

PMO AS A REFERENCE FOR THE ORGANIZATIONAL INNOVATION

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Abstract. Organizations have become significantly different today thanks to the factors such as economic globalization, demographic and social changes, technological change, ecological pressures and growing emergence of political and economic uncertainties all around the globe. Parallel with that, the discipline of project management was changing, moving and expanding from operational to strategic asset and became somewhat „rounded up” today, understood as a dynamic process whose methods in practice change with the emergence of new ideas on a daily basis and used not only by the project-based companies that organize most of their activities in projects, but also by the traditionally organized industries and organizations, such as service, financial and public companies. Naturally, organizations were in search for medium and instruments that will enable them the project management implementation and saw their chance into project management office as new organizational entity with a flexible form, functions and roles that will help them to oversee all the activities related to projects.

Keywords: project, project management, project management office, organizational innovation

1. INTRODUCTION

Projects are recognized as ventures that, by combining activities that lead to new products or services, improve procedures, administer and develop business, and become essential for the success of any organization [1]. Simple as that, projects are seen as the device of efficiency [2]. Looking back in the past, Balck [3] was talking about project as an instrument for organizational change and development and, more than 20 years after, Ward and Daniel [4] are still talking about project but as a means of leading strategic change. This projectification of business activities, seen as the source of change in a rapid changing world, has led the firms towards management by projects [5] and those organizations were in search for structure and instruments that will enable them to successfully manage projects [6].

Seen as a medium for successful project management methodology application, Project Management Office (PMO) became nowadays a widespread new organizational phenomenon [7]. Some authors are even pointing finger to a PMO as the most important activity and organizational innovation associated with the project management concept from the beginning of the new millennium [8] and many research are showing that a large number of widespread industry organizations have established or rearranged a project management office recently. However, academic knowledge on these organizational entities and their positioning in the scientific context of organizational

innovations is relatively poor and unsounded. For these reasons, paper tries to explain the concept of project management office as an attempt of positive impact on organizational structure, culture and operations in order to achieve the best possible results in this ever changing reality.

2. PROJECT MANAGEMENT OFFICE AS ORGANIZATIONAL INNOVATION

Organization of business activities through projects has now become a common practice of doing business. Also, the popularization and dissemination of the concept of project management through its application in all spheres of life and business caused the situation in which the project management concept is viewed by wider scientific public as a form or source of strategic advantage and greater organizational competitiveness in the future. In other words, project management is seen as the art and science of planning, designing and managing work throughout all the phases of the project life cycle [9].

Given that the practical application of project management abounds in obstacles in all phases of the projects [10], in order to apply project management more efficiently, different methodologies have been developed in the aim of establishing a standard, repeatable project implementation process in organizations [11]. Modelling of project management methodologies is essential, especially because of a temporary nature of project explained by its own definition as an organizational tool for inputs optimization in order of achieving determined cost and quality within the given time goals [2]. The precondition for the implementation of these methodologies was seen in the existence of a project management office as an institutionalized entity within the organization [12].

Organizational innovation can be defined as a new, non-obvious and useful set of rules, processes and structure that has found its viable application in organisations [7] or as the implementation of an organizational method in business practice, organization of workplaces or external relations [13], which has not been used in that organization before and which is the result of strategic management decisions. Institutional theory and innovation diffusion literature suggest that the drivers for adopting an organizational innovation may differ across organizations, and that drivers may be linked with the timing of the innovation [14]. Organizational innovation changes and promotes debts, responsibilities, command lines, flow of information, as well as the number of hierarchical levels or divisional separation of functions, i.e. the structure and processes, within the organization and can be considered as intra-organizational and inter-organizational innovation [15]. While inter-organizational innovations are

viewed as new organizational structures created with the desire for better coordination and cooperation with the environment, intra-organizational innovations relate to innovations within organizational units, their functional divisions and defined competencies and can affect the organisational structure and strategy.

Thus, PMO can be defined as a novel intra-organizational form for supporting of project management, leveraging performance and (sometimes) bringing innovation in project management [2]. Organization can delegate numerous of its functions giving to PMO a role in implementing coordinated project management within its domain. One of probably the most widely accepted definition of Project Management Office was provided by the Project Management Institute [16] and explained it as a management structure that standardizes management processes associated with projects and facilitates the sharing of resources, methodologies, tools and technologies.

PMO has been found today as an important aspect of project management practice, but the concept of these offices is not generally new. For quite some time, they have been used as a medium for administration of large projects, based on the need for an overall, coherent approach [17]. This emergence of project offices, related to large-scale projects, was established by engineering, space and defence industries in the fifties. The modern concept of PMO in form of organisational entity lunched itself under a public supervision during the nineties, with the appearance of millennial bug. But the widespread ideation of business activities through projects was the factor that had led project management offices to the rise of unexpected proportions and their establishment in a variety of organizations and industries as a medium of project management application.

Imagined as a set of different functions for managing government strategies, later evolved into cost control and transparency demonstration, which developed in a pragmatic way to manage non-operational businesses, and then escalated into benchmarking and best practices, PMOs could be viewed today as a product [18]. Although the concept of a project management office has been around for many years as sad, their functions, purposes and definitions have changed over time [19] and some are illustrated in Figure 1. This non-stopped continuity in the evolution of the project management office is one of the factors that enabled today's organization to remain valuable [21] and to adapt to a changing environment [22].

Traditional PMO	Next Generation PMO
Focus mostly on tactical issues	Focus on strategic and cultural issues
Science of project management	Art and craft of project management
Views organization as a "complex machine"	Views organization as a "complex ecology"
Emphasis on monitoring and control	Emphasis on collaboration
Provides tools similar to a precise "map" to follow	Provides tools similar to a "compass" that show the direction
Internal process focused	Focus on end products, customers and outcomes
Process driven	Business driven
Standard (heavy) methods and practices	Adaptable and flexible (agile) methods and practices
Based on rules; follow rules	Based on guiding principles; follow rules and improvise if needed
Defined, repeatable, managed and optimized practices	Adaptive and innovative practices
Focus on efficiency	Focus on effectiveness and innovation
Process leadership	Thought leadership
Heavy management and governance	Balanced management, governance and leadership

Fig. 1 PMO model changing over time [20].

However, as project management has become a common practice of doing business in most varied sectors and industries, the forms of these offices vary so much within organizations that it cannot be concluded that there is a unique set of their functions and roles. Even more, a poor overview of the project management office literature is contributing to the situation that the offices found in the research practice and those described in the literature are significantly different [23]. This situation can certainly be explained by the late involvement of the academic community in examining the phenomena of the project management office, which at that moment its practical implications and significance had already gained. As a consequence of this late reaction, each study had shaped a small part of the concept, which for now is difficult, almost impossible, to integrate into a coherent and comprehensive perspective [24].

3. PMO ROLES AND FUNCTIONS OVERVIEW

A PMO can be established to support one, single large project, or to coordinate multiple projects. Managing a large number of projects is the prevailing model of business today [25] and managing multiple sets of projects simultaneously is a challenge organizations have to master in order to implement their strategic objectives [26].

Depending on the fact if projects under its domain are unrelated or loosely related, authors are making difference between managing a program or portfolio of projects. By the term of program management office, Association of Project Management [27] defined a group of related projects that together achieve a beneficial change of a strategic nature for an organization. On the other hand, definition of portfolio reflects this notion of change as the totality of an organization's investment in the changes required to achieve its strategic objectives [28]. This, so called, project portfolio management office (PPMO) is a unique structural arrangement designed to fulfil specific purpose [21] acting as a central coordination unit that supports the senior management with it specialized knowledge about project portfolio practices [29]. This kind of office has emerged to develop competence in project management, manage single project performance and coordinate multiple projects [30].

In this regard, scholars have been looking at a PMO as on individual entity, primarily because organizations had been implementing one single office for managing projects until recently. Research are showing that large organizations have started to implement multiple concurrent PMOs, each one having different mandates, functions and characteristics [2].

PMOs can be located at different levels in the hierarchy and in different parts of the organization. In these terms, Crawford [31] proposed and described three types of project management offices: the project control office, the project office as a business unit and the strategic project office, shown in Figure 2. In line with Crawford's understanding of the different levels of PMOs, Rad and Levin [32] suggested three suitable project management office levels within the organization: PMO for individual projects or program of related projects, PMO at divisional level and PMO at the corporate level. Looking at the performance of these offices in literature, there is no evidence of different performance of offices located at different locations within the organizational structure [33]. However, there is a significant correlation

between the location of the office within the organizational hierarchy and the number of projects under its domain – the higher the hierarchical level of the office is, the greater the number of projects for which coordination is in charge and vice versa [34]. This relationship is different if you observe the total number of projects in the organization and the number of entities in the form of project management offices. In organizations that undertake a large number of concurrent projects, project management offices are distributed at lower organizational levels, managing a smaller percentage of the total number of projects, while their coordination simultaneously carries out offices in higher hierarchies [34]. Scholars also tried to explain the diversity of PMO using basic contingency variables such as size, region or industrial sector organization belongs, but research did not found a

systematic relationship between the external contexts listed above and structural characteristics of PMOs. Not only did the design of PMOs in different industries and regions, in public and private sectors, in different-size organisations, and managing different-sized projects not vary significantly, but the performance of the PMO in these contexts did not vary significantly either [33]. Beside those, Hobbs and Aubry [33], in their detailed research of 500 PMOs worldwide, identified only four organizational characteristics that showed significant relationships with PMO characteristics and those are: internal or external clients, matrix and non-matrix organizational structure, level of project management maturity and supportiveness of organizational culture.

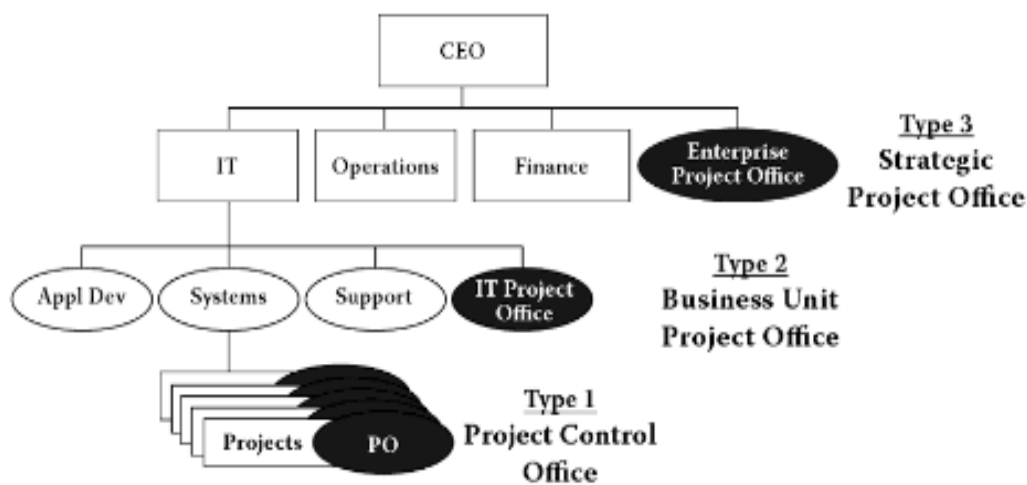


Fig. 2 Crawford's model of PMO within the organizational hierarchy [31]

On these characteristics, they modelled three types of project management offices: (1) PMOs with many projects and project managers and considerable decision-making authority, (2) PMOs with few projects and few, if any, project managers and less decision-making authority, and (3) PMOs with few, if any, project managers, a mandate including most of the organization's projects and a moderate level of decision-making authority. They noted that PMO with more decision-making authority and more projects and project managers not only tend to perform better than other PMOs, but are also found more in organizations that are mature in project management, have a supportive organizational culture, nonmatrix type of organization and staff working on the projects located in the same organizational entity as the PMO. Numerous authors have tried to describe assignments that can be put in front of a PMO. Previous studies [2][20][35][36] have identified activities commonly undertaken by PMOs. For example, Desouza and Evaristo [35] described those activities as strategic, tactical and operational, as shown in Figure 3.

Also, Kendall and Rollins [20] are talking about four models of PMOs: project repository model that emphasizes tools and data, project coaching model which provides training, mentoring and other help to project managers, enterprise

model that takes over the project management direction and function, and deliver value now model which provides focus on the total project portfolio, linked to the organization's goals and assets. Muller et al. [2] identified three distinctive roles of project management offices that are making a difference for the nature of relationships and for the organizational outcomes: serving, controlling and partnering role. They described some PMOs as pure service units, some other as management units with direct control on projects and again others as cooperation medium for continuous improvement of project knowledge. This role model displays (a)symmetry in relationships between a PMO and its organizational stakeholders. Artto et al. [36] defined five tasks of project offices within the organization: (1) managing practices, (2) providing administrative support, (3) monitoring and controlling projects, (4) training and consulting, and (5) evaluating, analyzing and choosing projects.

As the reason why there exists such variation in the structures and roles of PMO, scholars are highlighting the fact that there is no "one-size-fits-all" solution [19][24]. This means that PMOs are structured with given functions that are in line with the needs of their home organization.

4. REFERENCIAS FOR THE ESTABLISHMENT OF PMO

Some research at the beginning of the twenty first century were showing that reported project performance is higher in organisations that have PMO in comparison with organisations that do not, but not high enough to merit statistical significance, and in the other hand organisations that have a PMO have clearly done more than those that do not have a PMO in promoting project management standards and methods, historical archives, training and consulting and mentoring [37]. Accordingly, scholars are describing many

pros for establishment of project management offices, which are mostly general, expressed in the organization's positive expectations of the methodology implementation. Studies are showing the increase of project success rate in case if project management methods are used [38]. Turner [39] demonstrates that PMOs have a positive influence on the success of project portfolio management. Kerzner [40] points to facts such as improved coordination, increased availability of information, better resource utilization, operational efficiency and control as well as increased project outcome quality.

Level of influence	Activities
Strategic	Ensure projects are aligned with long-term objectives of the organisation and contribute to the strategic growth of the organisation Efficient and effective knowledge management to improve the policies, practices and methodologies of project management in the organisation
Tactical	Ensures close integration between ongoing projects Ensures consistent quality of products and services generated by projects Knowledge sharing across ongoing projects
Operational	Providing regular status reports to decision makers and coordinating communication about projects Ensuring information is available to inform specific project decisions Acting as a central source of knowledge on project management including best practices and standardised methodologies Conducting routine project evaluations

Fig. 3 Desouza and Evaristo's model of activities commonly undertaken by PMOs [35]

Unger et al. [30] indicate that the PMOs they studied show improvements in resource allocation and commitment, cooperation improvement between the projects, improved quality of information sent to management for decision-making and improved single-project performance. They claim that PMO adds value to a portfolio of projects as well as to organisations. Hobbs and Aubry [23] are highlighting the improving project management maturity of an organization. Hurt and Thomas [22] state that PMO can make benefits such as cost savings, increased revenue, reduced rework, improves competitiveness, attainment of strategic objectives, strategic alignment, more effective use of human resources, improved general use of resources and better project decision-making. Others are citing reasons like reducing the project failure rate, achieving greater cost control and improving the predictability of their assessment, the possibility of larger and more complex projects execution, increasing project quality and confidence in project implementation capability. Van der Linde and Steyn [19] within their research concluded that PMO is perceived to add value overall.

However, there are no authors who are explaining project success by the very existence of project management office. This can be explained by the lack of a proper methodology for evaluating project management's contribution or, perhaps better said, the inability to evaluate these contributions especially with financial measures. As we said, the roles, functions and legitimacy of project management offices vary as well as industries in which they operate, so the scholars have practical problems with measuring the impact or value added by the PMO.

Nevertheless, surveys are showing that the number of established offices is increasing year by year. A global survey

conducted in 2015 by ESI International [41], one of the world's leading training and consulting organizations in the field of project management, which involved 900 companies from all over the world, showed that almost three-quarters of the respondents stated that the organization in its organizational context has established a project management office.

On the other hand, despite the growing popularity of PMOs, research also shows that three-fourths of PMOs shut down in the first three years of their establishment [42]. Aubry et al. [43] noted that the life expectancy of PMO is approximately two years. In this regard, Stanleigh [44] found their inability to demonstrate the value as the main reason of the short life span of PMOs. Additionally, research showed that good project evaluation and full information, which can be provided by PMO, is likely to be associated with de-escalation or top management's lack of satisfaction, as they become aware of problems with projects [4]. This identified lack of management satisfaction by Ward and Daniel is in accordance with previous research that found a low importance to the contribution of PMO's to organizational performance by executives [45]. Also, some researches argues that explanation for PMOs' short living lie in the process of co-evolution that PMOs undergo over time in interaction with organizational capabilities and context [46]. In this regard, investigating the creation and reconfiguration of PMO as an organizational innovation, Hobbs et al. [7] emphasized the unstable nature of organizational structures and the difficulty in finding evolution patterns. They highlighted the dynamic interplay between PMOs and the organizational context and the recent research by Bredillet et al. [46] confirmed it. Here is necessary to mention the PMO

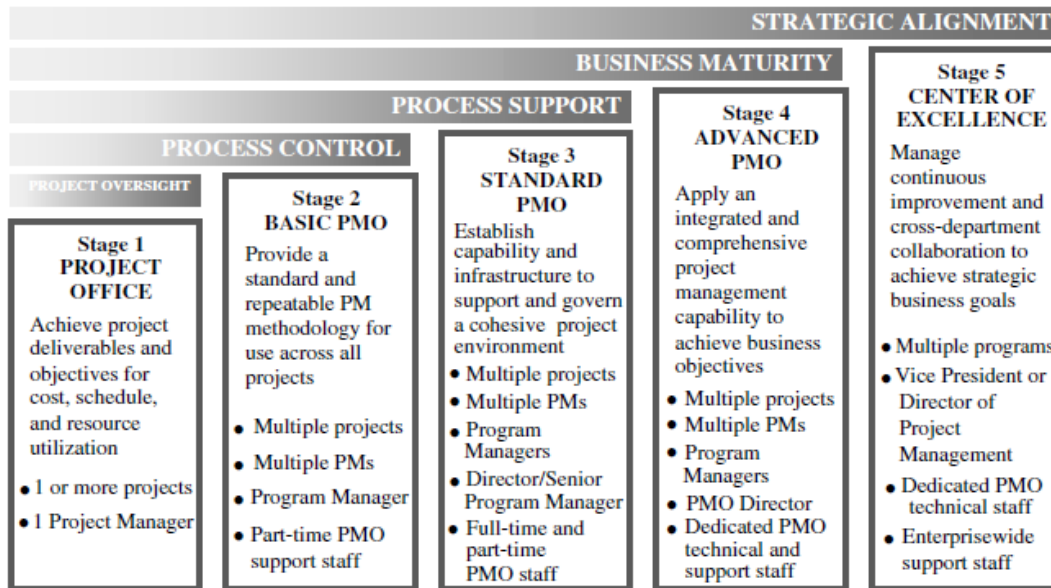


Fig. 4 Overview of PMO capabilities across the PMO competency continuum [47]

evolution within the organizational framework that tried to describe Hill [47] as a series of phases through which the offices are undergoing in its development. This model is shown in Figure 4 and assumes that, in order to establish an office at a certain stage, the organization has already adopted the competencies described in the phases preceding the selected one. Given the fact the phases are characterized by certain factors and business processes that become more and more complex with the growth of the competencies of the office, this model also confirms that the project management office is not a stable system, but a concept that evolves both within the individual organization and within the population of organizations as a whole [48]. In addition, the same authors point out that different influences shift not only the concept of the project management office from one context to the other, but also other components of the organization itself, thus achieving a two-way relationship: both offices and organizations are adapting and evolving over time, thereby creating a common context of organizational project management.

This means that the foundation stone for a PMO establishment has to be the presence of a rational effort for new management techniques implementation, clear vision and good planning process taken by executives. But PMOs have to be periodically reviewed and restructured if necessary with the aim of lining up with the strategic goals of the organisation.

5. CONCLUSION

Research shows that pressures from the environment and internal complexity of the organization are both factors that affect the recognition of project management as an organizational change agent [14]. These changes are undertaken with the goal of achieving strategic objectives by top management of the organization and appeared in a form of new, more flexible organizational forms [49].

If the innovation is seen as a dynamic construction of something new in which it can be difficult to discern any regular pattern, then the complexity theory could explain numerous PMO types and functions found in practice, together with the inability of scholars to describe as well as to evaluate them because of the need for more complex tools to understand the complex reality of today's organisation. In these terms, project management office can be and should be seen as an intra-organizational innovation, primarily because it is a recent and important phenomenon [7].

To date there have been few studies exploring PMO contribution to project success and management satisfaction which are mostly general, expressed in the organization's positive expectations of the methodology implementation. Nevertheless, because many PMOs are struggling to show value and some are failing, causing a very high mortality rate among PMOs, practitioners and organizations are advised not to implement a PMO under naive assumptions of value for money or because PMOs are popular [23]. The fact is that there is no specific rule for setting up a project management office, and in this regard the authors emphasize the need for harmonizing the office structure with the organization's corporate culture as the most influential factor of success [35]. Particular context, history and identity of an organization must be taken into consideration as well [24]. In this context, the role of the project management office can be seen as an attempt of positive influence on the continuous organization building [48].

From showed, we can highlight several important functions that PMO can provide for organization. First is that PMO certainly can be an abiding, knowledgeable driver for continuous change. This is because PMO is permanent organization that organizes projects as temporary configurations in coalitions to deliver particular outputs. Second, research show that PMO is more flexible to rapid change than organization: the variables on the organizational side can only be changed with significant efforts [33]. It is indisputable that organizational design takes time, because a

collective effort must engage what is found outside and inside the organization [24]. Third, good PMO governance in the coalition with rational expectations of high executives can lead to leveraged performance and even bring hoped-for innovation in project management. For those organisations that have already found a PMO as an institutional project management medium, it is necessary to re-examine if their strategic goals are in line with the aim in which the PMO was established from time to time, in order to maintain the PMO that fits executives' wishes and standards in terms of successful project management.

As the knowledge about project management rounded-up and the utilisation of project management techniques and methodologies took place in wide spectrum of industries and organizations, it is undisputable that business organizing through projects will be present for quite some time. In accordance with the above, paper can be seen as an attempt to contribute to the popularization of the theory of project management offices as organizational innovation through a brief overview of available literature, as well as creating further opportunities for studying the field of organizational project management through, in this way enabled, animation of the scientific public.

6. References

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