

Project Management Office Typologies, Types, and Functions: A Systematic Analysis of the Literature and Directions for Research

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Abstract

Project management offices (PMOs) connect the complex relationships of strategies, projects, and organizational structures to boost the success of business. However, PMOs face significant challenges in clearly defining their roles and responsibilities due to the variety of potential functions that can be assigned to them. This study presents a systematic analysis of PMO typologies, types, and respective functions, providing an in-depth understanding of the dynamic PMO role. We found 16 typologies and 60 PMO types in the literature, showing that PMOs are complex and evolving entities that can assume various forms and organizational responsibilities.

Keywords

project management office (PMO), organizational project management, PMO typology, PMO type, PMO function

Introduction

Since almost every strategic organizational change occurs through programs and projects, project management has evolved to play a fundamental role in organizations, emphasizing its integrative and normative function (Barbalho, 2022; Musawir et al., 2020). However, despite the growing importance of project management in recent years, there are still recurrent failures in project execution, leading to severe implications for the business (Turner & Xue, 2018; Wiewiora et al., 2020).

Project failures frequently result in financial consequences, including considerable losses in competition, productivity, opportunity, and staff morale (Santos & Varajão, 2015). According to Kerzner (2009), meeting a project's objectives can be highly challenging or almost impossible without organizational rules and well-defined processes. Furthermore, Pansini et al. (2014) state that only applying basic project management tasks does not contribute to improving organizational performance. Thus, using standardized and formal project management methodologies and structures is essential to increasing project success (Artto et al., 2011; Sergeeva & Ali, 2020).

Project management offices (PMOs) are business units responsible for project management activities and can have a significant impact on an organization's performance (Aubry et al., 2010; Müller et al., 2019; Riis et al., 2019). A substantial body of academic research has investigated PMO definitions, roles, and procedures (Hobbs et al., 2008; Sandhu et al., 2019; Unger et al., 2012). According to Aubry et al. (2011), the functions and structural characteristics of PMOs play a

crucial role in determining their value, which is also influenced by organizational variables due to the strategic positioning of PMOs within organizational structures. Pemsel and Söderlund (2024) highlight that PMOs typically focus on providing training, coaching, methods, and administrative assistance, emphasizing their critical role in executing strategy through project portfolios (Bredillet et al., 2018).

However, empirical research reveals that PMOs are frequently short-lived (Müller et al., 2013), and their worth is challenging to evaluate, considering that several implementations have been restructured or even abandoned, which can generate high implications both in terms of costs and strategy losses. Pemsel and Wiewiora (2013) note that some companies implement PMOs without guidelines and well-defined objectives. In other words, they simply implement a PMO without evaluating the several alternative PMO types that can be adopted taking into account the actual organizational needs. As a result, there is a potential misalignment of PMO structures that do not provide an efficient and effective response in terms of portfolio,

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program, and project management, leading to a waste of resources and low levels of stakeholder satisfaction (Kutsch et al., 2015). Furthermore, since the current research literature does not provide a holistic perspective on the different types of PMOs and their respective functions (Barbalho & Silva, 2022), it also negatively affects research endeavors.

There are several proposals for PMO typologies in the literature, but there is also a lack of an umbrella perspective. A past exploratory study by Monteiro et al. (2016) provides an overview of the PMO typologies and types; however, it has several limitations, as recognized by the authors. For instance, the functions covered by different PMO types were not studied, and a deep discussion of the findings was not performed. Moreover, the significant dynamics observed in the evolution and organization of PMOs in recent years demand new research efforts.

Therefore, a comprehensive study is required to integrate and extend this knowledge, explore new PMO types, and conduct a thorough analysis of those types and their corresponding functions. Such study should facilitate a proper analysis of different PMO configuration alternatives based on the organization's needs (Aubry & Brunet, 2016), contributing to the body of knowledge and avoiding the loss of resources and business opportunities.

Our research incorporates and expands the study of Monteiro et al. (2016), extending it to the current state of the art to include new PMO types that have recently emerged in the literature and study all types and respective functions in depth. For this purpose, we sought answers to the following questions:

RQ1. What are the PMO typologies and types emerging from the project management literature?

RQ2. How does each PMO type address the main PMO functions?

We empirically investigate these questions by systematically reviewing the literature on PMO typologies, screening PMO types, and considering the functions they cover. Our research found 60 PMO types from 16 typologies, revealing a vast diversity of terms and types, showing that PMOs are dynamic and evolving entities. Furthermore, by analyzing the differences between PMO types, particularly the functions assigned to them, our study also shows a great diversity in structure and assigned responsibilities.

Theoretically, these findings advance the understanding of PMO typologies by providing a holistic and comprehensive perspective of PMO types and their associated functions, addressing a significant gap in the existing literature. This provides an in-depth understanding of how different PMO types contribute to project management practices, which informs future research and theoretical development in project management. This study also offers valuable insights for practitioners by highlighting the diverse roles and responsibilities of PMOs. By mapping PMO functions to specific types, organizations can better understand the potential value of different PMO

configurations and make informed decisions about their implementation, management, and improvement (Aubry & Hobbs, 2011; Barbalho & Silva, 2022). This understanding can lead to the development of more effective PMO structures tailored to organizational needs, thereby improving project performance, resource utilization, and stakeholder satisfaction.

The article is structured as follows. The next section reviews the main concepts of PMO types and functions, followed by the research method, including the data collection and analysis strategy. The results and findings are presented in the following section. Finally, the study concludes and highlights recommendations for future research.

Background

Project Management Offices

The fundamental concepts of PMOs are not particularly new. The PMO structure emerged in the 1950s as the complexity and scope of engineering, aerospace, and defense-related programs increased (Desouza & Evaristo, 2006). However, it was not until the 1990s that PMOs gained momentum (Midler, 2019; Spalek, 2012), as organizations realized that their objectives and targets were mostly achieved through projects and started considering project management as an essential competence. In the 2000s, research began to focus on the strategic role of PMOs, significantly enhancing the understanding of their structures, functions, and effectiveness across various organizational contexts. This shift aimed to align projects with both organizational objectives and business benefits (Hurt & Thomas, 2009). Key areas of emphasis included more effective project risk control; the standardization of project management methodologies, techniques, and tools; the improvement of project performance; and the management and dissemination of project management knowledge (Crawford, 2006; Dai & Wells, 2004; Desouza & Evaristo, 2006; Ershadi et al., 2022; Hobbs et al., 2008; Müller et al., 2013).

In the last decade, PMOs continued evolving toward strategic business units, accentuating strategic planning, governance, and value delivery. Agile and hybrid approaches have influenced PMOs, leading to more adaptive and flexible work; also, technology adoption, including project management tools and analytics, has become essential to PMO operations (Arbabi et al., 2020; Bianchi et al., 2021).

The PMO concept emphasizes different processes and procedures that increase project performance and guidance to connect with the strategic plan (Joslin & Müller, 2016). PMOs have different project governance roles and authority (Kock et al., 2024; Tsaturyan & Müller, 2015). According to the findings of Project Management Institute (PMI) (2021) and Braun (2018), PMOs gain authority due to a more successful response to changing demands for supporting new strategic objectives, priorities, and policies; providing centralized management for multiple projects; and handling both internal and external stakeholders

to ensure integration and coordination among all parties involved (Ershadi et al., 2022).

PMOs have a crucial internal role in maintaining culture and competence in project management and contributing to the implementation of the organizational strategy (Aubry, 2015; Musawir et al., 2024). It should be noted that the roles and functions of project management and PMOs can vary in the context of in-house or outsourced projects (Braun & Sydow, 2024). In the case of in-house projects, the PMO role typically has a broader range of functions, focusing on managing resources. In an outsourcing context, procurement and contract management activities assume particular importance (Müller et al., 2019). In both contexts, the PMO must act as a coordinator throughout the project life cycle and is fundamental in promoting project innovation (Sergeeva & Ali, 2020).

Academic research on PMO continues to evolve, reflecting the changing landscape of project management, organizational structures, and the increasing complexity of projects in organizations. Shared services environments, as discussed by Santos and Varajão (2015), are good examples of such complexity.

PMO Functions and Roles

Throughout its history, the PMO has taken on several key responsibilities, including (Artto et al., 2011; Desouza & Evaristo, 2006; Pellegrinelli & Garagna, 2009; PMI, 2021): project planning and definition; cost and benefits management; monitoring and controlling project performance; managing project documentation archives; project alignment with organizational strategy; establishing standards, methods, and processes; project portfolio management; managing organizational projects risks; maintaining a database of lessons learned; and training and mentoring project managers.

According to Hobbs and Aubry (2007), PMOs are structures that relate to multiple dimensions of an organization and cannot only be evaluated regarding scope, schedule, cost, and performance factors; it is important to develop a comprehensive view taking into account roles, responsibilities, and project alignment with the organization's strategy. The authors present comprehensive and extensive research into PMO roles in organizations, drawing on a complete list of functions gathered from the literature. Hobbs and Aubry (2007) identified 27 PMO functions. However, three functions were excluded as their presence was neither statistically nor conceptually significant, resulting in 24 critical functions grouped into five distinct areas:

Monitoring and controlling project performance (G1): This group encompasses functions that involve regular status updates, milestone tracking, and comparing actual progress against planned schedules and budgets. It ensures project alignment with predefined objectives and benchmarks.

Development of project management competencies and methodologies (G2): Focuses on enhancing and developing project management competencies and methodologies within the organization. It involves establishing standardized project management approaches, providing training and mentoring

programs, fostering a project-centric culture, and refining methodologies to optimize project execution.

Multiproject management (G3): This group comprises functions related to managing multiple projects concurrently. It includes activities such as portfolio management, optimizing resource allocation across projects, project prioritization, and ensuring synergy among projects to maximize organizational benefits.

Strategic management (G4): This group's functions align with the organization's strategic objectives. This group covers activities such as evaluating project contributions to strategic goals and ensuring that project initiatives align with the long-term vision and mission of the organization.

Organizational learning (G5): This group focuses on creating a learning culture and promoting continuous improvement in project management practices. It involves activities such as knowledge sharing, risk management, lessons learned capture, and knowledge dissemination.

The functions proposed by Hobbs and Aubry (2007) are presented in Figure 1 as a cycle diagram. These functions have been widely used by researchers in their studies (e.g., Arbabi et al. (2020); Aubry & Brunet (2016); Barbalho et al. (2017); Barbalho & Silva (2022); Darling & Whitty (2016); Hurt & Thomas (2009); Sandhu et al. (2019)).

PMO Typologies, Types, and Related Literature

Typologies refer to a systematic classification or categorization of entities based on shared characteristics, attributes, or qualities, identifying distinct types or categories that exhibit common patterns (Mintzberg, 1980). According to Doty and Glick (1994), typologies are instrumental in organizing complex phenomena into more manageable and understandable forms, enabling researchers to identify patterns and relationships. Different authors established distinct PMO typologies (Artto et al., 2011; Aubry & Brunet, 2016; Barbalho & Silva, 2022). These typologies aggregate PMO types, simplifying understanding (Hobbs & Aubry, 2007).

A PMO type is a project management structure model that aims to support the organization's strategy by combining functions and authority assigned to a PMO. A PMO type should be selected according to the expected level of responsibility for this structure (Riis et al., 2019). The research of Monteiro et al. (2016) found a high diversity of types concerning names, structures, assumed roles, and perceived worth, realizing that typologies typically include three to five types of PMO types and are organized in a progressive direction from a low-level to a high-level organizational role.

Methodology

Systematic Literature Review

A systematic literature review (SLR) is a rigorous scientific research method used to identify potentially relevant articles

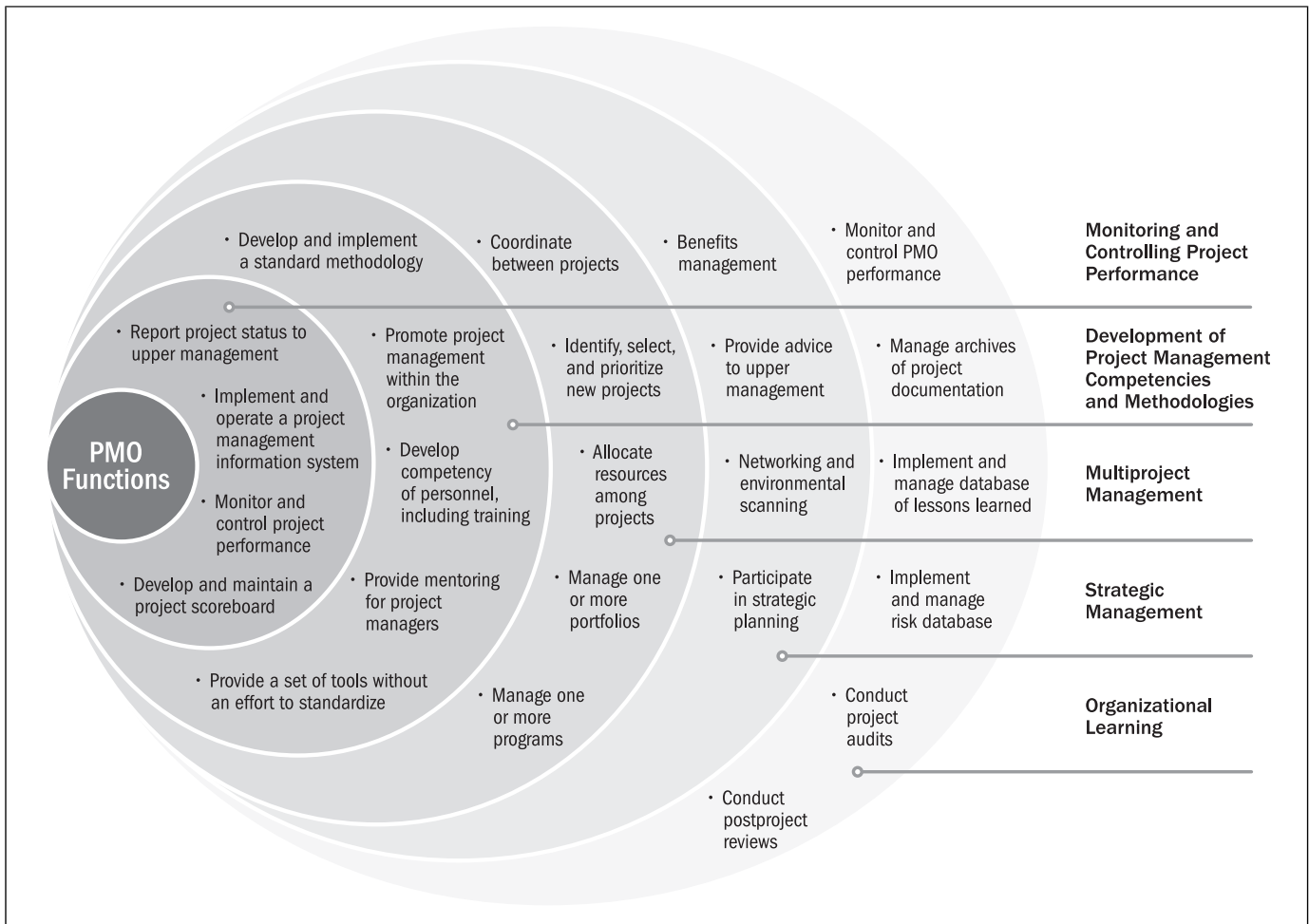


Figure 1. PMO functions (based on Hobbs & Aubry, 2007).

by applying appropriate criteria from which their characteristics are evaluated, the data are processed, and their results are interpreted (Cook et al., 1997). According to Tranfield et al. (2003), this approach is transparent, scientific, and evidence-based, allowing for replication and minimizing bias. This article adopts the PRISMA 2020 statement as the primary reference for conducting a systematic literature review (Page et al., 2021). The acronym PRISMA is an abbreviation of *preferred reporting items for systematic review and meta-analyses* (Moher et al., 2010). It comprises the following phases: define the source of data information, specify the search approach method in the databases, develop the data-gathering process, perform the classification and categorization, and conduct analysis and discussion results.

Data Sources and Search Strategies

Our study used the recognized academic databases Web of Science (WoS), Scopus, IEEE Xplore, Proquest, and EbscoHost to scrutinize relevant literature. The criteria used to choose these research databases were their credibility

among academics, literature coverage, disciplinary emphasis, usability, and general acceptance. We broadened search terms and strategies to identify as many eligible studies as possible. We also followed the rigorous search criteria that Mok et al. (2015) suggested for conducting a systematic literature review. This investigation used the following keywords as initial search criteria: project management office, project management, PMO, type, role, type, typology, project excellence baseline, project office, and organizational project management. These keywords were used to search the articles' titles, abstracts, and keywords.

The search strings were formulated based on the mentioned keywords employing Boolean operators (AND/OR). The search expression defined was: ("project management office" AND "project management") OR ("project management office" AND "role") OR ("project management office" AND "type") OR ("project management office" AND "project excellence baseline") OR ("project management office" AND "organizational project management") OR ("project management office" AND "project office") OR ("project management office" AND "type") OR ("project management office" AND

“typology”). The results reflect the content of the databases on the date the research was concluded (last search date: May 2024). In addition, ad-hoc queries were conducted on Google Scholar, with no other relevant results than those found in the scientific databases. English was chosen as the language for this study due to its widespread use as a global language of academic research and because the high-tier project management journals are published in English.

Systematic Searching and Screening

The systematic searching of databases was conducted based on the search expressions. In the first phase, 754 articles were retrieved from the databases (Scopus 171, WoS 163, IEEE Xplore 38, Proquest 254, Ebscohost 128). These were screened, and 278 duplicate articles were removed; then, the remaining 476 articles were analyzed. The researchers evaluated the articles independently to ensure they were related to the study subject, terms, and research questions (Bryman, 2017). In order to resolve selection procedure disputes, the researchers exchanged messages and conducted videoconference sessions to review critical materials. In this selection phase, titles, abstracts, and keywords were read to identify articles aligned (inclusion) or misaligned (exclusion) with the present research. Thus, articles that did not match the defined criteria (as is the case of strictly theoretical articles) and those that were not within the scope of this research resulted in 453 articles being removed, resulting in a total of 23 articles.

Finally, the researchers evaluated the complete content of the remaining articles, identifying the PMO-related domains covered in these documents, categorizing the articles based on their contributions to the analysis of PMO types and functions, and validating the classification determined by this research. The articles that were not entirely consistent with the topic were removed from the repository. Twelve typologies of great significance to be enrolled in the study were identified in previous studies (e.g., Monteiro et al., 2016). The recent research exhibited an evolution of PMO types, revealing four new typologies. As a result, as shown in Figure 2, our research yields a total of 16 typologies that are comprehensively discussed in the following sections.

Data Analysis

We carried out a deductive thematic analysis, which involves systematically analyzing qualitative data using predefined themes from existing literature. This analysis supports the validity, improvement, or extension of existing themes, ensuring a comprehensive examination of the data (Fereday & Muir-Cochrane, 2006).

The process started by defining codes based on the PMO types proposed in the typologies identified in the systematic literature review. The researchers then reviewed the types, cross-checking the coded data for consistency and accuracy, following the guidelines of Braun and Clarke (2014). This

approach allowed for the systematic analysis of the different PMO typologies and types reported in the literature.

After the identification of the PMO typologies and types proposed by the different authors, they were summarized and briefly described. Subsequently, we conducted a deeper analysis to investigate the PMO functions assigned to each PMO type. The grounding list of functions was based on the study by Hobbs and Aubry (2007), considering all the 24 PMO functions proposed by the authors. Through this investigation, we were able to determine the functions associated with each PMO type. Finally, the findings were organized, discussed, and presented.

Results

The literature review provided a comprehensive knowledge base that reveals the diversity and complexity of PMO types within different organizational contexts. The list of typologies found is presented in Table 1. This table and the next sections serve as a foundational resource for analyzing how PMOs are conceptualized and implemented, providing valuable insights into their roles, responsibilities, and strategic importance in project management.

Descriptions of PMO Typologies and Types

This section sets the stage for a deeper exploration of the contributions available in the literature for defining and categorizing PMO types. Each reference represents a conceptual typology that comprises several types of PMOs, reflecting diverse organizational structures and roles of PMOs.

Englund et al. (2003) propose three PMO types: (1) *Project Support Office* provides internal project management consulting services such as planning and scheduling, project metrics implementation, and document management. (2) *Program Management Office* assumes responsibility for success and full authority over the projects, including the functions of portfolio management and project alignment with business strategies. (3) *Project Management Center of Excellence (PMCoE)* is focused on supporting current methodologies and project management skills such as process standardization, identification of best practices, mentoring, and training.

Kendall and Rollins (2003) propose four PMO types: (1) *Project Repository* focuses on tools and data, assuming that the responsibility of the PMO will be low, merely concentrating on project design, management, and reporting tools. (2) *Project Coaching* aims to promote project management practices and communication, providing mentoring, training, and other assistance to project members. (3) *Enterprise PMO* oversees the multiproject management role, assuming governance of the projects and involving the PMO in all projects, whether they are large or small. Finally, (4) *Deliver Value* provides project prioritization to all projects aligned with the strategic objectives and assets of the organization, allocating resources between projects and guiding full executive support to the management.

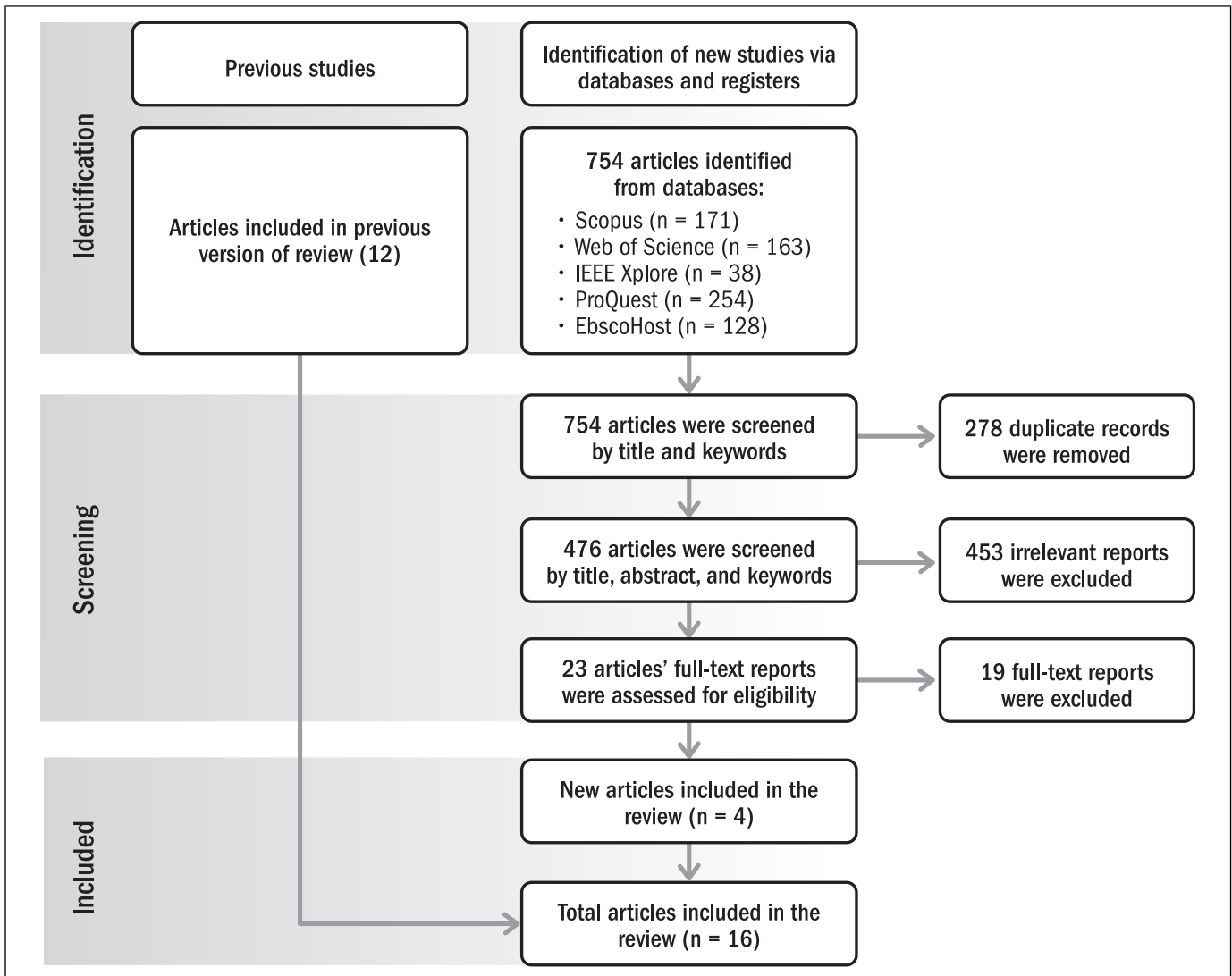


Figure 2. Flow diagram for literature selection based on the PRISMA 2020 (Page et al., 2021).

Garfein (2005) also proposes four types of PMOs: (1) *Project Office* delivers data to a higher-level PMO or other overseeing authority for consolidation. (2) *Basic PMO* develops the criteria for selecting projects, establishes reviews by senior managers, and gathers performance data from multiple projects. (3) *Mature PMO* aligns projects with business strategy, establishes and manages collaborative processes for resource evaluation and allocation, and creates methods for project prioritization. (4) *Enterprise PMO* provides real-time project data in decision-making and develops overall project portfolio management capabilities.

Letavec (2006) proposes three PMO types: (1) *Consulting PMO*, encouraging a community-based solid approach to project management and providing mentoring, training, and best practices. (2) *Knowledge PMO* is the center entity for program and project management in the organization, significantly impacting the organizational rules and processes that

govern projects. (3) *Standard PMO*'s role is to promote best practices and establish tools and standards for the benefit of the whole project community across corporate boundaries.

Desouza and Evaristo (2006) identify four PMO types: (1) *Supporter*, with an administrative role that reports project status, manages archives of project documentation. (2) *Information Manager* monitors and controls project performance in order to be a source of information regarding project status. (3) *Knowledge Manager* has an emphasis on project delivery, training, mentorship, and development of project management practices. (4) *Coach* promotes project excellence throughout the organization, defining metrics and standards for project prioritization and measuring results.

Gartner Research (2008) proposes five PMO types: (1) *Project Support Office* is a formal organization that delivers basic project planning, scope, scheduling, and resourcing. (2) *Project Management Office* is a centralized control structure that seeks

Table 1. References Presenting PMO Typologies in the Literature

References	Year	Synthesis of the Research
Englund et al.	2003	It emphasizes that lower-level PMOs are often limited to supporting services related to methodologies and project processes. PMOs may be entitled to full authority to implement and manage projects at a higher level.
Kendall & Rollins	2003	It illustrates the role of PMO in some industries based on data gathered from real-life PMO and portfolio management case studies. It describes the important links between the strategic planning and project management processes.
Garfein	2005	It presents case studies of different PMOs, studying the decision-making process and strategic portfolio performance of those investment decisions and the efforts to translate the results into strategic project performance.
Letavec	2006	It explores the foundational aspects of PMO development, from its initial establishment to its ongoing management and evolution, emphasizing the importance of aligning the PMO's goals with organizational strategy.
Desouza & Evaristo	2006	It links PMO functions with knowledge management, tailors PMO structures to meet organizational needs, and promotes a strategic alignment between knowledge management and project execution.
Gartner Research	2008	It correlates the organization's maturity with PMO types and proposes how to select the best PMO type, which involves aligning the PMO type to the appropriate level of maturity.
Hill	2008	It studies the maturity stage of an organization regarding project management practices, moving from basic project oversight and monitoring, to more advanced competency stages where projects align with the business strategy.
Kerzner	2009	It studies the evolution of the PMO as a result of the positive impact of project management on performance and corporate strategic planning.
Crawford	2010	It addresses the specific relationship of the PMO in its integrative and strategic role, linking business strategy to programs and projects.
Unger et al.	2012	It examines how multiproject PMOs contribute to the successful performance of projects. It acknowledges that PMOs may represent an innovative concept in certain organizations.
PMI	2013	It highlights the value of PMO configuration by identifying practices related to the purpose and objective of the PMO.
Hubbard & Bolles	2015	It examines the benefits of enhancing project strategy execution by utilizing PMOs and compares the methodologies, services, and procedures employed by different types of PMOs.
Otra-Aho et al.	2018	It investigates the relationships between PMO roles and project performance, suggesting a clear definition of the PMO roles by top management in the process of creating a PMO.
Ershadi et al.	2021	It studies the potential PMO success variables that are influenced by characteristics currently in place in the construction field and other contexts.
Kadenic & Tambo	2021	It focuses on PMOs in agile environments, emphasizing the incremental delivery of value and not on the project itself. It addresses the implications of agile on traditional project performance metrics such as cost and quality.
Barbalho & Silva	2022	It presents a typification of PMO functions for which there is a dependency, suggesting a categorization of the functions based on their respective roles and highlighting the potential diversity in PMO roles.

to develop reliable processes, including tracking information and preparing well-structured project reports, as well as managing project documentation files. (3) *PMCoE* focuses on boosting efficiency; investing in people through mentoring and coaching; reporting the status of the projects; and focusing on methods, processes, and technology. (4) *Federated PMO* takes responsibility for methods, tools, and training with direct responsibilities for oversight, reporting, and delivery of projects. (5) *Enterprise PMO* is responsible for overseeing major company initiatives, including strategy support in business case scenarios and strategic project planning.

Hill (2008) proposes five PMO types: (1) *Project Office*, normally applied only to individual projects, provides project management practices for each project's cost, schedule, and resource utilization. (2) *Basic PMO* is the initial level of PMO; it addresses oversight of multiple projects with the capability to provide general control. (3) *Standard PMO* establishes centralized control; provides resource training; and supports governance, seeking to develop project management practices. (4) *Advanced PMO*, as an evolution of the *Standard PMO*, has the primary goal of integrating

objectives and business interests into the project management environment, including direct resource allocation and monitoring and managing project outcomes. (5) *PMCoE* establishes guidance and sponsorship regarding the company's project management activities to foster business effectiveness.

Kerzner (2009) proposes three types of PMOs: (1) *Functional PMO* has responsibilities related to developing standards, mentorship, and project management training. (2) *Customer Group* provides higher management and communication with clients, maintaining standardization in the execution and delivery of projects and promoting the use of standard project management tools. (3) *Enterprise PMO* focuses on strategic and organizational topics and serves the entire company capacity planning, giving the PMO valuable insight into how to obtain the highest return on investment.

Crawford (2010) proposes three types of PMOs: (1) *Project Office* is typically focused on ensuring that the project fulfills its deadlines and deliverables and integrates all the schedules, costs, and required resources. (2) *Business Unit PMO* oversees multiple projects, ranging from minor short-term initiatives

demanding few resources to long-term initiatives requiring numerous resources, substantial investments, and complex technology integration. (3) *Enterprise PMO*, designed for organizations with different business units, provides project coordination, resource management, and prioritization.

Unger et al. (2012) propose three different PMO types: (1) *Supporter*, which involves delivering project services, such as project planning and reporting, motivates and trains the project teams and promotes a project management culture. (2) *Controller* involves controlling the project's progress, delivering input, and suggesting corrective measures to increase the decision-making process. (3) *Coordinator* is located relatively high in the hierarchy with direct reporting to the top management, being highly involved in supporting cross-department coordination, including project evaluation, selection, and resource allocation to projects over the portfolio.

PMI (2013) defines five PMO types: (1) *Project Office* provides a range of services to support temporary programs or projects, including administrative activities to support the project or the team. (2) *Project Support Office* provides project work management support and administrative support to the project. (3) *Business Unit PMO* provides services, including portfolio management, resource management, and operational support to projects. (4) *Enterprise PMO* is responsible for ensuring the management of portfolios, programs, and projects and seeking to align the initiatives with strategies and benefits realization. (5) *PMCoE* supports the work execution of projects by providing standards, tools, and methodologies; implementing best practices; and offering a single point of contact for project managers.

Hubbard and Bolles (2015) propose five PMO types: (1) *Project Office* provides support to a single or major project, managing the project progress and documentation. (2) *Project Support Office*, provides management of project progress and support to noncomplex projects, delivering some project control functions. (3) *Business Unit PMO* develops project portfolio operational and budget plans and oversees programs and projects. (4) *Enterprise PMO* oversees project selection and prioritization and approves master project portfolios and budget plans. (5) *PMCoE* establishes and maintains project management methodology, practices, standards, training, and competency.

Otra-Aho et al. (2018) present three PMO types: (1) *Supporter*, usually at an organization's operational level, assists project stakeholders, adopts project management tools, and develops project managers' capabilities. (2) *Coordinator* points to methods that standardize activities and processes of organizations to make project execution more effective. (3) *Controller* is associated with authority; being responsible for program, project, and portfolio management, as well as resources assignment, leading people according to the organization's goals.

Ershadi et al. (2021) identify four PMO types: (1) *Project Management Infrastructure* includes adequate systems, processes, and competencies such as methodology development,

project management training, and tools. (2) *Project Management Practices*, focuses on standards for developing practices, resource allocation, and mentoring, continuously checking the operational level results and improving controlling mechanisms. (3) *PMO Structuring* acts as a basis for achieving an effective PMO; different structural responsibilities, such as leadership, authority, and staffing, are represented by this type. (4) *Organizational Support* is focused on supporting PMO operations within an organization, gathering support, and effectively managing multiple stakeholders.

Kadenic and Tambo (2021) propose three PMO types: (1) *Serving*, which seems to be relevant in agile contexts, has an emphasis on directly supporting teams based on their specific needs through multiteam collaboration, coaching, and support. (2) *Controller*, which appears to be inconsistent in agile contexts, is dominant in traditional project environments. It enhances project control and reporting metrics by translating them into the value delivered, such as generated revenue and business results, establishing connections with executive management. (3) *Partner* focuses on organizational learning and knowledge transfer, enabling organizational capabilities to disseminate learning.

Barbalho and Silva (2022) also propose three PMO types: (1) *Supporter* encompasses functions like informing senior management, setting up and running the project's information system, and offering tools without a standardized approach. (2) *Controller* manages the project documentation, controls and monitors project performance, and develops and maintains a scoreboard for senior management. (3) *Organizational Project Management* is responsible for promoting project management, developing project management skills, and providing coaching to project managers.

Integrated View of PMO Types

Answering the first research question ("What are the PMO typologies and types emerging from the project management literature?"), Table 2 provides an overview of the PMO typologies and types. The table is structured as follows: the first column lists the references from the literature (each one corresponding to a PMO typology); the subsequent columns enumerate the PMO types as originally proposed in each typology. In total, there are 16 typologies, encompassing a total of 60 PMO types. This shows the diversity and scope of PMOs documented in academic research. In a brief analysis, it seems that each author proposes a new set of types that represent an evolution of the responsibility of the PMO, starting at a lower level and gradually evolving to a higher level with the assignment of new functions and responsibilities to the PMO.

PMO Types and Functions

To investigate the PMO functions covered by each PMO type, we based our analysis on the list of 24 functions proposed by Hobbs and Aubry (2007). The results are presented in

Table 2. Integrated View of PMO Typologies and Types

References		Types			
Englund et al. (2003)	Project Support Office	Program Management Office	PMCoE		
Kendall & Rollins (2003)	Project Repository	Project Coaching	Enterprise PMO	Deliver Value	
Garfein (2005)	Project Office	Basic PMO	Mature PMO	Enterprise PMO	
Letavec (2006)	Consulting PMO	Knowledge PMO)	Standard PMO		
Desouza & Evaristo (2006)	Supporter	Information Manager	Knowledge Manager	Coach	
Gartner Research (2008)	Project Support Office	Program Management Office	PMCoE	Federated PMO	Enterprise PMO
Hill (2008)	Project Office	Basic PMO	Standard PMO	Advanced PMO	PMCoE
Kerzner (2009)	Functional PMO	Customer Group	Enterprise PMO		
Crawford (2010)	Project Office	Business Unit PMO	Enterprise PMO		
Unger et al. (2012)	Supporter	Controller	Coordinator		
PMI (2013)	Project Office	Project Support Office	Business Unit PMO	Enterprise PMO	PMCoE
Hubbard & Bolles (2015)	Project Office	Project Support Office	Business Unit PMO	Enterprise PMO	PMCoE
Otra-Aho et al. (2018)	Supporter	Coordinator	Controller		
Ershadi et al. (2021)	Project Management Infrastructure	Project Management Practices	PMO Structuring	Organizational Support	
Kadenic & Tambo (2021)	Serving	Controller	Partner		
Barbalho & Silva (2022)	Supporter	Controller	Organizational Project Management		

Table 3, helping answer the second research question (“How does each PMO type address the main PMO functions?”). This table identifies the typologies (column 1), the respective PMO types (column 2), and the covered functions (remaining columns).

By associating the PMO types with the PMO functions, this analysis elucidates the unique contributions that PMOs can have across different organizational settings, advancing the understanding of PMO typologies and types and their practical implications. The comprehensive understanding of PMO functions across various PMO types provides valuable insights for researchers and organizations seeking to improve project management practices and leverage the full potential of PMOs (Ershadi et al., 2023).

This analysis underscores the varying nature and functions of PMOs, revealing patterns and distinctions among PMO types (Müller & Wang, 2024) and their critical role in enhancing project management capabilities and supporting organizational objectives, providing a foundational understanding of PMO practices (Müller et al., 2017).

Discussion

From the extensive analysis that was carried out, we identified several key topics that are worthy of an in-depth discussion since they have significant theoretical and practical implications. In particular, we observed a great diversity in the PMO

typologies and respective types. Furthermore, there are functions (e.g., Conduct project audits or Conduct postproject reviews) that are not covered by some typologies, suggesting a limited understanding of the PMO role. Also, agile approaches can impact PMOs; however, PMOs are typically more prepared to deal with traditional and predictive approaches. Another critical topic to address is related to the functions concerning organizational learning, such as project audits, postproject reviews, and risk management, which are also not present in most PMO types. These topics and directions for future research are discussed next.

The Diversity of PMO Typologies, Types, and Functions

A great diversity of PMO typologies, types, and functions was found in the literature. Some functions (e.g., monitor and control project performance) are prevalent across various PMO types, highlighting the grounding responsibilities of PMO.

Authors, including Hill (2008), Crawford (2010), and Ershadi et al. (2021), propose evolving PMO types, which suggests that, as the organization becomes more experienced in managing its projects, it should adopt a PMO with higher levels of responsibility and more functions.

Some typologies share the names of PMO types. However, the functions assigned to the PMO types differ by proposing

authors. For example, the Enterprise PMO type proposed by Crawford (2010) has assigned functions related to project portfolio management, whereas the Enterprise PMO type presented by Hubbard and Bolles (2015) does not include these functions. Likewise, the Controller type proposed by Unger et al. (2012) has different functions when compared to the type with the identical name presented by Barbalho and Silva (2022).

Another finding is the presence of types at a lower structure level that are referred to as PMOs. However, their function is only to manage projects at an individual level without concerns about a broader perspective of ongoing multiprojects in the organization. The remaining question is whether we can designate these structures as an effective PMO since they often only last while the project runs and are dissolved when it is finished.

The Contribution of Project Portfolio Management as a Perceived Added Value for PMOs

Not all proposed typologies include types with project portfolio management (PPM) functions, comprising identifying, selecting, and prioritizing projects and managing one or more portfolios (Crawford, 2006; Desouza & Evaristo, 2006; Ershadi et al., 2021; Kadenic & Tambo, 2021).

This suggests that PPM may be outside the scope and responsibilities of PMOs. Thus, an autonomous PPM structure directly linked to upper management may be established to align initiatives and business case analyses with the organization's strategy, assisting in better decision-making in the project selection process (Patanakul, 2020).

Nevertheless, the portfolio management structure should be closely linked to the PMO, mainly in terms of managing and enabling the resources available to multiple projects (Martinsuo, 2013; Bredillet et al., 2018). This conclusion is reinforced by our research, as the management of one or more portfolios has a significant impact on several PMO functions, which may increase the perceived importance of the PMO and thus contribute to higher project performance in the organization. A PMO can also contribute to strategic project management by facilitating or even comprising the process of PPM, enabling decision-making (Martinsuo et al., 2024; Unger et al., 2012).

The Role of the Center of Excellence

Some authors propose a Center of Excellence in project management, which could be perceived to be a high-level PMO with virtually all functions assigned. It is presented as being focused on adopting project management practices and methodologies by the organization as well as supporting, training, and mentoring project managers (Englund et al., 2003; Hill, 2008; Hubbard & Bolles, 2015; PMI, 2013).

This type of structure can be incorporated into large organizations where one or more PMOs already exist and can be

recognized as a center of excellence. Its purpose is to promote a structured and standardized approach to the best practices and methodologies, which might be adopted by other PMOs, disseminating the practice of project management across the organization. It can also be a support training and coaching center for project managers, significantly impacting how they will manage their projects, engage with stakeholders (Beringer et al., 2013) and, above all, how they successfully deliver their projects.

A PMO Center of Excellence can be an area of the PMO that focuses on developing and promoting best project management practices, standards, and processes throughout the organization.

The Rise of the Hybrid PMO

Agile approaches have changed several practices in project management by prioritizing the delivery of faster projects compared to more predictive methodologies based on formal procedures, wherein the project only moves on to the next phase when the previous one has been completed, such as those based on the waterfall approach. Agile approaches to project management promote decentralization of authority and scope, whereas PMOs are fundamentally based on rigid tools and methods to manage projects (Simard & Aubry, 2024).

Hybrid project management combines interactive and predictive approaches, allowing project teams to benefit from the positive aspects of agile management while following the progression of more traditional activities (Ershadi et al., 2021; Gandomani et al., 2020).

We have not found significant references in our study to this new context and how it might impact the PMO types; however, it is natural that new PMO types with names such as “agile centers of excellence” or “value delivery offices” would emerge in organizations adopting more decentralized structures in which teams must respond rapidly to changing project needs. This debate opens the possibility of further studies to develop new functions that support adopting agile approaches to project management in PMOs.

Assessing Results and Addressing the PMO's Organizational Learning

The PMO also serves as a repository of knowledge and application of best practices and processes, assisting organizations in continuously improving their project management capabilities (Gemünden et al., 2018).

In this context, the importance of lessons learned is especially relevant to the success of the team, the organization, and existing and future projects, helping to identify and disseminate institutional knowledge (Aubry et al., 2011; Hadi et al., 2022). With this practice, team members and project leaders can perceive what outcomes were successfully achieved or if there is potential to apply improvements for future projects.

Table 3. Analyzing the Influential Relationship Between PMO Types and Functions

References	Types	Groups:																G5							
		G1				G2				G3				G4				F19	F20	F21	F22	F23	F24		
		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14	F15	F16							F17	F18
Englund et al. (2003)	Project Support Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Program Management Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	PMCoE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Kendall & Rollins (2003)	Project Repository	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Project Coaching	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Enterprise PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Garfein (2005)	Deliver Value	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Project Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Basic PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Letavac (2006)	Mature PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Enterprise PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Consulting PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Desouza & Evaristo (2006)	Knowledge PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Standards PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Supporter	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Gartner Research (2008)	Information Manager	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Knowledge Manager	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Coach	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Hill (2008)	Project Support Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Project Management Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	PMCoE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Kerzner (2009)	Federated PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Enterprise PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Project Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Crawford (2010)	Basic PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Standard PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Advanced PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Unger et al. (2012)	PMCoE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Functional PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Customer Group	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
PMI (2013)	Enterprise PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Project Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Business Unit PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Hubbard & Bolles (2015)	Enterprise PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	PMCoE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Project Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Hill (2008)	Project Support Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Business Unit PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Enterprise PMO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Hill (2008)	PMCoE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Project Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Project Support Office	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

(continued)

Table 3. (continued)

References	Types	Groups:																							
		G1					G2					G3					G4					G5			
		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14	F15	F16	F17	F18	F19	F20	F21	F22	F23	F24
Otra-Aho et al. (2018)	Supporter	✓	✓					✓	✓												✓				
	Coordinator	✓	✓		✓	✓	✓	✓		✓				✓	✓										
	Controller	✓	✓		✓	✓	✓				✓			✓	✓			✓		✓					
Ershadi et al. (2021)	Project Management Infrastructure			✓		✓		✓													✓				
	Project Management Practices	✓	✓						✓		✓		✓	✓	✓							✓			✓
	PMO Structuring	✓	✓							✓		✓		✓	✓	✓		✓		✓					
Kadenic & Tambo (2021)	Organizational Support					✓	✓												✓						
	Serving	✓	✓			✓	✓	✓													✓				
	Controller	✓	✓	✓		✓					✓			✓	✓					✓		✓		✓	
Barbalho & Silva (2022)	Partner																		✓						
	Supporter	✓	✓						✓																
	Controller	✓	✓	✓	✓								✓	✓	✓										
	Organizational Project																								
	Management																								

Legend: G1-Monitoring and controlling project performance; G2-Development of project management competencies and methodologies; G3-Multi-project management; G4-Strategic management; G5-Organizational learning | F1-Report project status to upper management; F2-Monitor and control project performance; F3-Implement and operate a project management information system; F4-Develop and maintain a project scorecard; F5-Develop and implement a standard methodology; F6-Promote project management within the organization; F7-Develop competency of personnel, including training; F8-Provide mentoring for project managers; F9-Provide a set of tools without an effort to standardize; F10-Coordinate between projects; F11-Identify, select, and prioritize new projects; F12-Manage one or more portfolios; F13-Manage one or more programs; F14-Allocate resources between projects; F15-Provide advice to upper management; F16-Participate in strategic planning; F17-Benefits management; F18-Networking and environmental scanning; F19-Monitor and control PMO performance; F20-Manage archives of project documentation; F21-Conduct postproject reviews; F22-Conduct project audits; F23-Implement and manage database of lessons learned; F24-Implement and manage risk database.

In our findings, most of the authors have this function included in their types.

However, the functions of postproject review and project audits—processes that should be carried out after the completion of the project to assess its impacts and overall success (Varajão et al., 2022) and identify short and long-term areas for improvement—are being neglected. These functions are only considered in a few proposed types (Ershadi et al., 2021; Garfein, 2005; Hill, 2008; Kadenic & Tambo, 2021; Kendall & Rollins, 2003; Letavec, 2006).

Also, establishing an efficient risk documentation structure, particularly by having a project database risk, can help handle and improve risk management. This repository can contribute to identifying, analyzing, and proactively addressing potential risks, leading to improved decision-making and risk mitigation (Taylor et al., 2012). Nevertheless, we found that only a few authors considered this function relevant (Hubbard & Bolles, 2015; Kendall & Rollins, 2003).

All the findings mentioned above may indicate that PMO functions related to results assessment and organizational learning are still barely addressed in the proposed PMO types, and organizations underperceive their importance. This raises the urgency and opens avenues for incorporating Success Management practices into the PMO types. Success Management “focuses on defining, leveraging, and securing the success of endeavors at maximum levels by gaining a comprehensive awareness of what is valued by stakeholders to reach success and managing accordingly to that understanding” (Varajão et al., 2022, p. 481).

The Influence of the PMO on Organizational Performance

The PMO substantially impacts organizational performance, aligning projects with the organization’s strategic objectives and ensuring that projects are in harmony with its overall mission (Aubry & Lavoie-Tremblay, 2018). The PMO’s structured approach enhances project outcomes by reducing uncertainties, improving decision-making, and ensuring project delivery meets predefined criteria. Too and Weaver (2014) emphasize that PMOs play a crucial role in enhancing project outcomes by managing project complexity through coordinating, managing interdependencies, and adapting project strategies to changing circumstances.

In this context, the PMO importance is accentuated when it includes functions of the group strategic management, positively influencing organizational performance (Garfein, 2005; Hill, 2008; Kendall & Rollins, 2003; Kerzner, 2009; Otrá-Aho et al., 2018; PMI, 2013). This is accomplished through benefits management, participation in strategic planning, supporting decision-making, and promoting a culture of continuous improvement. Overall, PMOs should foster a culture of continuous improvement, contributing to adaptability, innovation, and business growth.

Future Research Directions

As PMOs continue to evolve, there is a pressing need for further research into their roles across various domains, including their function in interorganizational project settings, the influence of organizational design on their structure and effectiveness, the adoption of agile approaches, and the integration of artificial intelligence (AI) to enhance PMO operations. Moreover, examining PMO practices within specific industry sectors is crucial for understanding their adaptability and strategic contribution to diverse organizational contexts.

Direction 1: Specific Industry Sectors

Future studies should investigate the processes and factors that drive the evolution and adaptation of PMOs over time in different organizational contexts. This may include studies in various sectors (Artto et al., 2011; Joslin & Müller, 2016; Riis et al., 2019) to understand how and why PMOs change their functions, services, and structures in response to internal and external organizational dynamics. These studies can also identify whether certain types of PMOs are more prevalent or effective in specific sectors (e.g., banking, healthcare, technology) or regions, providing insights into sector-specific influences on PMO functions and perceived value.

The research may include longitudinal studies that examine how PMOs develop in conjunction with the maturity of project management in the respective organizations (Aubry & Brunet, 2016). It should provide valuable information on how organizations, over time and at different levels of maturity, adapt their PMO structures and practices to meet evolving project management needs and organizational objectives.

Direction 2: Interorganizational Environment

As organizations increasingly collaborate on a large-scale, carrying out complex projects that span multiple organizations, the role of PMOs in these interorganizational contexts becomes more critical (Brunet et al., 2024a; Pemsel & Söderlund, 2024). Future studies should investigate how PMOs operate in such contexts, focusing specifically on how they manage interorganizational coordination, communication, and governance, addressing the unique challenges PMOs face when aligning the strategic objectives, processes, and cultures of various organizations involved in a collaborative project. It is particularly relevant to understand how PMOs can contribute to resolving conflicts and aligning common objectives among the various organizations participating in interorganizational projects. Additionally, it is also important to understand the specific roles and responsibilities of PMOs in interorganizational project environments, as well as how they differ from PMOs in single-organization projects. This line of research will contribute to expanding the theoretical understanding of PMOs, incorporating perspectives from interorganizational theory and strategic management. Moreover, it will contribute to the

development of new PMO typologies or structures adapted to the unique requirements of interorganizational projects, thus increasing the adaptability and effectiveness of PMOs in complex collaborative environments. This future research direction not only aligns with the ongoing evolution of PMO roles and typologies but also addresses a critical gap in the literature regarding the role of PMOs in managing interorganizational projects—an area that is likely to grow in importance as organizations increasingly collaborate on large-scale initiatives.

Direction 3: Organizational Design

Organizational design refers to the establishment of systems of accountability and responsibility that facilitate the development and execution of strategies, human resource practices, and the activation of information and business processes. Innovative studies should delve into the behavioral and psychological aspects of PMO patterns and functions. This includes studying how organizational culture, leadership styles, and employee behavior influence the effectiveness of different PMO types and their alignment with organizational goals (Tsaturyan et al., 2015). The study by Müller and Wang (2024) provides a detailed taxonomy of PMOs, categorizing them based on their functions, roles, and the contexts in which they operate. Their work highlights the diversity in PMO structures and the varying degrees of influence they exert on project success. Nevertheless, further research may be conducted to comprehend the effects of various organizational designs (e.g., functional, matrix, projectized) on the structures, roles, and responsibilities of PMOs. This is particularly significant in organizations that are highly project oriented, where the alignment between the PMO and the broader organizational structure is crucial for achieving strategic objectives.

Direction 4: Adaptive Project Management Approaches

The integration of agile approaches into traditional PMOs represents a significant shift in the landscape of project management. Scholars have extensively studied agile in the context of software development and project execution (Latic et al., 2022; Tam et al., 2020), but further exploration is necessary to understand its implications for PMOs, traditionally operating within a structured and process-driven environment. The literature suggests that the adoption of agile approaches may lead to a fundamental transformation in PMOs, potentially impacting their roles in governance, resource management, and project oversight (Mahabir & Pun, 2022). The shift from a traditional, plan-driven approach to a more flexible, iterative process necessitates a reevaluation of PMO structures, competencies, and performance metrics. Another potential research area is the exploration of PMOs in organizations adopting agile or hybrid approaches to project management, where customer involvement, recurrence of change management, change

acceptance, and project delivery frequency are considered key elements. This involves studying whether traditional success factors (such as adherence to scope, time, and budget) are still relevant or if new metrics should be developed to capture the success of agile projects. This may include investigating how PMOs balance traditional governance structures with the need for flexibility and agility in rapidly changing project environments.

Direction 5: The Potential Effects of Artificial Intelligence

The integration of AI into PMOs represents a cutting-edge area of research with the potential to revolutionize project management practices (Müller et al., 2024). As AI technologies continue to evolve, their application within PMOs can transform various aspects of project management—from decision-making processes to resource allocation and risk management (Marnewick & Marnewick, 2022). This includes exploring the biggest challenges PMOs are currently facing and how AI can address these challenges by efficiently supporting the different PMO functions. AI tools can analyze large datasets, identify patterns, and provide predictive insights that PMOs can use to optimize project outcomes. AI has the potential to automate routine PMO tasks such as scheduling, budgeting, and reporting. This automation can allow PMO staff to focus on more strategic activities, enhancing the overall efficiency and effectiveness of the PMO. Research may explore how AI-driven decision-making compares with traditional methods and what training or adjustments PMO personnel might need. This research is crucial as it offers the potential to significantly enhance the capabilities and effectiveness of PMOs, aligning them with the rapid technological advancements that are shaping the future of project management.

These future research directions are aligned with the recent Brunet et al. (2024b) editorial in the special issue “Project Management Offices and Organizational Design.” These authors suggest future research related to PMOs for megaprojects, actor- and practice-based perspectives on PMOs, PMO landscapes, PMOs as catalysts for innovation, organizational design in idiosyncratic contexts, organizational design for grand challenges, and AI promises and challenges for organizational design in project settings.

The limitations of our study also pave the way for new research. Regarding the PMO functions, we based our research on the study of Hobbs and Aubry (2007) since it is a relevant and comprehensive study of PMO functions. Nevertheless, other studies may present new functions that are not covered in this research. Another limitation is that results are exclusively based on studies published in English, eventually overlooking research in other languages. New research can tackle these limitations by considering other PMO functions and including studies published in different languages.

Conclusion

Over the years, the PMO has evolved, becoming the reference organizational unit in project management, providing methodologies and tools for successfully executing projects. Its contribution to business makes it an essential component in modern organizations that connect the complex relationships of strategies, projects, and organizational structures. Most typologies and types examined were established within the last two decades when the concept of PMOs became significantly discussed by researchers and practitioners in the project management community.

This study presents the results of a comprehensive review of PMO typologies, analyzing the various types based on the functions they encompass. Our research identified 60 distinct PMO types across 16 typologies, highlighting the high diversity and evolving nature of PMOs. The findings also show the evolution and adaptability of PMOs, revealing a progressive transition in typologies, starting from lower-level PMO types and developing into higher-level types of greater responsibility and power in the organization. In our analysis, four PMO types emerged as the most prevalent across the typologies: Enterprise PMO, Controller, Project Office, and PMCoE. The most frequently supported functions include Report project status to upper management, Monitor and control project performance, and Manage archives of project documentation. Moreover, in our effort to present the distinctions among the PMO types, particularly regarding the functions assigned to them, the study exposes significant variability in their forms and responsibilities.

The contributions of this study to theory and practice are multifaceted. Theoretically, it advances the understanding of PMO typologies by integrating knowledge from various empirical studies, providing comprehensive descriptions of PMO types and their associated functions, and offering a foundation for examining the role and impact of PMOs in organizational contexts. This study also offers valuable insights for practitioners by highlighting the diverse roles and responsibilities that PMOs can assume. By mapping PMO functions to specific types, organizations can better understand the strategic value of different PMO configurations and make informed decisions about their implementation and management. This understanding can lead to the development of more effective PMO structures tailored to organizational needs, thereby improving project performance, resource utilization, and stakeholder satisfaction. Overall, our study shows the dynamics of PMO structures, revealing the recent emergence of new typologies, which means that it is a phenomenon that is constantly evolving and demanding research.

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