

REVIEW ARTICLE

Project Management Office (PMO) implementation and business management, a systematic review of the last decade

ABSTRACT

The purpose of this review paper is to recognize the evolution of the implementation process of Project Management Offices (PMO) and their contribution to the improvement of business management. Methodologically, an approach based on the analytical method was used, based on a review of literature and research on the basis of previous studies, with a systematic approach to update and answer one or more research questions posed. Some of the criteria suggested by the PRISMA approach were used to review the state of the study in detail and with the lowest possible level of bias. Quantitative studies published as scientific papers, short reports, and doctoral or master's theses were included. The results recognize important contributions as the model and the tool clarify what are the functions of the PMO, which are useful tools for auditing, planning, intervention/control and research. The implementation of a PMO is a response to an organization's need to manage successful projects through sound resource management, strategic planning and professional leadership. It is concluded that a PMO based on the Project Management Institute (PMI) standard can improve its management processes, achieving higher performance.

Keywords: Proposal; Implementation; Project Management Office (PMO); PMI Standard; Management.

José Luis Montalvo Mejía

jmontalvom@unmsm.edu.pe

ORCID: <https://orcid.org/0000-0002-2882-797X>

Universidad Nacional Mayor de San Marcos, Facultad de Ciencias Administrativas, Lima, Peru

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INTRODUCTION

The use of the project methodology to organize work has recently become a trend within the mechanisms of strategic and operational management in the business environment. The adoption of this methodology has led to the implementation of management strategies within organizations to achieve quality, optimization and development of effective activities. According to Sundqvist (2018), organizations that adopt projects as a tool to run most of their operations are known as project-based organizations (PBOs).

For Miterev *et al.* (2017), PBOs can take different forms. In particular, this study focuses on PBOs as distinctive and permanent organizations that manage to incorporate multiple projects (e.g., a project or research and development [R&D] department), as opposed to temporary project alliances with multiple partners or legal entities that exist only to fulfill a life cycle of a specific project.

Project management has been widely discussed in the research literature as an important strategic and tactical element. Project management no longer operates only at the tactical level, executing specific projects, but represents a dominant model in many organizations at the strategic level (Killen *et al.*, 2012). Establishing a PMO is one strategic way to work with the value of project management and make it effective. Another way is to implement specific project strategies in organizations, that is, to highlight how projects create or add new value to an organization, but a good project strategy involves working effectively and efficiently, implementing a project management process that means doing the right projects and doing them well. Therefore, project strategy is about both effectiveness (making the right decisions by defining the outcome in the best way) and efficiency (executing these decisions in the right way) (Patanakul and Shenhar, 2012).

Today, project management is no longer considered an operation at the tactical level, such as the execution of specific projects, but also represents a dominant model in many organizations at the strategic level (Patanakul and Shenhar, 2012). That is, projects can be a

powerful strategic tool, creating economic value and competitive advantage for organizations, but value in project management does not happen by itself, it needs to be organized. The known way to coordinate project management value work in an organization is the creation of the Project Management Office (PMO) (Pemsel and Wiewiora, 2013), which works with programs, portfolio management and project strategy implementation as permanent structures. Project strategy management is recognized as an important means of systematically working towards and implementing various organizational goals, but it is important that all projects are aligned with the strategic direction of the organization to be most effective (Patanakul and Shenhar, 2012).

There is evidence of the global adoption of project management practices and the well-known project management office (PMO). However, according to Alblooshi (2018), there are challenges to be faced, such as finding standard criteria to prove success stories in the current literature. Therefore, in order for an organization to achieve efficient development in its environment and ensure proper business management in which multiple projects are developed and objectives are achieved, it is necessary to propose the implementation of a specialized department with the aim of aligning projects with strategic objectives. This is known as Project Management Office (PMO), which becomes the central organizational structure of the company that manages the projects of interest.

Theoretically, according to Barreto *et al.* (2021), the PMO is one of the most complex concepts existing in the construction sector, indicating that it is not easy to find a single definition that can be used in all organizations due to their different business needs. However, the Project Management Institute (PMI) has suggested that PMOs can be considered as a group, department or group of experts that includes people from different areas within an organization who work daily to define and maintain standards that can be applied in the best practices of project management for the entire company (PMI, 2021).

Peru, since 2010, has become a country of great attraction for investments, both national and international, due to the effects of globalization, a situation that has favored the influence of the implementation of a PMO in companies in the construction sector. It should be noted that infrastructure investment is currently one of the main pillars of economic development in Peru.

Companies in the construction sector have developed all their productive activities in a context of strong competition, implementing strategies aimed at achieving sustainable growth over time, for which they have required a certain level of innovation in their management systems. Thus, the implementation of a methodology to efficiently guide project managers to achieve optimization is a key innovative option (Noriega and Samanamud, 2020).

Thus, through a practical proposal of the implications of the operation of an organization under the figure of an implemented PMO, it is intended to recognize the improvements in the processes of consolidation of processes, definition of procedures, determination of different methodologies to address the areas of knowledge, capitalize on lessons learned, and take control at the time when the company needs to grow and improve production through the simultaneous execution of multiple projects. In this order of ideas, the successful implementation of a PMO is largely related to the level of maturity that the company has, since it is related to the degree of growth to successfully manage multiple parallel projects.

Regarding PMO, Darling and Whitty (2016) argue that PMO is an exercise to adapt and sustain practices, methods, tools and techniques in the organization. According to Pontes (2021), PMOs are organizational units that provide project managers, project teams, and functional managers with access to principles, practices, and various methodologies used for efficient and effective project management.

The definition of PMO in the PMBOK Guide has evolved over time. Analyzing the third (2004), fourth (2004), fifth (2013), sixth (2017), and seventh (2021) editions, it is clear that they are all different. The third and fourth editions of the PMBOK® Guide refer to the PMO

as a centralized structure, but the fifth edition emphasizes the importance of a structure that maintains consistent business objectives and responds to organizational needs. However, the fifth edition focuses on management structures, which can introduce different types of structures into organizations, each differing in the control and influence delegated to the PMO entity. This version emphasizes the functions of standardizing and facilitating the sharing of resources, methods, tools, and technologies (Pontes, 2021).

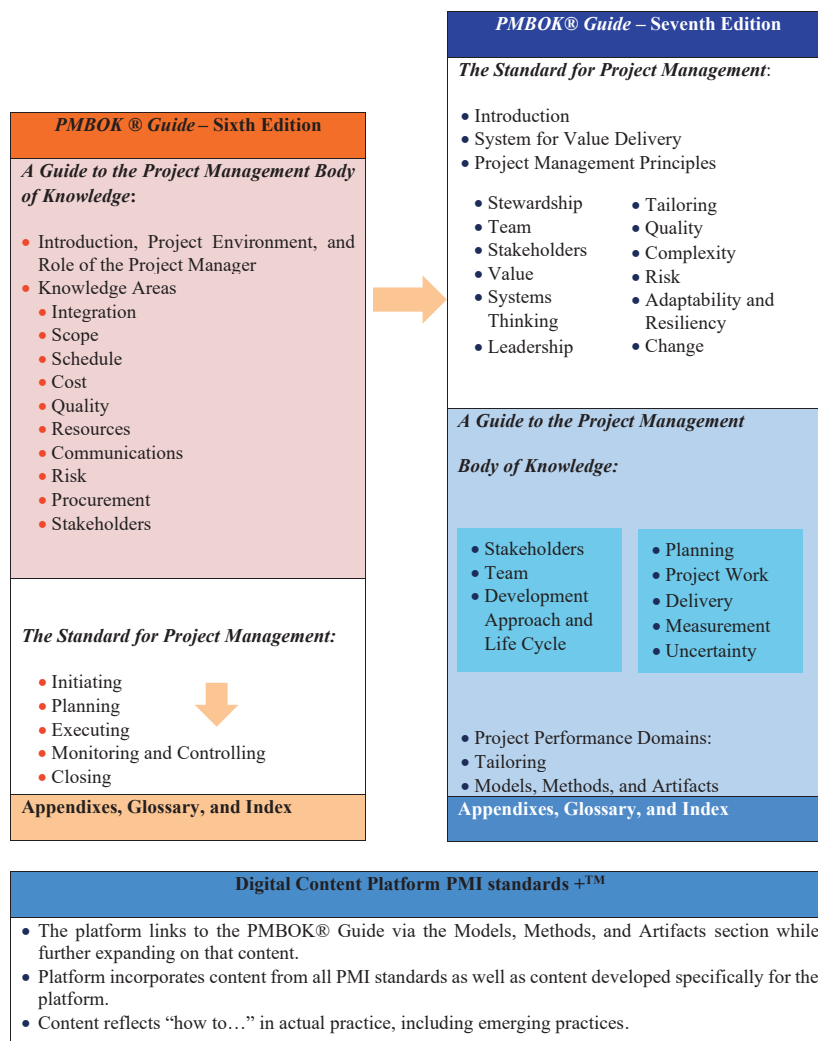
The Sixth and Seventh Edition PMBOK Guides and the Project Management Institute (PMI) Standard for Project Management, as shown in Figure 1, are complementary documents that recognize that a PMO represents the structure of an organization responsible for standardizing project-related processes and facilitating the exchange of resources, methodologies, tools, and techniques of all functions performed within a project, from the smallest activities or functions to the broadest areas that support the management of any project.

The process-based standards are mandatory in nature and differ between the sixth and seventh editions. PMI provides a statement on effective project management to achieve total value delivery, moving from a predictive approach to an adaptive and hybrid approach. The most significant changes noted were standards based on different principles to support effective project management and focus on expected results. The choice of which type of PMO to implement in an organization depends on a preliminary assessment that identifies the maturity of the company and project management in the industry, as well as the perceived benefits to be gained after implementation, bearing in mind that the main objective of this strategy is to deliver what the customer perceives.

The world is becoming increasingly competitive and organizations are opting for more dynamic organizational innovations that involve managers. From this perspective, organizations strive for quality, value, productivity, competitiveness and efficiency to achieve business success, around and directly oriented to

Figure 1

PMBOK Guidelines and PMI Project Management Standards



Note. Adapted from Project Management Institute (PMI), 2021.

the management philosophy at the structural level of the organization (Garcia *et al.*, 2021).

For Taylor (1981), management is defined as the art of knowing what to do and improving it, increasing efficiency, all related to administrative functions. According to Hernandez (2011), from different perspectives, management represents the process of planning, organizing, directing, coordinating and controlling. Ansoff and McDonell (2002), Hill and Jones (2011), Koontz *et al.* (2012) and Drucker (2014) argue that leadership is based on the need for the leaders of an organization to be responsible for defining the goals and objectives to be achieved and the direction to be followed. Chia-venato, cited in Quiñónez *et al.* (2020), agrees

by recognizing that management consists of taking actions to achieve results in an economical but effective manner.

The perspectives of Drucker (2014) and Barios *et al.* (2021) recognize the importance of implementing management models to interact with the environment and identify the different factors that add value to position itself as a competitive and productive organization (Quiñónez *et al.*, 2020), they also recognize that management is the art of adapting organizational strategies to achieve results. Leadership involves preparation, decision making, action, and feedback to achieve the organization’s vision, mission, goals, and objectives.

With respect to management, the PM-BOK® Guide 2021 states that the project management methodology is consistently managed in every project from the initial idea to project completion. In addition, each project has a life cycle that is described in detail, and roles are defined very precisely so that the different project stakeholders know their own responsibilities and tasks (PMI, 2021).

On the other hand, the project manager or project management (PM) method provides clarity and localization in project implementation and decision making, including project-related processes, as well as a systematic guide to basic concepts that allow projects to be executed in a consistent manner. Basically, the PM method helps people understand how to transfer and apply the methodology to projects in the process of execution, taking into account the planning, organization and control of these projects.

From this perspective, planning is part of a rational process for making decisions in advance, which considers the selection of courses of action to be followed within the organization, as well as in each of the units that comprise it, in order to achieve the objectives efficiently (Hernández, 2017). According to the same author, “el proceso de organización comprende la conformación de una estructura integrada, formalizada de manera permanente, así como el establecimiento de roles para todos los integrantes de la organización” [the organizational process involves the conformation of an integrated structure, formalized in a permanent way, as well as the establishment of roles for all members of the organization] (p. 37).

With regard to control, Estupiñán (2022) points out that it is a function derived from the administrative processes through which “evaluado el rendimiento, en ese orden de ideas, el control es un elemento dentro del proceso administrativo que debe agrupar todas las actividades emprendidas para otorgar garantías a las operaciones reales y que éstas coincidan con las operaciones planificadas” [performance is evaluated, in this order of ideas, control is an element within the administrative process that should group all the activities undertaken to provide guarantees to the actual operations

and that these coincide with the planned operations] (p. 39).

This study is justified and has a high importance, since the findings found are based on the current gap of how the lack of a PMO and project management processes can negatively affect the implementation of a project, generating cost overruns.

In this sense, this research is theoretically justified due to the fact that a systematic literature review was conducted, which addressed the main existing problems about the possible causes of project delays; therefore, the theories collected in the study are aligned with the current strategies that allow closing the knowledge gaps (Pontes, 2021), being plausible the implementation of a PMO to manage the companies' projects. In practice, this research is justified because the results obtained can significantly contribute to the current existing literature on project management in relation to a PMO and the management of infrastructure projects that are aligned with the business strategies of companies.

The problem is described based on the recognition that the implementation of a PMO based on the PMI standard in Peru is an effective innovative strategy that, in these competitive times, will guide the managers of companies in the construction sector to develop and execute simultaneous projects with high synchronization and certainty of success.

As a general problem, the following was proposed: How has the implementation of Project Management Offices (PMO) evolved in recent years in terms of business management?

METHOD

Traditionally, literature reviews and research activities have been considered separate tasks, although both activities aim to discover something from previous research or studies (Newman and Gough, 2020). When referring to a systematic literature review, it refers to a comprehensive review of the literature with a systematic approach so that the researcher can update and answer one or more posed research questions. It is a set of research methods that includes secondary types of research that are

integrated with the results of primary research. This means that the limitations of the empirical findings of individual studies must be overcome (Newman and Gough, 2020).

In order to review the status of the study with reproducibility and the lowest possible level of bias, it was decided to use some of the criteria suggested by the PRISMA approach (Page *et al.*, 2021). In this sense, the initial selection of documents is generated using search engines of electronic databases, scientific support portals, journals and archives. The Boolean formula used in the title or keyword search field is [“Project Management Office” OR “PMO” OR “Business Management”) AND (“Relationship” OR “Incidence”)]. This research topic can be developed in a human resources and management context in portals such as SciELO, Redalyc, EBsCo, university repositories and other interdisciplinary databases. Only Open Access publications published between 2010 and April 2023 were considered as a filter, and the information collected was organized in electronic databases. Information on authorship and year of publication, information on the sample, purpose, results, conclusions, and information on the methods and tools used are systematized here. Table 1 summarizes the approach:

Inclusion and exclusion criteria

Several inclusion and exclusion criteria were proposed to define the scope of the search for papers and other documents to ensure the quality and relevance of the studies found.

First, the research participants must be companies in the national or international environment, and only quantitative studies published in the form of scientific papers, short reports, or doctoral or master’s theses were included, because of the need to measure, from previous studies, the effectiveness of the implementation of a PMO in terms of improving

business management in a statistical way, in order to be able to support the perception in the results. It is evident that qualitative research is more suitable for theory building, while quantitative research provides a better way to test theories, so quantitative studies were chosen.

On the other hand, studies that did not allow the identification of the evaluation population and those that did not provide information on the instruments used, as well as secondary studies that did not correspond to the selected time period, were excluded.

Ethical considerations

Electronic databases and filters were used as a systematic review of the literature. Therefore, inclusion and exclusion criteria were recommended, as well as rigor and sequencing of the filtering and study selection processes to guarantee unbiased results. All the works used for this study have been adequately cited and the information obtained from them has not been modified.

RESULTS

The strategy used for data extraction is in accordance with PRISMA and is the same process as the initial search for papers available for research in selected scientific portals or databases and/or university repositories, allowing to obtain a variety of documents that are listed in Excel.

From the list of authors obtained, the country of origin of the document, the website of the document extraction portal, the year of publication, abstract, keywords, results and conclusions were analyzed.

During the process of retrieval, collection and cleaning of the papers, the researchers participated in the review and selection of the

Table 1
PRISMA approach method

P (Population)	National and international companies
I (Intervention)	Relationship: [["Project Management Office" OR "PMO" OR "Enterprise Management") AND ("Relationship" OR "Incidence")].
O (Result)	(“Project Management Office” AND “Enterprise Management”)

Note. Adapted from Page *et al.*, 2021.

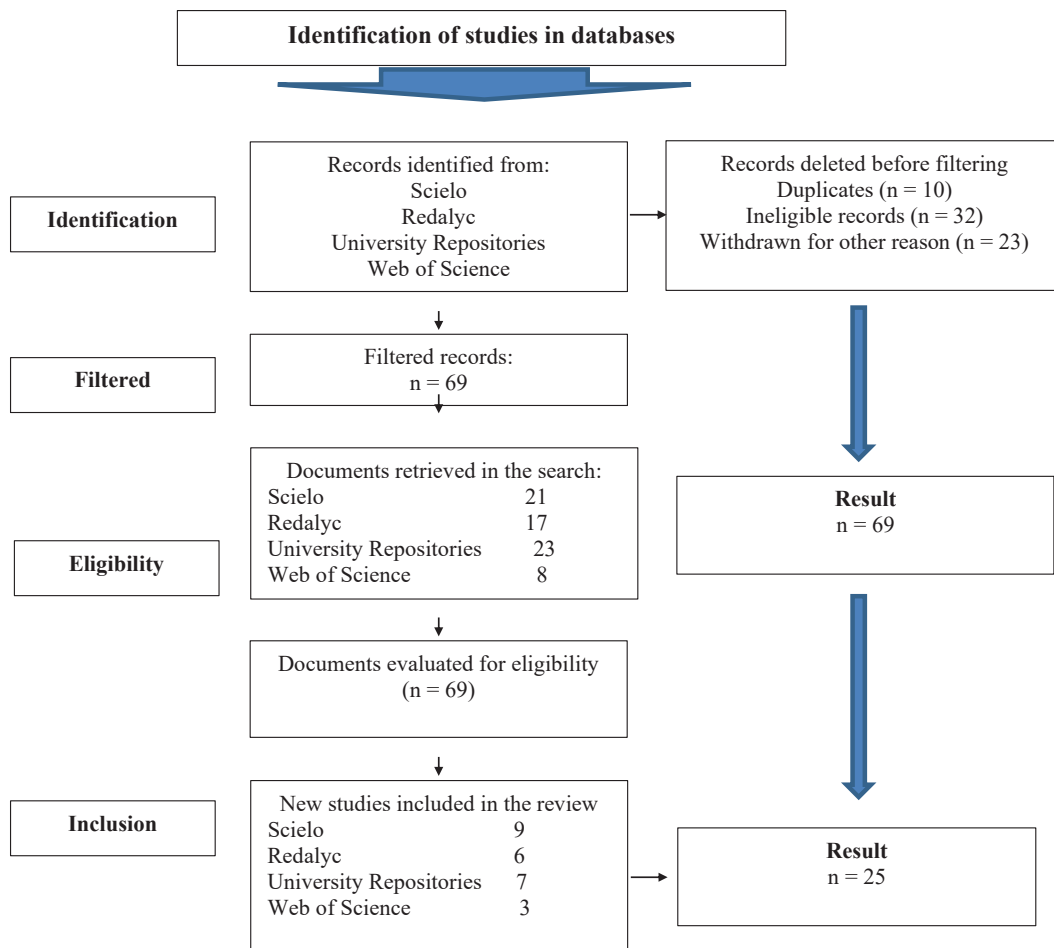
papers. The final review of the papers was discarded as shown below:

A detailed summary of all the findings found by specifically evaluating each scientific paper registered and extracted from the database as part of the implementation of the systematic review is presented in the results section. During the search process, graphical models, charts or tables were also selected that could provide an overview of the collected documentation in a highly organized manner to understand the relationships between the variables of the chosen topic.

The following figure shows the most frequent keywords in the 25 papers in the database: “management”, “project management”, “project management office”, “PMO”, “performance”, “yield”, “organizational scheme”, words that show a high degree of repetition (see Figure 3), which shows that they are not necessarily the words included in the search specifically.

Below is a list of some of the papers and documents of great interest collected from the portals selected for analysis, processing and systematization (see Table 2), taking into account the inclusion and exclusion criteria:

Figure 2
Database selection process



Note. The figure above shows the selection process of the papers, referring that at the beginning of the search a total of 69 papers were identified as useful which, after a filtering process, some were left aside because they did not correspond to the objective of the study, the date to be taken into account (less than 5 years of research), and diverse applications of the chosen environment. Thus, 25 papers were considered and served as the basis for this paper. Prepared by the authors, 2024.

Figure 3

Keywords searched



Note. Image created using the WordArt application for creating images related to keywords in searches. It is clear that terms used in systematic reviews appear more frequently than others. Prepared by the authors, 2024.

Table 2
Relevant papers in the study

Author	Year	Title	Country	Journal	Result
Reyes <i>et al.</i>	2020	Diseño de una oficina de gestión de proyectos para la empresa Instelmec SAS	Chile	<i>Obras y Proyectos</i>	Management in the organization is analyzed from different perspectives, such as project portfolio management, organizational culture and project effectiveness, project management practices, and project management maturity measurement (Reyes <i>et al.</i> , 2020).
Chávez, W.	2022	Implementación de una oficina de dirección de proyectos (PMO) en la Secretaría de Seguridad Operacional y de Aviación Civil de la Aeronáutica Civil (SSOAC).	Colombia		The implementation of a PMO is a response to an organization's need to manage successful projects through sound resource management, strategic planning, and professional leadership (Chavez, 2022).
Velásquez <i>et al.</i> , 2022	2022	Modelo conceptual e instrumento sobre las funciones de la oficina de gestión de proyectos en ámbitos educativos	Chile	<i>Ingeniare, Revista chilena de ingeniería</i>	The model and tool clarify what PMO functions are, what they represent, and how they can be measured in institutions. They are useful for teaching, auditing, planning, intervention/control and research on the subject (Velásquez <i>et al.</i> , 2022).
Bustamante y Miranda.	2021	Diseño de una oficina de dirección de proyectos (PMO) en la empresa CORPACE Ingeniería y Servicios Generales SRL	Peru	PIRHUA	To better manage the increased workload, it is necessary to create a project management office to coordinate all matters related to programs and projects. This type of office is the appropriate option to address the identified opportunities for improvement (Bustamante and Miranda, 2021).
Varela.	2021	Propuesta de diseño de una oficina de dirección de proyectos (PMO), para la empresa Confluent Medical Technologies C.R, para ser evaluada por la dirección de la compañía en el segundo semestre del 2021	Costa Rica	Universidad Latina de Costa Rica	The PMO can perform the analysis from the general to the specific, because since the development of PMI, its organizational capabilities to manage portfolios, programs and projects have been anchored in good project management practices (Varela, 2021).
Rodríguez.	2023	Implementación de una oficina de gestión de proyectos (PMO) en la empresa CODOCA S.A.	Costa Rica	UCI Costa Rica	The study describes the current situation, the projects under development and their characteristics. This is followed by a series of recommendations for improvements in various project management practices. Finally, a management plan for the development and implementation of the PMO project was proposed (Rodríguez, 2023).
Rivera y Flórez.	2023	Marco de Trabajo para la Implementación de una Oficina de Gestión de Proyectos (PMO) en la Compañía Risk & Solutions Group Ltda Bajo los Lineamientos de la Metodología PM4R	Colombia	Revista Craiusta	The business management program should analyze its production capacity to determine whether the goods and services delivered are determined by the satisfaction of customers and employees or by parameters aimed solely at increasing the financial capital of the company; that is, in direct response to the objectives of automated production processes (Rivera and Florez, 2023).
Cozza.	2023	Estudio de mejoras en el departamento Digitalización de Procesos de una empresa del sector logístico basadas en un enfoque de Dirección de Proyectos. Desarrollo del Plan de dirección de la implementación de una Oficina de Dirección de Proyectos (PMO)	Spain	Universitat Politècnica de Valencia	The need to implement a Project Management Office (PMO) is to support the standardization and monitoring of various projects and strive to improve the quality of projects, thereby improving the quality of services (Cozza, 2023).
Huertas.	2020	Propuesta de oficina de dirección de proyectos (PMO) para empresas de interventoría del sector de la construcción (modelo ARQ Consultoría S.A.S.)	Colombia	Fundación Universidad de América	A PMO project office is necessary for good project practices to achieve successful goals. It also promotes standardization of processes and the growing intention to introduce a project management office (Huertas, 2020).
Alegria <i>et al.</i>	2021	Diseño de la Oficina de Dirección de Proyectos (PMO) en una empresa de servicios peruana	Peru	Repositorio UPC	Describe in detail the resources to be included in the task, their location in the organization and define their key roles and functions. On the other hand, as a final addition, define the implementation steps that we must follow so that the PMO can adapt quickly and smoothly to the organization (Alegria <i>et al.</i> , 2021).

Note. It is also recognized that the selected papers show the contribution of each of the sources, recognizing the need to implement a PMO within the organization, as well as the contribution it provides as a tool to an organization and the benefits it would bring. Prepared by the authors, 2024.

DISCUSSION

Project management practices and the adoption of Project Management Offices (PMOs) are an obvious and widespread reality around the world. The challenge is that PMOs come in many forms, with different roles, responsibilities and levels of maturity. The challenge is that there are no standardized project success criteria in the literature, making it difficult to establish a clear link between the PMO and project success and/or failure (Alblooshi, 2018).

The primary purpose of a PMO is to improve organizational performance. It should act as an agent to spread PM standards, practices, and culture throughout the organization. However, by understanding the reasons for project failure, the PMO can also increase organizational maturity, project effectiveness, and help quantify the impact on project success (Oliveira *et al.*, 2017).

For Pietinen (2019), the PMO is a management mechanism that provides a focal point for the organization's project management activities. Often, organizations choose to establish a project management office (PMO) to support, manage, and optimize their project management efforts. PMOs are known by various names such as project office, project management office, project management center of excellence, or project management department. A PMO is a source of documentation, guidance, and metrics for project implementation and management practices and represents an independent and structured process for determining whether a project's planned activities comply with project and organizational policies, processes, and procedures (Aubry and Lavoie, 2018).

About the theory of project management, it is important to mention that the basic concepts of PMO have broad definitions. Over the years, the concept has changed, adapted and evolved. The PMO phenomenon is a dynamic and changing feature of the project landscape, from the initial management of non-operational work to the management of human resources involved in projects (Darling and Whitty, 2016).

Important contributions have been obtained from the reviewed papers. From the study conducted by Reyes *et al.* (2020), it is known

that the organization is analyzed from different perspectives, such as project portfolio management, organizational culture and project effectiveness, project management practices and project management maturity measurement. For Velásquez *et al.* (2022), the model and tool clarify what the PMO functions are, what they represent and how to measure them in educational institutions. They are useful for teaching, auditing, planning, intervention/control, and research on the subject.

The implementation of a PMO is a response to an organization's need to manage successful projects through sound resource management, strategic planning and professional leadership (Chavez, 2022), taking into account the resources to be involved in the task, their location in the organization and the definition of key roles and functions. Finally, it proposes the implementation steps to be followed so that the PMO can adapt quickly and smoothly to the organization (Alegría *et al.*, 2021).

To establish a project management office, it is necessary for the office to coordinate all program and project issues to better manage the increased workload. This type of office is the appropriate option to address the improvement opportunities identified (Bustamante and Miranda, 2021). In the study by Carrasco (2022), the feasibility of implementing a PMO in service companies is appreciated, since it allows reducing delivery times, increasing customer satisfaction and generating a new organizational image, applying the PMBOK standard guide to make the standardization of project management processes feasible. For Escobar (2020), the implementation of a PMO will allow several improvements in the responsiveness of organizations, proposing improvements in the attention to requirements, institutional image and greater preparation to meet large volumes of research projects to be funded.

Other studies, such as the one by Ezcurra *et al.* (2019), state that the implementation of such a PMO allows a high alignment between the different projects in the company's portfolio and the strategic objectives, in addition to helping to identify whether a national investment is moderate risk, profitable or very strategic for fishing companies. From the

international approach, the study by Giraldo and Naranjo (2022) identifies weaknesses in project management, such as the absence of training programs for the personnel who carry out projects, no spreadsheets or plans for project control, no analysis of lessons learned to provide a historical archive of lessons learned, poor project management, no standard process for project follow-up, decision making and project management exclusive to the general manager.

Huertas (2020) states that construction companies need a PMO to achieve a systematic direction, because problems of management overload have been identified, in addition to a lack of integration in organizational management; in short, it is essential to establish an integrated system in management that allows the synchronization of technical, administrative and commercial management. In this regard, Santos da Valle *et al.* (2018) explain that, according to the nature of construction projects, which include a variety of processes, policies and procedures, the PMO in this sector is mainly used as a coordination center to close the gaps between projects implemented by senior management.

A project office is necessary for good project practices to achieve successful goals and promote standardization of processes, hence the growing trend of various companies to have a project management office (Huertas, 2020). It is interpreted that the PMO can perform a complete analysis, from the general to the specific, because since its development, its organizational capabilities to manage portfolios, programs and projects have been anchored in good project management practices (Varela, 2021). The studies describe current situations, projects under development and their characteristics. This is followed by a series of suggestions for improving different project management methodologies; finally, a management plan for project development and implementation is proposed (Rodríguez, 2023).

The business management program should analyze its production capacity to determine whether the goods and services provided are determined by customer and employee satisfaction or by parameters aimed solely

at increasing the company's financial capital, that is, in direct response to the objectives of automated production processes (Rivera and Florez, 2023). The need to implement such an office is to support the standardization and monitoring of different projects and to strive to improve the quality of projects, thus improving the quality of services (Cozza, 2023).

Finally, Pontes (2021) asserts that PMOs began to become popular in the late 1990s, and these are specialized groups of people who work on projects to execute and enforce a set of functions that reflect the performance of the organization, while Alqahtani (2019) asserts that organizations can maximize the value of PMOs by standardizing practices and consolidating their initiatives across the company.

It is important to quote Dr. Cecilia Boggi (Argentina), who is certified in Project Management and PMP, has an MBM and a PhD in Business Administration, with more than 20 years of experience in software development and project management, who was interviewed by the author of this research paper. According to Dr. Boggi, such an office is a variable concept that can have different meanings, and in any organization that has a PMO, these can be different from each other. It is a different concept if it is an entity, a department, a group of people or even a single person whose purpose is to support the management of projects within the organization, i.e. to ensure that projects are executed as well as possible.

All of the above indicates that the implementation of a PMO represents a pillar in the organizational unit, group or department within an organization or company that defines and maintains standards for the management of projects and programs within the organization; that is, such an office is constituted as a body or organizational unit that is assigned various responsibilities related to the centralized and coordinated management of those projects under its domain. The PMO's responsibilities can range from providing project management support functions, to overseeing project management, to being responsible for the direct management of projects. Strategic initiatives are critical to success in today's increasingly complex business world; however, most initiatives

(projects) fail to meet the desired business objectives during implementation.

Therefore, PMOs serve as facilitators of strategic change in the organization to drive successful business results, being a strategic driver of organizational excellence that seeks to improve the practices of leaders, taking from them the ideas that must be substantiated and feasible to execute. The implementation of such an office helps to achieve this.

CONCLUSIONS

- The PMO is essentially an organizational structure that centralizes, coordinates and oversees the management of projects and programs and must be established and aligned with the culture, structures and requirements of the organization.
- The implementation of a PMO based on the PMI standard enables the improvement of management processes and the achievement of higher business performance.
- When a PMO based on the PMI standard is implemented in the company, the strategic planning of the institution will be improved, promoting an effective achievement of the objectives set.
- The implementation of a PMO based on the PMI standard will consistently improve the organizational scheme of work and professional processes performed in the company, achieving greater optimization of human and material resources available.
- The implementation of a PMO based on the PMI standard guarantees an effective improvement of all control measures applied in the organization, preventing failures or conflicts that interfere with the good performance and performance of the company.

RECOMMENDATIONS

- It is essential that the PMO play a critical role in delivering value to the organization by supporting the delivery of key strategic projects and programs. To do

this, PMOs must become more strategic, shifting their focus from process to value delivery, while developing their capabilities and processes accordingly.

- To successfully execute these initiatives, PMOs need to be aligned and empowered. Choosing the culture, professionalism, and leadership style of the PMO is critical, as this office is expected to increase stakeholder value and satisfaction.
- PMOs are required to be part of the strategic planning team as a vital and strategic aspect of corporate governance. These offices enable active participation in strategic planning and help shape strategy by providing feedback to executives on performance, labor costs, and customer satisfaction.
- The implementation of a PMO should nurture talent and develop skills, with executives acquiring at least core competencies. Project management excellence remains a critical capability for PMOs. The most successful organizations recognize the unique role of the project manager and create significant learning and development programs to mature project management skills.
- New digital technologies must be embraced. Every organization, regardless of industry, must have a skilled IT staff with a strong focus on innovative and creative technologies as the organization must respond quickly to a changing business environment.
- Today, the PMO must actively seek ways to improve overall organizational performance, as well as ways to communicate performance improvements throughout the organization using new technologies and flexible operating models.

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Conflict of interest

The author has no conflicts of interest to declare.

Author contributions

José Luis Montalvo Mejía (lead author): conceptualization, data curation, formal analysis, funding, research, methodology, project management, resources, software, supervision, validation, visualization, writing (original draft, review, and editing).