Framework for Project Management Office (PMO) as a governance beneficiary and executer in complex organizations

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Abstract

Project management literature provides detailed classifications of PMO types under different organizational structures and explores functions and levels of integration between PMOs in multi-PMO environments. PMI introduced a detailed governance framework and presented PMO as an integral component in the project, program, and portfolio environment. The main drawback was to determine the integrations between PMO levels and the desired results from each PMO in a decentralized model.

This paper intends to provide a literature review of project management offices' role in projects, programs, and portfolios under complex organizational structures and link the PMI governance model to overall organization structure to deliver a simplified scalable framework, that provides clarity and flexibility through integrating PMO in corporate structure and align project deliverables to strategy.

Keywords

Governance, Project Management, Project Management Office, PMO.

1. Introduction

1.1 Strategy and Strategic Goals

Oxford online dictionary defines Strategy as "a plan that is intended to achieve a particular purpose" (Oxford university press, 2022). Strategy is a sort of long-term plan (Serra & Kunc, 2015), or "Organization's game plan" (Crawford, 2011), in some organizations, what is called strategy is only a list of wishes ('Crawford, 2011), Strategy is developed to meet specific objectives ('Tjahjana et al.), good strategy provides value to stakeholder (Serra & Kunc, 2015).

Developing strategy is a complex and dynamic process, furthermore, establishing a coherent project management process aligned with corporate strategy is essential to translate corporate strategic objectives into the projects. There is a shortage in the current literature research that links corporate strategy to project execution, most of the research accessed by the author covers the strategic alignment but does explore the translation of the strategy into programs and projects (Aubry et al., 2007),(ul Musawir et al., 2020).

Due to the project's nature as a temporary endeavor, projects fragmentation, difficulties to link strategy to projects in addition to the difference in perspective between top management and the project managers, all those challenges create difficulties to pursue long-term objectives or to measure the project's contribution to strategy (ul Musawir et al., 2020).

1.2 Project, Program, and Portfolio (3Ps)

PMI defines the project as "a temporary endeavor undertaken to create a unique, product, service or result ", Program is "a group of related projects, subprograms, and program activities that are managed in a coordinated way to obtain benefits not available from

managing them individually "and Portfolio as "projects, program, sub-portfolios, and operations managed as a group to achieve strategic objectives " (Project Management Institute, 2013).

Projects are a "structured process" and "deliver specific output", Program manages "Several Projects" ('Tjahjana et al., 2009), or could be assumed as a large project (Taylor, 2011, p. 12). We can notice that some literature is using program management and portfolio management interchangeably which adds complexity to the context (Aubry et al., 2007), Portfolio in other publications is defined as a group of programs or projects managed by the organization ("PRINCE 2," 2009, PRINCE2 defines Benefit as "The measurable improvement resulting from an outcome perceived as an advantage by one or more stakeholders" ("PRINCE 2," 2009), Benefit as "An outcome of actions, behaviors, products or services that provide utility to the sponsoring organizations as well as the program intended beneficiaries " (Project Management Institute, 2013), Association for project management links benefits to change " positive and measurable impact of change" (Association for Project management, 2022).

1.3 Project, Program, and Portfolio management

The PMI standard for Program management differentiates between Project and Program based on two criteria, "Uncertainty" as the program may not have a full scope definition upon initiation and will try to adjust the program outcome to align with the "Intended benefits". The second criterion related to "Change", project change is the activities that monitor and control schedule and cost, while the change in program management aims at managing the components in a "forward-looking "and "proactive manner" (PMI, 2.3 Program and Project Distinction, 2013).

To distinguish the program from the portfolio PMI proposes two criteria "Relatedness" and "Time", where programs are initiated to achieve "program outcomes and intended benefits" while the portfolio is linked to the achievement of "strategic objectives" (PMI, 2.4 Program and portfolio distinctions, 2013), Portfolio is linked more to strategy, but needs understanding of project and programs management ('Crawford, 2011, p. 124).

On the organization structure the PMI Proposes portfolio management "depicts" the relationship between the strategy and programs and projects management, where the portfolio has a "parent-child relationship" with its components (PMI, 2013, para. 3.1) . PMI illustrates this structure (PMI, 2013, figs. 3–2), Deloitte enterprise management framework uses the same structure (without operations under portfolio) and cascading top -down the strategy translation, while cascading up benefits realization (Kerzner, 2014, figs. 15–37). A simple illustration of organization structure cascaded down from strategy to projects and operations level is shown in Figure (1) below.

Fig. 1 Simple illustration of organization structure where strategy is cascaded down to projects and operations level.

1.4 PMO and organization maturity

PMO is "an organizational structure that provides support to the business units that deliver projects, programs and /or portfolios" (Association for project management, 2022), or "an organizational entity operating independently or with other PMOs, offering mandated services and non-mandated services with responsibilities relating to the delivery and management of those services " ('Joslin, 2022). The definitions create confusion as the PMO, for example, in small organization the PMO could be a centralized unit, whereas in complex and large programs multiple program management offices could be established (Project Management Institute, 2013).

Q: Do we need to measure organization maturity ahead of creating a 3Ps management office?

Theoretically, it is easy to measure how mature an organization is it is not. The absence of an agreed definition of organization maturity is attributable to the non-agreed definition of "project success", in addition to the relevance of the different models to the researched organization (Cooke-Davies, 2004).

Several Authors agree on the importance of an initial assessment of the organization's maturity and defining the benefits expected from the establishment of the PMO (Tjahjana et al., 2009) (Crawford, 2011). Software engineering institute capability maturity model and PMI model (OPM3) are widely recognized models to measure project management maturity, PMI maturity model aims to integrate, assess and improve project management practices (Anantatmula & Rad, 2013), (Yazici, 2009).In their detailed comparison between project management models (Khoshgoftar & Osman, 2009) they found only 3 models (OPM3,

P3M3, CMMI) out of 9 cover the assessment of the 4 areas of interest for PMO framework (strategy, Portfolio, program, and project's management).

PMO is a supportive unit and not a rigid administrative structure as viewed in organizations that are not mature (Anantatmula & Rad, 2013) several previous studies found no correlation between the establishment of a project management maturity model and project performance (Yazici, 2009),

('Joslin, 2022, Chapter 3) suggests creating a capabilities catalog of current services provided to define direct and indirect areas of control and influence of PMOs, the author offered the ad hoc, Audit, or full assessment approach to design the services needed.

1.5 PMO and Organizational governance

Q1: How are PMO functions related to organizational governance?

Q2: Is PMO a governance implementer or a receiver?

Governance means "direct and control", and project governance is "The system by which the organization is directed, controlled and held account" (McGrath & Whitty, 2015). Governance is part of board functions and is separated from management, governance is to be delegated to different levels in the organization to enable the successful delivery of projects (Too & Weaver, 2014).

Although project governance was recognized for a long time, only recently used in the project management field (ul Musawir et al., 2020), governance theories haven't been implemented in project management to the same extent founded in other management and technology fields (Biesenthal & Wilden, 2014).

To complete an understanding of the proposed framework, we will review the PMI Governance model to determine the roles of PMO on the three levels (Portfolio, program, and project).

PMI defines 3Ps Governance as "the framework, functions, and processes that guide ", "Project", "Program", "Portfolio", "management activities to"," Create a unique, product, service or result"," deliver business value"," optimize investments"," to meet organizational strategic and operational goals".

The PMO may "assume governance functions "on different levels in the organization, the functions vary from oversight, control, or develop governance roles (PMI Governance, 2016, para. 2.4.5), PMI OPM governance has four domains "Alignment", "Risk"," Performance", and "communication" with four functions "Oversight", Control", "Integration" and "Decision making" (PMI Governance, 2016, para. 2.5), through further discussion PMI portfolio governance relationships diagram (PMI Governance, 2016, Figs. 3.2) explain the integrated relations between different levels, where performance reporting, escalation, and managing governance framework are dedicated to achieving "strategic targets" (PMI Governance, 2016, para. 3.3.2).

PMI describes the OPM governance interactions with different levels, but without linking them to PMOs function (Institute, 2016, Figs. 2.2), while others clarify the role of governance on different levels and define the PMO position in the framework without clarifying the integration between different PMOs (Too & Weaver, 2014).PMI defines the PMO function as a supporter of PPP, an "entity to maintain process standards ", or a "governance recipient or implementer(PMI Governance, 2016, para. 2.4.5).

The main functions of PMO in the governance model are: "Oversight" "Provide guidance and direction", "Control" "Establish appropriate Controls, Audit, Reviews" "Integration" "Integrates strategy with Execution", Decision making: "Establishing a decision-making process" (PMI Governance, 2016, para. 2.5). The proposed framework will assume PMO as a governance recipient and implementer.

1.6 Types of PMOs and PMOs integration

The status of the PMO in the organization structure affects the level of responsibilities and authority granted by management, Habib explains the position of PMO in different organization structures derived from PMBOK, third edition, and defines 3 levels of PMO which are similar PMI three distinct Categories (Supportive, Controlling and Directive) (Tjahjana et al., 2009, Chapter 3), (Taylor) defines the three PMO types through their functions, where, supportive PMO main function is to share project information, controlling guarantees discipline across project activities and directive PMO assigns project managers and manage progress.

Taylor offers another concept for PMO "Blended", where the PMO office deploys the three modes to respond to changes in different programs and projects (Taylor, 2011, pp. 20–24). Taylor and Mead argue that while the Supportive type could be considered as a reporting office, controlling and directive types may appear as additional bureaucratic layers and face challenges in gaining business support (Taylor & Mead, 2015, Chapter 8). The author suggests deploying blended PMO in the proposed framework to respond to internal and external changes.

Decentralizing PMO across the organization is a common practice, several questions are raised in similar cases related to spreading control and authority, internal coordination, stakeholder management and processes for reporting, risk management, and issues escalation and level of integration.

PMOs aren't isolated organization units, they are a vehicle to share knowledge (Aubry et al., 2011). Organizational integration (OI) could be formed on different levels internally or externally, on function or operation level. OI faces several barriers including specialization and politics; however, standardization, direct supervision, and planning could facilitate OI (Barki & Pinsonneault, 2005).

While network theory is suitable in intra-organizational networks as it combines the two approaches of integration on process and structure levels (Tsaturyan & Müller, 2015). To avoid complexity the proposed framework will utilize the organizational integration type between PMOs at different levels.

1.7 PMO and change in the organization.

Q: How does the organizational change affect PMO functions?

Change in an organization is the norm more than the exception, Change is part of the organization and PMO lifecycle, which alternates between periods of tension and stability (Hobbs et al., 2008).

There are several perspectives to understand the drivers behind the change. (Hobbs et al., 2008) examined the drivers behind PMO change, strong relations found in some areas including the changes in external factors such as changes in the global and local economy, changes in top management, and unsatisfactory projects performance, the paper explained

changes results to PMO, which in our case could explain, the resulted from changes in scope and mandate of PMO, added or removed functions and level of authorities granted to PMO in each organization, only one correlation found between the changes PMO functions and portfolio management and methods.

Q: what are the main changes desired from creating PMO in the organization?

PMO is an organizational unit implemented to deliver changes. (Andersen et al., 2007) in their survey discussed the rationales behind PMO's implementation. Those drivers vary from speeding product development, standardizing the project execution processes, and managing and mentoring training to monitor portfolio management.

(Hobbs & Aubry, 2007) combined the functions of PMO under 5 groups, with 3 functions out of all groups, they found monitoring the controlling is the most important group and lessons learned is the least important.

The group details and additional functions are listed in Table (1).

We will select the three top groups in addition to one function (Manage customer interfaces) as it is related to stakeholder engagement.

Table 1 main groups of PMO Functions

Group Number	Main Group	Additional Function
1	Monitoring and controlling project performance	Execute specialized tasks for project managers
2	Development of project management competencies and methodologies	Manage customer interfaces

3	Multi-project management	Recruit, select, evaluate, and determine the salaries of project managers
4	Strategic management	
5	Organizational Learning	

2. Stakeholder Engagement

A stakeholder is "An individual, group, or organization that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project, program, or portfolio". Stakeholder engagement includes "implementing strategies and actions to promote productive involvement of stakeholders. Stakeholder engagement actions start before or when the project starts and continue throughout the project" (PMIBOK 7th edition, 2021). PMO deals with different categories of Stakeholders and needs to keep them informed and satisfied.

Stakeholders' expectations and influence could vary over time, PMO must identify, analyze, prioritize, and monitor stakeholders' engagement regularly, PMO must determine the proper communication form for each stakeholder, which could be formal or informal (PMI, 2021, para. 2.2.1), (kerzner harold, 2013, para. 2.1). PMO failures could be referred to as a lack of understanding and participation of stakeholders, as some of them may perceive the PMO as an additional layer of bureaucracy (Singh et al., 2009). (Eweje et al., 2012) found that measuring stakeholder satisfaction has a higher value than corporate and project performance on a strategic level.

3. Framework components

The framework (Figure 2) explains the different levels of PMOs in organizations and how they are linked to governance functions. The framework has a multi-PMO structure, that provides the main group of functions selected from (Table1) The framework has top-bottom governance enforcement and PMO has a vertical reporting and escalation process with horizontal advisory and support services provided to management.
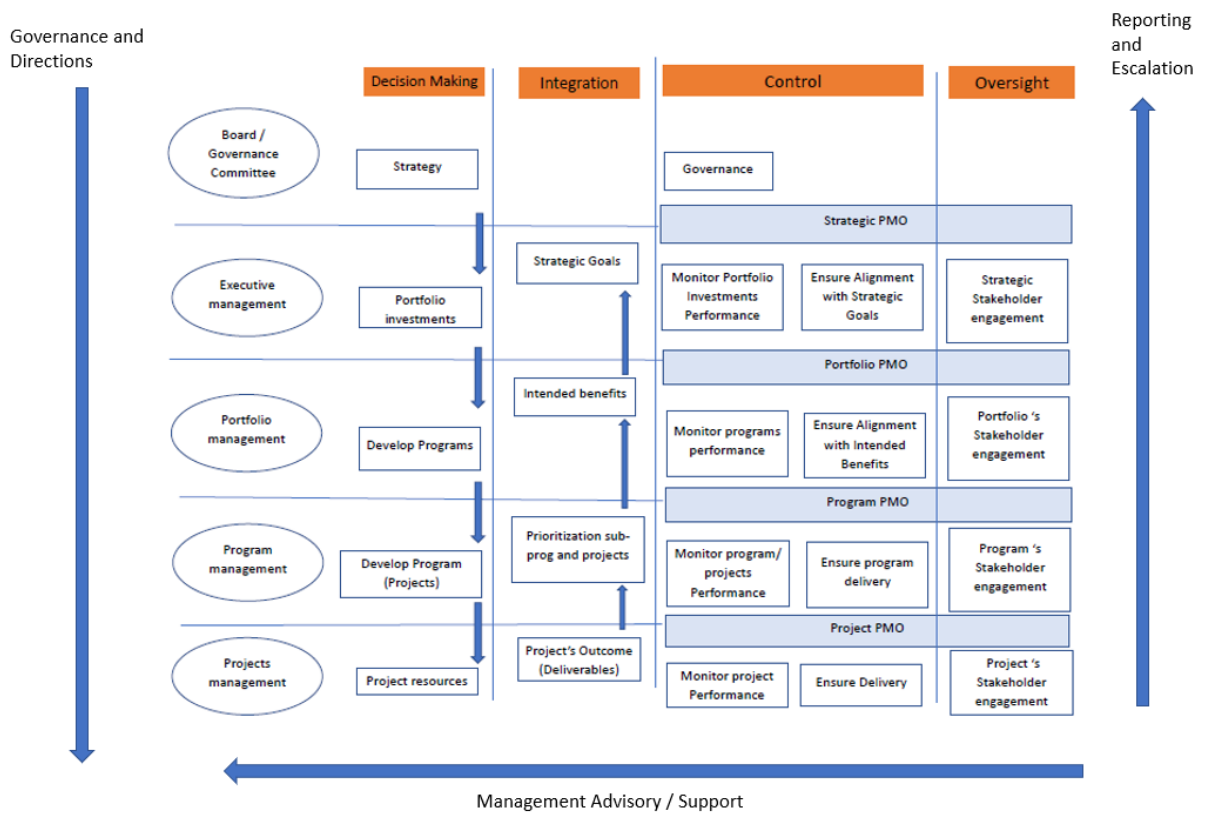

Fig.2 PMOs Framework on different levels using Governance concept.

(Figure 3) maps the links among the PMOs and through the organization, with mixed communication styles (verbal, written, official, and non-official) inside and outside the organization.

The stakeholder pool should include all levels and distinguish between them to be part of organizational governance in each organization.
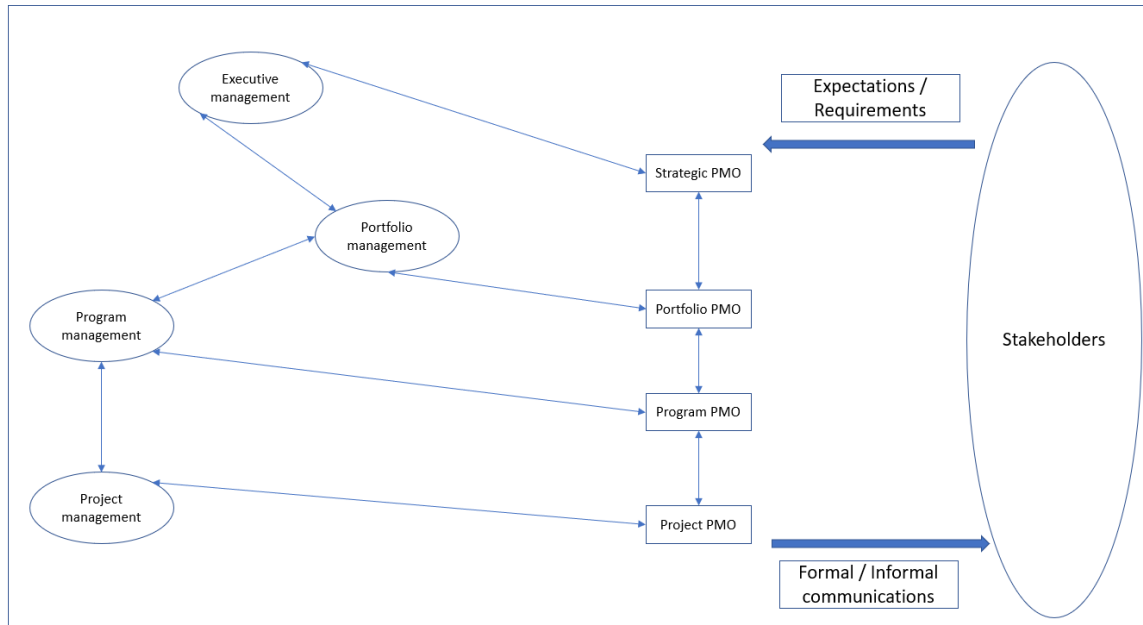

Fig. 3 Communications among PMOs and through organization levels

Conclusion

This paper connects the purpose of projects, programs and portfolios, and organizational governance, the research proposes a framework that situates the PMO as a vehicle for supporting 3Ps delivery and keeping stakeholders engaged through the project(s) lifecycle, the model supports the principle that projects, program and portfolios managers remain responsible for the delivery.

At the projects level, the project manager is responsible "to meet the project's objectives and stakeholders' expectations" (Project Management Institute, 2017, para. 3.3.2). While PMOs operate at a different level, PMI labels three PMO forms, those are, supportive that entails the least intervention, it mainly "provides consultation role", Controlling type on the other

hand "entails compliance through various means. Directive type entails involvement through "directly managing projects" (Project Management Institute, 2017, para. 2.4.4.3).

to enable the organization to better respond to external and internal changes, it is suggested to use "blended type" as recommended by (Taylor & Mead, 2015, Chapter 8), the researcher would like to highlight the lack of clear understanding of how to manage level of control and keep harmonization across multi PMO structure in this type of business unit. Further studies may explain the proper organization governance model to manage those parameters.

The Strategic Project management office was included in the framework without details about its function. This business unit has several forms and is linked (mainly) to strategic planning and management. (Atkinson et al., 2006, p. 5, 13) mentioned that SPMO has different names like the strategy management office, and it is dedicated to linking projects to strategy and improving project management maturity. (Kerzner, 2014, p. 615) mentioned IBM's initiative to create a project management center of excellence which was aimed to support management at project, program, and portfolio levels, Project management center of Excellence (PMCoE) and focus on strategic planning and corporate standards (Bolles, 2002, p. XI)

The proposed framework intends to improve clarity and provide guidance to build PMOs that support organization needs and enable a better response to changes.

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