible for providing service for a specific unit of an organization (including divisions, departments) especially IT (as BU). Frequently this is the ordinary PMO.
3. **Enterprise PMO:** responsible for the alignment of projects/programs with corporate strategy (sometimes it is also called Strategic or Global PMO)
4. **Project Support Office:** provides enabling processes for the organization;
5. **Center of Excellence:** provides tools, standards and methodology for project managers (sometimes also referred to as Center of Competency).

The defined PMO types can provide different services based on their own specific operation and process, they can be on different maturity level and their performance evaluation can be based on their independent mission. They are definitely impacted by their organizational environment.

### 3. Services

As we have highlighted in our typology section, the services a PMO is providing is very much dependent on the type of PMO we consider: the services provided are dependent on its responsibilities within an organization, the objectives of the office as well as the means needed to reach them. The services provided have to be maximally aligned with the strategy and needs of the organization they are supporting. Literature reviews in this area make a considerable effort analyzing one or more service groups a PMO is providing; as already stated, our goal in this paper is to consolidate them.

#### 3.1. Definition of Services

Artto et al. (2011) have pointed out that a PMO is typically considered a specialized formal organizational unit that is responsible for some specific task(s) [5]. Therefore, a PMO is considered a specialized unit being just one in a group of many mechanisms for integration. It is an integrative structure and organizations do not necessarily have a PMO but they have arrangements that provide these services. Therefore, even if a formal PMO does not exist, the services

provided are required in all project driven organizations. The responsibilities of the PMO can range from providing project management support functions to actually being responsible for the direct management of a project [6]. When discussing the basic roles of a PMO, Müller et al. (2013) have identified the services as one of the 3 elements besides control and partnership [7].

### *3.2. Elements of Services*

In the literature that we have reviewed, the authors have identified several services and service groupings that a PMO can provide. We have listed these services and assigned them into groups. We have followed the following rules while assigning them to groups:

- One service can only be part of one group.
- The content of the service group is the main driver.

Based on this activity, we have identified 5 Groups. After re-assessing our grouping, we propose the following 4 groups of Services that a PMO can provide (Appendix B):

- Operation support services (Group 1 + 2). In this group we consider all activities that are related to the support of the PM activities of an organization: standards, processes, methodologies, administrative support, and reporting.
- Monitoring and controlling services (Group 3). All financial activities related to a project are in this group: controlling activities, financial monitoring, profitability and productivity checks, and budgeting.
- Human resource management services (Group 4). The services in this group are all related to the human capital of the organization: training, talent management, benefit management, HR consulting services and knowledge management.
- Strategic and portfolio management services (Group 5). This group contains all activities linked with the alignment of the PMO to the strategy of the organization it is supporting: evaluation and selection of projects, program management, portfolio management, communication management and quality management. This service group has a high dependency on maturity (one element of our model): the more mature the PMO is, the more services from this group are provided.

## **4. Conclusion**

In one of our earlier papers, the starting point of our research was a definite standardized, integrated, and comprehensive PMO framework. Building on the model containing six building blocks, this paper focuses on the categories typology and services, processing the wide range of literature sources quantitatively and qualitatively.

Our plan is to continue the bottom-up analysis of the building elements and create a well-established definition of the attributes of the elements based on a wide literature analysis and practical approach including incorporating knowledge from portfolio management software applications and algorithms.

One of our important observations during analyzing the typology and services is the dependencies and relational connections among the elements of our model. We are going to research this relation aspect deeply after detailed definition is finished.

**Appendix A.**

Source of analysis	4	1	1	2	1	2	3	2	2	3	1	3	3	1	2	3	2	3	2	3			
1 - Assessment by Monteiro, Santos & Varajão (2016) 2 - Assessment by Monteiro, Santos & Varajão (2016) with the authors' review 3 - Authors' assessment 4 - Referred by Hobbs & Aubry (2007)	Dinsmore (1999) [8]	Englund, Graham & Dinsmore (2003) [9]	Kendall & Rollins (2003) [10]	Garfein (2005) [11]	Letavec (2006) [12]	Desouza & Evaristo (2006) [13]	Hobbs & Aubry (2007) [14]	Gartner - Fitzgerald (2008) [15]	Hill (2008) [16]	Hobbs, Aubry & Thuillier (2008) [17]	Kerzner (2009) [18]	Pinto, De Matheus Cota & Levin (2010) [19]	Gartner PPM Predicts (2010) [20]	Crawford (2011) [21]	Junger, Gemünden & Aubry (2011) [22]	Hubbard & Dennis (2012) [23]	PMI Pulse of Profession (2013) [24]	Müller, Glückler & Aubry (2013) [7]	Hubbard & Bolles (2015) [25]	Tsatryan & Müller (2015) [26]	occurrence	before 2010	before 2012
Advanced PMO									x												1	1	0
Basic PMO				x					x							x					3	2	1
Business PO																		x			2	0	2
Business Unit PMO										x		x		x			x		x		5	1	4
Center of Excellence	x	x					x	x	x							x	x		x		8	5	3
Change Operations													x								1	0	1
Coach						x															1	1	0
Consulting PMO					x					x											2	2	0
Controller														x	x						2	0	2
Coordinator															x						1	0	1
Country PMO																		x			1	0	1
Customer Group PMO											x										1	1	0
Delivery Services			x													x					2	1	1
Division PMO																			x**		1	0	1
Enterprise PMO			x	x				x		x	x	x	x	x		x	x*		x		12	6	6
Federated PMO								x													1	1	0
Functional PMO											x										1	1	0
Global PMO																		x			1	0	1
Headquarter PMO																		x			1	0	1
Information Manager						x										x					2	1	1
IT PMO									x				x			x		x		x	5	1	4
Knowledge PMO					x	x															2	2	0
Mature PMO				x																	1	1	0
New Prod. Dev. PMO																x					1	0	1
Portfolio MO																x					1	0	1
Program MO	x	x					x	x		x		x				x	x		x**		9	5	4
Project Coaching			x																		1	1	0
Project MSIO																		x		x	2	0	2
Project Office				x					x				x				x		x		5	2	3
Project Repository			x																		1	1	0
Project Support Office	x	x					x	x								x	x		x		7	4	3
Regional PMO																		x			1	0	1
Standards PMO					x				x												2	2	0
Strategic Project Office																x		x		x	3	0	3
Supporter						x									x						2	1	1
Business PMO										x											1	1	0
Technical PMO										x											1	1	0
Planning PMO										x											1	1	0
<b>Summary</b>																					<b>95</b>	<b>46</b>	<b>49</b>

**Appendix B.**

Group	Source:	[5]	[24]	[27]	[14]	[28]	[29]	[30]
	Service Groups:							
1	Managing practices [5]							
	Standards, Methodologies, Processes [24]							
	Knowledge Management [24]							
	Organizational Change Management [24]							
	Stability in processes [27]							
	Flexibility / adaptation / innovation in project management [27]							
	Assessment by external entities [27]							
	Links with external environment [27]	x	x	x	x		x	x
	Readiness [27]							
	Development of skills and methodologies in project management [14]							
	Gathering data about project progress and producing reports [29]							
	Developing standards and processes [29]							
	Encouraging (or enforcing where necessary) the use of those standards and processes [29]							
	Developing and maintaining PM standards and methods [30]							
Developing and maintaining project historical archives [30]								
2	Providing administrative support [5]	x	x					
	Administration and support [24]							
	Providing project administrative support [30]							x
3	Monitoring and controlling projects [5]							
	Project/Program Delivery Management [24]							
	Control [27]Profit [27]	x	x	x	x		x	
	Productivity [27]							
	Monitoring and controlling of Project performance [14]							
Managing resources for projects [29]								
4	Training and consulting [5]							
	Talent Management [24]							
	Value of human resources working in a project [27]							
	Organizational learning [14]							
	Knowledge transfer and learning [28]							
	Team Management [28]	x	x	x	x	x	x	x
	Delivering training and mentoring to project team members [29]							
	Tracking and managing project benefits [29]							
	Providing human resource/staffing assistance [30]							
Providing PM consulting and mentoring [30]								
Providing or arranging PM training [30]								
5	Evaluating, analyzing and choosing projects [5]							
	Portfolio Management [24]							
	Governance and Performance Management [24]							
	Strategic Planning [24]							
	Planning in goals to reach [27]							
	Efficiency [27]							
	Growth [27]							
	Conflict resolution and search for cohesion [27]	x	x	x	x	x	x	
	Output quality [27]							
	Information and communication management [27]							
	Managing multiple projects [14]							
	Strategic Management [14]							
	Project Portfolio Management [28]							
	Communication Management [28]							
Managing dependencies across multiple projects [29]								

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