

# THE ROLE OF PROJECT MANAGEMENT OFFICE (PMO) IN CONSTRUCTION SECTOR: A QUALITATIVE CASE STUDY IN THE DEPARTMENT OF MUNICIPALITY AND TRANSPORTATION (DMT) IN ABU DHABI EMIRATE

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## Abstract

Project management office (PMO) has become more and more necessary in many businesses in recent years as a result of its beneficial effects on the projects that are being undertaken. Although this situation is also present in the United Arab Emirates, particularly in the Emirate of Abu Dhabi, PMO does not function as it should. Since there is currently no literature that expressly discusses the job of the PMO, this study aims to provide the PMO's role so that they can effectively move out their project mission. Three primary tasks are carried out in this study using a descriptive qualitative research style. Initially, ascertaining the PMO's functions based on the literature review. Secondly, basing the pre-survey on the results of the literature review on the PMO's functions. Establishing focus groups to deliberate, confirm the pre-survey results, and ascertain the PMO's function is the third step. Throughout the seven PMO functions, this study identified numerous roles for PMOs. Respondents to the survey were PMOs, even though it was conducted as part of the PMO in the DMT in the UAE's Emirate of Abu Dhabi. The results provide an opportunity for further research on the PM competency framework and add to the newest developments in PMO literature, according to practitioners and certain academics from the United Arab Emirates.

**Keywords:** *Project Management Office (PMO), Construction sector, Qualitative, Case study, Department of Municipality and Transportation (DMT), Abu Dhabi, Emirate*

## 1. Introduction

Project management in the construction sector, as highlighted by Lippi and Mateusz (2019), encompasses the initiation, organization, execution, oversight, and conclusion of projects to attain specific objectives within defined timelines. Aftab et al. (2016) describe it as the vigilant supervision and control of project goals and objectives. The Project Management Institute (PMI) underscores the utilization of knowledge, skills, tools, and strategies to meet project requirements (Abdelghany et al., 2017; Wijesundara et al., 2024). The Association for Project Management expands on this, characterizing project management as a comprehensive process involving definition, planning, monitoring, control, and delivery to realize predetermined benefits (Moehler et al., 2018; Udriyah et al., 2019; Horani et al., 2023). Recognized for its systematic procedures and essential soft skills such as cooperation, leadership, and teamwork, project management is

acknowledged as a facilitative function for expeditiously and effectively resolving complex problems (Silva et al., 2021).

In the specific context of the Department of Municipality and Transportation (DMT) in Abu Dhabi Emirate, this study investigates the qualitative aspects of the Project Management Office (PMO). The PMO's role in this construction setting will be explored, shedding light on its contribution to the efficient execution of projects within the department.

Organizational structure adjustments as well as the creation of new roles and departments, of which the project office or project office plays a major role, are necessary for the company to implement an efficient project management methodology (Tulembayev et al., 2019). A project is virtually entirely riddled with uncertainty (Haghighi et al., 2019; Abeywardana et al., 2023). Therefore, an organization must be built up to have end-to-end visibility of the projects in order to deal with uncertainty in the projects. Because of this, a business introduces a Project Manager (PMO) to manage a project and offer insightful information about the decision-making process. Since 1994, PMO's significance has grown dramatically. According to research, three PM have been formed at the executive level by up to 76% of senior executives (Hobbs & Aubry, 2010a; Wulandari et al., 2023; Ranawaka et al., 2023). PMOs can adapt to maximize their significance inside the organization because, from a financial standpoint, the projects they were involved in in 2012 had an average value of \$100 million (Faridoon, 2014).

PMO is used by 40% of firms to coordinate different projects, as per the survey which is conducted in 2019 by International Project Management Association (IPMA), and the Australian Institute of Project Management (AIPM) this is considered to be a low percentage for the organization for using a project management office (Klynveld et al., 2019). Project Management Offices are thought to be beneficial entities that assist corporations in managing their projects more successfully. Compared to a global average of 41%, it is reported that three out of four active PMOs offer project managers a more organized path (ESI International, 2013).

PMO is also growing increasingly important in India, as 76.8% of PMOs report that PMO performance has boosted customer satisfaction (ESI International, 2012). Consequently, it can be said that a company employing a PMO has a big impact on the project as well as on stakeholders from both inside and outside the company. The provision of support services to the project management team falls under the purview of a PMO. In order to manage current and upcoming projects, a business is finding that having a PMO is increasingly necessary (Ichsan et al., 2023). The importance of PMO presence in Abu Dhabi is becoming increasingly inevitable. Looking at the state of PM around the world, the exact condition has also been occurring in Abu Dhabi Emirate in the UAE in recent years. According to a UAE survey, some firms don't even have an official PMO. According to Almansoori et al. (2021) and Alhammad and Memon (2020), organizations with established PMOs see a considerable impact on the implementation of strategic initiatives, which in turn affects the organization's performance.

Ichsan (2020) discovered that other industries also exhibit this tendency. According to this study, up to 87% of the 125 respondents (who had a range of job titles, including senior program manager, manager/lead/specialist, PMO officer, and PMO leader) had a formal PMO in their organization.

On the other hand, just 9% of the participants lack a formal project management office (PMO) or a plan to create one. Additionally, 66 (or 55%) of the 120 respondents to this study did not perceive top management to be content with the PMO's existence as one might anticipate. Thus, it can be said that PMO is becoming more and more in demand across a range of businesses in Abu Dhabi Emirate. The PMO manager's perceived responsibilities are changing, and the PMO's functions were not carried out in DMT as planned. To ensure that different project implementations are carried out effectively, PMO is required at the DMT in the Emirate of Abu Dhabi. The author believe that it is essential to investigate the primary duties that PMOs will carry out, given the vague nature of PMO operations, particularly in the Abu Dhabi Emirate. Finding out what responsibilities the PMO manager has in order to carry out the PMO's duties is also crucial, given the significance of the functions.

In contrast to frameworks suggested by PMO professional associations in other nations, the one presumed for the Department of Municipality and Transportation (DMT) in Abu Dhabi Emirate is believed to have been developed with a more pragmatic approach. Notably, there is a perceived gap in research focusing on the roles of PMO managers and leaders, necessitating a comprehensive investigation into their individual responsibilities as well as their contributions to the DMT organization.

This study is crucial in bridging this gap by conducting a thorough literature analysis using a qualitative research methodology structured in two stages: surveys and in-person group discussions (F2FGD). By doing so, the research aims to contribute to and update the most recent PMO literature, thereby paving the way for additional research that can advance the competencies of PMO managers. The ultimate goal is to enhance the ability of PMO managers to position the PMO at the core of an organization's project success.

The study not only seeks to uncover the individual and organizational roles of PMO managers within the DMT but also intends to provide insights into the revised PMO role. Additionally, it aims to contribute to the development of a PMO management competency framework. By addressing the research question, the study holds implications for PMO managers by equipping them with the skills necessary to steer the PMO toward the centre of organizational project success. Moreover, this article aims to make a significant contribution to the PMO Value Ring, a model elucidated by Duarte et al. (2019). The PMO Value Ring assists PMO managers in comprehending the various phases involved, enabling them to effectively manage the PMO within their organization. Through these contributions, the study aspires to advance the understanding and implementation of effective PMO practices in the context of the DMT in Abu Dhabi Emirate.

## **2. Literature review**

### **2.1. Project management office (PMO)**

The Project Management Office (PMO), as outlined by Wedekind and Philbin (2018), serves as a dedicated organizational unit established to enhance project performance by providing standardized methodologies. This establishment facilitates a deeper comprehension of project management practices and allows for the assimilation of lessons learned during project

implementation. In alignment with the insights of Oliveira and Martins (2020), the PMO's primary purpose is to provide support to project managers, teams, functional areas, and various organizational levels, ultimately enhancing the overall efficacy and efficiency of the organization. Furthermore, according to Katunina (2018), PMOs function as organizational structures strategically designed to standardize project management procedures. This standardization is instrumental in fostering the sharing of tools, resources, and methodologies, as emphasized by the Project Management Institute in 2013. Additionally, Braun (2018) highlights the PMO's role as a focal point for diverse initiatives, showcasing projects with significant strategic implications for the entire company.

Therefore, the PMO emerges as an important entity that not only establishes standards and methodologies for improved project performance but also acts as a support system for project-related functions across different levels of the organization (Tham et al., 2017; Pambreni et al., 2019; Herath et al., 2023). By facilitating knowledge sharing and standardization, the PMO contributes to increased organizational effectiveness and efficiency. Furthermore, its strategic influence extends to serving as a showcase center for initiatives that carry substantial importance for the company as a whole, as noted by Braun (2018).

Organizations, whether operating in the public or commercial sectors with a primary focus on projects, find it imperative to establish Project Management Offices (PMOs). According to Khoori and Hamid (2020), the presence of a PMO enables the organization's project management unit to actively engage with the project and business environment, taking on the responsibility of enhancing the organization's overall project management capabilities. The PMO, through its role in standardizing processes, facilitates the seamless sharing of tools, methods, resources, and approaches for effective control management and the establishment of routines, as highlighted by Rigassi and Campos (2018).

Aubry and Hobbs (2010) contribute to this perspective by emphasizing an additional benefit of PMO implementation, the augmentation of project management's value contribution. This is achieved through the PMO's economic and efficient utilization of resources, as asserted by Scheiblich et al. (2017). Therefore, the PMO not only acts as a facilitator for standardized processes but also plays an important role in optimizing resource utilization, ultimately enhancing the value derived from project management activities (Zheng et al., 2023; Sudha et al., 2023).

The establishment of PMOs, therefore, emerges as a strategic imperative for organizations immersed in project-centric activities. By providing a structured approach to project management, fostering knowledge-sharing, and ensuring efficient resource utilization, PMOs contribute significantly to the success and value generation of projects within both public and commercial sectors.

## **2.2. PMO Functions**

Recent studies shed light on the multifaceted nature of Project Management Office (PMO) functions, providing nuanced definitions based on extensive research. According to Ichsan et al. (2023), the PMO function primarily centers on providing a comprehensive overview of managed projects. To evolve into a hub of organizational learning, PMOs are encouraged to engage in

retrospective learning and establish themselves as knowledge centers for project-related work, as emphasized by Arbabi et al. (2020), Lacruz and Cunha (2017), Lucca et al. (2020), and Paton & Andrew (2019).

Several researchers, including Braun (2018), Duarte et al. (2019), Fateev & Zaporozhets (2020), Otra-Aho et al. (2019), Paton & Andrew (2019), Wedekind & Philbin (2018), and Zouheir et al. (2019), identify the PMO as a supporting role. This entails serving as a method provider for projects, offering services and support, and actively monitoring and controlling ongoing projects. This collaborative approach aligns with the evolving understanding of the PMO as a facilitator and enabler within the organizational project landscape.

Additionally, a third type of PMO, known as strategic alignment, has been identified. Bagherpour & Erjaee (2017), Braun (2018), Bredillet et al. (2018), Ershadi et al. (2021), Fateev & Zaporozhets (2020), Ichsan (2020), Ko & Kim (2019), and Otra-Aho et al. (2018) highlight its roles, which encompass managing project portfolios, adding value to projects, and contributing to their overall success. This strategic alignment underscores the PMO's proactive involvement in shaping and steering the organization's project landscape towards long-term objectives and success. The evolving understanding of PMO functions reflects its dynamic role in organizational project management. In addition to centralizing various viewpoints on business performances and streamlining and standardizing project processes, the PMO also acts as the project evaluation manager, facilitating the fourth way that PMOs enhance project performance (Carvalho et al., 2018; Fateev & Zaporozhets, 2020; Junqueira & Passador, 2018; Lacruz & Cunha, 2017; Siregar et al., 2018).

Fifth, the Project Management Office (PMO) serves as a governance control, with the ongoing responsibility of overseeing projects that facilitate the business's operational activities (Eriksson & Leiringer, 2015; Fateev & Zaporozhets, 2020). Sixth, PMO fosters innovation. In order to manage creative initiatives, achieve long-term competitive advantages, and spur growth, PMO is essential (Ershadi et al., 2021; Sergeeva & Ali, 2020). Seventh, PMO is a role that energizes the project work process, offers administrative support, and increases employee productivity and customer happiness. It is a facilitator of organizational performance (Desmond, 2015).

According to this research, determined that a PMO manager's role included the following views (Roden et al., 2017):

- Sharing relevant standards and establishing project management protocols
- Communication with the organization's stakeholders.
- Interaction throughout the organization and adherence to project, program, and portfolio methodologies
- Overseeing correspondence and comments
- Analysing and reporting

In addition, several other functions that are pertinent to the responsibilities of the PMO manager have also been determined by other studies as shown in Table 1: (Faridoon, 2014; Jerbrant, 2013; Roden et al., 2017; Zouheir & Rachid, 2020).

**Table 1:** PMO managers Function

S.No.	Function	Author
1	Project support includes organizing a team, helping the project team, handling stakeholders, and keeping an eye on and reining in the project’s advancement.	Faridoon, 2014
2	Strategy alignment: Taking part in strategy planning and portfolio management while ensuring the project’s success.	Jerbrant, 2013
3	Overseeing governance: Engaging with stakeholders and assisting with organizational operations.	Roden et al., 2017
4	Leading the team, conducting project assessments, enhancing project standardization, and updating higher management on project progress are examples of project performance enablers.	Urbancic et al., 2004
5	Enabling organizational performance: Being in charge of each project’s conception and execution.	Zouheir & Rachid, 2020

### 3. Research Method

This study adopts a qualitative research methodology, organized into two key sections: the survey and the focus group discussion (Azam et al., 2021). The method unfolds through various phases, beginning with formulating research questions in the introduction, followed by the identification of research sources. The process involves employing keywords to guide the search for relevant information, collecting data, and subsequently analyzing findings to address the research questions outlined in the introduction.

The initial phase focuses on crafting precise research questions that will guide the investigation. This step establishes the foundational framework for the study, outlining the specific areas of interest and inquiry. Subsequently, the research team identifies relevant research sources, utilizing keywords to navigate through existing literature and gather information pertinent to the study’s objectives.

The data collection phase involves systematic surveys and in-depth focus group discussions, providing a comprehensive understanding of the topic under investigation. The use of surveys enables the collection of structured responses, while the focus group discussion allows for a more qualitative exploration of participants’ perspectives and experiences.

Finally, the analysis phase synthesizes the collected data to derive meaningful insights that address the research questions posed in the introduction (Azam et al., 2023). This involves employing

qualitative analysis techniques to interpret the survey responses and distill key themes from the focus group discussion.

Therefore, the methodological approach employed in this study ensures a thorough and systematic exploration of the research questions, utilizing both quantitative and qualitative techniques to gather, process, and analyze relevant data. This comprehensive methodology aims to provide valuable insights into the role of the Project Management Office (PMO) in the Department of Municipality and Transportation (DMT) in Abu Dhabi Emirate within the construction sector.

### **3.2. Survey and face to face group discussion (F2FGD)**

Following the completion of the literature review, the results were further clarified through the use of a pre-F2FGD survey, which was completed by the respondents. This confirmed the PMO manager's role in establishing a PMO community in the Abu Dhabi Emirate, and the DMT supplied a list of names of respondents who were willing and able to participate as resources in the author's F2FGD. A group of approximately fifteen responders, including the PMO head and educational practitioners, were chosen. There was only one F2FGD conducted. However, the author disseminated a pre-F2FGD questionnaire created in Microsoft Word as a preparation exercise before to the F2FGD. Questionnaires were sent to each respondent's email address in order to distribute them. During these preparatory exercises, PMO managers who have been invited are asked to list the role of a PMO manager based on their expertise and best practices. Following the completion of this task, the responders emailed their results. First, the PMO functions are ascertained in this activity.

These PMO roles, which have been categorized into seven groups, are derived from a compilation of findings from literature reviews (Yesica et al., 2022). After that, the respondents listed the duties for each PMO duty that the PMO manager was expected to carry out. The PMO manager assigns 12 lines to each function in a table to complete the related duties, allowing respondents to select the options that best suit them. While not required to complete all 12 lines, respondents must identify the position of at least two PMO managers. There may be variations and parallels among the preparatory exercises. Ultimately, the outcome was determined by comparing similar functions that the participants verified. The responses have received invites to the F2FGD once the preparation activities have been gathered. The next step is to go over the F2FGD procedure from beginning to end. The pre-F2FGD results are discussed and the job descriptions for each PMO role are displayed in the schedule that follows.

Later on, the respondents were free to voice an alternative perspective or to agree or reject the job description. The responses were provided by the respondents via a Google Form. Respondents then complete the accompanying Google form when the screen displays the job description for each role. The authors will gather the information they have received and provide a summary of the duties that the PMO manager needs to fulfil in accordance with the PMO functions once the F2FGD results are ready. The process of creating a summary involves using an assessment in the form of a score to compile the responses from the F2FGD participants. The evaluation criteria are compiled in the following Table 2:

**Table 2:** Assessment criteria adopted from (Ichsan et al., 2023)

Description	Answer	Score
PMO Job Description	Agree	1
PMO Job Description	Disagree	0
PMO Job Description	Disagree but makes entries	1

#### 4. Results

Following the mapping of the face-to-face group discussion (F2FGD) outcomes, the assessment technique was used to map all of the results. It was discovered that the respondent, either before or after the F2FGD, approved or deleted every job description. PMO managers are employed in 60 roles. The results of F2FGD was summarized and discussed in the following:

- **Knowledge Management:**

The PMO Manager is in charge of overseeing the procedures and instruments related to Project Management (PM) and Knowledge Management (KM), making sure that readily available data and resources function properly, gathering information on implementation progress, risk issues, and reports on the measures that PMO leads as a PM knowledge centre, and organizing the most recent PM methodology applied in different project face.

- **Supporting role:**

The PMO manager is in charge of enhancing the team’s competency, selecting, developing, and overseeing the appropriate project methodology, translating project strategy guidelines to maintain project implementation corridors, and serving as the company’s only reliable resource for expert PM implementation and staff training in project methodology application.

- **Strategic alignment:**

Assigning priority sequences and project status changes, defining, developing, and managing processes, and coordinating the roles and values that the PMO must uphold with key management stakeholders are all under the purview of the PMO manager. Teamwork abilities and resources for managing organizational transformation and the organization’s project portfolio.

- **Enabler for project performance:**

The PMO manager is astute in business, sets priorities for projects, maintains open lines of communication with stakeholders, assigns tasks based on the company’s vision and mission, business models, KPIs, and goals, and confers with key management stakeholders to determine roles and values that the PMO will uphold.

- **Governance control:**



The role of the Project Management Office (PMO) manager is to persuade stakeholders to adhere to the project governance established by the PMO, assist in maintaining baselines such as scope, schedule, and cost, and oversee project control, verification, and validation to guarantee the quality of the product, project control, and monitor project progress while ensuring team members are working efficiently.

• **Innovation Enabler:**

The PMO manager is responsible for organizing an innovation competition, recognizing the winners, offering PM certification services, conducting project reviews and retrospectives on future tool usage, and actively motivating the PMO staff to complete duties and attend technological training. Engage in the new and use of the different task in the project such as define, measure, analysis, improve, and control, in addition to that also other project management techniques on actual project instances.

• **Enabler for organizational performance:**

The PMO manager's responsibilities include creating forums to foster cooperation, understanding, and support among stakeholders, developing business procedures for project management and customer satisfaction surveys for each project, and collaborating with other department heads to identify, prioritize, and develop the projects process.

## 5. Conclusion

Using the identified PMO functions, this study explores the role of the PMO manager. Numerous articles to date have solely discussed the PMO's responsibilities and tasks. Still, not many, if any, have talked about the PMO manager's job. The position of the PMO manager needs to be re-evaluated for any new PMO created in DMT in the Emirate of Abu Dhabi, considering the current demand for PMOs in UAE and throughout the world. This study compiles a number of research articles that discuss the seven function roles which are played by PMOs. These roles are classified as the function of knowledge management, role of supporting, strategic alignment, governance control, enablers for project success and control, innovation, and organizational performance are the seven roles of the PMO that may be inferred from these studies.

The results of the two stages of the study, which involved validating the functions of PMO identified and using the respondents' pre-F2FGD results as a data source, are determined by these seven function of the PMO. That is, employing a pre-F2FGD survey that asks about the respondent's perception of the PMO manager's job based on the functions identified and includes the content of the PMO's functions. After that, the data are gathered and presented during the validation of the F2FGD. This research certainly has some limitation. First of all this F2FGD was conducted on respondents who have served as PMO practitioners, PMO leaders, and educational practitioners. Second, this research is done in a case study in DMT in the Emirate of Abu Dhabi in the UAE, explicitly describing the background in UAE and using DMT in Abu Dhabi as respondents, so the results provided are sure to meet the needs of PMOs in Abu Dhabi Emirate.

Therefore, it will be fascinating and more thorough if future research on the state of PMO is conducted globally or institutionally and only focuses on a few sectors or industries.

## **5. Contribution of the study**

The contribution of this study is significant in elucidating the evolving competencies required by Project Management Office (PMO) Managers and project managers within the Department of Municipality and Transportation (DMT) in the Emirate of Abu Dhabi. As these professionals play an important role in providing projects with greater visibility, understanding and enhancing their competencies become paramount for organizational success. This study not only sheds light on the current state of competence development but also offers valuable insights into tailoring these competencies to meet the unique demands of the DMT in the construction sector.

One significant aspect addressed by the study is the variation in the role of PMO managers across organizations, a phenomenon aligned with the contingency theory. Recognizing this variability is crucial, as it allows organizations to tailor the responsibilities of PMO managers to specific organizational needs and contextual factors. By understanding the diverse demands placed on PMO managers, the study provides a nuanced perspective that aids organizations in determining the most crucial PMO functions for enhancing project management success within their unique contexts.

The findings of this study offer actionable insights for organizations in defining and refining the roles and responsibilities of PMO managers according to their business requirements. In particular, the study highlights the importance of establishing a clear framework and program for developing the competencies of PMO managers. This contributes to their proficiency in navigating the challenges inherent in their roles, ultimately fostering more effective project management within the organization.

Furthermore, the proposed framework for PMO managers' competence development can serve as a valuable guide for organizations seeking to optimize their PMO functions. By aligning competencies with the specific needs of the DMT in the Emirate of Abu Dhabi, organizations can enhance the overall effectiveness of their PMOs, ensuring they contribute meaningfully to project success.

The applicability of the study's findings extends beyond the confines of the DMT in Abu Dhabi. Organizations in other industries and countries can leverage the proposed framework and insights to tailor their PMO functions to their unique contexts. Undertaking similar studies with respondents from diverse industries and legal frameworks in different countries can further validate and refine the proposed competence development framework. This not only enriches the generalizability of the findings but also contributes to the global understanding of effective PMO management practices.

In conclusion, the contributions of this study are manifold. It not only addresses the specific competencies needed by PMO Managers and project managers in the DMT in the Emirate of Abu Dhabi but also provides a framework that organizations can adapt to enhance the roles of their PMO managers. This research serves as a valuable resource for organizations aiming to optimize

their project management processes and outcomes, contributing to the broader discourse on effective PMO management in various organizational and cultural contexts.

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